

# Victorian Default Offer to apply from 1 January 2020

Final decision

18 November 2019

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# Summary

On 30 May 2019, the Victorian Government issued an Order in Council (order) requiring the commission to make a Victorian Default Offer (VDO) price determination for standing offer tariffs for the sale of electricity to domestic and small business customers from 1 January 2020.<sup>1</sup> This paper sets out the commission's reasons for making the price determination.

## **The Victorian Default Offer will increase on 1 January 2020**

Annual electricity bills for customers on a flat tariff standing offer will increase in 2020. A typical domestic customer on a flat tariff standing offer will see their annual electricity bill increase from around \$1,400 currently to around \$1,500 in 2020, on average across all distribution zones.

A typical small business customer on a flat tariff standing offer will also see their annual electricity bill increase. Based on 20,000 kilowatt hours (kWh) annual consumption, the average annual bill will increase from around \$5,900 currently to around \$6,400 in 2020, on average across all distribution zones.

However, average annual bills for customers on flat tariff standing offers will remain lower than prior to the introduction of the VDO on 1 July 2019. We estimate that the annual bill for a typical domestic customer on the VDO in 2020 could be around \$200 to \$330 per year lower than prior to the introduction of the VDO. The annual bill for a typical small business customer could be around \$1,000 to \$1,600 lower than prior to the introduction of the VDO.

## **Customers may be able to get a better deal than the VDO**

The VDO is intended to reflect a reasonably priced electricity option and provide a safeguard for customers unable or unwilling to engage in the electricity retail market. While the VDO is generally available to domestic and small business customers, our price determination only applies as a default to around 5 per cent of households and 15 per cent of small business customers.

The VDO does not necessarily reflect the best offer available to customers. Customers may be able to access a market offer with better prices than the VDO. We note that under recent reforms implemented by the commission, a retailer must regularly tell customers whether they are on the retailer's best energy plan, and how much the customer could save by switching.

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<sup>1</sup> Domestic and small business customers means customers who purchase power for personal, household or domestic use, or consume no more than 40 megawatt hours (MWh) in a year for business use.

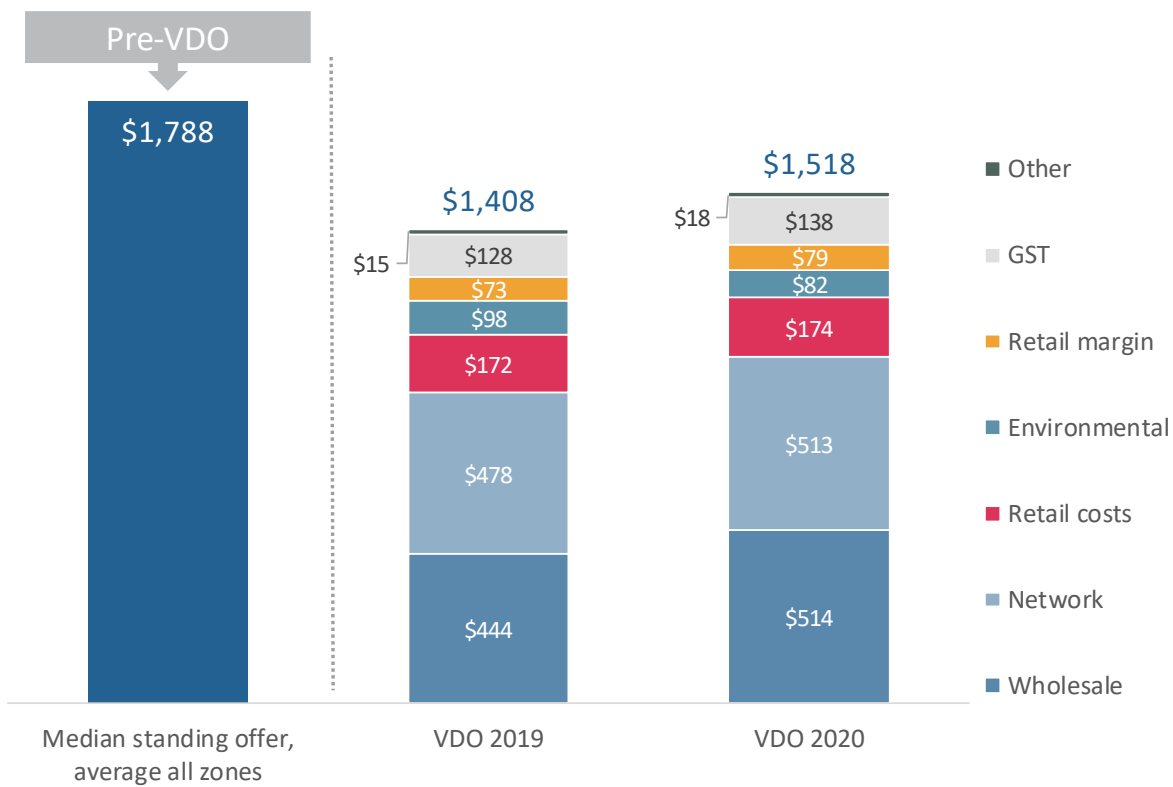


Figure 1: Cost stack components, average all distribution zones – domestic customers 4,000 kWh per year

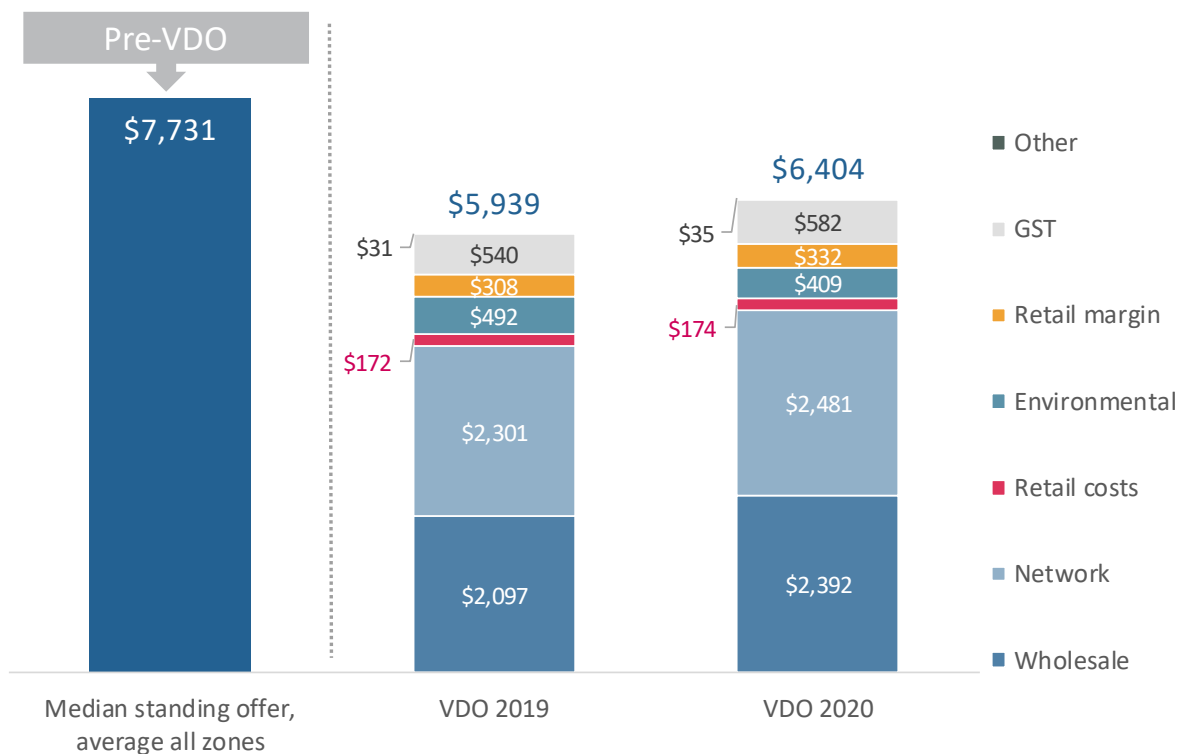


Figure 2: Cost stack components, average all distribution zones – small business customers 20,000 kWh per year

Summary

## **Higher wholesale electricity purchase costs and network charges explain most of the rise**

We have determined the VDO based on a thorough assessment of efficient costs. Two factors explain almost all of the increase in the VDO:

- Increased costs for retailers to purchase electricity in wholesale markets. Market expectations for wholesale electricity prices in 2020 have increased significantly in recent months. The benchmark we have established for wholesale electricity costs reflects these forecast higher costs for retailers, and accounts for more than half of the increase in the VDO.
- Increased costs for retailers to access the network to transport electricity to their customers. Network charges for Victoria's five distribution zones are regulated by the Australian Energy Regulator (AER). Recently, the AER approved higher network tariffs in 2020 reflecting several changes. This included an adjustment to allow the recovery of revenue not collected in previous years and higher transmission charges.

The table below compares the cost inputs used to calculate the current VDO with the updated inputs used for our 2020 VDO price determination. If the commission did not reflect these cost increases in the VDO it would risk not providing retailers with sufficient revenue to maintain customer service levels.

### **From 1 January 2020, the VDO will apply to all types of standing offers**

Currently, the VDO only applies to customers on standing offers with flat tariffs. The order requires us to determine the maximum annual electricity bill for customers who are on standing offer tariffs that are not flat or any combination of a flat and non-flat tariff. This means from 1 January 2020 the VDO price determination will cover all standing offers, including those based on time-of-use, demand, and flexible tariff structures. This broadens the VDO to provide a safeguard for all standing offer customers.

We have determined the VDO compliant maximum annual bill at a single representative amount of annual consumption as we believe this best meets our statutory requirements. Our price determination sets the annual representative usage amount at 4,000 kWh for domestic customers and 20,000 kWh for small business customers.

Component	Contribution to change for domestic customer		Contribution to change for small business customer		Reason for change
	\$	%	\$	%	
Wholesale	\$70	5%	\$295	5%	Higher futures market prices for 2020.
Network	\$36	2.5%	\$180	3%	Higher approved network charges for 2020.
Environmental	-\$16	-1.2%	-\$82	-1.4%	Lower renewable certificate prices and liabilities in 2020.
Other	\$3	0.2%	\$4	0.06%	Variety of changes to fees and other charges.
Retail operating costs	\$2	0.2%	\$2	0.04%	Indexed for inflation.
Customer acquisition and retention costs	\$0.20	0.01%	\$0.20	0.003%	Indexed for inflation.
Retail margin	\$6	0.4%	\$24	0.4%	Consequential change due to increase in other cost components.
GST	\$10	0.7%	\$42	0.7%	Consequential change due to increase in other cost components.
Average total VDO bill change	\$110	7.8%	\$465	7.8%	

Table 1 Contribution to the average change in cost components of the VDO between 2019 and 2020 for an average annual bill (nominal, GST incl.)

Note: these estimates represent the change in an annual bill based on the flat tariff VDO from 1 July 2019 and the VDO to apply from 1 January 2020, averaged across the five distribution zones for a typical domestic customer (consuming 4,000 kWh) and small business customer (consuming 20,000 kWh). Numbers may not sum due to rounding.

## Summary

# Summary of Final decision

## Approach to estimating wholesale costs

The commission has applied a futures market approach based on the following inputs:

- Australian Energy Market Operator (AEMO) load data for the three-year period 1 July 2016 to 30 June 2019. Data is split between domestic and small business customers with consumption less than 40 megawatt hours (MWh) per annum.
- National Electricity Market spot price data for Victoria in the period 1 July 2016 to 30 June 2019.
- Taking the median energy purchase cost outcome from a Monte Carlo simulation producing 500 simulated forecasts of the year 2020 using the data above.
- ASX Energy contract prices for base and peak swaps, and \$300 caps for the 12 months up to 25 October 2019. Contract prices are the 12-month trade-weighted average.
- Minimised risk contract position, purchasing swaps to approximately cover average demand and caps to cover peak demand and incurring a small amount of pool exposure.
- Including a volatility allowance to reflect the cost of holding working capital to cover a small amount of pool exposure.

## Approach to estimating network losses

The commission has decided to use data available from AEMO for distribution loss factors and marginal loss factors.

## Approach to estimating network costs

The commission's decision is to:

- Directly include the simplest network use of service tariff in each distribution zone in the VDO – generally a daily supply charge and a flat usage charge.
- Where applicable for a particular domestic customer, the VDO includes a controlled load or dedicated circuit option.
- Include Advanced Metering Infrastructure charges for each distribution zone as a cost per customer.

### **Approach to estimating environmental costs**

Our approach to estimating these costs is as follows:

- Large-scale Renewable Energy Target (LRET) – the 2020 default liability is multiplied by the futures market price for large-scale certificates.
- Small-scale Renewable Energy Scheme (SRES) – the mid-point of the 2020 non-binding and 2019 binding liabilities is multiplied by the clearing house price.
- Victorian Energy Upgrades (VEU) – the 2020 greenhouse reduction rate for electricity is multiplied by the historic 12-month average price for certificates.

The LRET, SRES and VEU costs are multiplied by network loss factors.

- Feed-in Tariff (social cost of carbon) – total renewable exports in 2018-19 divided by average total domestic and small business customers in 2018-19, multiplied by the social cost of carbon (2.5 cents).

### **Approach to estimating other regulatory costs**

Our approach to estimating these costs is as follows:

- AEMO market fees – simple average of 2019-20 and 2020-21 estimates taken from the latest available publication.
- Ancillary fees – an average of the past 52 weeks (ending 27 October 2019) of ancillary service payments based on AEMO data.
- Reliability and Emergency Reserve Trader – based on the latest historic estimates of charges released by AEMO, adjusted for inflation.
- ESC licence fees – market wide average of fees paid in 2018-19, adjusted for inflation.

### **Approach to estimating retail operating costs**

The commission has made an allowance for retail operating costs based on a benchmarking approach using a 2017 regulatory decision by the Independent Competition and Regulatory Commission (adjusted for inflation), including an adjustment for additional regulatory costs.

### **Approach to estimating customer acquisition and retention costs**

The commission has made an allowance for customer acquisition and retention costs based on a benchmarking approach using inquiry analysis by the Australian Competition and Consumer Commission (adjusted for inflation).



### **Approach to estimating retail operating margin**

The commission has made an allowance for a retail operating margin based on a benchmarking approach using recent regulatory decisions by Australian regulators.

### **Approach to varying a VDO price determination**

The commission has included a mechanism that provides for variations to the VDO price determination in the event of a material unforeseen change or error:

- was sufficiently uncertain or unforeseen at the time of making the price determination – such as an exogenous shock, and
- is sufficiently material to impact on the benchmark established for the efficient costs of supply of an electricity retail service.

We may also make a variation to a VDO price determination to correct a clerical error, miscalculation, misdescription or other deficiency.

### **Approach to the VDO compliant maximum annual bill**

The commission has set the VDO compliant maximum annual bill amounts based on the relevant annual reference consumption amount and relevant flat standing offer tariffs determined for relevant customers, assuming a 365-day supply period.

The annual reference consumption amount used to determine the VDO compliant maximum annual bill amount is as follows:

- For domestic customers there will be five maximum annual bills (one for each distribution zone), calculated for a representative customer consumption of 4,000 kWh per year.
- For small business customers there will be five maximum annual bills (one for each distribution zone), calculated for a representative customer consumption of 20,000 kWh per year.

These annual reference consumption amounts are to be used to calculate whether a retailer's non-flat standing offer tariffs, for a particular tariff type, will result in an estimated annual bill that exceeds the VDO compliant maximum annual bill amount relevant for that tariff type.

Retailers must publish all standing offers for the regulatory period beginning 1 January 2020 (including the flat standing offers we determine) in the Government Gazette in the period 25 November to 18 December 2019.

- If offering a flexible, five or seven-day time of use (or the 5-day time of day/9pm off peak in the United Energy zone) standing offer tariff type, a retailer must demonstrate those tariffs do not result in an annual bill that exceeds the relevant VDO compliant maximum annual bill

amount using the approach detailed in our determination. The commission has determined a profile of customer usage and related usage allocations to be used for this purpose.

- For any other non-flat standing offer tariff type that the retailer chooses to offer, a retailer must demonstrate that these tariffs do not result in an annual bill that exceeds the relevant VDO compliant maximum annual bill amount using the approach detailed in our determination. To do this, we require retailers to adopt a representative profile of customer usage or relevant usage allocations that are reasonably representative of the profile of usage by customers on that tariff type over a 365-day period. The usage profile or relevant usage allocation must also be published alongside the relevant standing offer tariffs in the Government Gazette.

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# 1. Introduction

The Victorian Default Offer commenced on 1 July 2019. Based on advice prepared by the commission<sup>2</sup>, the Victorian Government specified the prices retailers may charge for electricity standing offer contracts with a flat tariff structure in an Order in Council.<sup>3</sup> A flat tariff structure generally refers to charges that comprise a daily supply charge and a single usage charge calculated on a per kilowatt hour (kWh) basis.<sup>4</sup> The majority of standing offers comprise flat tariffs.<sup>5</sup>

Domestic and small business customers on a flat tariff standing offer consuming less than 40 megawatt hours (MWh) of electricity per year started receiving the VDO tariffs from electricity retailers on 1 July 2019.<sup>6</sup> The VDO is also generally available to other domestic and small business customers receiving market or other standing offers.

The introduction of the VDO generally resulted in reduced bills for customers on flat tariff standing offers. Noting impacts vary depending on a customer's electricity use, distribution zone, and the prices they were charged under pre-existing contracts, our advice estimated domestic customers using 4,000 kWh of electricity per year could save between \$310 to \$450 on their annual electricity bill when compared to the median standing offer prices. For a representative small business using 20,000 kWh of electricity per year, we estimated annual savings of around \$1,380 to \$2,050 compared with the median standing offer price in each distribution zone.<sup>7</sup>

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<sup>2</sup> Essential Services Commission, Victorian Default Offer to apply from 1 July 2019: Advice to Victorian Government, May 2019.

<sup>3</sup> Order in Council made under section 13 of the *Electricity Industry Act 2000* and published in the Victorian Government Gazette No. S 208 on Thursday 30 May 2019. An amendment to schedule 1 was ordered in the Victorian Government Gazette, No. S 216 Tuesday 4 June 2019 (updating controlled load charges).

<sup>4</sup> As defined in clause 4 of the order, a flat tariff means a tariff for the supply or sale of electricity where the tariff components do not vary by reference to: (a) the time of day; (b) the amount of electricity distributed or supplied during the day; (c) temperature, whether actual or forecast; or (d) other characteristics that vary during the day. The Victorian Default Offer also includes a component for controlled load tariffs, where applicable.

<sup>5</sup> Based on the latest data we have available, approximately five per cent of domestic and 15 per cent of small business customers are on standing offers.

<sup>6</sup> Domestic customer means a customer who purchases electricity principally for personal, household or domestic use at a supply point. Small business customer means a customer who is not a domestic customer and whose aggregate consumption of electricity taken from a supply point is not, or in the case of a new supply point not likely to be, more than 40 MWh per annum. These definitions are consistent with clause 4 of the order. Note that this excludes customers served by an exempt seller in embedded networks.

<sup>7</sup> Consistent with our advice, the order specified separate Victorian Default Offer prices for domestic and small business customers.

Current VDO prices apply until 31 December 2019. The order requires us to make a VDO price determination under the Essential Services Commission Act 2001 (Vic) (ESC Act) specifying the standing offer pricing arrangements to apply from 1 January 2020.

## 1.1. Victorian Default Offer pricing framework

As specified in the order, the objective of the VDO is to provide a simple, trusted and reasonably priced electricity option that safeguards consumers unable or unwilling to engage in the electricity retail market.<sup>8</sup>

Over the period from 1 July 2019 to 31 December 2019, the VDO only covers standing offers with a flat tariff structure. From 1 January 2020 the VDO price determination will cover all standing offers, including those based on time-of-use, demand, and flexible tariff structures. The duration of the regulatory period for the VDO price determination is 12 months, although this may be extended or reduced if special circumstances exist.<sup>9</sup> For each of the five electricity distribution zones in Victoria, the order requires the commission to determine<sup>10</sup>:

- tariffs that are to apply to flat standing offer tariffs, including flat plus controlled load tariffs for domestic customers (VDO tariffs), and
- the maximum annual electricity bill amount that a customer is to pay under a standing offer that provides for tariffs that are non-flat tariffs or tariffs that comprise any combination of a flat tariff and a non-flat tariff, in the period 1 January 2020 to 31 December 2020 (the VDO compliant maximum annual bill).

### We need to consider several matters

In making our VDO price determination, the order requires the commission to adopt an approach and methodology that best meets the objectives of<sup>11</sup>:

- the Victorian Default Offer
- the ESC Act, and
- the Electricity Industry Act 2000 (Vic) (EI Act).

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<sup>8</sup> Clause 3 of the order sets out the objective of the VDO.

<sup>9</sup> Clause 11 of the order states that any change to the length of the regulatory period must be decided prior to the beginning of the regulatory period and after consultation with the Minister.

<sup>10</sup> Clause 10(2)(a) of the order.

<sup>11</sup> Clause 12(1) and 12(2) of the order.

Further, the VDO price determination must be based on the efficient costs of the sale of electricity by a retailer<sup>12</sup>, having regard to:

- wholesale electricity costs
- network costs
- environmental costs
- retail operating costs, including modest costs of customer acquisition and retention<sup>13</sup>
- retail operating margin<sup>14</sup>
- any other costs, matters or things we consider appropriate or relevant.

The order also specifies that we must not include headroom.<sup>15</sup> The VDO compliant maximum annual bill (applying to standing offers with a non-flat tariff structure) must be based on the VDO tariffs applying to standing offers with a flat tariff structure, as well as domestic and small business customer electricity usage.<sup>16</sup>

## **1.2. Consultation process**

On 23 July 2019, we released an issues paper outlining our initial views on the methodology and processes that we will follow to make our determination.<sup>17</sup> We received 17 submissions in response to the issues paper. Commission staff also ran a workshop on 27 August 2019 providing stakeholders with an opportunity to provide us with further feedback. On 20 September 2019, we released our draft decision, which considered the feedback received from stakeholders.

