

ELECTRICITY MODEL AND METHODOLOGY REVIEW 2018-19

ACTEWAGL RETAIL SUBMISSION TO THE
INDEPENDENT COMPETITION AND REGULATORY
COMMISSION'S TECHNICAL PAPER ON ENERGY
PURCHASE COSTS

26 February 2019

ActewAGL

for you

Table of contents

- Table of contents..... 2
- 1. Introduction 3
- 2. Principles 4
- 3. Hedging strategy 6
- 4. Contract position 7
- 5. Forward price averaging period 7
- 6. Load profile and spot prices 10

1. Introduction

ActewAGL Retail (AAR) welcomes the opportunity to provide its views on the issues raised by the Independent Competition and Regulatory Commission (ICRC) in the Technical Paper on Energy Purchase Costs (technical paper)¹. The technical paper includes a report from Frontier Economics (Frontier), which reviews the ICRC's energy purchase cost (EPC) model and recommends an alternative approach². The ICRC's technical paper seeks comments on Frontier's review of the ICRC's EPC model and its recommendations. On 18 February 2019, the ICRC also provided AAR with a spreadsheet for illustrative purposes, showing one way to calculate the EPC under Frontier's alternative approach (EPC spreadsheet).

The current EPC model, which has been applied since 2012, has performed well against the objectives of the ICRC Act 1997 (Act). The current model has provided an unbiased estimate of the cost of purchasing wholesale energy for a hypothetical efficient retailer in the same position as AAR. The model is simple, transparent, predictable and replicable. In considering any move to a new model, it is AAR's view that the ICRC needs to ensure either that the positive features of the current model are maintained or that the benefits of the new model clearly exceed those foregone.

The alternative methodology recommended by Frontier is at the conceptual stage. While the ICRC has provided the EPC spreadsheet to AAR, it states that this shows one option for how the alternative methodology could be implemented and is provided for illustrative purposes only. Given the conceptual nature of the alternative methodology and that the proposed approach to determining key inputs and assumptions is yet to be specified, AAR considers it reasonable that the ICRC provide an opportunity for stakeholders to comment on a more fully developed position should it decide to adopt the alternative methodology recommended by Frontier.

In summary, it is AAR's view that:

- an EPC model consistent with the Act will produce an estimate of the EPC that a hypothetical efficient retailer in the same position as AAR would incur in purchasing wholesale energy based on inputs and assumptions that will promote effective competition and price stability in the interests of consumers;
- the ICRC's EPC model principles from its 2010 review remain appropriate and require that the EPC model should be simple, transparent and predictable. The ICRC's principles also require that the EPC model provide an unbiased estimate of electricity purchase costs and the output from the model should be replicable;
- while AAR agrees that an efficient retailer would adopt a layered hedging strategy, AAR also notes that the current model performs well against both the objectives of the Act and the ICRC's EPC model principles. The ICRC needs to ensure that any move away from the current model is clearly justified;

¹ ICRC 2019, Electricity Model and Methodology Review 2018-19, Technical Paper Energy Purchase Costs, Report 1 of 2019, February

² Frontier Economics 2019, Energy Purchase Cost Review, A report for the Independent Competition and Regulatory Commission, January

- if the ICRC decides to adopt the Frontier methodology, it is AAR's view that the contract position should be determined using a benchmark approach. Such an approach would be simple, transparent and replicable. The alternative of relying on a third party simulation model would be inconsistent with these principles. There are a number of options for determining the appropriate benchmark and AAR would anticipate the opportunity to provide its views if the ICRC were to adopt the Frontier methodology;
- AAR supports the continued use of a 23-month averaging period for the contract price. This approach best reflects the way efficient retailers actually hedge, avoids sharp fluctuations in the EPC and resulting retail price for consumers and is consistent with established regulatory practice; and
- in AAR's view, the load profile and spot prices should be based on historic data without manipulation or discretion over the choice of time-period to ensure the model is transparent, replicable and produces an unbiased estimate of the EPC. If analysis of historic load data demonstrates that the use of data from 2003/04 fails to account for more recent changes in the electricity market then AAR suggests adopting either a rolling average approach, commencing with more recent data or a weighted average approach, applying less weight to older data.

2. Principles

In considering the alternative EPC methodology recommended by Frontier, AAR has taken into account the key objectives of the Act and the ICRC's guiding principles for the EPC model.

