



WHOLESALE CONTRACT
REGULATORY INSTRUMENT
PRICING INVESTIGATION

DRAFT REPORT

APRIL 2024

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TABLE OF CONTENTS

INVITATION FOR SUBMISSIONS	2
GLOSSARY & ACRONYMS.....	3
I. SUMMARY OF THE ECONOMIC REGULATOR’S PROPOSED DECISIONS	5
2. INTRODUCTION.....	7
2.1. AUSTRALIAN WHOLESALE ELECTRICITY MARKET	7
2.2. TASMANIAN WHOLESALE ELECTRICITY MARKET	8
2.3. TASMANIAN WHOLESALE REGULATORY FRAMEWORK	8
2.4. WHOLESALE CONTRACT REGULATORY INSTRUMENT	9
2.5. SUPPORTING REGULATORY ARRANGEMENTS.....	12
3. PRICING INVESTIGATION.....	13
3.1. LEGISLATIVE REQUIREMENTS.....	13
3.2. OBJECTIVE OF THE INVESTIGATION	14
3.3. SCOPE.....	15
3.4. APPROACH.....	15
3.5. TIMELINES	16
4. ISSUES	17
4.1. SUMMARY	17
4.2. WHOLESALE CONTRACT REGULATORY INSTRUMENT	18
4.3. WHOLESALE CONTRACT GUIDELINE	34
4.4. STATEMENT OF REGULATORY INTENT	34
APPENDICES	36
A. SUMMARY OF THE REGULATOR’S OBLIGATIONS UNDER THE WHOLESALE CONTRACT PRICING REGULATORY FRAMEWORK	36

INVITATION FOR SUBMISSIONS

The Regulator invites written submissions from interested parties on the matters discussed in this Report.

It is the Regulator's policy to publish all submissions on the website of the Office of the Tasmanian Economic Regulator (OTTER) unless the author of the submission requests confidentiality in relation to the submission (or any part of the submission). Those parts of a submission requested to be kept confidential should be submitted as an attachment to the parts suitable for publication.

The Regulator will not publish submissions which contain material that the Regulator believes is, or could be viewed as, derogatory or defamatory.

Submissions must be received by close of business on **Friday 3 May 2024**.

To make it easier to publish submissions on OTTER's website, submissions by email are preferred.

Submissions and enquiries may be made to:

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A copy of this Report can be found on OTTER's website at [Wholesale Contract Regulatory Instrument Pricing Investigations](#).

If you require any assistance in preparing a submission, please contact OTTER at the above email address or by phone: (03) 6145 5899.

GLOSSARY & ACRONYMS

“**Act**” means the *Electricity Supply Industry Act 1995*.

“**Approved financial risk contract**” means those contracts listed under clause 3 of the **Wholesale Contract Regulatory Instrument**.

“**ASX Energy**” means the Australian Securities Exchange Limited (ABN 98 008 624 691).

“**Authorised Retailer**” has the same meaning as in the **Wholesale Contract Regulatory Instrument**.

“**Baseload \$300 Cap Contract**” has the same meaning as in the **Wholesale Contract Regulatory Instrument**.

“**Baseload Reference Cap Value**” has the same meaning as in the **Wholesale Contract Regulatory Instrument**.

“**Baseload Swap Contract**” has the same meaning as in the **Wholesale Contract Regulatory Instrument**.

“**Compliance Enforcement Policy**” means the *Compliance Enforcement Policy, Version 1, November 2010* issued by the **Regulator** and as revised from time to time.

“**Existing instrument**” means the instrument containing the approvals made by the Regulator on 18 March 2021 which took effect from 19 March 2021.

“**Electricity Supply Industry Performance and Information Reporting Guideline**” means the *Electricity Supply Industry Performance and Information Reporting Guideline, Version 2.3, July 2014* issued by the **Regulator** and as revised from time to time.

“**Exceptional circumstances event**” has the same meaning as in the **Guideline**.

“**Guideline**” means the *Electricity Wholesale Contract Guideline, Version 2, December 2016*, issued by the **Regulator** and as revised from time to time.

“**Hydro Tasmania**” means Hydro-Electric Corporation (ABN 48 072 377 158).

“**Hydro Yield**” has the same meaning as in the **Wholesale Contract Regulatory Instrument**.

“**Load Following Swap Contract**” has the same meaning as in the **Wholesale Contract Regulatory Instrument**.

New instrument means the instrument containing the approvals to be made by the Regulator at the conclusion of this investigation that are to apply from 1 July 2024.

“**Peak Swap Contract**” has the same meaning as in the **Wholesale Contract Regulatory Instrument**.

Pricing Regulations mean the *Electricity Supply Industry (Pricing and Related Matters) Regulations 2023*.

“**Quarter**” has the same meaning as in the **Wholesale Contract Regulatory Instrument**.