On 8 October 2019, we hosted a public forum to provide an overview of our draft decision and an opportunity for stakeholders to clarify aspects of our draft decision and provide feedback. We received 15 submissions on our draft decision, including two submissions that provided supporting analysis in additional consultant reports. Our final decision and price determination have considered all feedback received from stakeholders.

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<sup>12</sup> Clause 12(8) of the order does not require the commission to determine tariffs based on the actual costs of a retailer.

<sup>13</sup> Clause 12(6) of the order instructs the commission to determine an allowance for modest costs of customer acquisition and retention.

<sup>14</sup> Clause 12(7) of the order instructs the commission to exercise discretion in determining a maximum retail operating margin, and in doing so must have regard to (without limitation) the principle that the margin must not compensate retailers for risks that are compensated elsewhere in the costs. Clause 12(9) of the order provides that the commission is not required to determine tariffs based on the actual retail operating margin of a retailer.

<sup>15</sup> Clause 12(10) of the order, headroom means an allowance that does not reflect an efficient cost borne by firms operating in the market.

<sup>16</sup> Clause 12(5) of the order.

<sup>17</sup> Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Issues Paper, July 2019.

### **1.3. Structure of our final decision**

From here, our final decision is set out as follows:

- Chapter two summarises how we have interpreted our statutory requirements.
- Chapter three outlines our approach to estimating the efficient costs of the sale of electricity by a retailer.
- Chapter four covers the calculation of flat tariffs for each distribution zone and changes to the VDO flat tariffs.
- Chapter five describes our approach to determining the VDO compliant maximum annual bill and the calculation for each distribution zone.

## 2. Addressing our statutory requirements

As noted in chapter 1, the order<sup>18</sup> sets out many requirements and matters we must have regard to in making a VDO price determination. This chapter explains at a high level, how we have sought to address the statutory requirements.

In making a VDO price determination we must adopt an approach and methodology that is in accordance with section 33(2) of the ESC Act and the order.<sup>19</sup> Taken together, this means we must adopt an approach and methodology that best meets the objectives of the ESC Act, the commission's objectives under the EI Act and the objective of the VDO.

The objective of the commission under the ESC Act is to promote the long-term interests of Victorian consumers, having regard to the price, quality and reliability of essential services.<sup>20</sup> We consider the objective of the Victorian Default Offer – to provide a simple, trusted and reasonably priced electricity option that safeguards consumers unable or unwilling to engage in the electricity retail market – is consistent with promoting the long-term interests of consumers.<sup>21</sup>

In terms of quality and reliability of services, retailers are required to offer the VDO under the regulated terms and conditions for standard retail contracts. We expect therefore, that the quality of service experienced by customers will at least continue to meet these regulated terms and conditions.

The order requires the tariffs determined by the commission pursuant to the VDO price determination to be based on the efficient costs of the sale of electricity by a retailer. As well as supporting a reasonably priced electricity option we consider that determining tariffs based on efficient costs is consistent with promoting the long-term interests of consumers.

We have sought to adopt an approach and methodology that ensures any benchmarks for efficient costs are sustainable and support the provision of retail services to customers. The methodology we have adopted considers key costs and risks associated with the provision of electricity retail

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<sup>18</sup> Order in Council made under section 13 of the Electricity Industry Act 2000 and published in the Victorian Government Gazette No. S 208 on Thursday 30 May 2019. An amendment to schedule 1 was ordered in the Victorian Government Gazette, No. S 216 Tuesday 4 June 2019 (updating controlled load charges).

<sup>19</sup> Clause 12(1) of the order.

<sup>20</sup> Section 8 of the ESC Act.

<sup>21</sup> The development of the VDO stemmed from the Independent Review into the Electricity and Gas Retail Markets in Victoria. The final report from the Independent Review recommended a range of regulatory responses were required to protect the long-term interests of consumers. See Independent Review into the Electricity and Gas Retail Markets in Victoria: Final Report, August 2017, p. 52.



services and provides for a retail operating margin. In doing so, we have had regard to the financial viability and efficiency of the industry, and incentives for long-term investment.

In relation to the objectives of the EI Act we consider that a simple, trusted and reasonably priced electricity option based on efficient costs will promote protections for customers, including those facing payment difficulty. In terms of promoting the development of full retail competition, the VDO does not prevent customers from choosing their electricity retailer. Further, electricity retailers may offer different terms and conditions through market contracts, allowing for differentiation and competition based on price or service quality.

The EI Act also includes an objective for the commission to promote a consistent regulatory approach between the electricity and gas industries. Given there is currently no framework for the regulation of prices for retail gas services, we consider that this decision cannot offend that objective.

As noted in chapter 1, from 1 January 2020 our price determination framework will include a VDO compliant maximum annual bill. In determining the compliant maximum annual bill, we have had regard to the objective of the VDO to be a simple option and sought to provide for a framework that has regard to administrative costs of retailers and ease of understanding by customers. As with other elements of our methodology, we have also had regard to the approaches adopted by other regulators including the AER's Default Market Offer.

Clause 12(4)(f) of the order provides that in considering efficient costs, the commission may consider any other costs to those identified in the order, or other matters or things the commission, in the exercise of its discretion, considers appropriate or relevant.

We note that in many instances, our final decision and price determination adopts a similar approach to the current VDO. We consider that consistency in approach can support stability, certainty and trust in a regulatory approach. We also note however, that there is a need to allow for variation and flexibility to respond to new information or changing circumstances where justified, having regard to our statutory objectives.

### 3. Approach and methodology for making a Victorian Default Offer price determination

The methodology we have proposed for our final decision includes the determination of 10 flat standing offer tariffs, with a domestic and small business flat tariff VDO applying in each of Victoria's five distribution zones.<sup>22</sup> This approach is consistent with our draft decision. The determination of flat tariffs also enables the determination of maximum annual bills for the purpose of regulating non-flat standing offer tariffs. Chapter 5 provides further detail on this.

As outlined in chapter 1, the order requires that tariffs determined by the commission pursuant to the VDO price determination are to be based on the efficient costs of the sale of electricity by a retailer. This chapter sets out the approach we have taken to considering efficient costs and reflecting these in our VDO price determination. How these efficient costs are reflected in VDO flat tariff standing offers and the approach to determining the VDO compliant maximum annual bill are discussed in chapters 4 and 5, respectively.

We consider a cost-based approach best meets the objective of the VDO, has regard to the matters outlined in the order, and meets the objectives of the ESC Act and EI Act.<sup>23</sup> Most submissions to our draft decision did not comment on the use of a cost-based approach, instead focusing on the estimation of particular costs.

In our view, the cost-based approach is a more transparent and replicable methodology than alternatives such as an index-based approach. Further, the cost-based approach is a well-established and accepted methodology used by other economic regulators when setting electricity prices. This includes the Australian Energy Regulator when setting network tariffs, the Independent Competition and Regulatory Commission (ICRC) in the ACT, and the Queensland Competition Authority (QCA). In the United Kingdom, the Office of Gas and Electricity Markets uses a cost-based approach to set a default tariff cap.

A cost-based approach means we directly consider the main costs borne by electricity retailers, facilitating consideration of the financial viability of the industry under section 8A(b) of the ESC Act. In assessing efficient costs and providing for a retail operating margin, we have considered the incentives for long-term investment under section 8A(a) of the ESC Act. A cost-based approach

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<sup>22</sup> Noting a component for controlled load applies to domestic customers, where appropriate.

<sup>23</sup> Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Issues Paper, July 2019, p. 7.

also allows stakeholders to see that we have not included an allowance for headroom in establishing the VDO, consistent with the requirements of the order.

Pursuant to clause 12(4) of the order, the commission has included the elements in figure 1 to estimate the efficient costs of the sale of electricity by a retailer. This includes:

- wholesale electricity costs – including hedging costs and network losses for electricity
- network costs – which are directly taken from tariffs approved by the AER
- environmental costs – including national renewable energy schemes and the Victorian Energy Upgrades program
- retail operating costs – including modest costs of customer acquisition and retention
- other costs – such as licence fees and Australian Energy Market Operator (AEMO) fees
- retail operating margin – which is applied to all underlying costs.

Some elements of the cost-stack are estimated using market data such as wholesale electricity purchase costs. We have updated estimates of these elements for our final decision and VDO price determination to account for any changes in market data.

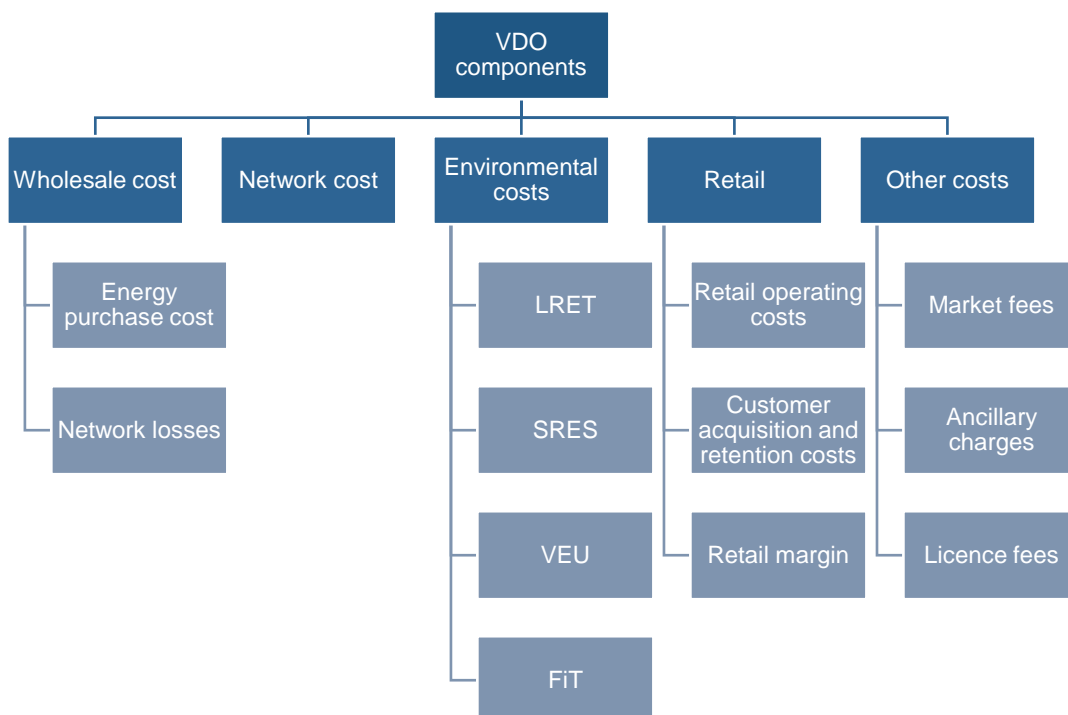


Figure 3 VDO components for retailing electricity

Our final decision and determination have also been informed by data we requested from retailers.<sup>24</sup> The data requests sought cost information across all elements of the cost-stack, with more detailed information sought on retail costs. The data was not available prior to release of our draft decision.

### **3.1. Wholesale electricity costs**

In making a VDO price determination, the order requires us to have regard to the efficient costs of providing retail electricity services, including wholesale electricity purchase costs.<sup>25</sup> Retailers purchase electricity from the wholesale market to meet customer demand. While wholesale electricity prices can be volatile, retail prices can be unchanged for a relatively long period. This creates risk for electricity retailers. Spot price volatility<sup>26</sup> can be managed by retailers in a variety of ways including hedging, where the wholesale price they pay for electricity is set in advance or capped. Hedging can be achieved either by contracting directly with a generator, by owning generation assets, or through the derivative futures market, namely the Australian Securities Exchange (ASX Energy).

#### **Our draft decision on wholesale electricity costs**

Our draft decision used an exchange-traded futures market method to estimate wholesale electricity costs for the VDO to apply from 1 January 2020. We noted this approach is consistent with the requirements of the order and ESC Act. The draft decision proposed the use of historic Manually Read Interval Meter (MRIM) data for the relevant customer base provided by the AEMO combined with historic Victorian spot price data to forecast a relationship between price and consumption in the wholesale market. This relationship was then combined with publicly available market-based data (ASX Energy) to derive a benchmark for efficient wholesale purchase costs for a retailer.<sup>27</sup> The benchmark assumed a conservative approach and minimised exposure to financial risk. In doing so, we had regard to financial viability of the Victorian retail electricity sector.<sup>28</sup>

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<sup>24</sup> The commission issued written notices pursuant to section 37 of the ESC Act to all Victorian electricity retailers to obtain this data.

<sup>25</sup> Clauses 12(3) and 12(4) of the order.

<sup>26</sup> Supply and demand for wholesale electricity is matched in the National Electricity Market, which creates a price every 30 minutes. This spot price is used to settle financial transactions between producers and consumers of electricity in each region of the national market.

<sup>27</sup> Section 12(3) of the order requires that the tariffs determined by the commission are to be based on the efficient costs of the sale of electricity, with section 12(8) noting that we are not required to determine tariffs based on the actual costs of a retailer.

<sup>28</sup> Section 8A(1)(b) of the ESC Act requires we have regard to the financial viability of the industry.

Our draft decision noted other regulators have used the futures market method to estimate wholesale electricity costs including the QCA and the ICRC, noting some variation in methodology.<sup>29</sup> We also stated a market-based approach is consistent with the method adopted in our advice to government in May 2019, providing for consistency in approach. Our draft decision indicated we would update our forecast for the latest available data as close as possible to making our final decision and determination.

### **Stakeholder feedback to our draft decision on wholesale electricity costs**

In response to our draft decision, electricity retailers largely provided views in relation to calculation of components of the futures market methodology. Most focused on the appropriate historical consumption and load data on which we are to base our forecast, discussed in more detail below.<sup>30</sup>

In a report prepared for the Australian Energy Council, ACIL Allen replicated the methodology applied for our draft decision (specifically for domestic load in the AusNet Services distribution zone) – with its replication producing a wholesale electricity cost estimate within one per cent of the estimate produced by our consultants Frontier Economics.<sup>31</sup> The report also supported the use of three years of historical consumption and load data, on the grounds that using less data risks understating or overstating the volatility of price outcomes.<sup>32</sup> This analysis provides us with additional assurance about the approach taken by Frontier Economics. Other issues raised in the report are dealt with further below.

### **Consumption load and spot price data**

Our draft decision estimated wholesale electricity costs based on historic data provided by AEMO, which takes the aggregated MRIM data for each of Victoria's five distribution zones, and filters and splits the data by domestic and small business customers (with less than 40 MWh per year consumption).<sup>33</sup> In order to determine the relationship between load profile and spot prices,

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<sup>29</sup> Section 8A(1)(f) of the ESC Act requires we have regard to consistency in regulation between States and on a national basis. For example, ACIL Allen, Queensland Competition Authority Estimated Energy Costs for 2019-20 Retail Tariffs: Draft Determination, February 2019, or ICRC, Issues Paper: Electricity model and methodology review 2018-19, May 2019.

<sup>30</sup> See submissions from 1st Energy, Alinta Energy, amaysim, Australian Energy Council, Elysian Energy, EnergyAustralia, GloBird Energy, Origin Energy, Powershop and MEA Group, Red and Lumo Energy, Simply Energy and Tango.

<sup>31</sup> The Australian Energy Council: appendix prepared by ACIL Allen, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 9.

<sup>32</sup> The Australian Energy Council: appendix prepared by ACIL Allen, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 12.

<sup>33</sup> This is consistent with requirements under the order which specifies the VDO is to be made available to domestic and small business customers whose aggregate consumption of electricity taken from a supply point is not, or in the case of a new supply point is not likely to be, more than 40 MWh per annum.

consumption load data is combined with historical spot price data available from AEMO for the Victorian regional reference price node. In our draft decision, we included all three years of the MRIM data provided by AEMO; that is, for the three-year period 1 July 2016 to 30 June 2019.<sup>34</sup>

The draft decision to base our forecast on all available relevant historical data attracted a range of commentary from retailers. Many commented on changes in the wholesale market during 2016-17 (such as the closure of Hazelwood Power Station in March 2017), and the influence incorporating data from 2016-17 has on our forecast for 2020. In its submission, 1st Energy stated:

'The inclusion of National Electricity Market (NEM) spot price data for Victoria for FY17 should be excluded, as the closure of Hazelwood fundamentally changed the dynamics of the wholesale market and its relationship to demand in FY17 is no longer representative of today's market; we propose that only FY18 and FY19 should be used'.<sup>35</sup>

Simply Energy<sup>36</sup>, amaysim<sup>37</sup>, GloBird Energy<sup>38</sup>, Red and Lumo Energy<sup>39</sup> all echoed this justification for truncating the historical data set.

In its report prepared for GloBird Energy, Oakley Greenwood raised concerns about the Monte Carlo sampling technique only using the past three years of historical data, in that variations in weather temperature may not be fully captured in the data set.<sup>40</sup> It proposed modifying the sampling method to include historical weather over a longer period. As noted above, in its report prepared for the Australian Energy Council, ACIL Allen supported the use of three years of historical consumption and load data on the grounds that using less data risks understating or overstating the volatility of price outcomes.<sup>41</sup> Frontier Economics also noted that observed weather

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<sup>34</sup> Data prior to this period is not suitable for use due to changes in the way data was structured from 1 July 2016. Further, in May 2019 we did not yet have access to the full set of data for 2018-19 when making our recommendation to the Victorian Government for VDO prices commencing 1 July 2019.

<sup>35</sup> 1st Energy, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 1.

<sup>36</sup> Simply Energy, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 3.

<sup>37</sup> amaysim, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 1.

<sup>38</sup> GloBird Energy, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 7.

<sup>39</sup> Red and Lumo Energy, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 3.

<sup>40</sup> GloBird Energy: appendix prepared by Oakley Greenwood, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 6.

<sup>41</sup> The Australian Energy Council: appendix prepared by ACIL Allen, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 12.

patterns over the last three years have not been that dissimilar to weather patterns over the longer-term. From a methodological perspective, Frontier Economics believe that there would be significant difficulties implementing the approach proposed by Oakley Greenwood that would require subjective assumptions and reduce model transparency and predictability.<sup>42</sup>

Powershop and MEA Group, and EnergyAustralia raised the issue of regulatory consistency in our approach. In its submission, Powershop and MEA Group suggested it did not support what it called ‘the inconsistent use of consumption load data’ between the VDO introduced on 1 July 2019 and our draft decision, recommending that:

‘To ensure industry can rely on a predictable calculation of these datasets for future calculations, the ESC must adopt a consistent window weighted to recent periods... This would remove any doubt as to the intent of the calculation being skewed to a subjective position and retain confidence and trust in the methodology’.<sup>43</sup>

The issue was examined in developing our advice to the Victorian Government for VDO prices applying from 1 July 2019. Our initial approach (set out in our draft advice to Government) was to use a five-year MRIM data set, which aggregated load data for domestic and small business customers with usage up to 160MWh per year. However, we accepted views raised by retailers in response to our draft advice that it would be appropriate to use separate data sets for domestic and small business customers, with consumption of less than 40MWh per year. However, due to data limitations, this necessitated the use of two years of data (1 July 2016 to 30 June 2018). We do note that at the time a number of submissions to our staff working paper suggested that it was appropriate to use as much relevant data as possible to limit the influence of any single year of data.<sup>44</sup>

While we acknowledge concerns raised by retailers in relation to structural changes in generation, and expectations for the high price events of the first quarter of 2019 to be repeated in 2020, we have tried to balance retailer concerns on providing accurate and transparent projections of future prices and load with retailer concerns on providing a reasonable range of future outcomes. Basing our estimate on a smaller sample size risks giving too much weight to a specific year, increasing the likelihood of passing on higher or lower costs to consumers that may not eventuate. Further, we note that in analysis conducted for the Australian Energy Council, ACIL Allen compared using two years of data (2017-18 and 2018-19), against three years (2016-17 to 2018-19). ACIL Allen

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<sup>42</sup> Frontier Economics, Wholesale Electricity Costs – a report for the Essential Services Commission, November 2019, p. 8.

<sup>43</sup> Powershop and MEA Group, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 2.

<sup>44</sup> Essential Services Commission, Victorian Default Offer to apply from 1 July 2019: Draft advice, March, pp.19-20.

commented that the distribution of load weighted prices, as well as the distribution of wholesale electricity costs is not dissimilar to using the three years, concluding:

‘By including 2016-17, the diversity in spot price outcomes is increased. It is the diversity, or larger spread of outcomes, that increases the risk to retailers, and hence the cost of hedging that risk. For this reason, we are comfortable with using all three years of data.’<sup>45</sup>

Further, we note that changes in levels of prices are reflected in ASX Energy contract prices for the first quarter of 2020 captured in Frontier Economics’ modelling.

Consistent with our draft decision, our final decision uses consumption load and spot price data for the three-year period 1 July 2016 to 30 June 2019. We plan to review new data when it becomes available to the commission for evidence of structural changes. However, at a high level we intend to continue basing our estimate on as much relevant historical data we have available.

### **Scaling historic price data to ASX Energy futures**

In order to align historic half-hourly price data with market expectations for Victorian spot prices in 2020, each simulation produced by the Monte Carlo process assumes the average level of prices will be consistent with ASX Energy base swap futures prices for the Victorian node. Frontier Economics do this by scaling the price shape of each simulated year to half-hourly prices such that the time-weighted average price in each quarter equals the relevant quarterly base swap price in 2020 less a contract premium.<sup>46</sup>

Several submissions commented on the method used to scale historical half-hourly prices to an average price based on ASX Energy contract prices.