2.1 ICRC Act

In AAR's view, the following sections of the Act are of most relevance to assessing the EPC methodology.

- Section 7 (a) to promote effective competition in the interests of consumers;
In AAR's view, this section of the Act requires the ICRC to set the EPC for the Standing Offer at a level that facilitates competition in the ACT electricity retail market. In AAR's view, this does not mean setting the EPC at the lowest level possible or the level that would exist in a perfectly competitive market. Rather, it is AAR's view that this objective requires setting the EPC at a level that appropriately balances the objective of promoting competition with the other objectives of the Act.
- Section 20(2)(a) the protection of consumers from abuses of monopoly power in terms of prices, pricing policies (including policies relating to the level or structure of prices for services) and standard of regulated services; and
- Section 20(2)(e) the cost of providing the regulated service;
In AAR's view, these sections of the Act require the ICRC to ensure that the EPC is set at a level that reflects the cost a hypothetical efficient retailer in the same position as AAR would incur in purchasing wholesale energy;

- Section 20(2)(g) the social impacts of the decision;
In AAR's view, this section of the Act requires the ICRC to consider not only how the EPC methodology will impact the level of prices at any point in time, but also to consider the stability of pricing over time to minimise volatility in customer bills.
- Section 20(2)(i) the borrowing, capital and cash flow requirements of people providing regulated services and the need to renew or increase relevant assets in the regulated industry;
The cost of purchasing wholesale energy involves specific cash flow requirements. In AAR's view, this section of the Act requires the ICRC to ensure that the EPC methodology allows a hypothetical efficient retailer in the same position as AAR to meet its cash flow requirements.
- Section 19(L): to promote the efficient investment in, and efficient operation and use of regulated services for the long term interests of consumers in relation to the price, quality, safety, reliability and security of the service.
In AAR's view, an EPC methodology that is consistent with the long-term interests of consumers will result in an EPC that reflects the efficient cost of purchasing wholesale energy based on inputs and assumptions that will promote effective competition and price stability in the interest of consumers.

2.2 ICRC EPC model principles

In its 2010 review of the EPC, the ICRC set out a number of high-level requirements that it considered appropriate when deriving the EPC³ and all written responses to the ICRC's draft report were supportive of the principles. Given that the ICRC's objectives remain unchanged, it is AAR's view that the principles remain appropriate for governing the choice of the EPC model.

The ICRC's principles and reasoning are as follows⁴:

- The model should be simple, transparent and predictable
The ICRC noted that the principles of simplicity, transparency and predictability are useful for all the parties involved in, or with an interest in the outcomes of, the price determination process. Furthermore, the principles will assist electricity retailers in their risk management by providing clarity for the respective companies about how the transitional franchise tariff (TFT) may vary with market conditions.
- The model should provide an unbiased estimate of electricity purchase costs
The ICRC noted that an important objective when deriving any forms of regulated prices is to ensure that those prices permit efficiently incurred costs to be recovered. The opportunity to recover efficient costs is imperative if continued supply and new investment is to be encouraged. Moreover, in markets where competition is possible, failing to set prices that permit efficient costs to be recovered risks foreclosing that competition. Equally, from a customer's perspective, the interests of customers – including their interest in ensuring long

³ ICRC 2010, Final Technical Paper – The Energy Purchase Cost Component of the TFT 2010-12, p.9-10

⁴ Ibid, p.9-10

term supply and sustainable competition – can be protected by minimising the gap between prices and cost to the extent practicable.

- Outputs from the model should be replicable

The ICRC stated that a method for estimating the EPC is replicable if it can be repeated over time using the same largely observable inputs. It must also not require a large expense to administer this method. A method that is replicable will enhance the predictability of the ICRC's decision, consistent with the first principle.

In its 2018 Issues paper on the electricity model and methodology review, the ICRC stated that its assessment would be guided by cost implications, ease of implementation, established regulatory practice and effectiveness in managing risks⁵.

In reviewing the EPC model, AAR urges the ICRC to identify the objectives and guiding principles for the model and to assess Frontier's approach against these to ensure that any move away from the current model is clearly justified.

3. Hedging strategy

In AAR's view, a hedging strategy that includes a mix of base swaps, peak swaps and cap contracts reflects the hedging approach a hypothetical efficient retailer in the position of AAR would adopt. AAR had advocated this position a number of times in previous reviews⁶.