“**Regulated weekly offer contract prices**” are prices calculated in accordance with the approved methodology under Part 3 of the **Wholesale Contract Regulatory Instrument** in respect of **Approved Financial Risk Contracts**, which includes lower prices that may be offered at **Hydro Tasmania’s** discretion, in accordance with Clause 6 of the **Wholesale Contract Regulatory Instrument**.

“**Regulator**” means the Tasmanian Economic Regulator established under the *Economic Regulator Act 2009*.

“**Regulatory Reporting Guideline**” means the Regulator’s *Reporting Guideline, Version 3, November 2014* issued by the **Regulator** and as revised from time to time.

“**Volume scaling**” has the same meaning as in the scaling rules set out in clause 27 of the **Wholesale Contract Regulatory Instrument**.

“**Wholesale Contract Regulatory Instrument**” means the instrument that specifies the regulated contracts **Hydro Tasmania** must offer to **Authorised Retailers**. The instrument contains the approvals made by the Regulator in accordance with section 43G of the **Act** and Regulation 20 of the **Pricing regulations** after:

- conducting a pricing investigation in accordance with Regulation 17 of the **Pricing regulations**; and
- taking into account the principles set out in section 43H of the **Act**.

1. SUMMARY OF THE ECONOMIC REGULATOR'S PROPOSED DECISIONS

The Australian wholesale electricity market comprises a physical market for electricity and an associated financial derivatives market.

In Tasmania the financial derivatives market is comprised of regulated and unregulated financial contracts. The regulated financial contracts are governed by the Wholesale Contract Regulatory Instrument (the Instrument).

The purpose of the Instrument is to require Hydro Tasmania to offer a number of regulated contracts to authorised retailers operating in the Tasmanian market. The regulated contracts details are specified in the Instrument with the contract prices derived using a method specified in the Instrument. Further details on the Instrument are provided in section 2.4 of this report.

The Instrument is administered by the Regulator and the current Instrument will cease to have effect on 30 June 2024. Therefore, the purpose of the investigation is to review the Instrument and make a new Instrument which will apply from July 2024.

After reviewing the Instrument and considering feedback received from stakeholders and market participants, the Regulator has proposed the following decisions regarding the Instrument:

Report reference	Regulator's proposed decisions
<i>Wholesale Contract Regulatory Instrument</i>	
4.2.1	During the period when there is no listed peak futures contract and in the period until there is 100 MW in open interest in the replacement product, the Regulator proposes calculating the Victorian peak swap by applying a quarterly multiplier to the weekly Victorian baseload price. Once the open interest in peak futures has reached 100 MW the Instrument will revert to using the ASX Energy peak futures value.
4.2.2	The Regulator proposes removing from clause 8.3 of the Instrument the open interest limit requirement for Victorian peak futures contracts.
4.2.3	The Regulator proposes the approvals to be made under section 43G of the Act apply for five years so that the approvals in the new Instrument expire on 30 June 2029.

4.2.4	The Regulator proposes that the Tasmanian baseload cap price equals the lesser of the Victorian baseload cap price and the price calculated using the current baseload cap price formula in clause 11.1 of the Instrument
4.2.5	The Regulator proposes maintaining the current volume and scaling provisions in the Instrument.
4.2.6	The Regulator proposes: <ul style="list-style-type: none"> - using a single annual Basslink import / export value; - using the inter-quartile range to remove outliers from the values used to calculate the off-peak cap values; - updating the contract premium using pro-rated baseload contract values; - using a beta of 0.75 in calculating the weighted average cost of capital; and - extending the construction time to 20 years, unless AEMO indicates a specific period by which additional capacity is required.
4.2.7	The Regulator proposes making minor changes to the Instrument to remove redundant references and updating out-of-date references including replacing references to 'd-cypha' with 'ASX Energy'.

<i>Wholesale Contract Guideline</i>	
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4.3.1	The Regulator proposes making a number of changes to the Guideline to correct minor errors and to improve clarity and readability.
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<i>Statement of Regulatory Intent</i>	
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4.4.2	The Regulator proposes amending the Statement to update the Schedule 1 values annually subject to the availability of the input data.
4.4.3	The Regulator proposes making a number of changes to the Statement to correct minor errors and to improve clarity and readability.

2. INTRODUCTION

2.1. Australian wholesale electricity market

The Australian wholesale electricity market comprises a physical market for electricity and an associated financial derivatives market.

The physical wholesale electricity market, known as the National Electricity Market (NEM), is a spot market in which generators sell electricity and retailers and other market participants buy electricity. The Australian Energy Market Operator (AEMO) manages this exchange through a centrally coordinated dispatch process where supply must meet demand instantaneously, in real time.

The electricity spot market is extremely volatile due to a number of factors including changes in available supply, changes in demand, and the need to continuously and instantaneously match demand and supply, unexpected generator outages and network constraints, and the weather. This volatility exposes participants in the NEM to considerable financial risks.