Simply Energy noted the method used to scale historic spot prices does not include ASX Energy peak swaps and cap prices, and therefore does not account for the value of caps and the implied volatility. Simply Energy recommended scaling prices to have regard to base swaps, peak swaps and cap prices.<sup>47</sup> We note scaling prices in this manner would require subjective judgements about how to simultaneously scale to each of these prices. There is little on which to base these subjective judgements, therefore Frontier Economics scale only to base swap prices.<sup>48</sup>

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<sup>45</sup> The Australian Energy Council: appendix prepared by ACIL Allen, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 13.

<sup>46</sup> The assumed contract premium is 5 per cent on the underlying prices.

<sup>47</sup> Simply Energy, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 4.

<sup>48</sup> Frontier Economics, Wholesale Electricity Costs – a report for the Essential Services Commission, November 2019, p. 19.



In their submission ACIL Allen (on behalf of the Australian Energy Council) state that scaling each of the historical years to ASX Energy prices prior to undertaking the Monte Carlo analysis, is likely to more appropriately represent the uncertainty of (wholesale electricity) spot price outcomes.<sup>49</sup>

In response Frontier Economics notes this is not necessarily true, as the uncertainty is captured in the differing load weighted prices resulting from the Monte Carlo analysis. Further, Frontier Economics believe the best information available about prices next year are from the prices of base swaps on ASX Energy, so utilising these by scaling to them for all years more accurately fits the market's expected outcome.<sup>50</sup> Under ACIL Allen's approach the average prices for simulated years could differ markedly from the prices of base swaps on ASX Energy.

### **Determining wholesale electricity costs**

ACIL Allen suggested that in finalising wholesale electricity costs, costs should be determined for the median simulated year (when all simulated years are ranked according to wholesale electricity cost estimate by incorporating hedging costs and approach), rather than all simulated years being ranked according to load weighted price. In its analysis ACIL Allen apply Frontier Economics' approach (ranking according to load weighted price) suggesting the difference between approaches could risk underestimating wholesale electricity costs.<sup>51</sup> In response, Frontier Economics note that it analyses results to ensure they are not skewed but agree that this change in approach is more transparent. Accordingly, it has modified the approach by taking the wholesale electricity cost estimate for the median simulated year when all simulated years are ranked according to their wholesale electricity costs. This has resulted in a slight reduction in the wholesale electricity cost allowance.

ACIL Allen also recommend taking the 95<sup>th</sup> percentile of the wholesale electricity costs (rather than the 50<sup>th</sup>), on the grounds it seeks to be 95 per cent confident that it does not underestimate the wholesale electricity costs for retailers.<sup>52</sup> Based on advice from Frontier Economics, this approach is akin to allowing retailers to over-recover their wholesale costs 95 years out of 100.<sup>53</sup> It

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<sup>49</sup> The Australian Energy Council: appendix prepared by ACIL Allen, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 17.

<sup>50</sup> Frontier Economics, Wholesale Electricity Costs – a report for the Essential Services Commission, November 2019, p.12.

<sup>51</sup> The Australian Energy Council: appendix prepared by ACIL Allen, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 10.

<sup>52</sup> The Australian Energy Council: appendix prepared by ACIL Allen, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 11.

<sup>53</sup> Frontier Economics, Wholesale Electricity Costs – a report for the Essential Services Commission, November 2019, p.41.

is our view that taking the median approach (the 50<sup>th</sup> percentile) better fits the requirements of our pricing order, to base our determination on efficient costs, that do not provide for headroom.<sup>54</sup>

## Other issues

Several submissions suggested that the ASX Energy data on hedging contracts which we base our analysis on (quarterly base swaps, peak swaps and base caps) should be updated as close as possible to the commencement of the regulatory period.<sup>55</sup> We share this view, and note that wholesale electricity costs that Frontier Economics has estimated, are based on 12-month trade weighted average ASX Energy contract prices up to 25 October 2019.

Submissions from 1st Energy, Simply Energy and GloBird Energy noted that some observations contained within the wholesale electricity settling position spreadsheets provided by Frontier Economics<sup>56</sup>, went above the maximum spot price (market cap of \$14,700.00).<sup>57</sup> This is due to the process of scaling up prices (to match a higher expected average price from ASX Energy). While the impact on the final result is immaterial, for the final decision Frontier Economics has ensured that the resulting half-hourly spot prices are not lower than the market price floor or higher than the market price cap.

amaysim also expressed concern that our approach to calculating wholesale costs reflected the approach taken by large vertically integrated retailers, suggesting we adjust the cost stack to favour tier two retailers – allowing for the additional cost incurred by smaller retailers in managing spot risk (via hedging).

*'The Commission's current approach to calculating costs is heavily weighted toward vertically integrated retailers (a retailer with generation capacity) who are naturally hedged against market volatility'.<sup>58</sup>*

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<sup>54</sup> Clause 12(3) and 12(10) of the order.

<sup>55</sup> 1st Energy, amaysim, Powershop and MEA Group, and Simply Energy all raised this point. In its submission, Powershop and MEA Group suggested 'the final date to be applied to calculate the '12-month trade-weighted average price' is calculated after the ASX option expiry on 19 November (2019), to allow for the use of option contracts for hedging and to include current market views on price'. We note this is not possible given clause 10 of the order requires we make a price determination 37 days prior to the commencement of the regulatory period.

<sup>56</sup> Frontier Economics - Wholesale electricity settling contract positions, September 2019.

<sup>57</sup> 1st Energy, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 2; Simply Energy, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 3; and GloBird Energy, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p.6.

<sup>58</sup> amaysim, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 2.

Our methodology for calculating a wholesale electricity cost allowance seeks a benchmark efficient cost, as clause 12(3) of the order requires us to make a price determination based on the efficient costs of sale of electricity, rather than the actual costs of a retailer. Additionally, we have sought to take an approach that does not require a retailer to be of a particular size or structure as futures contracts are available through ASX Energy. As such, we do not believe this approach is designed to specifically reflect a particular type of retailer.

In its submission Powershop and MEA Group criticise the use of Frontier Economics' STRIKE model suggesting it is a theoretical simulation that applies a median cost from a range of possible outcomes, suggesting a better method is to forecast on at least an average expected value outcome. Based on our current understanding of this proposal, we do not believe this represents a superior approach.

### **Our final decision on wholesale electricity costs**

Our final decision is to use the futures market method to estimate wholesale electricity costs for the VDO to apply from 1 January 2020. We believe this approach is consistent with requirements under the order and the ESC Act.

The focus of our approach is to make an allowance for the efficient cost for the sale of electricity by a retailer. By basing our approach on transparent, market-based data it reflects an estimate of the efficient wholesale purchase costs of a retailer, which does not require the retailer to be of a certain size or structure<sup>59</sup>, and reflects the market's current view about the level of wholesale prices in the regulatory period.<sup>60</sup> Further, in taking an approach that represents the efficient costs of a retailer that assumes minimal risk in its hedging strategy (discussed further in the section below), we have also had regard to the financial viability of the Victorian retail electricity sector.<sup>61</sup>

The commission engaged Frontier Economics to provide an estimate of wholesale electricity costs for the VDO to apply from 1 January 2020 based on the approach described below.<sup>62</sup> We have sought to use publicly available data to increase the transparency in our estimation of the VDO. Where this has not been possible, we have also published supporting spreadsheets on our website setting out details of half-hourly load and price forecasts, and contract positions resulting from

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<sup>59</sup> Section 12(3) of the order requires that the tariffs determined by the commission are to be based on the efficient costs of the sale of electricity, with section 12(8) noting that we are not required to determine tariffs based on the actual costs of a retailer.

<sup>60</sup> Clause 12(8) of the order.

<sup>61</sup> Section 8A(1)(b) of the ESC Act requires that we have regard to the financial viability of the industry.

<sup>62</sup> A copy of this report is available on our website [www.esc.vic.gov.au](http://www.esc.vic.gov.au).

Frontier Economics' modelling, and calculations for determining our proposed wholesale electricity costs.

As stated in our draft decision, the futures market approach requires inputs for:

- The likely half-hourly customer load.
- The corresponding likely half-hourly spot prices.
- The cost of financial hedging contracts that retailers will face.
- The hedging position a retailer is likely to adopt.

The following sections describe our approach to addressing these inputs.

### **Consumption load and spot price data**

The estimation of wholesale electricity costs in our final decision uses consumption load data provided by AEMO, as it is structured consistently across all distribution zones. AEMO has taken the original aggregated MRIM data for each of the Victorian distribution zones, and filtered and split the data by domestic and small business customers with consumption less than 40 MWh per year.<sup>63</sup> This allows for the calculation of wholesale electricity purchase costs separately for domestic and small business customers. As noted above the most recently available data in this set is for the period 1 July 2016 to 30 June 2019.<sup>64</sup>

This consumption load data is combined with historical spot price data available from AEMO for the Victorian regional reference price node over the same time period in order to determine the relationship between load profile and spot prices.

A Monte Carlo simulation is conducted generating 500 simulated years using the three years of available data. We take the simulated year that resulted in the median energy purchase cost outcome in order to minimise the impact of any particular year on results, representing a reasonable and unbiased benchmark.

To provide transparency, we have published spreadsheets that detail the load and price profiles that are produced for the median simulated energy purchase cost year as part of the Monte Carlo simulation. This array of half-hourly prices and load comprises of days drawn directly from the actual data for the period 1 July 2016 to 30 June 2019 scaled by quarter to the relevant ASX Energy base swap price less a contract premium.

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<sup>63</sup> Consistent with requirements under the order which specifies the VDO is to be made available to domestic customers and small business customers whose aggregate consumption of electricity taken from a supply point is not, or in the case of a new supply point is not likely to be, more than 40 MWh per annum.

<sup>64</sup> Data prior to this period was not suitable for use due to changes in the way data was structured from 1 July 2016.

## Futures purchasing time period and profile

We have calculated the cost of future prices based on hedging contract prices from ASX Energy, which has three main types of quarterly electricity derivative contracts that are traded:

- Base swaps for each quarter – a contract to trade a fixed amount of electricity for a certain price at all times in a day.
- Peak swaps for each quarter – similar to a base load swap but applies only during the peak time period (7am-10pm AEST weekdays, excluding public holidays).
- Base \$300 caps for each quarter – a contract that provides an effective cap on wholesale market prices at \$300, for a fixed amount of electricity.

These contracts trade for up to four years in advance, and prices are published by ASX Energy for each trading day. We have calculated the wholesale electricity cost allowance based on futures contract prices for each quarter for 1 January 2020 to 31 December 2020, which is consistent with the order requiring us to make a price determination for a 12-month regulatory period from 1 January 2020. The futures contract prices we use are a 12-month trade-weighted average up to 25 October 2019. We consider 12-months provides a reasonable benchmark amongst the range of approaches that have been proposed to the commission through our consultation on the VDO.

## Contract position

Our final decision is based on analysis conducted by Frontier Economics using their *STRIKE* model, which calculates a set of efficient contracting options (i.e. portfolio of baseload and peak swaps, and cap futures products) that deliver the lowest energy purchase cost for a given level of risk. We have estimated wholesale electricity costs based on a minimal risk strategy. This involves estimating the mix of hedging products that retailers would purchase and how much this would cost. In general, the contract position at this point involves:

- purchasing swaps to cover (approximately) average demand
- purchasing caps to cover (approximately) peak demand
- incurring a small amount of pool exposure at absolute peak demand times.

To be transparent we have published the supporting spreadsheets used by Frontier Economics on our website for stakeholders, noting that Frontier Economics has capped scaled prices at the market price cap of \$14,700.00. These spreadsheets detail the contract positions and settlement calculations, which form the basis of the estimated wholesale electricity cost component for the VDO. We have also published Frontier Economics' supporting report on our website. This report notes that other approaches using a rule of thumb approach to developing contract positions deliver broadly similar results. However, we propose to continue using the estimates generated by

Frontier Economics and their *STRIKE* model as it is more flexible to changes to the profile of load and spot prices, which may not be the case under a rule of thumb approach.<sup>65</sup>

## Volatility allowance

Our final decision includes an allowance for holding some working capital (cash) to fund spot market purchases. The cost of holding this working capital is known as a volatility allowance and has been calculated based on the cost of holding working capital to fund cash flow shortfalls that could arise under events where the wholesale electricity spot market experiences periods of very high prices.

### Final decision – approach to estimating wholesale costs

The commission has applied a futures market approach based on the following inputs:

- AEMO MRIM load data for the three-year period 1 July 2016 to 30 June 2019. Data is split between domestic and small business customers with consumption less than 40 megawatt hours (MWh) per annum.
- National Electricity Market spot price data for Victoria in the period 1 July 2016 to 30 June 2019.
- Taking the median energy purchase cost outcome from a Monte Carlo simulation producing 500 simulated forecasts of the year 2020 using the data above.
- ASX Energy contract prices for base and peak swaps, and \$300 caps for the 12 months up to 25 October 2019. Contract prices are the 12-month trade-weighted average.
- Minimised risk contract position, purchasing swaps to approximately cover average demand and caps to cover peak demand and incurring a small amount of pool exposure.
- Including a volatility allowance to reflect the cost of holding working capital to cover a small amount of pool exposure.

## Network losses

When electricity is transported through transmission and distribution networks, some of it is lost in the process. Electrical losses occur in both the transmission and distribution networks because of electrical resistance in the wires which converts some electricity to heat. These losses must be

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<sup>65</sup> Frontier Economics, Wholesale Electricity Costs – a report for the Essential Services Commission, November 2019, p. 42.

factored into any electricity purchased through the wholesale market to ensure supply meets demand. As a result, more electricity is generated than is consumed by end users.

Our draft decision used the latest AEMO data on average distribution loss factors<sup>66</sup> and marginal loss factors<sup>67</sup> to calculate average loss factors for each distribution zone based on the location of each relevant node.

In response to our draft decision, EnergyAustralia and amaysim noted that in only using short sub-transmission distribution loss factors, we may be understating the actual losses a retailer incurs when selling electricity to customers in regional and remote areas.<sup>68</sup> EnergyAustralia recommended the commission generate an average of loss factors, weighted by customer numbers, to reflect the average cost of serving customers in each distribution zone. We acknowledge EnergyAustralia's concerns. However, given the necessary information is not publicly available (e.g. Market Settlement and Transfer Solutions data), our final decision adopts an approach consistent with our draft decision as it should reflect the losses for the vast majority of VDO customers.

Our final decision uses the latest AEMO data on average distribution loss factors that apply to the most small customers in each network, and marginal loss factors which represent the increase (or decrease) in loss that would occur in response to an incremental change in generation output or load demand from its current value. We then calculate average loss factors for the transmission network for each distribution zone based on the location of each relevant node.

Multiplying these loss factors together gives the combined loss factor for each network. This number represents the required generation for customers to consume 1 unit of electricity.

### **Final decision – approach to estimating network losses**

The commission has decided to use data available from AEMO for distribution loss factors and marginal loss factors.

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<sup>66</sup> Australian Energy Market Operator, Distribution Loss Factors for the 2019-20 Financial Year, June 2019, p. 13.

<sup>67</sup> Australian Energy Market Operator, Updated Regions and Marginal Loss Factors: FY 2019-20, June 2019, pp. 27-29.

<sup>68</sup> EnergyAustralia, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 7; and amaysim, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 3.

### 3.2. Network costs

Network costs represent the costs of building, operating and expanding the electricity distribution and transmission networks. There are five electricity distribution zones across Victoria (see figure 2). Each of these zones has separate characteristics which determine their respective tariffs.

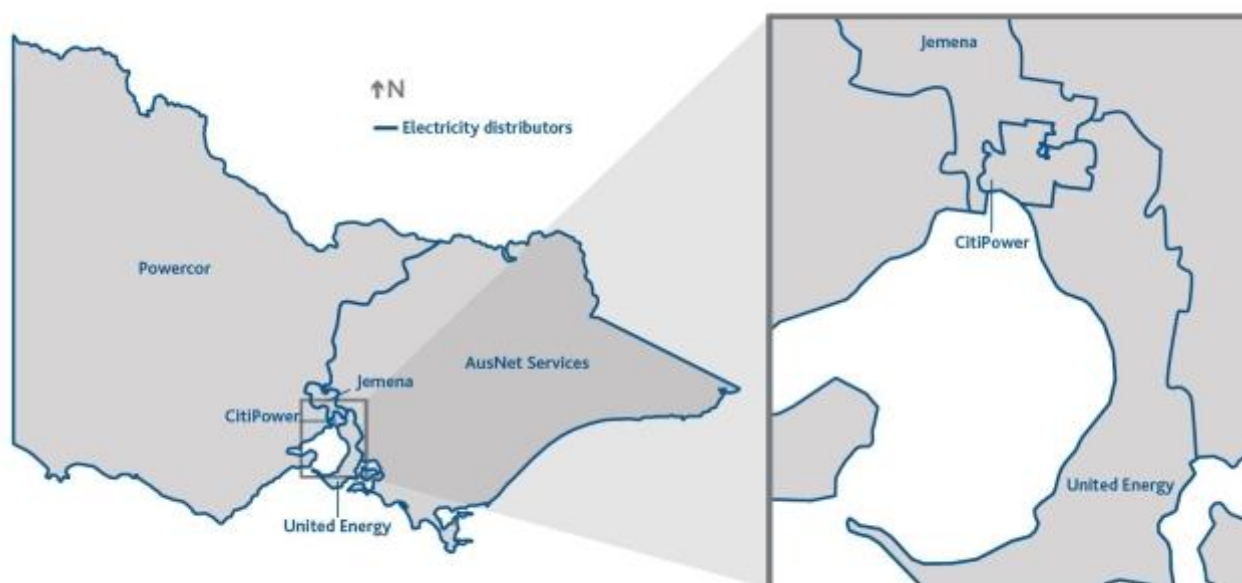


Figure 4 Map of Victorian electricity distribution zones

For all domestic and small business electricity customers, there are three main elements associated with each network tariff:

- Distribution charges – tariffs for the use of the distribution network.
- Transmission charges – tariffs for the use of the transmission network.
- Jurisdictional charges – tariffs for the payments distributors are required to make to customers as part of the Victorian Premium Feed-in Tariff.

These charges vary between the distribution businesses as each network has its own specific requirements in terms of maintenance, expansion and cost allocation.

The five electricity distribution businesses in Victoria were required to install Advanced Metering Infrastructure (i.e. smart meters) to small customers in their networks. To recover the cost of this rollout, the AER approves a regulated charge for smart meters on a per customer basis.

#### Our draft decision on estimating network costs

Our draft decision was to use a cost pass-through approach for estimating network costs, using the simplest network use of system tariff in each distribution zone – generally a daily supply charge and a flat usage charge as shown in table 1 below. In addition, we outlined our intention to include



metering charges for each distribution zone, and a controlled load option for domestic customers (shown in table 2 below). Finally, we signalled that our final decision would incorporate information on the latest approved tariffs and the revised structure of United Energy's LVS1R residential tariff and LVM1R small business tariff, simplified by the removal of seasonality.

In consultation with stakeholders prior to the draft decision, feedback on network costs had been generally supportive of the cost-pass through approach. However, we responded in our draft decision to Simply Energy's suggestion that the VDO be adjusted for the higher network costs of serving higher intensity users with three-phase meters.<sup>69</sup> We explained in our draft decision that it is unclear how relevant these additional costs are for the VDO and whether customers on the VDO have or are likely to have three-phase meters. Our draft decision signalled that our approach would not change without receiving further data on the issue.

### Stakeholder responses to draft decision on estimating network costs

A number of stakeholders commented on the fact that new network tariffs were due to be approved before the publication of the final decision and considered it necessary that these new tariffs be reflected in the VDO.<sup>70</sup> The Australian Energy Council noted that small customers would pay more due to increased network costs should draft pricing proposals be approved by the AER.<sup>71</sup> Elysian Energy also observed that the draft decision included network prices that were well below the latest network pricing proposals for 2020.<sup>72</sup>

EnergyAustralia submitted that the current approach is based on a narrow conception of retail customers' energy supply arrangements and the final decision should capture the additional network costs associated with serving customers on multi-phase meters, not just for serving those with the least expensive configuration.<sup>73</sup>

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<sup>69</sup> Simply Energy, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Issues Paper, August 2019, p. 4.

<sup>70</sup> See Elysian Energy, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 1; Red and Lumo Energy, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 2; Simply Energy, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 5; and Origin Energy, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, October 2019, p. 6.

<sup>71</sup> Australian Energy Council, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 1.

<sup>72</sup> Elysian Energy, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 1.

<sup>73</sup> EnergyAustralia, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, p. 7.

Several stakeholders raised concerns about the use of flat network tariffs to estimate the VDO compliant maximum annual bill. These issues are addressed in chapter 5.

### Final decision on estimating network costs

The final decision maintains the generally supported pass-through approach to network costs. We confirm that these costs have been estimated using the latest network tariffs for 2020 approved by the AER.<sup>74</sup>

The commission acknowledges the concern around accounting for additional metering costs imposed by customers on more expensive multi-phase meters, however in the absence of data on which to base a weighted average (such as Market Settlement and Transfer Solutions data, or data from individual retailers) our final decision adopts an approach consistent with our draft advice. We also note that this approach is not designed to cater to the lowest cost metering configuration, but is instead focused on the metering configuration that applies to the vast majority of small customers.

The commission believes that using public data to calculate a weighted average would likely overestimate metering costs for VDO customers.<sup>75</sup> Nonetheless, the commission has investigated the approach proposed by EnergyAustralia and found that the impact is generally not material. The largest impact is in the AusNet Services zone as pointed out by EnergyAustralia, but the impact is well below on per cent of a typical bill. Given we believe this overstates the cost for VDO customers we do not propose to change our approach given the limited data currently available.