In its final 2010 technical paper⁷, the ICRC adopted a base swaps only hedging strategy on the grounds of the precautionary principle. The ICRC stated that it needs to ensure that ActewAGL is not potentially exposed to financial failure, which would in turn seriously undermine the electricity supply arrangements in the ACT. The second reason for adopting the swaps only hedging strategy is that the ICRC is not required to determine any cost of caps as a hedging tool. The ICRC stated that there is significant variability in the net cost of caps as a hedging strategy, and although this approach is used by other regulatory agencies, it further exposes the resulting regulatory price to regulatory risk that the regulator may have the cost of caps wrong⁸.

While AAR believes that a hypothetical efficient retailer in the position of AAR would adopt a layered hedge strategy, any move from the current model to a new model should be considered carefully. The current model performs well against the objectives of the Act and against the ICRC's EPC model principles. The current model is simple, transparent, predictable and can be easily replicated by stakeholders.

⁵ ICRC 2018, Issues Paper, Electricity model and methodology review 2018-19, Report 8 of 2018, October, p.12

⁶ See for example, AAR 2009, Model for determining the EPC component of the TFT, Response to ICRC issues paper, p.7, AAR 2009, Model for determining the EPC component of the TFT 2010-12, AAR's response to the ICRC's draft technical paper, p.12 and AAR 2016, Standing offer prices for the supply of electricity to small customers from 1 July 2017, AAR's response to the ICRC's issues paper framework and approach, November, p.8-9

⁷ ICRC 2010, Final Technical Paper – The Energy Purchase Cost Component of the TFT 2010-12, p.31-32

⁸ Ibid, p.32

AAR notes that Frontier's review of the ICRC's current EPC model found that the model is methodologically sound, simple, transparent and replicable⁹. Frontier observed that using historical outcomes back to 2003/04 is likely to fail to adequately account for important changes to the electricity market since then and recommended that the ICRC re-assess its approach to forecasting the load profile and spot prices¹⁰. AAR notes that Frontier's concern regarding historical data could be addressed within the current model.

While the ICRC has not yet made a decision on whether it will adopt the Frontier recommendation, it is difficult to fully comment on the alternative methodology without understanding how key inputs would be determined, particularly how the contract position, the load profile and spot prices would be set. Understanding the proposed approach to determining key inputs is important for assessing whether Frontier's alternative approach is consistent with the objectives of the Act and the principles of simplicity, transparency, predictability and replicability. If the ICRC does decide to adopt Frontier's alternative approach to estimating the EPC, AAR considers it reasonable for the ICRC to provide the opportunity for stakeholders to provide their views on how these inputs are determined.

4. Contract position

If the ICRC is to adopt Frontier's alternative approach to estimating the EPC, it is AAR's view that the contract position should be determined using a benchmark approach and should be linked to the net system load profile (NSLP) relevant to the ACT. Any other alternative, such as Frontier's Strike model, would be unnecessarily complicated, would not be transparent and could not be replicated by stakeholders.

AAR understands that the ACIL Allen benchmarks presented in the Frontier report are produced using a similar methodology to Frontier's Strike model. The ACIL Allen benchmarks are the output of ACIL Allen's modelling simulations and are specific to Energex in Queensland. Consequently, AAR does not consider these benchmarks appropriate for use in the ACT.

Should the ICRC adopt the Frontier methodology, AAR would anticipate the opportunity to provide further input on the appropriate benchmark contract position.

5. Forward price averaging period

AAR supports the continued use of a 23-month averaging period for the contract price. This approach reflects the way efficient retailers actually hedge and hence is consistent with the objectives of the Act, which require the EPC to reflect the cost a hypothetical efficient retailer in the same position as AAR would incur in purchasing wholesale energy. Importantly, the use of a 23-month averaging period also avoids sharp fluctuations in the EPC and resulting retail price for consumers, thereby meeting the objectives of the Act in terms of considering the social impacts of the decision and in

⁹ Frontier 2019, Energy Purchase Cost Review, A report for the Independent Competition and Regulatory Commission, January, p.26-27

¹⁰ Ibid, p.27

AAR's view providing pricing outcomes that are consistent with the long-term interests of consumers.