As such, our overall approach to estimating network costs remains as outlined in our draft decision. Our final decision uses the simplest network use of service tariff in each distribution zone – a daily supply charge and a flat usage charge, shown in table 1 below. We also include metering charges for each distribution zone, and a controlled load option for domestic customers (shown in table 2 below).

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<sup>74</sup> See <https://www.aer.gov.au/news-release/aer-approves-victorian-electricity-network-charges-for-2020> accessed 11 November 2019

<sup>75</sup> Weighting derived from customer numbers in public data would be based on customer numbers in general, not just on those who are likely to have VDO access. Given that multi-phase meter customers are less likely to have VDO access relative to single-phase customers (because they are likely to have higher consumption levels), a weighted average using public data would place undue weight on more expensive multi-phase metering configurations.

Distribution zone	Domestic tariff	Small Business tariff
AusNet Services	Small residential single rate, NEE11	Small business single rate, NEE12
CitiPower	Residential single rate, C1R	Non-residential single rate, C1G
Jemena	Single rate, A100/F100a/T100b general purpose	Small business A200/F200a/T200b
Powercor	Residential single rate, D1	Non-residential single rate, ND1
United Energy	Low voltage small 1 rate, LVS1R	Low voltage medium 1 rate, LVM1R

Table 1 Network tariff categories

Distribution zone	Domestic controlled load or dedicated circuit tariff code
AusNet Services	NEE13
CitiPower	CDS
Jemena	A180
Powercor	DD1
United Energy	LVDed

Table 2 Controlled load network tariff categories

### Final decision – approach to estimating network costs

The commission's decision is to:

- Directly include the simplest network use of service tariff in each distribution zone in the VDO – generally a daily supply charge and a flat usage charge.
- Where applicable for a particular domestic customer, the VDO includes a controlled load or dedicated circuit option.
- Include Advanced Metering Infrastructure charges for each distribution zone as a cost per customer.

### 3.3. Environmental scheme and other regulatory costs

There are four main environmental costs faced by Victorian electricity retailers:

- Large-scale Renewable Energy Target (LRET) – a Commonwealth Government scheme that encourages renewable energy generation by creating a market for renewable energy certificates.
- Small-scale Renewable Energy Scheme (SRES) – a Commonwealth Government scheme that supports the installation of small-scale renewables, such as household solar rooftop panels and solar hot water systems.
- Victorian Energy Upgrades (VEU) – a state-based program that places a liability on Victorian energy retailers (both electricity and gas) to surrender a specified number of Victorian Energy Efficiency Certificates each year.
- Feed in tariff (FiT) – retailers credit small scale renewable energy exports with the minimum feed-in tariff that includes an allowance for the avoided social cost of carbon.

In addition to this, retailers also incur a range of other regulatory costs, such as market participant fees, ancillary service charges, the Reliability and Emergency Reserve Trader (RERT) scheme costs, and licence fees.

Our approach to calculating the VDO has regard to environmental and other regulatory costs as an element in discerning the efficient costs of the sale of electricity by a retailer.<sup>76</sup>

#### Our draft decision on environmental scheme and other regulatory costs

Our draft decision proposed to estimate environmental scheme costs based on market data and other publicly available data.<sup>77</sup> For other regulatory costs we proposed basing them on publicly available information. This specifically involved the following approaches:

- LRET – the 2020 default liability multiplied by the futures market price for large-scale renewable generation certificates.
- SRES – the 2020 non-binding liability multiplied by the clearing house price of \$40.
- VEU – the 2019 greenhouse reduction rate for electricity multiplied by the historic 12-month average certificate price.

The LRET, SRES and VEU costs are multiplied by network loss factors.

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<sup>76</sup> Clause 12(4)(c) of the order.

<sup>77</sup> Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft Decision, 20 September, p. 30.

- FiT (social cost of carbon) – total renewable exports in 2018-19 divided by average total domestic and small business customers in 2017-18, multiplied by the social cost of carbon (2.5 cents).
- AEMO market fees – simple average of 2019-20 and 2020-21 estimates taken from the latest available publication.
- Ancillary fees – an average of the past 52 weeks (ending 18 August 2019) of ancillary service payments based on AEMO data.
- RERT – based on the latest historic estimates of charges released by AEMO.
- ESC licence fees – market wide average of fees paid in 2017-18, adjusted for inflation.

### Stakeholder feedback to our draft decision on environmental costs and other regulatory costs

In general, there was limited feedback received on the other regulatory costs included in our draft decision. The majority of feedback received on environmental costs related to two issues: the price of certificates for the large-scale renewable scheme and the level of annual liability for the small-scale renewable scheme.

A number of retailers suggested that a market-based approach is unlikely to reflect the actual costs of retailers that have entered into long-term power purchase agreements (PPAs) which include a component for the cost of large-scale renewable certificates.<sup>78</sup> In particular, EnergyAustralia suggested the commission request actual PPA cost data from retailers and calculate a certificate-liability-weighted average across Victorian retailers in place of a market-based approach.<sup>79</sup> Alternatively, Origin Energy submitted that the market-based approach for 2020 is reasonable, but if market prices continue to fall and diverge from actual retailer costs, the approach should be revised.<sup>80</sup>

We acknowledge that the cost of PPAs signed in years prior may differ from current market prices for large-scale renewable certificates. However, we do not consider that costs incurred from long-term PPAs on some retailers' books present the best option for setting an efficient allowance for the costs associated with these certificates for the VDO. The order stipulates the VDO tariffs are to

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<sup>78</sup> For example, Tango, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft decision, October 2019, pp. 2-3; amaysim, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 2

<sup>79</sup> EnergyAustralia, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 6

<sup>80</sup> Origin Energy, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 5

be based on efficient costs of the sale of electricity by a retailer.<sup>81</sup> While a retailer may enter into long-term PPAs, in a competitive market it would not pass through PPA costs that do not reflect market prices. To pass through higher costs than the market value of those certificates, as suggested in several submissions, would put those retailers at a competitive disadvantage. For similar reasons, we do not base the wholesale electricity cost component of the VDO on a weighted average of the electricity component of long-term power purchase agreements. To take a different approach to estimating the cost of large-scale renewable certificates would also introduce a level of inconsistency in approaches.

Setting a cost allowance that does not reflect market prices may also have undesirable side-effects. Electricity retailers manage price risks on behalf of their customers, including long-term price risks associated with large-scale renewable certificates. Passing actual retailer costs through the VDO shifts price risk from the retailer, who is able to manage this risk, to the customer, who is unable to manage it. If these actual costs are simply passed through, retailers would have limited incentives to lower the acquisition cost of these certificates in the future as consumers have no choice but to bear the costs.

The QCA and consultants ACIL Allen took a similar view for the 2019-20 regulated retail price in Queensland, noting that ignoring the observable downward trend in large-scale renewable certificate prices is analogous to suggesting that the consumer should not benefit from an oversupplied market.<sup>82</sup>

Feedback on the level of the small-scale technology percentage (STP) that applies under the SRES suggested that the non-binding 2020 STP liability published in March 2019 is significantly lower than current expectations of the binding liability that will apply in 2020. Red and Lumo Energy project a liability value of 20.3 per cent based on Clean Energy Regulator (CER) data and the current rate of certificate creation.<sup>83</sup> EnergyAustralia noted that the history of non-binding STPs published has generally underestimated the final binding liability.<sup>84</sup> 1st Energy, Origin Energy, and Red and Lumo Energy recommended the commission liaise with the CER to provide an up-to-date estimate of the STP prior to the VDO final decision.

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<sup>81</sup> See section 12(3) of the order

<sup>82</sup> ACIL Allen Consulting, *Estimated Energy Costs*, February 2019, pp. 8-9, available [https://www.qca.org.au/wp-content/uploads/2019/05/34679\\_ACIL-Allen-cost-of-energy-report-Draft-determination-on-2019-20-notified-prices-3.pdf](https://www.qca.org.au/wp-content/uploads/2019/05/34679_ACIL-Allen-cost-of-energy-report-Draft-determination-on-2019-20-notified-prices-3.pdf) accessed 28 October 2019.

<sup>83</sup> Red and Lumo Energy, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, pp. 4-5.

<sup>84</sup> EnergyAustralia, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 7.

The non-binding 2020 STP published in March 2019 by the CER was 14.56 per cent. We note that the CER has indicated in a small-scale technology certificate market update that this non-binding value is likely to understate the STP for 2020.<sup>85</sup> However, the market update does not provide sufficient information to calculate or estimate a binding value for 2020 without speculation. In particular, it does not include an updated forecast of certificate creation for 2020 or an estimate of electricity acquired. Our final decision below outlines how we have addressed this issue in calculating the VDO.

### **Our final decision on estimating environmental costs and other regulatory costs**

Our approach to estimating the costs for each of these schemes is detailed below. Full details of the cost allowances included for these elements in the estimation of the VDO are found in chapter 4.

#### **Large-scale renewable energy target (LRET)**

The LRET scheme operates through the creation of tradable certificates. One megawatt hour (MWh) of renewable energy generation from accredited power stations creates one certificate. The amount of renewable energy that must be generated each year is specified in the Renewable Energy (Electricity) Act 2000 (Cth). An obligation is placed on electricity retailers to purchase and surrender a certain number of certificates each year to meet their renewable energy obligations.

To calculate the cost for retailers to comply with the LRET, the quantity of certificates a retailer must purchase and surrender is multiplied by the likely price of large-scale generation certificates.

The CER determines the number of certificates that must be purchased by retailers from renewable generators by 31 March each year. This percentage is known as the renewable power percentage (RPP).

Use of a market-based approach to estimate LRET costs is transparent and has regard to the efficient costs of the scheme. In addition, our approach is consistent with other Australian regulators who estimate LRET costs.

The binding RPP is not released yet so we are unable to use it in making this decision. However, the CER provides a method to calculate a default RPP in the case they do not release the RPP by 31 March. We have used the default RPP in place of the binding RPP to estimate LRET costs for 2020.

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<sup>85</sup> See

<http://www.cleanenergyregulator.gov.au/RET/Pages/About%20the%20Renewable%20Energy%20Target/How%20the%20scheme%20works/Small-scale%20technology%20certificate%20market%20updates%20by%20month/Small-scale-technology-certificate-market-update---October-2019.aspx>, accessed 1 November 2019

In addition, this will be combined with a cost pass-through mechanism that will allow for any difference between the default RPP and binding RPP to be accounted for in future regulatory periods.

Analysis conducted by Frontier Economics for the commission estimates the cost of complying with the LRET. The market price for LGCs is determined by taking a volume-weighted average of LGC futures trades for 2020 reported by Demand Manager.<sup>86</sup> This 12-month average LGC price is \$43.30 per certificate.<sup>87</sup>

The LRET applies to electricity acquired from the AEMO settlement point at the Victorian regional reference node. As such, these costs are subject to electricity loss factors in our calculation of the VDO.

### **Small-scale renewable energy scheme (SRES)**

The SRES places an obligation on retailers to purchase small-scale technology certificates. The CER sets the percentage of small-scale certificates to be purchased and surrendered each year.

Similar to the LRET, the cost of complying with the SRES is estimated by multiplying the quantity of small-scale certificates a retailer must surrender by the price a retailer is likely to pay for each certificate.

The STP is published for a given year by March 31 of that year. The CER also publishes non-binding estimates for the following two years.

The binding STP is not released yet so we are unable to use it in making this decision. As discussed above, stakeholders raised concerns that the non-binding estimate applied in the draft decision would underestimate the cost to retailers. Additional information has also been published by the CER to support this claim. While we have received this information, there has not been an official update to the STP liability released by the CER. As such, we have decided to take the mid-point of the non-binding 2020 STP published by the CER in March 2019 and the binding 2019 STP, resulting in an STP estimate of 18.15 per cent for our final decision.

We believe that this update is appropriate and addresses the requirement of the order for the VDO to be based on the efficient costs of providing retail electricity services. Based on the information available publicly we believe that to not adjust our approach would be inconsistent with the order

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<sup>86</sup> Available at: <http://demandmanager.com.au/certificate-prices>. Accessed 25 October 2019.

<sup>87</sup> For more detail see Frontier Economics, Wholesale Electricity Costs for 2020: A report for the Essential Services Commission, November 2019, p. 50.



as it would not account for the future increase in the liability (compared with our draft decision), and costs, that have been signalled publicly by the CER.

We also note that, as discussed in the draft decision, differences in our final decision and the 2020 binding STP published in early 2020 will be accounted for in a cost pass-through mechanism in the setting of the VDO in the next regulatory period. We do not propose to make a variation to account for these changes as it is unlikely to meet the requirements described in section 4.4.

Liable entities can purchase small-scale certificates on the open market or through a certificate clearing house, where they are sold at a fixed price of \$40 per certificate. For the purposes of this decision we assume that the cost of small-scale certificates is equal to this clearing house price of \$40.<sup>88</sup> Historically, the reported spot price of small-scale certificates has typically been at, or close to, this price of \$40.

Similar to the LRET, the STP applies to electricity acquired from the AEMO settlement point at the Victorian regional reference node. As such, these costs are subject to electricity loss factors in our calculation of the VDO.

### **Victorian Energy Upgrades (VEU)**

Under the VEU program, relevant entities (energy retailers) must surrender a number of Victorian Energy Efficiency Certificates (VEECs) equal to their scheme liability.

A retailer's annual electricity liability is estimated by multiplying its total liable electricity acquisition (in MWh) by the greenhouse gas reduction rate for electricity. For the 2020 compliance year the reduction rate for electricity is 17.26 per cent.

We have relied on historic data purchased from the market monitoring service TFS Green and used a simple average of spot prices for the last 12 months up to the week ending 25 October 2019. This involves rolling forward the cost of VEECs from previous years. Use of a market-based approach to estimate VEEC costs is transparent and has regard to the efficient costs of the scheme. We plan to replicate this approach going forward to ensure that any changes in prices are eventually reflected in the VDO.

As with the LRET and SRES these costs are also subject to electricity loss factors in our calculation of the VDO.

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<sup>88</sup> For more detail see Frontier Economics, Wholesale Electricity Costs for 2020: A report for the Essential Services Commission, September 2019, p. 51.

## **Feed in tariff (Victoria)**

The minimum FiT incorporates three components that represent costs a retailer avoids when a customer generates renewable electricity and supplies it into the network (wholesale costs, market fees and network losses). As such, there is no need to compensate retailers for these costs in the VDO. A fourth component, the value of avoided social cost of carbon, is not an avoided cost to the retailer and therefore we assume it is recovered by retailers from the wider customer base.

We estimate this additional cost based on the volume of rooftop renewable electricity exported to the grid, divided by the total number of small Victorian electricity customers. This ratio is then multiplied by the social cost of carbon, which is 2.5 cents per kilowatt hour exported.

We have received total renewable export data for small customers from each of the distribution businesses for 2018-19. We have also collected customer number data via retailer performance reporting for the Victorian Energy Market Report. We have updated our final decision with the latest data on average number of customers by retailer for 2018-19.

## **AEMO market fees**

Market fees include charges for participating in the market, full retail contestability and AEMO's role as the national transmission planner. Estimates and forecasts of these costs are reported in AEMO's Energy Market Budget and Fees report. We have used an average of the 2019-20 budget fee and the 2020-21 estimate fee to estimate relevant charges for the VDO to apply from 1 January 2020.

## **Ancillary charges**

Ancillary services are used by AEMO to manage the power system safely, securely and reliably, with respect to standards such as frequency, voltage and system restart processes. Unlike other AEMO charges, AEMO operates separate markets for various ancillary services. As such, the relevant charges are dependent on the amount of service required at any particular time, which means the costs will vary from period to period.

We have completed analysis of AEMO data to estimate Victorian ancillary charges in the regulatory period beginning 1 January 2020. We use an average of the past 52 weeks (ending 27 October 2019) of ancillary service payments in Victoria.

## **Reliability and Emergency Reserve Trader costs**

The Reliability and Emergency Reserve Trader (RERT) is a function conferred on AEMO to maintain power system reliability and system security using reserve contracts. We are required to have regard to the efficient costs of sale of electricity by a retailer which we have considered by including costs that are outside the control of a regulated entity.

We have included the latest cost data in the VDO. This means that the actual costs of the RERT are included in the VDO, rather than forecasts, which could either overstate the cost (if it is not required in a certain year) or understate the cost (if it is required on multiple occasions). However, we note that even if a retailer's customer numbers significantly change, the impact of our lagged estimate for these costs on the total VDO price will be small. We use publicly available data from AEMO.

### **Essential Services Commission licence fees**

Electricity retailers are charged an annual licence fee to sell electricity to Victorian consumers. Licence fees are based on the costs incurred by the commission in performing its regulatory functions. The specific fee for each retailer is contingent on the number of customers served by that retailer.

We propose to use a market wide average of all retailer licence fees in estimating the cost of a licence fee for the VDO. The latest available data on licence fees is from 2018-19 and this data has been used in the final decision.

### **Final decision – approach to estimating environmental costs**

Our approach to estimating these costs is as follows:

- LRET – the 2020 default RPP is multiplied by the futures market price for large-scale certificates.
- SRES – the mid-point of the 2020 non-binding STP and 2019 binding STP is multiplied by the clearing house price.
- VEU – the 2020 greenhouse reduction rate for electricity is multiplied by the historic 12-month average price for VEECs.

The LRET, SRES and VEU costs are multiplied by network loss factors.

- FiT (social cost of carbon) – total renewable exports in 2018-19 divided by average total domestic and small business customers in 2018-19, multiplied by the social cost of carbon (2.5 cents).

### **Final decision – approach to estimating other regulatory costs**

Our approach to estimating these costs is as follows:

- AEMO market fees – simple average of 2019-20 and 2020-21 estimates taken from the latest available publication.

- Ancillary fees – an average of the past 52 weeks (ending 27 October 2019) of ancillary service payments based on AEMO data.
- RERT – based on the latest historic estimates of charges released by AEMO, adjusted for inflation.
- ESC licence fees – market wide average of fees paid in 2018-19, adjusted for inflation.

### 3.4. Retail operating costs

Retail operating costs reflect a range of costs incurred by an electricity retailer in conducting its business, including: billing and revenue collection systems, information technology systems, call centre costs, corporate overheads, energy trading costs, provision for bad and doubtful debts, and regulatory compliance costs.

Clause 12(4)(d) of the order requires that we have regard to retail operating costs, including a modest allowance for customer acquisition and retention costs, as an element in developing the efficient costs of the sale of electricity by a retailer. We address customer acquisition and retention costs in section 3.5.

#### Our draft decision on estimating retail operating costs

Our draft decision estimated retail operating costs based on a benchmarking approach. This approach adopted the benchmark from the ICRC's 2017 price determination for retail electricity prices in the ACT (adjusted for inflation), which was increased by \$10 to account for Victorian specific costs, noting that this additional increase may reduce over time.<sup>89</sup>

Our draft decision noted that information we receive from electricity retailers in response to our cost data information request will provide a cross-check of this benchmark and inform the retail operating cost benchmark we adopt for our final decision.

#### Stakeholder feedback to our draft decision on retail operating costs

Most stakeholder feedback related to the level of the retail operating cost allowance rather than the benchmarking methodology.

The Consumer Action Law Centre submitted that the benchmark value from our draft advice to government for the VDO applying 1 July 2019 was more appropriate than the selected benchmark, as the increase could not be scrutinised to ensure it reflected efficient costs.<sup>90</sup> Tango and 1st Energy submitted that the benchmark value does not reflect Victoria's mature competitive market, that the benchmark was biased towards large retailers with strong economies of scale, and that

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<sup>89</sup> Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft Decision, 20 September, p. 39.

<sup>90</sup> Consumer Action Law Centre, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, pp. 5-6.

benchmarks based on the submitted Victorian retailer data should be used instead of the benchmark proposed in the draft decision.<sup>91</sup>

A number of retailer submissions suggested that the benchmark does not account for recent regulatory and structural market changes. Momentum Energy, Simply Energy, amaysim, Origin Energy, Alinta and the Australian Energy Council submitted that the retail operating cost allowance in the draft decision did not adequately cover the cost of regulatory reform.<sup>92</sup> Among the regulatory and structural market issues highlighted:

- Five-minute settlement costs are being incurred by retailers but not reflected in the benchmark value.<sup>93</sup>
- There is no explicit allowance for the Retailer Reliability Obligation (RRO).<sup>94</sup>
- Bad debt is likely to increase with the implementation of the payment difficulties framework.<sup>95</sup>

### **Our final decision on estimating retail operating costs**

Consistent with our draft decision, our final decision is to make an allowance for retail operating costs based on a benchmark from a recent regulatory decision made by the ICRC in their 2017 price determination.<sup>96</sup> This benchmark is adjusted for inflation and includes an allowance to reflect additional costs associated with operating in Victoria as described in our draft decision.<sup>97</sup>

We believe that this approach meets the requirements of the order and has regard for clause 12(4)(f) of the order which states that in considering efficient costs, we may consider any other costs, matters or things the Commission, in the exercise of its discretion, believe are appropriate or

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<sup>91</sup> Tango, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 5; and 1st Energy, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, pp. 2-3.

<sup>92</sup> See, for example, Momentum Energy, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, pp. 2-3; and Australian Energy Council, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 2.

<sup>93</sup> Red and Lumo Energy, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 6.

<sup>94</sup> Alinta, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 6.

<sup>95</sup> 1st Energy, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 3.

<sup>96</sup> ICRC, Final report: Standing offer prices for the supply of electricity to small customers from 1 July 2017, June 2017, p. 48. This benchmark is originally derived from IPART, which undertook a comprehensive review of retail operating costs in 2013, reporting an allowance of \$110 per customer in 2012–13 prices. The IPART benchmark has also been historically adopted in regulated prices in Queensland and Tasmania.

<sup>97</sup> Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft Decision, September 2019, p. 40.

relevant. We also note that clause 12(8) of the order does not require us to make an allowance based on the actual costs of a retailer.

Nonetheless, we have cross-checked the benchmark approach with the responses to the cost data information request issued to Victorian electricity retailers in September 2019. Based on our analysis of the submitted data we believe that the benchmark allowance we have set represents an efficient allowance for retail operating costs for retailers of different sizes. We have not received evidence to suggest that this benchmark is not relevant for the retail electricity sector in Victoria. Moreover, it is unclear why it would be reasonable to make a higher allowance for particular retailers that have higher costs.

In addition, some retailer submissions commented on likely changes in costs. However, our consideration of the cost data submitted by retailers and the evidence available on these costs does not cause us to change our view that the benchmark allowance represents an efficient allowance. It is also unclear that the costs associated with five-minute settlements and the RRO are particularly relevant for the first VDO regulatory period. They will also apply across the whole market, rather than applying specifically to Victoria. As we have noted previously, we believe the introduction of the payment difficulty framework should assist in reducing bad debt as customers are better able to manage their energy costs. In considering an allowance for efficient retail operating costs, we see no reason why retailers would not respond to offset any changing costs by finding efficiencies in other areas of their business. On this basis we do not propose to increase the allowance.

In adopting this approach for our final decision, we have had regard to efficiency and incentives for long-term investment, the cost data submissions received, and the financial viability of the industry. A benchmark approach provides incentives for retailers to pursue efficiencies because they may profit from those efficiencies.

#### **Final decision – approach to estimating retail operating costs**

The commission has made an allowance for retail operating costs based on a benchmarking approach using a 2017 regulatory decision by the Independent Competition and Regulatory Commission (adjusted for inflation), including an adjustment for additional regulatory costs.

### 3.5. Customer acquisition and retention costs

The order requires us to include a modest allowance for customer acquisition and retention costs in making our VDO price determination. Our allowance reflects the costs of competing for customers in a contestable retail market. These costs include the cost of acquisition channels (such as third-party comparison websites and service providers, telemarketing or door-to-door sales), the cost of retention teams, and marketing costs targeted at driving customer acquisition or retention.

#### Our draft decision on estimating customer acquisition and retention costs

Our draft decision used a benchmarking approach to determine a modest allowance for customer acquisition and retention costs as required by the order. In this benchmarking approach, we considered cost levels from recent regulatory determinations, findings from the Australian Competition and Consumer Commission's (ACCC) Retail Electricity Pricing Inquiry final report, information from retailers on their reported costs, submissions to the issues paper, and our previous advice to government.

The allowance made for our draft decision was derived from ACCC inquiry final report data from 2013-14 on the basis that it is the most robust data currently available that also limits the impact of the increased spending on customer acquisition and retention costs that had been observed across most Australian jurisdictions in the past five years.<sup>98</sup>

#### Stakeholder feedback to our draft decision on customer acquisition and retention costs

The majority of feedback came from retailers and related to the level of the allowance, rather than the benchmarking approach itself.

A number of retailers submitted that the allowance was not reflective of actual retailer costs. Powershop and MEA Group, and 1st Energy submitted that the benchmark value is out of date and not appropriate for the current retail environment and that the commission should consider data collected from retailers.<sup>99</sup> Tango submitted that the level reflected tier 1 retailer costs and particularly acquisition costs, but it should reflect that of other retailers to avoid harming retail competition.<sup>100</sup> Red and Lumo Energy submitted that evidence considered in the draft decision

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<sup>98</sup>Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft Decision, 20 September, p. 43.

<sup>99</sup> Powershop and MEA Group submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 5; and 1st Energy submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 3.

<sup>100</sup> Tango, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 6.



relating to increasing expenditure during periods of stagnant switching rates did not include customers switching offers within retailers, for example from a standing to a market offer. On this basis, Red and Lumo Energy considered that the allowance should be closer to the amounts reported by retailers.<sup>101</sup>

A number of submissions related to the use of actual retailer costs collected from the data request to Victorian electricity retailers in September 2019. The Australian Energy Council suggested that the level of customer acquisition and retention costs should at least be maintained at the inflation-adjusted 2019 level, although the commission should consider cost data received from retailers.<sup>102</sup>

The Consumer Action Law Centre suggested the commission should lower the benchmark from the draft decision, and signal that it will continue reducing over time on the basis that these costs are not efficient or likely to be incurred by disengaged households.<sup>103</sup>

### **Our final decision on estimating customer acquisition and retention costs**

In coming to our final decision, we have considered submissions from stakeholders, the economic basis and justification for customer acquisition and retention costs, retailer cost data submissions, and the requirements of the order.

Based on feedback to our draft decision and issues paper, the benchmark approach appears to be relatively well accepted by stakeholders, with most feedback focused on the level of the benchmark.

As several submissions recommended, we have used the cost data submitted by Victorian electricity retailers as a cross-check against the allowance in the draft decision. However, we do note that the order does not require the VDO to be based on actual retailer costs. At a high level we would note that the allowance made in the draft decision is on the lower end of the range of cost data submitted, but still falls comfortably within the range of reported retailer costs. This provides us with confidence that the allowance made represents a realistic ‘modest’ allowance for customer acquisition and retention costs. We have continued using a benchmarking approach for this final decision, consistent with the methodology in our draft decision and the current VDO in effect from 1 July 2019.

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<sup>101</sup> Red and Lumo Energy, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 5.

<sup>102</sup> Australian Energy Council submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 2.

<sup>103</sup> Consumer Action Law Centre, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, pp. 3-5.

Our approach to estimating an allowance is based on a publicly available benchmark, as it is transparent and based on approaches taken by retailers in contestable markets. Our approach to benchmarking considers:

- the allowance made in a range of regulatory decisions in other jurisdictions
- the findings of the ACCC inquiry final report, and
- information from retailers on their reported costs.

We also considered feedback received from stakeholders and advice from Frontier Economics, who we previously engaged to analyse allowances for customer acquisition and retention costs as part of advice to government on the VDO to apply from 1 July 2019.

Our final decision for a modest allowance for customer acquisition and retention costs is based on the NEM-wide average for 2013-14 (adjusted for inflation) from the ACCC inquiry final report.<sup>104</sup> This decision is made on the basis that the 2013-14 data is the most robust data currently available that also limits the impact of the increased expenditure observed in Victoria and across the NEM in recent years.

#### **Final decision – approach to estimating customer acquisition and retention costs**

The commission has made an allowance for customer acquisition and retention costs based on a benchmarking approach using inquiry analysis by the Australian Competition and Consumer Commission (adjusted for inflation).

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<sup>104</sup> ACCC, Retail Electricity Pricing Inquiry – Final Report, July 2018, p. 222.

### 3.6. Retail operating margin

The order requires that in making a VDO price determination we have regard to retail operating margin.<sup>105</sup> Retail operating margin represents the operating profit margin required to compensate investors for the capital provided to operate a retail service. It should be sufficient to cover the cost of capital, and the systematic (non-diversifiable) risk associated with investment.<sup>106</sup> The retail operating margin is expressed as a percentage of the cost stack.<sup>107</sup> The order notes it is important that risks accounted for in other components of the cost stack (such as wholesale electricity market risk) are not included in the retail operating margin<sup>108</sup>, and that the commission is not required to base retail operating margins on actual retailer operating margins.<sup>109</sup>

Our final advice on the VDO price to apply from 1 July 2019 used a benchmarking approach based on recent decisions by Australian energy regulators to estimate retail operating margin. This was comparable to, and within the feasible range of the margin estimated by Frontier Economics using the expected returns approach.

#### Our draft decision on estimating retail operating margin

Our draft decision on the retail operating margin proposed the use of a benchmark approach based on recent decisions by Australian energy regulators. In response to feedback from some retailers to our issues paper, our draft decision noted that many of the risks and costs used to suggest an increase in the retail operating margin are accounted for in individual components of the cost stack to which they relate. Wholesale market risks are accounted for in the wholesale market cost component, the costs of regulatory obligations are accounted for in retail operating costs or other costs, and customer acquisition and retention costs have its own cost component.

#### Stakeholder feedback to our draft decision on retail operating margin

Few submissions directly addressed the retail operating margin. Origin Energy echoed its submission on the issues paper that the retail operating margin should be adopted from the higher

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<sup>105</sup> Clause 12(4)(e) of the order.

<sup>106</sup> Non-diversifiable risks are considered to be unavoidable and are typically attributable to market factors that affect all firms.

<sup>107</sup> The retail margin represents the return that an electricity retailer requires, over and above its costs, in order to attract the capital needed to provide a retailing service. The term margin is used as an estimate of profit (EBITDA) divided by sales. Holding the percentage EBITDA margin constant means that if energy, network and operating costs rise over time, the dollar margin will also rise, reflecting an increase in the required capital in dollar terms.

<sup>108</sup> Clause 12(7) of the order notes that in determining retail operating margin we must have regard to the principle that the margin must not compensate retailers for risks that are compensated elsewhere in the costs.

<sup>109</sup> Clause 12(9) of the order.

end of the observed ranges on account of increased market and regulatory risk.<sup>110</sup> Consistent with their submission to our issues paper, the Consumer Action Law Centre stated that a value at the low end of the observed range, or independent modelling should set the level of the retail operating margin.<sup>111</sup>

### **Our final decision on estimating retail operating margin**

Our final decision on the retail operating margin is to maintain the approach proposed in the draft decision, continuing to use a benchmark approach based on recent decisions by Australian energy regulators.

We note submissions on the draft decision paper reiterating positions that the level of the retail operating margin should be increased or decreased. However, we have received no new information that has caused us to reconsider the position adopted in the draft decision. We consider that the risks and costs identified are adequately accounted for in the individual components of the cost stack to which they relate.

We may monitor suggestions that the retail operating margin for the VDO will have detrimental impacts on competition and customer service through our new workstream to review the competitiveness and efficiency of the market. However, we note that the methodology and selection of the retail operating margin is consistent with the order, having had regard to other interstate benchmarks.

#### **Final decision – approach to estimating a retail operating margin**

The commission has made an allowance for a retail operating margin based on a benchmarking approach using recent regulatory decisions by Australian regulators.

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<sup>110</sup> Origin Energy submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 6.

<sup>111</sup> Consumer Action Law Centre submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 6.

## 4. Calculating the Victorian Default Offer price for flat standing offer tariffs

In this chapter, we discuss our proposed method to calculate the VDO flat standing offer tariffs based on our approach to estimating efficient costs outlined in chapter 3. Our discussion covers how we allocate costs to the fixed and variable components of flat standing offer tariffs (and controlled load for domestic customers).<sup>112</sup> Our price determination must also regulate standing offer tariffs for non-flat standing offer tariffs. This is addressed in the following chapter on our approach to the maximum annual bill for non-flat standing offer customers.

### 4.1. VDO tariff structure and cost allocation

We need to allocate the costs discussed in chapter 3 to the daily supply charge and the per kilowatt hour consumption charge in order to calculate the flat standing offer tariffs as part of our VDO price determination. We intend to follow the method proposed in our draft decision paper and remain consistent with our final advice to government for the VDO applied from 1 July 2019.

Under this approach, we align the VDO tariff structure with the underlying network tariff in each distribution zone. As such, the VDO flat standing offer tariff is comprised of a daily supply charge and a flat, anytime usage charge per kilowatt hour (in AusNet Services zone this is a specific rate for the first 1,020 kWh in a quarterly period and another rate for any further electricity consumed in that quarter).

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<sup>112</sup> Clause 10(2)(a)(i) of the order requires that in the first regulatory period the commission must determine the standing offer tariffs that are to apply in respect of flat tariffs, including, in the case of domestic customers, both flat tariffs and flat tariffs with a controlled load tariff.

## Feedback from stakeholders

We did not receive substantial feedback on the tariff structure of the VDO flat standing offer tariff in submissions to our draft decision paper. However, responses to our July issues paper largely expressed support for our intended approach to the VDO tariff structure and cost allocation.<sup>113</sup>

A number of submissions included feedback on setting tariffs for non-flat standing offers in relation to the VDO compliant maximum annual bill, these responses are addressed in chapter 5.

## Our final decision for tariff structure and cost allocation

Considering the responses to our issues paper and draft decision, we have set the VDO flat tariff structure as a daily supply charge and a flat, anytime usage charge aligned with the underlying network tariff for each distribution zone. This also includes a controlled load rate for domestic customers.

We are guided by the objectives of the order, which states the VDO is to provide a simple, trusted and reasonably priced option for customers unable or unwilling to engage in the market.

In accordance with the order, from 1 January 2020 our price determination must set VDO tariffs in each distribution zone that apply in respect of:

- flat tariffs, and
- flat tariffs with a controlled load (in the case of domestic customers).

This approach is consistent with our final advice to government for the VDO tariffs applied from 1 July 2019.

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<sup>113</sup> See for example; AGL, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Issues Paper, August 2019, p.6; Simply Energy, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Issues Paper, August 2019, p.3; Alinta, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Issues Paper, August 2019, p.3; and Australian Energy Council, submission to the Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Issues Paper, August 2019, p.3.

As with our approach to tariff structure, after considering stakeholder feedback to our issues paper and draft decision we have allocated fixed costs to the daily supply charge and costs that vary with electricity consumption to the usage charge.

This approach provides a simple and logical way to allocate costs within the VDO tariff structure and is consistent with our final advice to government for the VDO tariffs applied from 1 July 2019. We believe this approach ensures the tariffs we determine meet the requirement to be based on the efficient costs for the sale of electricity by the retailer.

**Daily supply charge (fixed costs) =**

[ (*retail operating costs*) + (*customer acquisition and retention costs*) + (*fixed network costs*)  
+ (*FiT social cost of carbon*) + (*per customer other costs*) ]

*X*

(1 + *retail operating margin*)

**Usage charge (variable costs) =**

[ (*wholesale electricity costs*) + (*environmental program costs*) + (*per kWh other costs*)  
+ (*electricity network losses*) + (*variable network costs*) ]

*X*

(1 + *retail operating margin*)

## 4.2. Calculating the cost stack components

### Wholesale electricity costs

Distribution zone	Domestic		Small business	
	Energy purchase cost (\$/MWh nominal)	Volatility allowance (\$/MWh nominal)	Energy purchase cost (\$/MWh nominal)	Volatility allowance (\$/MWh nominal)
AusNet Services	\$121.33	\$0.27	\$112.38	\$0.19
CitiPower	\$118.11	\$0.29	\$115.32	\$0.23
Jemena	\$126.28	\$0.36	\$114.85	\$0.28
Powercor	\$119.20	\$0.32	\$110.22	\$0.19
United Energy	\$127.27	\$0.36	\$116.94	\$0.30

Table 3 Wholesale electricity purchase cost forecasts for 2020 (GST exclusive)

Source: Frontier Economics, Wholesale electricity costs for 2020: a report for the Essential Services Commission, 4 November 2019, p. 42, 49.

### Network losses

Distribution zone	Distribution loss factor (DLF)	Marginal loss factor (MLF)	Total loss factor
AusNet Services	1.0583	0.9950	5.30%
CitiPower	1.0474	0.9975	4.48%
Jemena	1.0418	0.9984	4.01%
Powercor	1.0682	0.9795	4.63%
United Energy	1.0570	0.9959	5.26%

Table 4 Network losses<sup>114</sup>

Source: AEMO

<sup>114</sup> Please note, total loss factors may not reconcile due to rounding.



## Network costs

Distribution zone	Daily charge (\$ per year)	Variable charge structure	Variable charge (\$ per kWh)	Controlled load (\$ per kWh)
AusNet Services	\$118.00	Block 1	\$0.1136	\$0.0415
		Block 2	\$0.1308	
CitiPower	\$95.00	Anytime	\$0.0706	\$0.0223
Jemena	\$59.18	Anytime	\$0.0858	\$0.0257
Powercor	\$140.00	Anytime	\$0.0798	\$0.0256
United Energy	\$47.19	Anytime	\$0.0949	\$0.0223

Table 5 Domestic electricity network charges, 2020 (GST exclusive)

Source: Victorian distribution businesses' 2020 tariffs approved by the AER

Distribution zone	Daily charge (\$ per year)	Variable charge structure	Variable charge (\$ per kWh)
AusNet Services	\$118.00	Block 1	\$0.1519
		Block 2	\$0.1852
CitiPower	\$160.00	Anytime	\$0.0864
Jemena	\$102.51	Anytime	\$0.1078
Powercor	\$180.00	Anytime	\$0.0875
United Energy	\$66.83	Anytime	\$0.1125

Table 6 Small business electricity network charges, 2020 (GST exclusive)

Source: Victorian distribution businesses' 2020 tariffs approved by the AER

## 4. Calculating the Victorian Default Offer price

Distribution zone	Annual metering charge (\$ per customer)
AusNet Services	\$51.40
CitiPower	\$71.30
Jemena	\$79.64
Powercor	\$67.30
United Energy	\$54.23

Table 7 Network metering charges, 2020 (GST exclusive)

Source: Victorian distribution businesses' 2020 tariffs approved by the AER

## Environmental scheme costs

### Large-scale Renewable Energy Target (LRET) costs

Under the LRET scheme, the liability percentage is called the Renewable Power Percentage (RPP). The Clean Energy Regulator (CER) set the RPP for 2019 at 18.6 per cent.<sup>115</sup> Using the 2019 RPP to apply the CER's default calculation, Frontier Economics has calculated an RPP for 2020 of 20.15 per cent.<sup>116</sup> Frontier Economics has calculated the cost of complying with the LRET by way of the 12-month trade weighted average of market prices for certificates under this scheme (LGCs) as reported by Demand Manager.<sup>117</sup>

### Small-scale Renewable Energy Scheme (SRES) costs

The liability percentage under the SRES scheme is called the Small-Scale Technology Percentage (STP). In October, the CER announced the binding STP for 2020 is expected to be higher than their non-binding STP forecast for 2020 liability. Because of this, we have increased the liability applied for this item by taking a mid-point between the non-binding 2020 STP forecast (14.56 per cent) and the current binding STP for 2019 (21.73 per cent). This results in a liability of 18.15 per cent.

Historically, spot prices for certificates under the SRES have been at or close to the clearing house price of \$40. For this reason, we have applied a market price of \$40.<sup>118</sup>

### Victorian Energy Upgrades (VEU) costs

For the cost of complying with the VEU scheme, we use the relevant greenhouse reduction rate for electricity of the reference price year being assessed. For the 2020 compliance year, the reduction rate is 0.17255.<sup>119</sup>

The cost of certificates under the VEU scheme (VEECs) is gathered from historic market prices. Based on currently available information, we estimate an average price of \$20.57 per certificate for 2020.

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<sup>115</sup> Clean Energy Regulator, Renewable Power Percentage, accessed 7 November 2019, <http://www.cleanenergyregulator.gov.au/RET/Scheme-participants-and-industry/the-renewable-power-percentage>

<sup>116</sup> Frontier Economics, Wholesale electricity costs for 2020: a report for the Essential Services Commission, 4 November 2019, p. 53.

<sup>117</sup> Demand Manager, <http://www.demandmanager.com.au/>. Accessed 25 October 2019

<sup>118</sup> Frontier Economics, Wholesale electricity costs for 2020: a report for the Essential Services Commission, 4 November 2019, p. 54.

<sup>119</sup> Essential Services Commission, 'Participating in the program', accessed 7 November 2019, <https://www.esc.vic.gov.au/victorian-energy-upgrades-program/participating-veu-program/energy-retailers-veu-program>

## 4. Calculating the Victorian Default Offer price

## Cost of complying with environmental schemes

Environmental scheme	Certificate price	Scheme liability	Cost (\$/MWh)
LRET	\$43.30	20.15%	<b>\$8.73</b>
SRES	\$40.00	18.15%	<b>\$7.26</b>
VEU	\$20.57	17.26%	<b>\$3.55</b>

Table 8 Environmental program costs for 2020 (GST exclusive)

Source: Frontier Economics, Wholesale electricity costs for 2020: a report for the Essential Services Commission, 4 November 2019, pp. 53-55.

## Retail operating costs

Our approach to benchmarking retail costs and margin is described in chapter 3. Retail costs and margin do not differ across distribution zones.

### Retail costs

Based on our analysis in sections 3.4 and 3.5, we have selected an allowance of approximately \$136 for retail operating costs and \$38 for customer acquisition and retention costs (see table 9).

### Retail margin

Based on our analysis in section 3.6, we have allowed a retail margin of 5.7 per cent.<sup>120</sup>

Retail costs and margin	Annual allowance
Retail operating costs	\$136.21
Customer acquisition and retention costs	\$38.20
Retail operating margin	5.7%

Table 9 Retail costs and margin (GST exclusive)

<sup>120</sup> Please note, our calculation applies 6.04% to each of the cost stack elements in order to derive a retail margin equivalent to 5.7% of the VDO cost stack. Essential Services Commission 2019, Victorian Default Offer to apply from 1 July 2019: Advice to Victorian Government, 3 May 2019, p. 121.

## 4. Calculating the Victorian Default Offer price

## Other costs

Retailers incur other costs through fees or market operations and ancillary services. Most of our information about these costs has been gathered from AEMO's Budget and Fees report for 2019-20. We have estimated the ESC licence fee cost using the licence fees set by the Assistant Treasurer for the period 2018-19. We have forecast the cost of fees for ancillary services by taking a 12-month average of the weekly amounts AEMO recovered from market participants as part of the settlement process.<sup>121</sup> The avoided cost of feed in tariffs that we assume retailers recover from customers is based on the social cost of carbon and the volume of small-scale renewable exports in 2018-19 (as discussed in section 3.3).

Charge	Rate (GST excl.)
AEMO	
NEM market fees	\$0.53/MWh
Full retail contestability <sup>122</sup>	\$0.08/MWh
National Transmission Planner	\$0.03/MWh
Energy Consumers Australia	\$0.57/customer
Ancillary services	\$0.39/MWh
RERT	\$3.24/customer
ESC licence fee	\$0.98/customer
Feed-in Tariff (social cost of carbon)	\$8.39/customer
<b>Total per MWh</b>	<b>\$1.03/MWh</b>
<b>Total per customer</b>	<b>\$13.17/customer</b>

Table 10 Other costs (GST exclusive). Note, figures may not sum due to rounding.