In AAR's view, a 23-month averaging period, which reflects the way a hypothetical efficient retailer in the same position as AAR would hedge, is consistent with the incentive-based regulatory framework operating in the ACT, where AAR is given the incentive to outperform the relevant benchmarks. In contrast, a short averaging period such as 40 days would eliminate these incentive properties, rewarding or penalising AAR depending on the chance that contract prices for the chosen 40 days were above or below AAR's actual costs. Such an approach would increase regulatory risk, which is not compensated for elsewhere in the ICRC's pricing model.

AAR notes that adopting a relatively long averaging period is also consistent with established regulatory practice. For example, in estimating wholesale electricity purchase costs for monitoring retail price trends, the AEMC adopts a weighted average hedge based on 12 month and 24 month hedge outcomes. The weights reflect the retail market shares for small and large retailers in each jurisdiction¹¹. Similarly, in estimating the wholesale energy cost for the Queensland Competition Authority, ACIL Allen uses the trade-weighted average of ASX Energy daily settlement prices since the contract was listed up until 3 April 2018¹², consistent with an averaging period of approximately 2 to 2.5 years.

5.1 Mark-to-market approach

In contrast to the 23-month averaging period used in the current model, Frontier calculates the prices of ASX energy contracts using a mark-to-market approach, averaging contract prices over a 40-day period as a proxy for current market values¹³. In support of this approach, Frontier states that:

The reason that we adopt the mark-to-market approach is that we think economic decisions in competitive markets will be based on the market value of contracts, regardless of when those contracts are purchased. If a retailer has purchased contracts in the past at prices above the current market price, we would expect that competition from existing or new entrant retailers would force the retailer to make retail price offers based on the current cost of purchasing contracts; to do otherwise would be to risk losing customers to competitors able to enter or expand by purchasing contracts at the current cost and making retail price offers based on those current costs. Similarly, if a retailer has purchased contracts in the past at prices below the current market price, we would expect that maximising shareholder value would require them to make retail price offers based on the current cost of purchasing contracts; making retail price offers based on lower historical contract costs would result in less profit than simply selling the contracts again at the current contract price¹⁴.

AAR's key concern with the 40-day averaging approach adopted by Frontier is that the contract price and resulting EPC and retail prices would be unpredictable and highly variable, increasing risk for both AAR and consumers. This is inconsistent with the objectives of the Act and the ICRC's EPC principles for the following reasons:

¹¹ AEMC 2018, Final report: 2018 price trends methodology report, December, p.20-21.

¹² ACIL Allen 2018, Estimated Energy Costs, 2018-19 retail tariffs for use by the Queensland Competition Authority in its final determination on retail electricity tariffs, May, p.13

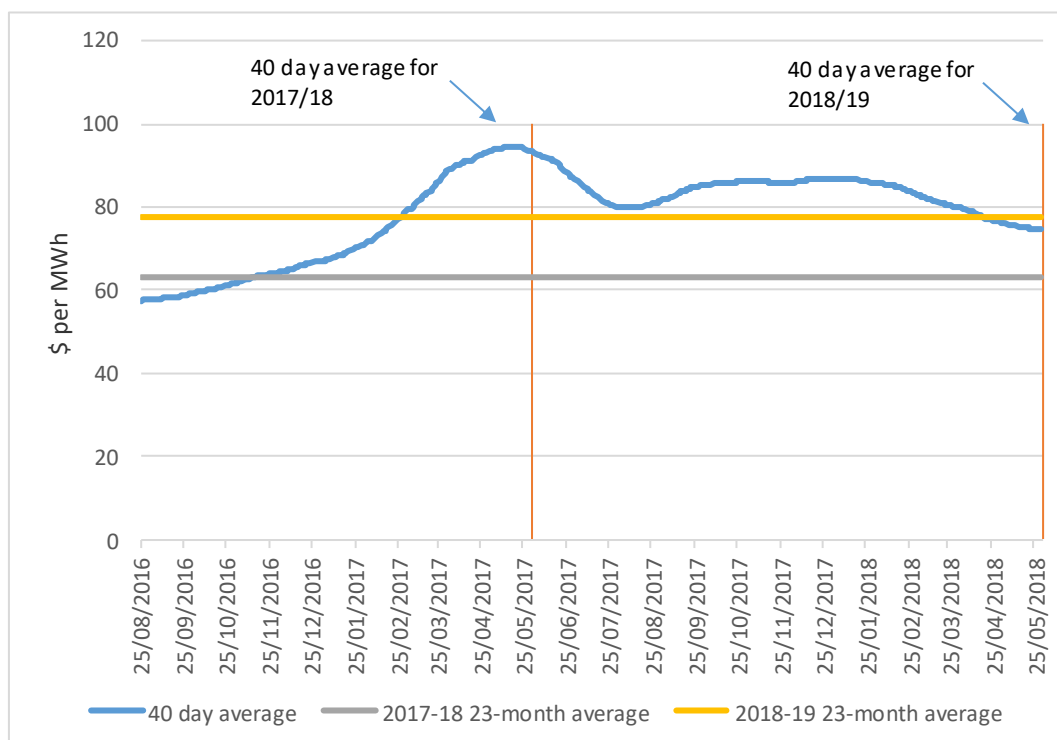
¹³ Frontier 2019, Energy Purchase Cost Review, A report for the Independent Competition and Regulatory Commission, January, p.14