<sup>121</sup> AEMO, Ancillary Services Payments and Recovery, accessed 1 November 2019. <https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Data/Ancillary-Services/Ancillary-Services-Payments-and-Recovery>

<sup>122</sup> We have calculated this fee on a per MWh basis for consistency with our draft decision.

## 4. Calculating the Victorian Default Offer price

### 4.3. Deriving the VDO tariffs

For each distribution zone we have calculated the flat VDO tariffs that will apply for domestic and small business customers.

Tables 11 and 12 below set out the VDO rates for each category of customer expressed in GST inclusive terms.

Distribution zone	Supply charge (\$ per day)	Usage charge structure	Usage charge (\$ per kWh)	Controlled load (\$ per kWh)
AusNet Services	\$1.1408	Block 1 (up to 1020kWh used in a quarterly period) Block 2 (balance of usage in a quarterly period)	\$0.3072 \$0.3272	\$0.2230
CitiPower	\$1.1309	Anytime	\$0.2517	\$0.1954
Jemena	\$1.0431	Anytime	\$0.2787	\$0.2086
Powercor	\$1.2619	Anytime	\$0.2640	\$0.2008
United Energy	\$0.9236	Anytime	\$0.2927	\$0.2080

Table 11 Flat VDO tariffs for domestic customers

Distribution zone	Supply charge (\$ per day)	Usage charge structure	Usage charge (\$ per kWh)	Controlled load (\$ per kWh)
AusNet Services	\$1.1408	Block 1 (up to 1020kWh used in a quarterly period) Block 2 (balance of usage in a quarterly period)	\$0.3407 \$0.3795	Not applicable
CitiPower	\$1.3386	Anytime	\$0.2667	Not applicable
Jemena	\$1.1816	Anytime	\$0.2904	Not applicable
Powercor	\$1.3898	Anytime	\$0.2619	Not applicable
United Energy	\$0.9863	Anytime	\$0.3004	Not applicable

Table 12 Flat VDO tariffs for small business customers

#### 4. Calculating the Victorian Default Offer price

## 4.4. Comparison to the current Victorian Default Offer tariffs

### Cost components that have increased

Although a number of components the cost stack have increased, wholesale electricity prices and network costs are the main drivers of change in the VDO to apply from 1 January 2020. This is because these two components make up approximately 70-75 per cent of the overall VDO cost stack.

### Wholesale electricity prices

This component of the VDO is based on market expectations of wholesale electricity prices in 2020 based on futures market contract prices. The increase in the component reflects changing expectations in the market for electricity prices next year. While there is no single factor responsible for price increases, we have considered a range of supply and demand factors that are likely to influence future prices in an effort to understand reasons for the significant increase.

Firstly, outages at the Loy Yang A and Mortlake power stations in Victoria have led AEMO to declare risk of shortfall for Victorian customers.<sup>123</sup> Although these outages are scheduled to be resolved by late December 2019<sup>124</sup>, any possible delay in these units returning to service could create tight supply conditions, particularly in peak demand periods during summer. Further, we note that Loy Yang A has experienced several less significant outages on other units recently.<sup>125</sup>

Secondly, drought conditions in eastern Australia have affected hydro storage levels.<sup>126</sup> Hydro generators are an important supplier of cap contracts, and it is possible that lower dam storage levels could reduce output over summer and therefore the contracts available. The impact of the drought on hydro supply has been highlighted by AEMO, noting that it had an impact on prices in the third quarter of 2019.<sup>127</sup>

Finally, the summer of 2018-19 saw extended periods of extreme prices in Victoria and South Australia due to weather and demand, which substantially increased average prices and the implied cap contract values in that quarter. Over the past year, there have not been substantial

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<sup>123</sup> AEMO, Electricity Statement of Opportunities 2019, August, pp. 3, 75-76.

<sup>124</sup> See for example, [https://www.originenergy.com.au/about/investors-media/media-centre/statement\\_on\\_mortlake\\_power\\_station.html](https://www.originenergy.com.au/about/investors-media/media-centre/statement_on_mortlake_power_station.html)

<https://www.agl.com.au/about-agl/media-centre/asx-and-media-releases/2019/july/repairs-underway-to-bring-loy-yang-unit-2-back-to-service>

<sup>125</sup> See for example, <https://www.afr.com/companies/energy/agl-hit-by-further-outages-at-loy-yang-20190918-p52sn4>

<sup>126</sup> See for example, <https://www.snowyhydro.com.au/our-energy/water/storages/lake-levels-calculator/>

<sup>127</sup> AEMO, Quarterly Energy Dynamics Q3 2019, November 2019, p. 14.

changes in terms of supply and demand conditions particularly at times of peak demand as evidenced in AEMO's 2019 Electricity Statement of Opportunities. A new gas-fired power station in South Australia is operational, although relatively small at 210MW<sup>128</sup>, and a number of new wind and solar farms have been commissioned throughout the year, in combination with record residential rooftop PV installations, particularly in Victoria.<sup>129</sup> Longer-term weather forecasts for this summer are similar to last year.<sup>130</sup>

The combination of these factors results in a scenario where tight supply conditions are expected in the summer of 2020, with flow-on impacts for wholesale prices.

### **Network costs**

On 11 November 2019, the AER announced their approval of network distribution businesses' tariffs for 2020. These tariffs have increased from the previous year, primarily driven by two factors. The main factor is rising transmission costs driven by rising Victorian land taxes and more power travelling long distances from interstate.<sup>131</sup> Other factors increasing tariffs vary between distribution businesses, largely reflecting the recovery of revenue not collected in previous years.

The majority of other costs that have increased are either due to indexation to inflation or other minor changes in market conditions. The full detail of the impact of all cost components on the average bill for a typical domestic and small business customer are found in table 14.

### **Cost components that have decreased**

Costs associated with environmental programs have decreased overall. This is due to lower prices forecast for certificates generated under the LRET scheme in 2020, and a lower liability for the SRES scheme anticipated next year.

For the first time since 2015, the supply of large-scale generation certificates is approximately equal to the statutory requirement for the LRET scheme in 2019. Having enough certificates to meet this requirement has reduced certificate demand and in turn their price.<sup>132</sup>

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<sup>128</sup> For example, see <https://www.dailytelegraph.com.au/news/agls-barker-inlet-gas-power-station-on-torrens-island-begins-operation-set-to-lower-prices/news-story/2a5ebc82f9c6205dc5c5694bc61487f8>

<sup>129</sup> For example, see AEMO historical forecasts at <http://forecasting.aemo.com.au/>

<sup>130</sup> For more detail see <http://www.bom.gov.au/climate/ahead/outlooks/archive.shtml>

<sup>131</sup> See <https://www.aer.gov.au/news-release/aer-approves-victorian-electricity-network-charges-for-2020>

<sup>132</sup> Clean Energy Regulator, Large scale generation certificate update, March 2019 <http://www.cleanenergyregulator.gov.au/RET/Pages/About%20the%20Renewable%20Energy%20Target/How%20the%20Scheme%20works/Large-scale%20generation%20certificate%20market%20update%20by%20month/Large-scale-generation-certificate-market-update---February-2019.aspx>

## 4. Calculating the Victorian Default Offer price



In March, the CER forecast a non-binding liability for the SRES scheme in 2020 of 14.56 per cent. Although they have since confirmed they expect the binding liability for next year to be higher than this, it is not yet certain whether this will be as high as the current binding liability for 2019.<sup>133</sup> To address this, we have taken the mid-point value between the binding 2019 and non-binding 2020 liabilities, resulting in a liability of 18.15 per cent. Because of this, the expected cost of meeting the SRES is lower for 2020.

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<sup>133</sup> Clean Energy Regulator, current market observations, accessed 7 November 2019.  
<http://www.cleanenergyregulator.gov.au/RET/Pages/News%20and%20updates/NewsItem.aspx?ListId=19b4efbb-6f5d-4637-94c4-121c1f96f96f&ItemId=698>

Component	Contribution to change for domestic customer		Contribution to change for small business customer	
	\$	%	\$	%
Wholesale	\$70	5%	\$295	5%
Network	\$36	2.5%	\$180	3%
Environmental	-\$16	-1.2%	-\$82	-1.4%
Other	\$3	0.2%	\$4	0.06%
Retail operating	\$2	0.2%	\$2	0.04%
Customer acquisition and	\$0.20	0.01%	\$0.20	0.003%
Retail margin	\$6	0.4%	\$24	0.4%
GST	\$10	0.7%	\$42	0.7%
Average total VDO bill change	\$110	7.8%	\$465	7.8%

Table 14 Contribution to the average change in cost components of the VDO between 2019 and 2020 for a typical annual bill (nominal, GST incl)

Note: these estimates represent the change in an annual bill based on the flat tariff VDO from 1 July 2019 and the VDO to apply from 1 January 2020, averaged across the five distribution zones for a typical domestic customer (consuming 4,000 kWh) and small business customer (consuming 20,000 kWh). Numbers may not sum due to rounding.

#### 4. Calculating the Victorian Default Offer price

## 4.5. Variation of a VDO price determination

The order provides that before or during a regulatory period, the commission may, on its own initiative, vary a VDO price determination in respect of the regulatory period.<sup>134</sup> However, we must specify, in the VDO price determination, the circumstances under which we will consider, and the basis in which we will decide on a proposed variation. We must also specify the processes to be followed to enable us making such a variation. We may vary a VDO price determination:

- if an event has occurred or will occur that was sufficiently uncertain or unforeseen by the commission at the time of making the VDO price determination; or
- to correct a clerical error, miscalculation, misdescription or other deficiency.

### Our draft decision approach to variations to a price determination

Our draft decision sought stakeholder feedback on the commission's proposed approach to a variation to a VDO price determination. We proposed that the circumstances in which a variation may be required will be limited to extraordinary events that have a significant impact on the benchmark costs of delivering electricity retail services. We noted our intention to monitor the retail electricity market with regard to specific events, as well as general trends that may impact the cost of retail supply. Additionally, we observed that in most cases, any variation to a price determination would involve consultation in accordance with our stakeholder engagement framework.<sup>135</sup>

### Submissions to our draft decision

We received limited feedback from stakeholders in relation to our draft decision for varying a price determination. In general there were no new issues that were not previously raised in response to our issues paper.

### Final decision on our approach to variations of a price determination

The VDO price decision will apply for a 12-month period from 1 January 2020. Consistent with our draft decision we note the circumstances in which a variation may be required will be limited to extraordinary events that have a significant impact on the benchmark of efficient costs of delivering

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<sup>134</sup> Clause 13(1) of the order.

<sup>135</sup> Clause 13(5) of the order notes that we are not required to consult with stakeholders where the variation is not sufficiently material to warrant consultation in accordance with clause 14 of the order; or the need for the variation is sufficiently urgent to warrant consultation in accordance with clause 14 of the order not being undertaken.

Clause 13(6) notes that where a retailer is (or will be) required to vary standing offer tariffs, the commission must ensure the retailer is given adequate notice before the variation to the VDO price determination takes effect.

electricity retail services. This is consistent with the approach we take in other sectors and by other regulators in Australia.<sup>136</sup>

We have provided a mechanism for making a variation to the VDO price determination if an event has occurred that:

- was sufficiently uncertain or unforeseen at the time of making the price determination – such as an exogenous shock<sup>137</sup>, and
- is sufficiently material to impact on the benchmark established for the efficient costs of supply of an electricity retail service.

It is our intention to monitor the retail electricity market with regard to specific events, as well as general trends that may impact the efficient cost of retail supply.

In considering a proposed variation, amongst other matters, we will consider the objectives of the VDO as set out in the order, and the ESC<sup>138</sup> and EI Acts. As part of this assessment, we would consider:

- the impact (positive or negative) on efficient costs
- the capacity of retailers to manage the impact until the commencement of the next regulatory period
- the timing and duration of the event, noting the general principle that events occurring later in the regulatory period are less likely to cause the commission to vary its price determination as these events may be more efficiently dealt with in our price determination for the following regulatory period
- the costs and benefits to retailers and prescribed customers of a variation
- the objectives and requirements of the order, and
- any other matter that the commission considers relevant and appropriate.

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<sup>136</sup> For example, our 2018 water price reviews, while the ICRC only consider pass through events as part of their annual recalibration process. See ICRC, Final report: Standing offer prices for the supply of electricity to small customers from 1 July 2017, June 2017, p. 62.

<sup>137</sup> An exogenous shock here refers to an event that occurs outside the control of a retailer or the industry.

<sup>138</sup> Section 8A of the ESC Act requires we have regard to a number of matters, including the benefits and costs of regulation (including externalities and the gains from competition and efficiency) for consumers and users of products or services (including low income and vulnerable consumers), as well as the regulated entities.

#### 4. Calculating the Victorian Default Offer price

The order provides that the commission may decide the nature and extent of stakeholder consultation it will undertake when making a decision to vary a VDO price determination.<sup>139</sup> The commission is required to have regard to its Charter of Consultation and Regulatory Practice and in the event that the commission initiates a variation to the VDO determination, we would in most cases consult with stakeholders in accordance with our stakeholder engagement framework.<sup>140</sup> However, where the variation is not sufficiently material to warrant consultation, or the need for the variation is sufficiently urgent we may not consult with stakeholders.<sup>141</sup>

If the commission is satisfied that an event has occurred that meets the requirements outlined above, we may amend the price determination (adjusting prices) to give effect to the changes in costs faced by retailers.

### **Final decision – approach to varying a VDO price determination**

The commission has included a mechanism that provides for variations to the VDO price determination in the event of a material unforeseen change or error:

- was sufficiently uncertain or unforeseen at the time of making the price determination – such as an exogenous shock, and
- is sufficiently material to impact on the benchmark established for the efficient costs of supply of an electricity retail service.

We may also make a variation to a VDO price determination to correct a clerical error, miscalculation, misdescription or other deficiency.

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<sup>139</sup> Clause 14(1) of the order

<sup>140</sup> Clause 14(2) of the order.

<sup>141</sup> Clause 13(5) of the order.

## 5. VDO compliant maximum annual bill

The order requires us to determine the VDO compliant maximum annual bill that will apply to standing offers that are not flat tariffs or tariffs that comprise a combination of a flat tariff and a non-flat tariff.<sup>142</sup> Non-flat tariffs include time of use and flexible tariffs, or those that include demand charges.

The order requires the maximum bill must be based on<sup>143</sup>:

- the standing offer tariffs that the commission determines are to apply in respect of flat tariffs, and
- customer electricity usage.

### 5.1. Our draft decision for calculating the VDO compliant maximum annual bill

Our draft decision proposed to set the VDO compliant maximum annual bill based on the flat standing offer tariffs we determine, and a representative usage amount for the customer group.

- For domestic customers there would be five maximum annual bills (one for each distribution zone), calculated for a representative customer usage of 4,000 kWh per year.
- For small business customers there would be five maximum annual bills (one for each distribution zone), calculated for a representative customer usage of 20,000 kWh per year.

Our draft decision noted retailers must publish all standing offers for the regulatory period beginning 1 January 2020 (including the flat standing offers we determine) in the Government Gazette in the period 25 November to 18 December 2019.<sup>144</sup>

- If offering a flexible, five or seven-day time of use (or the 5-day time of day/9pm off peak in the United Energy zone) standing offer tariff, we proposed that a retailer must demonstrate those tariffs do not exceed the relevant VDO compliant maximum annual bill using the approach detailed in Schedule 3 of the order (based on the profile of customer usage reproduced in table 15 below).

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<sup>142</sup> Clause 10(2) of the order.

<sup>143</sup> Clause 12(5) of the order.

<sup>144</sup> Retailers are required to publish their standing offers to apply from 1 January 2020 in the period 25 November to 18 December 2019. This is set out in clause 2(b) of the Ministerial Order dated 22 May 2019, published in the Victorian Government Gazette No. S 208 on Thursday 30 May 2019.

- For any other non-flat standing offer tariff, we proposed that a retailer must demonstrate these tariffs do not exceed the relevant VDO maximum annual bill amount by using a representative profile of customer usage reflecting an estimated expectation of consumption for that group of customers in the 12-month period beginning 1 January 2020. We also proposed that this usage profile be submitted to the commission when the retailer publishes these standing offer tariffs in the Government Gazette.<sup>145</sup>

## 5.2. Feedback from stakeholders on our draft decision

Retailers generally preferred estimating a maximum bill at a single point of consumption from the options proposed.<sup>146</sup> Red and Lumo Energy supported the preferred approach as it allows retailers to set their own rates and manage their exposure to network costs.<sup>147</sup> The Australian Energy Council and amaysim submitted that of the options considered by the commission a single representative usage level was the most sensible approach.<sup>148</sup> On the other hand, the Consumer Action Law Centre preferred the approach outlined in our issues paper whereby charges are capped at the flat tariff rate for every point of consumption.<sup>149</sup> Our rationale for deciding on a maximum bill at a single point approach is discussed in depth in our draft decision.<sup>150</sup>

EnergyAustralia, Tango and Simply Energy noted their preference for an alternative proposal where the commission would prescribe the rates for all standing offer tariff types.<sup>151</sup> AGL, EnergyAustralia, Origin Energy, Simply Energy and Powershop and MEA Group raised this

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<sup>145</sup> Our draft decision noted that we may request the retailer submit the past 12 months of smart meter data for the customers on that particular standing offer tariff to review the appropriateness of assumptions and the possibility of overpayment.

<sup>146</sup> Red and Lumo Energy submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 6; Australian Energy Council submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 2; amaysim submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 4; and AGL submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p.i.

<sup>147</sup> Red and Lumo Energy submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 6.

<sup>148</sup> Australian Energy Council submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 2.

<sup>149</sup> Consumer Action Law Centre submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p.3.

<sup>150</sup> Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft Decision, 20 September, p. 72.

<sup>151</sup> EnergyAustralia submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 8; Tango submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, pp. 4-5; and Simply Energy submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 6.

previously in their submissions to the issues paper.<sup>152</sup> Simply Energy further submitted if the commission is unable to provide a standardised approach to setting these prices, these tariffs should be out of scope of the VDO until the commission can undertake that work.<sup>153</sup> Tango believed there is insufficient time after release of the commission's final decision to undertake modelling to set their own non-flat tariff rates and the proposed approach will lead to inconsistent pricing structures which in its view does not align with VDO policy objectives.<sup>154</sup>

In our draft decision we highlighted that we did not believe the proposal to set the rates for many different non-flat standing offer tariffs best met the objectives of the VDO. In particular, we considered that the presence of both a maximum annual bill and regulated tariffs is unlikely to provide a simple option for customers who are unwilling or unable to engage in the market. Stakeholders did not provide any new information for the commission to reconsider this approach.

Some retailers also advocated for distribution network businesses to be required to reassign any customer who selects the VDO to be assigned to a flat network tariff. Retailers were concerned with the risk of cost mismatch between network and retailer tariffs.<sup>155</sup> Any decision regarding mandating the reassignment of network tariffs is a matter for government. Our draft decision contained discussion relating to the misalignment of network tariffs and is detailed further below.<sup>156</sup>

Momentum Energy was concerned the application of the VDO to non-flat pricing structures, combined with the best offer on bill requirements will create and promote incentives for customers, whose consumption profiles place considerable strain on generation and network resources, to 'game' the system.<sup>157</sup> We note the best offer obligations already apply to retailers and it is unclear how this particular price determination further contributes to the issue described. Further, we

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<sup>152</sup> Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft Decision, 20 September, p. 64.

<sup>153</sup> Simply Energy submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 6.

<sup>154</sup> Tango submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, pp. 4-5.

<sup>155</sup> AGL submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 7; Origin Energy submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 7; Simply Energy submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 6; Powershop and MEA Group, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 4; amaysim submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 4; and Tango submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, pp. 4-5.

<sup>156</sup> Essential Services Commission, Victorian Default Offer to apply from 1 January 2020: Draft Decision, 20 September, p. 72.

<sup>157</sup> Momentum Energy submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p.2.

## 5. VDO compliant maximum annual bill



consider the policy implications described are beyond the scope of our requirements under the order.

The Australian Energy Council considered the proposal to submit a usage profile to the commission is unnecessarily complicated, and would be difficult to comply with, for little consumer benefit.<sup>158</sup> Elysian Energy, Simply Energy and Alinta raised similar concerns.<sup>159</sup> Red and Lumo Energy requested more detail about the commission's process for assessing and approving retailers' proposed usage profiles for non-flat standing offer tariffs other than those listed in draft decision.<sup>160</sup> We have considered how we can address these concerns in our final decision below.

### **5.3. Our final decision for calculating the VDO compliant maximum annual bill**

In making our final decision we have had regard to our statutory requirements and stakeholder views. Under the requirements of the order, prices paid by domestic and small business customers (using less than 40 MWh per annum) on non-flat standing offers will be based on an assessment of the efficient costs of supply for electricity retail services. This provides a safeguard for customers unwilling or unable to engage in the electricity retail market. We have also considered how our approach best meets the objectives of the order and the ESC and EI Acts in promoting the long-term interests of customers.

#### **Annual reference consumption amount**

We consider that calculating the maximum bill at a single annual reference consumption amount best meets the objectives and matters required under the statutory instruments. Consistent with the approach taken in the order for calculating an estimated annual bill for the purposes of discounting, our draft decision proposed to set the annual reference level of customer usage at 4,000 kWh for domestic customers and 20,000 kWh for small business customers.<sup>161</sup> Our final decision adopts this approach so that the annual reference consumption amount used by the commission to calculate the VDO compliant maximum bill amounts is 4,000 kWh for domestic customers and 20,000 kWh for small business customers. Taking this approach results in a total of

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<sup>158</sup> Australian Energy Council submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 3.

<sup>159</sup> Elysian Energy submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 2; Simply Energy submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 6; and Alinta, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 4.

<sup>160</sup> Red and Lumo Energy. submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p.6.

<sup>161</sup> Clause 15(5) of the order.

ten maximum bills – one for domestic customers and one for small business customers in each of the five Victorian distribution zones. The commission also requires that these annual reference consumption amounts be used to calculate whether a retailer’s tariffs under a non-flat standing offer tariff type will result in an annual bill that exceeds the VDO compliant maximum annual bill.

### **Representative profile of customer usage and related usage allocations – specified non-flat standing offer tariff types**

For specified non-flat standing offer tariff types (identified in the table 15 below), the commission has set the representative profile of customer usage and related usage allocations a retailer must apply when estimating whether its tariffs will result in an annual bill that exceeds the VDO compliant maximum annual bill amount at the annual reference consumption amount. Equation 2 of our price determination details the formula retailers must apply when making this calculation.

<b>Specified non-flat standing offer tariff type</b>	<b>Peak</b>	<b>Shoulder</b>	<b>Off-peak</b>
Flexible price (3 part time of use)	0.25	0.45	0.30
5-day time of use	0.52	0.00	0.48
7-day time of use (small business customers only)	0.74	0.00	0.26
5-day time of day 9 pm off peak (United Energy distribution zone only)	0.25	0.20	0.55
5-day time of day (United Energy distribution zone only)	0.32	0.20	0.48

Table 15 – Representative profiles of customer usage for specified non-flat standing offer tariff types

We believe that applying the representative profiles in table 15 supports consistency and clarity for customers by ensuring the method for comparing these types of market offers with VDO tariffs is the same as the way in which these standing offers will be compared with the maximum bill from 1 January 2020.

### **Representative profile of customer usage and related usage allocations – all other non-flat standing offer tariff types**

For any other non-flat standing offer tariff type not specified in table 15, a retailer must gazette the tariffs offered, along with the representative profile of customer usage or relevant usage allocations it has adopted for each such tariff type. We note that retailers are not obliged to offer these other

standing offer tariff types, there are very few customers on these offers, and they are often unique to a particular retailer. On this basis, we believe that the retailer has the relevant information and is best placed to publish the representative profile of customer usage for the relevant tariff type.

This is required to enable a calculation of whether those tariffs will produce an estimated annual bill amount that exceeds the relevant VDO compliant maximum annual bill amount at the annual reference consumption amounts for domestic and small business customers. The obligation is on the retailer to justify the usage profile it has adopted provided that such a usage profile or relevant usage allocation must be reasonably representative of the usage profile by customers on that tariff type.

In our draft decision we proposed that retailers would submit their estimation of any such usage profile to the commission. We stated the estimated profile must be based on the usage of the standing offer customers on that tariff type. While we still consider this approach is generally appropriate as it creates accountability, we have considered how this might be implemented in response to stakeholder feedback. In particular, we have reconsidered the requirement for retailers to submit their usage profiles to the commission.

Our final decision does not require retailers to submit this information to the commission for review either prior to or at the point of publishing their standing offer tariffs in the Government Gazette. However, by requiring this information to be published alongside their standing offer tariffs in the Government Gazette there is more certainty for both retailers and customers about the tariffs and how the estimated annual bill under the relevant tariff type has been calculated.

In reaching this view we have balanced the costs and benefits of the regulatory approach adopted, given the relatively small number of customers on non-flat standing offers that are not specified in table 15. We will also monitor retailer standing offers through our various audit and review work programs. Retailer compliance with the VDO was highlighted as one of our 2019-20 compliance and enforcement priorities.<sup>162</sup> We believe that this approach, in addition to other reforms made by the commission, complements the broad safeguard that is provided by the maximum bill framework in our final decision.<sup>163</sup>

In adopting a representative profile of customer usage or relevant usage allocations for a non-flat standing offer tariff type not specified in table 15, a retailer should ensure the usage profiles are reasonably representative of the profile of electricity usage by customers on that tariff type. The

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<sup>162</sup> Essential Services Commission, Energy compliance and enforcement priorities 2019-20, June 2019, p. 3.

<sup>163</sup> Essential Services Commission, Building trust through new customer entitlements in the retail energy market: Final Decision, October 2018.

retailer should have regard to the pattern of usage across the time periods by which the tariff rate varies under that tariff type. This could include some combination of the options listed below.

1. The profile of customer usage of the particular retailer based on data averaged across their customer base. This could be based on all customers or a particular subset of customers, with the obligation on the retailer to explain the usage profile adopted. In addition, retailers may use information contained in other public sources to support their own customer data. Examples of this could include the relevant Distributor's Annual Network Pricing Proposals forecast consumption quantity for the tariff type, or electricity benchmarks for residential customers.<sup>164</sup>
2. Another verifiable information source that a retailer considers is reflective of customers on the specified tariff type. The obligation will be on the retailer to justify the information source and usage profile adopted. An example of this information is the MRIM data provided by AEMO to the commission for the purposes of estimating wholesale electricity costs. In response to requests from stakeholders this data is published on our website.<sup>165</sup>

### **VDO compliant maximum annual bill amounts**

We maintain our view that our approach to the VDO compliant maximum annual bill provides flexibility for retailers to continue offering retail tariffs that reflect the structure of underlying network tariffs, and promote cost reflective pricing. This supports objectives in the order and ESC Act relating to efficiency. We note ongoing reforms to network tariffs to make them more cost reflective, and consider it is important the VDO framework accommodates the provision of cost-reflective prices.

We believe the order provides clear direction that in the first regulatory period we must determine the maximum annual electricity bill amounts for customers on non-flat standing offer tariffs.<sup>166</sup> The order also states the maximum bill should be based on the flat standing offer tariffs we determine and customer electricity usage.<sup>167</sup> As highlighted in our draft decision, customers with consumption levels and profiles that differ from the representative levels receive other targeted protections,

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<sup>164</sup> For example see <https://www.aer.gov.au/networks-pipelines/determinations-access-arrangements/pricing-proposals-tariffs> or <https://www.aer.gov.au/retail-markets/retail-guidelines-reviews/electricity-and-gas-bill-benchmarks-for-residential-customers-2017>

<sup>165</sup> Found under the resources tab at <https://www.esc.vic.gov.au/electricity-and-gas/prices-tariffs-and-benchmarks/victorian-default-offer/victorian-default-offer-price-review-2020>

<sup>166</sup> Clause 10(2)(a)(ii) of the order.

<sup>167</sup> Clause 12(5) of the order.

including the best offer obligation, that will help to ensure these customers are aware of the plan that best suits their circumstances.<sup>168</sup>

The maximum annual bill amounts for each distribution zone are found in table 16 below.

Distribution zone	VDO compliant maximum annual bill amount – domestic customers (4,000kWh usage)	VDO compliant maximum annual bill amount – small business customers (20,000kWh usage)
AusNet Services	\$1,646	\$7,849
CitiPower	\$1,420	\$5,823
Jemena	\$1,496	\$6,240
Powercor	\$1,517	\$5,746
United Energy	\$1,508	\$6,368

Table 16 – VDO compliant maximum annual bill amounts for all non-flat standing offer tariff types

Consumer Action Law Centre raised concerns regarding customer ability to consistently access a simple, trusted and efficient cost for their electricity with the maximum bill approach.<sup>169</sup> In response to these concerns we have undertaken some scenario testing to review whether the maximum bill approach creates incentives for retailers to adjust charges between fixed and variable usage to disadvantage either high or low volume users comparative to the maximum bill. We did not find that retailers are incentivised to do this as they have a diverse customer base. That is, by pricing to target customers of a particular size a retailer would generally have to charge less to other customers in order to still comply with the maximum annual bill. In addition, we note that customers also receive other protections, such as the best offer requirements, which should regularly inform them whether a better offer is available for them. At a minimum this would include the flat tariff VDO, but is likely to include other market offers.

<sup>168</sup> Essential Services Commission, Building trust through new customer entitlements in the retail energy market: Final Decision, October 2018.

<sup>169</sup> Consumer Action Law Centre submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 3.

## 5. VDO compliant maximum annual bill

This conclusion is supported by the analysis in figure 3 below for domestic customers in the Jemena distribution zone. Taking the average of retailers' actual time of use standing offers (both published in the Government Gazette at 17 June 2019 and in the 2017-2018 period), we have estimated an annual bill amount using the representative usage profile in table 15. This is then compared with a VDO annual bill based on the tariffs set from 1 July 2019. To highlight the impacts on domestic customers at different consumption levels, we have estimated the annual bill at 2,000 kWh and 8,000 kWh per annum, as well as the reference domestic customer usage of 4,000 kWh per annum.

Figure 3 demonstrates that retailers have generally priced their time of use standing offer tariffs for a broad base of low, medium and high-volume customers. Additionally, we would note that for those retailers that updated their time of use standing offer tariffs in June 2019, they are priced in a way that produces an annual bill very close to what is produced by the VDO flat tariffs. This is the case for customers with different usage levels.

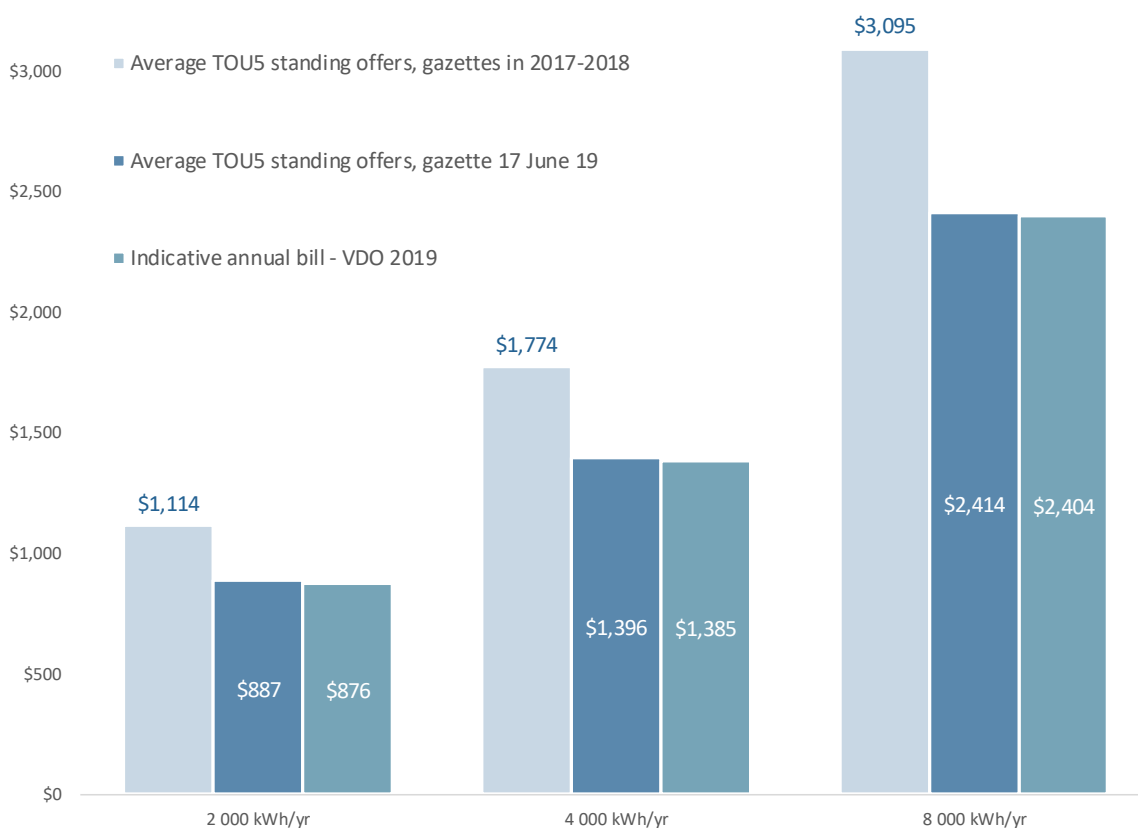


Figure 3 – Comparison of indicative annual bills based on the 2019 VDO and gazetted time of use standing offers (domestic customers, Jemena distribution zone)

**Gazette 17 June 2019** – average of TOU5 standing offers from AGL, Origin, Simply Energy, Click/amaysim, M2 Energy.

**Gazettes in 2017-2018** – average of the most recent TOU5 standing offers from AGL, Origin, EnergyAustralia, Red/Lumo, Alinta, Momentum Energy in 2017 and 2018.

## 5. VDO compliant maximum annual bill

Some retailers noted concern regarding our proposed approach and the risks these represented for retailers, including cost exposure due to higher non-flat network tariffs.<sup>170</sup> EnergyAustralia presented analysis that showed the networks tariffs based on time of use tariffs were not aligned with the representative customer for domestic and small business customers in certain distribution zones.<sup>171</sup> AGL also presented analysis on this point (specifically Powercor for small business and CitiPower for domestic customers), and consider that the maximum bill should be adjusted to account for this mismatch.<sup>172</sup>

We note retailer concerns around the cost mismatch between network and retailer tariffs. We have balanced these concerns against the benefit for customers of having a simple, trusted and reasonably priced option in the VDO. Should we take the view that the network costs should be adjusted upwards for the maximum bill in some distribution regions, we would also need to consider whether network costs should be adjusted downwards in other distribution regions. We consider this approach would increase complexity and decrease transparency.

Further, as we noted in our draft decision, we do not consider it is necessary to adjust the maximum bill for revenue risks to a retailer, given the small number of customers on cost-reflective standing offer tariffs. This is supported by figure 3 above, where a number of retailers have chosen to price their time of use offers in line with the flat rate VDO across a range of consumption levels without any requirement on them to do so. We also note that where actual network costs (under non-flat network tariffs) differ from the flat tariff standing offer we determine, it is not always the case that retailers will face higher costs. We consider our approach allows retailers to manage the risks of any mismatch between their offers to customers and the cost structures they face in terms of network costs. We discussed this view further in our draft decision.<sup>173</sup>

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<sup>170</sup> Origin Energy, submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 7; Alinta submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, p. 3; and amaysim submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, pp. 2-3.

<sup>171</sup> EnergyAustralia submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, pp.10-11.

<sup>172</sup> AGL submission to the Essential Services Commission Victorian Default Offer to apply from 1 January 2020: Draft Decision, October 2019, pp. 6-7.

<sup>173</sup> Essential Services Commission 2019, Victorian Default Offer to apply from 1 January 2020: Draft Decision, 20 September, p. 72.

## 5. VDO compliant maximum annual bill

## **Final Decision – approach to the VDO compliant maximum annual bill**

The commission has set the VDO compliant maximum annual bill amounts based on the relevant annual reference consumption amount and relevant flat standing offer tariffs determined for relevant customers, assuming a 365-day supply period.

The annual reference consumption amount used to determine the VDO compliant maximum annual bill amount is as follows:

- For domestic customers there will be five maximum annual bills (one for each distribution zone), calculated for a representative customer consumption of 4,000 kWh per year.
- For small business customers there will be five maximum annual bills (one for each distribution zone), calculated for a representative customer consumption of 20,000 kWh per year.

These annual reference consumption amounts are to be used to calculate whether a retailer's non-flat standing offer tariffs, for a particular tariff type, will result in an annual bill that exceeds the VDO compliant maximum annual bill amount relevant for that tariff type.

Retailers must publish all standing offers for the regulatory period beginning 1 January 2020 (including the flat standing offers we determine) in the Government Gazette in the period 25 November to 18 December 2019.

- If offering a flexible, five or seven-day time of use (or the 5-day time of day/9pm off peak in the United Energy zone) standing offer tariff type, a retailer must demonstrate those tariffs do not result in an annual bill that exceeds the relevant VDO compliant maximum annual bill amount using the approach detailed in our determination. The commission has determined a profile of customer usage and related usage allocations to be used for this purpose.
- For any other non-flat standing offer tariff type that the retailer chooses to offer, a retailer must demonstrate that these tariffs do not result in an annual bill that exceeds the relevant VDO compliant maximum annual bill amount using the approach detailed in our determination. To do this, we require retailers to adopt a representative profile of customer usage or relevant usage allocations that are reasonably representative of the profile of usage by customers on that tariff type over a 365-day period. The usage profile or relevant usage allocation must also be published alongside the relevant standing offer tariffs in the Government Gazette.



## Glossary

Term	Definition
ACCC	Australian Competition and Consumer Commission
AEMO	Australian Energy Market Operator
AER	Australian Energy Regulator
AMI	Advanced Metering Infrastructure (i.e. smart meters)
ASX	Australian Stock Exchange
CARC	Customer acquisition and retention costs
CER	Clean Energy Regulator
DLF	Distribution Loss Factors
ESC	Essential Services Commission
FIT	Feed-in Tariff
ICRC	Independent Competition and Regulatory Commission (Australian Capital Territory)
IPART	Independent Pricing and Regulatory Tribunal (New South Wales)
kWh	Kilowatt Hours
LGC	Large-scale Generation Certificate
LRET	Large-scale Renewable Energy Target
MLF	Marginal Loss Factor
Monte Carlo simulation	The process of using repeated random sampling to obtain a numerical result
MRIM	Manually Read Interval Meter
MWh	Megawatt Hour

NEM	National Electricity Market
NUOS	Network Use of System
PPA	Power Purchasing Agreement
QCA	Queensland Competition Authority
REPI	Retail Electricity Pricing Inquiry
RERT	Reliability and Emergency Reserve Trader
RPP	Renewable Power Percentage
RRO	Retailer Reliability Obligation
SRES	Small-scale Renewable Energy Scheme
STC	Small-scale Technology Certificate
STP	Small-scale Technology Percentage
VDO	Victorian Default Offer
VEEC	Victorian Energy Efficiency Certificates
VEU	Victorian Energy Upgrades

# Appendix A – Order in Council

Victorian Government Gazette

No. S 208 Thursday 30 May 2019

By Authority of Victorian Government Printer

The Lieutenant-Governor, as the Governor's deputy, with the advice of the Executive Council on the recommendation of the Minister pursuant to section 13(1B) of the **Electricity Industry Act 2000** (the Minister having first consulted with the Premier and Treasurer pursuant to section 13(1C) of that Act), acting under section 13 of the **Electricity Industry Act 2000** makes the following Order:

**1. Purpose**

The main purpose of this Order is to regulate the standing offer tariffs that retailers may charge prescribed customers, through the introduction of the Victorian default offer.

**2. Commencement**

This Order comes into operation on the date on which it is published in the Government Gazette and remains in force until it is revoked.

**3. Objective of the Victorian default offer**

The objective of the Victorian default offer is to provide a simple, trusted and reasonably priced electricity option that safeguards consumers unable or unwilling to engage in the electricity retail market.

**4. Definitions**

1. In this Order:

*Act* means the **Electricity Industry Act 2000**;

*annual reference consumption* has the meaning given in clause 15(5);

*controlled load tariff* means a tariff for the supply or sale of electricity only for use in specific appliances that are permanently wired to the relevant electricity meter;

Example: A storage water heater is such an appliance.

*controlled load usage* means use by a specific appliance that is permanently wired to the relevant electricity meter;

*customer type* means a customer who is either a domestic customer or a small business customer, as the case may be;

*distribution system* means a system of electric lines and associated equipment (generally at nominal voltage levels of 66 kV or below) which a distribution company is licensed to use to distribute electricity for supply under its licence;

*distribution zone* means the area in which a distribution company is licensed to distribute and supply electricity under the Act;

*domestic customer* means a customer who purchases electricity principally for personal, household or domestic use at a supply point;

*Energy Retail Code* means the document of that name (version 12 dated 1 January 2019) published by the Commission as amended and in force from time to time;

*ESC Act* means the **Essential Services Commission Act 2001**;

*flat tariff* means a tariff for the supply or sale of electricity where the tariff components do not vary by reference to:

- (a) the time of day;
- (b) the amount of electricity distributed or supplied during the day;
- (c) temperature, whether actual or forecast; or
- (d) other characteristics that vary during the day.

Notes:

1. A tariff with a daily supply charge as one tariff component and a usage charge calculated by \$ per kWh as another tariff component, is a flat tariff;
2. Paragraph (b) does not exclude block tariffs from being flat tariffs;
3. The definition does not exclude tariffs that vary seasonally, from being flat tariffs;

**flexible tariff** means a tariff for the supply or sale of electricity where the tariff components vary (wholly or partly) according to the time of day when the electricity is supplied;

**former franchise customer** means a person described in section 37 of the Act who is either a domestic customer or a small business customer;

**general usage** means any electricity usage that is not controlled load usage;

**headroom** means an allowance that does not reflect an efficient cost borne by firms operating in the market;

Example: An allowance that is added, so that retail prices do not act as a barrier to new entrants, is headroom.

**kWh** means kilowatt hour;

**Minister** means the Minister administering the Act;

**MWh** means megawatt hour;

**objective of the Victorian default offer** means the objective specified in clause 3;

**Order** means this Order;

**prescribed customer**: see clause 5;

**quarter** means a period of 3 consecutive months;

**regulatory period** means a period over which a VDO price determination is to apply;

Note: the first regulatory period commences on 1 January 2020.

**relevant customer** has the same meaning as in section 39 of the Act;

**small business customer** means a customer who is not a domestic customer and whose aggregate consumption of electricity taken from a supply point is not, or in the case of a new supply point is not likely to be, more than 40 MWh per annum;

**standing offer tariffs** means the tariffs determined by a licensee under section 35(1) of the Act and published in the Government Gazette in accordance with that section, as varied from time to time by the licensee as provided for under section 35(3) of the Act;

**supply charge** means a fixed charge for supplying electricity to a customer (whether charged on a daily basis or over any other period);

Note: A supply charge is also sometimes called a service charge.