¹⁴ Ibid, p14

- the contract price for the chosen 40 days may be above or below the cost an efficient retailer would actually incur given that an efficient retailer would contract for a much longer period. This means that an efficient retailer would either recover more or less than the costs it actually incurred and consumers would either benefit from paying a price lower than the efficient cost of the EPC or would be penalised by having to pay a price higher than the EPC that an efficient retailer would actually incur;
- it would likely result in highly volatile pricing from year to year given the fluctuations in contract prices over time; and
- it would be inconsistent with the principle of predictability, as stakeholders would have no view of the EPC until the chosen 40-day averaging period had occurred. Given that standard regulatory practice in Australia is to set the end of the averaging period as close as practically possible to the start of the regulatory period, stakeholders would have no visibility of the retail price for the upcoming year until very close to the start of that year.

AAR's concerns with Frontier's 40-day averaging period can be demonstrated by examining the outcomes that would have occurred in 2017/18 and 2018/19. Figure 1 below presents the 40-day average of the base swap contract price and compares this with the contract price determined on the basis of the 23-month average approach. AAR has assumed that the 40-day averaging period, which would need to be nominated in advance to avoid bias, would be set equal to 40 days to the end of May each year.

Figure 1: Base swap contract price: 23-month average versus 40-day average



If Frontier's 40-day averaging approach had been adopted for 2018/19 pricing, the contract price would have been \$74.55 per MWh, slightly lower (4 per cent) than the

23-month average approach that gave a contract price of \$77.76 per MWh. However, for 2017/18 pricing, the 40-day average approach would have given a contract price of \$93.33 per MWh, 48 per cent higher than the 23-month average approach, which resulted in a contract price of \$63.13 per MWh. Clearly, the 40-day average is highly variable compared with the 23-month average.

Frontier advocates the 40-day average approach based on the constraints that an efficient retailer would face in a competitive market. Frontier argues that competition would “force the retailer to make retail price offers based on the current cost of purchasing contracts¹⁵”. Given that customers can switch retailers at any time during the regulatory period, this line of argument would suggest that the contract price should be set based on the current cost of purchasing contracts throughout the regulatory period, not the 40 days leading up to the start of the regulatory period.

In addition, Frontier’s argument has limited relevance in determining the EPC for the Standing Offer in a manner that is consistent with the objectives of the Act, most notably the promotion of competition and ensuring the EPC reflects the cost a hypothetical efficient retailer in the same position as AAR would incur.

For the reasons set out above, it is AAR’s view that setting the contract price based on a short averaging period such as 40 days would fail to meet the objectives of the Act and hence would be unreasonable.

6. Load profile and spot prices

AAR’s view is that the load profile and spot prices should be based on historic data, without any manipulation or discretion over the chosen time-period. This ensures that the approach is unbiased, transparent and replicable by all stakeholders.

Frontier has raised concerns regarding the use of historical outcomes back to 2003/04, which may fail to adequately account for important changes to the electricity market since then. If the ICRC’s analysis finds that this is the case, it is AAR’s view that this could be addressed by adopting either a rolling average approach, which would drop off older years and replace these with more recent years as data becomes available, or a weighted average approach, which would give less weight to older years that are less relevant to future periods. As previously noted, this change could be accommodated within the current modelling framework.

¹⁵ Ibid, p14