**supply point** means, in relation to a supply of electricity to a person, the point at which that supply of electricity last leaves the distribution system owned or operated by a distribution company before being supplied to the person, whether or not the electricity passes through facilities owned or operated by any other person after leaving that point before being so supplied;

**tariff component**, in respect of a tariff for the supply or sale of electricity, includes the supply charge, the usage charge and any other charge that is part of the tariff for the supply or sale of electricity;

**usage charge** means a charge for the amount of electricity supplied or sold to a customer;

Note: A usage charge is sometimes called a consumption charge.

**VDO compliant maximum annual bill** has the meaning given it in clause 10(2);

**VDO price determination** means a price determination pursuant to clause 10;

**Victorian default offer** or **VDO** means an offer a retailer must make pursuant to this Order.

2. Despite subclause (1), in:

- (a) clause 6;
- (b) clause 7;
- (c) clause 10(2)(a)(i),
- (d) schedule 1; and
- (e) schedule 2,

the following definitions instead apply:

- (f) **domestic customer** means a domestic customer within the meaning of the definition of ‘domestic or small business customer’ in the Act; and
- (g) **small business customer** means a small business customer within the meaning of that definition.

Notes:

- 1. The following terms are defined in section 3 of the Act: Commission; domestic or small business customer; distribution company; electricity bill; regulated tariff standing offer; retailer; standing offer.
- 2. As at the date of the commencement of this Order, the Order in Council made under section 35 of the Act and published in the Government Gazette No. S 315 on 25 November 2008 applies for the purposes of the definition of ‘domestic or small business customer’ in the Act.
- 3. ‘price determination’ is defined in section 13(6) of the Act.

#### 5. Declaration of Prescribed customers

The following customers are declared, pursuant to section 13(5) of the Act, to be prescribed customers:

- (a) a domestic or small business customer;
- (b) a former franchise customer who is a party to a deemed contract under section 37 of the Act; and
- (c) a relevant customer who is a party to a deemed contract under section 39 of the Act.

#### 6. Victorian default offer tariffs

- 1. A retailer’s standing offer tariffs for sale of electricity to prescribed customers must comply with this clause.
- 2. During the period from 1 July 2019 to 31 December 2019, the standing offer tariffs a retailer may charge to a domestic customer, in respect of the distribution zone specified in column 1 of the table in Schedule 1, are fixed at the amounts specified in columns 2, 4 and 5 of the table for the tariff components specified in those columns.
- 3. During the period from 1 July 2019 to 31 December 2019, the standing offer tariffs a retailer may charge to a small business customer, in respect of the distribution zone specified in column 1 of the table in Schedule 2, are fixed at the amounts specified in columns 2 and 4 of the table for the tariff components specified in those columns.
- 4. Subclauses (2) and (3) do not apply to standing offer tariffs other than:
  - (a) a flat tariff; or
  - (b) a flat tariff with a controlled load tariff.
- 5. During any regulatory period commencing on or after 1 January 2020, a retailer’s standing offer tariffs for sale of electricity to prescribed customers must comply with any VDO price determination made by the Commission that is in force.

Note: The VDO price determination will be in respect of both standing offer tariffs that are flat tariffs and standing offer tariffs that are not flat tariffs. See also clause 10.

#### **7. Retailer must make Victorian default offer**

1. A retailer's regulated tariff standing offer for sale of electricity to prescribed customers must include (specified as the '*Victorian default offer in respect of flat tariffs*'):
  - (a) one flat tariff that is available to each domestic customer;
  - (b) one flat tariff with a controlled load tariff that is available to each domestic customer with a controlled load; and
  - (c) one flat tariff that is available to each small business customer, which tariffs must be:
    - (d) for the period from 1 July 2019 to 31 December 2019, those fixed in accordance with clause 6(2) and clause 6(3);
    - (e) for any regulatory period commencing on or after 1 January 2020, standing offer tariffs complying with the VDO price determination in respect of that regulatory period.
2. In addition, for any regulatory period commencing on or after 1 January 2020 and in the case of standing offer tariffs that:
  - (a) are not flat tariffs; or
  - (b) are any combination of a flat tariff, and a tariff that is not a flat tariff,a retailer's regulated tariff standing offer must include standing offer tariffs and terms and conditions (both specified as the '*Victorian default offer in respect of the VDO compliant maximum annual bill*') that ensure the retailer's compliance with the VDO price determination in respect of that regulatory period.

#### **8. Information about the VDO on electricity bills**

1. This clause applies until such time as the amendments to the Energy Retail Code required by clause 16(2)(b) come into force.
2. A retailer's electricity bill issued to a prescribed customer on or after 1 October 2019 must include information about how the customer may access the Victorian default offer from the retailer.
3. The information required by subclause (2) must be in plain and clear English and prominent on the electricity bill.

#### **9. Conferral of functions and powers on the Commission**

1. For the purposes of Part 3 of the ESC Act and section 12(1)(b) of the Act, the supply or sale of electricity under the Act is specified as prescribed goods and services in respect of which the Commission has the power to regulate prices.
2. The Commission may not make a price determination regulating tariffs for the supply or sale of electricity under the Act except as contemplated under this Order.

Note: See section 32 in Part 3 of the ESC Act. This Order is an empowering instrument for the purposes of Part 3 of the ESC Act: see paragraph (d) of the definition of 'empowering instrument' in section 3 of the ESC Act.

#### **10. Commission to make VDO price determination**

1. At least 37 days before the commencement of a regulatory period, the Commission must make a price determination in respect of the regulatory period that determines, for each distribution zone in Victoria:
  - (a) the tariffs, or the maximum tariffs, a retailer may charge prescribed customers under a standing offer during the regulatory period; or
  - (b) the manner in which the tariffs, or the maximum tariffs, a retailer may charge prescribed customers under a standing offer during the regulatory period are to be determined or calculated.

2. Without limiting subclause (1), the price determination that the Commission makes in respect of the first regulatory period:
  - (a) must determine:
    - i. the standing offer tariffs that are to apply in respect of flat tariffs, including, in the case of domestic customers, both flat tariffs and flat tariffs with a controlled load tariff; and
    - ii. in the case of a prescribed customer who is on:
      - A. a tariff that is not a flat tariff; or
      - B. any combination of a flat tariff, and a tariff that is not a flat tariff, the maximum annual electricity bill amount that the prescribed customer is to pay under a standing offer in the regulatory period (*VDO compliant maximum annual bill*); and
  - (b) may provide, in the case of the customers specified in subclause (2)(a)(ii), for how any overpayment by those customers in that regulatory period, or any year (or part year) thereof, is to be dealt with; and
  - (c) may also include any other decisions or determinations that are required by this Order.
3. Despite subclause (2), the Commission may after its first price determination, determine another manner pursuant to which the standing offer tariffs referred to in that subclause are to be determined or calculated.

#### 11. Regulatory periods for VDO price determinations

1. The first regulatory period commences on 1 January 2020.
2. Subject to subclause (3), the duration of each regulatory period is 12 months.
3. Before the commencement of a regulatory period, if the Commission considers that special circumstances exist, the Commission may, after consulting the Minister:
  - (a) extend the duration of the regulatory period by up to 6 months; or
  - (b) reduce the duration of the regulatory period, provided the duration of the regulatory period as so reduced is not less than 6 months.

#### 12. Approach and methodology for making a VDO price determination

1. In making a VDO price determination, the Commission must adopt an approach and methodology that is in accordance with section 33(2) of the ESC Act and this Order.
 

Note: section 33(2) of the ESC Act requires the Commission to adopt an approach and methodology that best meets the objectives of the ESC Act and of the **Electricity Industry Act 2000**.
2. In addition, the Commission must adopt an approach and methodology which the Commission considers will best meet the objective of the Victorian default offer.
3. The tariffs determined by the Commission pursuant to the VDO price determination are to be based on the efficient costs of the sale of electricity by a retailer.
4. For the purposes of subclause (3), the Commission must have regard to:
  - (a) wholesale electricity costs;
  - (b) network costs;
  - (c) environmental costs;
  - (d) retail operating costs, including modest costs of customer acquisition and retention;
  - (e) retail operating margin; and
  - (f) subject to subclause (10), any other costs, matters or things the Commission, in the exercise of its discretion, considers appropriate or relevant.

Note: Section 33(3)(e) of the ESC Act similarly requires the Commission to have regard to any other factors that it considers relevant.



5. The VDO compliant maximum annual bill must be based on:
  - (a) the standing offer tariffs that the Commission determines are to apply in respect of flat tariffs; and
  - (b) the prescribed customer's electricity usage.
6. For the purposes of subclause (4)(d), the Commission must, in the exercise of its discretion, determine the amount of modest costs of customer acquisition and retention.
7. For the purposes of subclause (4)(e), the Commission must, in the exercise of its discretion, determine a maximum retail operating margin, and in doing so must have regard to (without limitation) the principle that the margin must not compensate retailers for risks that are compensated elsewhere in the costs.
8. Subclauses (3), (4), (5) and (6) do not require the Commission to determine tariffs based on the actual costs of a retailer.
9. Subclause (7) does not require the Commission to determine tariffs based on the actual retail operating margin of a retailer.
10. In making a VDO price determination the Commission must not include headroom.
11. Section 33(4)(a) of the ESC Act does not apply to the making of a VDO price determination.
12. Otherwise, section 33 of the ESC Act applies to the making of a VDO price determination only to the extent that the section is not contrary to this Order.

Notes:

1. This Order, as an 'empowering instrument' in terms of the ESC Act, can modify the application of section 33 of the ESC Act: see section 33(1) of the ESC Act.
2. Pursuant to section 33(3)(d) of the ESC Act, the Commission must have regard to relevant interstate and international benchmarks for prices, costs and return on assets in comparable industries.

**13. Variation of VDO price determinations**

1. Before or during a regulatory period, the Commission may, on its own initiative, vary a VDO price determination in respect of the regulatory period.
2. The Commission must specify, in a VDO price determination, the circumstances under which the Commission will consider, and the basis on which the Commission will decide on, a proposed variation and (subject to subclauses (4) and (5)) the processes to be followed to enable the Commission to make such a variation.
3. Without limiting subclause (1), the Commission may vary a VDO price determination:
  - (a) if an event has occurred or will occur that was uncertain or unforeseen by the Commission at the time of making the VDO price determination; or
  - (b) to correct a clerical error, miscalculation, misdescription or other deficiency.
4. Before making a variation, the Commission must consult in accordance with clause 14.
5. Subclause (4) does not apply if:
  - (a) the variation is not sufficiently material to warrant consultation in accordance with clause 14; or
  - (a) the need for the variation is sufficiently urgent to warrant consultation in accordance with clause 14 not being undertaken.
6. If, as a result of a variation of a VDO price determination, a retailer is or will be required to vary the retailer's standing offer tariffs, the Commission must ensure the retailer is given adequate notice before the variation to the VDO price determination takes effect.

**14. Consultation**

1. The Commission may decide the nature and extent of stakeholder consultation it will undertake when making a VDO price determination or a decision to vary a VDO price determination.
2. For the purposes of subclause (1), the Commission must have regard to its Charter of Consultation and

Regulatory Practice (as amended from time to time) developed and published under section 14 of the ESC Act.

15. **Victorian default offer tariffs to be the reference tariffs for discounts**

1. This clause applies until such time as the amendments to the Energy Retail Code required by clause 16(2)(a) come into force.  
Provided that, if those amendments do not provide for any matter provided for in this clause, then this clause continues to apply in respect of that matter.
2. A retailer that offers a discount to a domestic customer or a small business customer must:
  - (a) if the discount is in respect of the period from 1 July 2019 to 31 December 2019, disclose how the discount is calculated as against the tariffs in Schedule 1 or Schedule 2 (as the case may be), and what (in percentage or dollar terms) the reduction in tariff is in terms of those tariffs; and
  - (b) if the discount is in respect of a regulatory period, disclose how the discount is calculated as against the flat tariffs determined by the Commission pursuant to the VDO price determination that applies in respect of that period, and what (in percentage or dollar terms) the reduction in tariffs is in terms of those tariffs.
3. For the purposes of subclause (2), the reduction in tariffs is to be expressed as the difference between the estimated annual cost of the Victorian default offer for the customer type and distribution zone, and the estimated annual cost of the offer to which the discount relates after the discount is applied, using the annual reference consumption.
4. For the purposes of subclause (3):
  - (a) the estimated annual cost of the Victorian default offer is:
    - i. during the period from 1 July 2019 to 31 December 2019, determined by applying Schedule 3;
    - ii. during a regulatory period, determined by applying Schedule 3 or any other approach or methodology determined by the Commission; and
  - (b) the retailer must determine the estimated annual cost of the retailer's offer to which the discount relates:
    - i. if the tariff is a flat tariff or a flexible tariff (in either case, with or without a controlled load), by applying Schedule 3;
    - ii. otherwise, based on a reasonable estimate having regard to any relevant information available to the retailer; and
5. The annual reference consumption is:
  - (a) during the period from 1 July 2019 to 31 December 2019:
    - i. for domestic customers without a controlled load – 4,000 kWh general usage per annum;
    - ii. for domestic customers with a controlled load – 4,000 kWh general usage plus 2,000 kWh controlled load usage per annum;
    - iii. for small business customers (with or without a controlled load) – 20,000 kWh general usage per annum.
  - (b) during a regulatory period:
    - i. the consumption amount determined by the Commission (if any); or
    - ii. if no amount is determined by the Commission pursuant to subclause (5)(b)(i), the amount specified in subclause (5)(a).
6. For the purposes of subclause (5), the amount of electricity consumed is assumed to be the same on each day of the year.
7. Any percentage or dollar amount disclosed pursuant to this clause must be expressed as a whole

percentage or dollar, rounded to the nearest percentage or dollar.

8. Otherwise, Division 2 of Part 2A (*Customers entitled to clear advice*) of the Energy Retail Code applies to the disclosures required by this clause.

16. **Direction to the Commission pursuant to section 13(3)(b) of the Act**

1. The Commission must, as soon as practicable after the commencement of this Order, amend the Energy Retail Code and any other instrument of the Commission to give effect to the Victorian default offer and this Order.
2. Without limiting subclause (1), the Commission must amend the Energy Retail Code (and any other instrument of the Commission) so that the Code:
  - (a) provides for tariffs determined by the Commission pursuant to the VDO price determination being the reference tariffs for discounts and for the methodology of that comparison; and
  - (b) requires a retailer's electricity bill to include information about how the customer may access the Victorian default offer from the retailer.
3. For the purposes of subclause (2)(a), the Commission must have regard to the following principles:
  - (a) There must be a consistent methodology for comparison of tariffs that applies to:
    - i. all offers of discounts by retailers; and
    - ii. the advertising in respect of those discounts.
  - (b) The methodology must apply in respect of flat tariffs and tariffs that are not flat tariffs;
  - (c) The methodology must (without limitation) readily allow, in respect of a regulatory period, a comparison between:
    - i. the discounted tariffs offered by a retailer; and
    - ii. the tariffs determined by the Commission pursuant to the VDO price determination in respect of that period; and
4. Any actual comparison in accordance with the methodology must be readily understandable by a prescribed customer. Subclause (3) does not limit:
  - (a) the matters the Commission may have regard to; or
  - (b) the matters the Commission may provide for by way of the amendments required by subclause (2).

17. **Review of the operation of this Order**

The Minister must cause a review of the operation and effectiveness of this Order to be undertaken before the third anniversary of the Order coming into operation.

## SCHEDULE 1

### Victorian default offer tariffs for period from 1 July 2019 to 31 December 2019 – domestic customers

Charges are inclusive of GST.

Distribution zone	Supply charge (\$ per day)	Usage charge structure	Usage charge (not controlled load) (\$ per kWh)	Usage charge: controlled load (\$ per kWh)
AusNet Services	\$1.1368	Block 1 (up to 1020 kWh during a quarter) Block 2 (> 1020 kWh during a quarter)	\$0.2763  \$0.3113	\$0.2024
CitiPower	\$1.1055	Anytime	\$0.2325	\$0.1809
Jemena	\$1.0037	Anytime	\$0.2547	\$0.1618
Powercor	\$1.2333	Anytime	\$0.2403	\$0.1561
United Energy	\$0.9115	Anytime	\$0.2620	\$0.1873

## SCHEDULE 2

### Victorian default offer tariffs for period from 1 July 2019 to 31 December 2019 – small business customers

Charges are inclusive of GST.

Distribution zone	Supply charge (\$ per day)	Usage charge structure	Usage charge (\$ per kWh)
AusNet Services	\$1.1368	Block 1 (up to 1020 kWh during a quarter) Block 2 (> 1020 kWh during a quarter)	\$0.3154 \$0.3605
CitiPower	\$1.2972	Anytime	\$0.2464
Jemena	\$1.1450	Anytime	\$0.2682
Powercor	\$1.3611	Anytime	\$0.2394
United Energy	\$0.9691	Anytime	\$0.2717

### SCHEDULE 3

#### 1. Estimated annual cost for flat tariff offers

The estimated annual cost for an offer for the supply or sale of electricity under a flat tariff is to be calculated as follows:

$$EAC = SC \times 365 + UC \times ARC$$

where:

$EAC$  is the estimated annual cost of the offer;

$SC$  is the supply charge;

$UC$  is the general usage charge; and

$ARC$  is the annual reference consumption for general usage.

#### 2. Estimated annual cost for flexible tariff offers

The estimated annual cost for an offer for the supply or sale of electricity under a flexible tariff is to be calculated as follows:

$$EAC = SC \times 365 + ARC \times UC_p \times UA_p + ARC \times UC_s \times UA_s + ARC \times UC_{op} \times UA_{op}$$

where:

$EAC$  is the estimated annual cost of the offer;

$SC$  is the supply charge; and

$ARC$  is the annual reference consumption for general usage;

and where, in respect of the relevant tariff type specified in column 1 of Table 1:

$UC_p$  is the retailer's peak usage charge;

$UA_p$  is the peak usage allocation specified in column 2 of Table 1;  $UC_s$  is the retailer's shoulder usage charge;

$UA_s$  is the shoulder usage allocation specified in column 3 of Table 1;  $UC_{op}$  is the retailer's off-peak usage charge; and

$UA_{op}$  is the off-peak usage allocation specified in column 4 of Table 1.

#### 3. Estimated annual cost for offers that include a controlled load tariff

The estimated annual cost for an offer for the supply or sale of electricity that includes a controlled load tariff is to be calculated as follows:

$$EAC = EAC_{GU} + UC_{CL} \times ARC_{CL}$$

where:

$EAC$  is the estimated annual cost of the offer;

$EAC_{GU}$  is the estimated annual cost of the offer for general usage only, calculated in accordance with clause 1 or 2 of this Schedule 3 (as the case may be);

$UC_{CL}$  is the usage charge for controlled load usage; and

$ARC_{CL}$  is the annual reference consumption for controlled load usage.

**Table 1 – Usage allocation for flexible tariffs**

<b>Tariff type</b>	<b>Peak</b>	<b>Shoulder</b>	<b>Off-peak</b>
Flexible price (3 part time of use)	0.25	0.45	0.30
5-day time of use	0.52	0.00	0.48
7-day time of use (small business customers only)	0.74	0.00	0.26
5-day time of day 9 pm off peak (United Energy distribution zone only)	0.25	0.20	0.55
5-day time of day (United Energy distribution zone only)	0.32	0.20	0.48

Dated 28 May 2019 Responsible Minister  
HON. LILY D'AMBROSIO MP  
Minister for Energy, Environment and Climate Change

PIETA TAVROU  
Clerk of the Executive Council

## **Electricity Industry Act 2000**

### **MINISTERIAL ORDER UNDER SECTION 35(3B)**

I, Lily D'Ambrosio, Minister for Energy, Environment and Climate Change and Minister responsible for administering the **Electricity Industry Act 2000** (the Act), specify, pursuant to sections 35(3B)(a) and 35(3B)(b) of the Act, the following periods within which a licensee may publish a notice under section 35(3) of the Act, and the following dates on which tariffs varied in accordance with section 35(3) of the Act must take effect.

**1. Commencement**

This Order commences on the date that it is published in the Government Gazette.

**2. Periods within which a notice varying licensee standing offers must be published**

If, during the period from the date of commencement of this Order until the expiry date of this Order, a licensee proposes to publish a notice under section 35(3) of the Act, varying the tariffs determined by the licensee and published in the Government Gazette under section 35(1) of the Act, the notice may be published during the following periods:

- (a) the period commencing on the date this Order commences and ending on 17 June 2019; and
- (b) the period commencing on 25 November 2019 and ending on 18 December 2019.

**3. Dates on which a variation to a licensee standing offer under clause 2 must take effect**

Pursuant to section 35(3B)(b) of the Act, any variation to licensee standing offer tariffs under clause 2 of this Order must take effect on the following dates:

- (a) if the variation is under clause 2(a) – on 1 July 2019; and
- (b) if the variation is under clause 2(b) – on 1 January 2020.

**4. Expiry of this Order**

This Order expires on 31 March 2020.

Dated 22 May 2019

HON. LILY D'AMBROSIO MP  
Minister for Energy, Environment and Climate Change

## Appendix B – List of submissions to our draft decision

Name of organisation	Date received
1st Energy	17/10/2019
AGL	17/10/2019
Alinta Energy	18/10/2019
amaysim	17/10/2019
The Australian Energy Council (including an appendix provided by ACIL Allen on 23/10/2019)	18/10/2019
Consumer Action Law Centre	17/10/2019
Elysian Energy	17/10/2019
EnergyAustralia	17/10/2019
GloBird Energy (including an appendix provided by Oakley Greenwood on 23/10/2019)	17/10/2019
Momentum Energy	17/10/2019
Origin Energy	18/10/2019
Powershop and MEA Group	17/10/2019
Red and Lumo Energy	17/10/2019
Simply Energy	17/10/2019



Tango Energy

17/10/2019