To manage the volatility of these financial risks, generators and retailers can enter into financial contracts (also known as derivative or hedging contracts) that lock in a price for a specified volume of electricity sold/bought in the future. This market is independent of the NEM and is referred to as the financial contracts or derivatives¹ market. In Australia electricity financial contracts are publicly traded on the ASX Energy market and as over-the-counter products².

Prices for derivative contracts depend on:

- the period of the contract;
- market participants' risk tolerances; and
- each party's view on the likely spot market prices over the period of the contract.

NEM participants have to consider the cost of mitigating risk by entering into a financial contract with the risk of exposure to adverse prices or forgoing favourable prices. As such, the level of unhedged exposure to the spot market will depend on each entities' appetite for risk and its expectation of future market conditions.

¹ So named because the outcome of these contracts is derived from the underlying spot market.

² Over- the-counter products are sold via bilateral negotiations between market participants.

2.2. Tasmanian wholesale electricity market

In Tasmania, in addition to the derivatives contracts negotiated by NEM participants (as outlined in Section 1.1), authorised retailers operating in Tasmania have access to a set of regulated derivatives contracts provided for in the *Electricity Supply Industry Act 1995* (the Act). These contract types are approved by the Tasmanian Economic Regulator (the Regulator).

Wholesale price regulation was introduced in Tasmania on 1 January 2014 and requires Hydro Tasmania to offer, in addition to existing non-regulated derivative contracts, a number of regulated derivative products in which the prices are determined using the method specified in the Instrument.

Regulation was intended to assist retailers mitigate the contracting risks associated with Hydro Tasmania's dominance in the Tasmanian wholesale market and to reduce the risk faced by authorised retailers serving the small customer market in Tasmania to a level comparable with that facing comparable retailers in other regions of the NEM. Furthermore, regulation was intended to facilitate the introduction of full retail competition on mainland Tasmania and to provide certainty with regards to prices and financial contract availability for retailers entering the Tasmanian small customer market.

2.3. Tasmanian wholesale regulatory framework

The wholesale regulatory framework in Tasmania comprises a range of legislative and regulatory instruments including:

- the Act;
- *Electricity Supply Industry (Pricing and Related Matters) Regulations 2013* (the Pricing Regulations);
- *Wholesale Contract Regulatory Instrument*;
- *Electricity Wholesale Contract Guideline* (the Guideline);
- *Statement of Regulatory Intent* (the Statement); and
- Hydro Tasmania's Electricity Generation Licence.

Additional supporting regulatory instruments include the Regulator's *Compliance Enforcement Policy* (Version 2, July 2015) (as amended from time to time), *Regulatory Reporting Guideline* (Version 3, July 2014) (as amended from time to time) and the *Electricity Supply Industry Performance and Information Reporting Guideline* (Version 2.3, September 2014) (as amended from time to time).

In accordance with the framework, The Regulator is responsible for:

- making the approvals as specified in section 43G(1) of the Act;
- administering and monitoring the pricing of regulated wholesale derivative contracts;

- conducting periodic pricing investigations, making and revoking approvals and publishing wholesale contract regulatory instruments that set out the Regulator's approvals; and
- collecting information from Hydro Tasmania and authorised retailers to support the operation of the framework and the development of full retail competition.

A full summary of the Regulator's obligations under the framework is provided at Appendix A. of this Report.

2.4. Wholesale Contract Regulatory Instrument

The first Instrument was made by the Minister for Finance in 2013 and contained the initial approvals required under section 43G of the Act.

Part 3, Division 4A of the Act relates to the regulation of wholesale electricity derivative contracts and specifies the ways in which the Regulator is to regulate and monitor Hydro Tasmania's contracting activities in the Tasmanian wholesale electricity market. Specifically, section 43G(1) of the Act requires the Regulator to approve:

- the types of derivative contracts that Hydro Tasmania must offer as approved financial risk contracts (e.g. a load following swap);
- the standard form(s) (terms and conditions) for each approved financial risk contract type;
- the methodology for determining the prices for each approved financial risk contract type;
- the periods for which approved financial risk contracts are to be offered; and
- the volume of approved financial risk contracts that Hydro Tasmania must offer.

The Regulator's decision on each matter is specified in the Instrument and is referred to as an 'approval'.

The Instrument contains the following four financial risk contracts approved by the Regulator under section 43G(1)(a) of the Act:

- baseload swap;
- peak period swap;
- baseload \$300 cap; and
- load following swap.

When the regulatory framework was set up it was considered that these four contracts would allow retailers to appropriately manage the financial risks they faced

when retailing electricity to small customers in Tasmania with section 43G(2) mandating the inclusion of a load following swap as an approved type of contract.

Section 40AB(3)(a) of the Act requires the load following swap to be used in calculating standing offer prices and, unlike the other three contracts, cannot be revoked by the Regulator if it no longer meets the principles in section 43H(1).

Figure 1 provides an explanation of the four regulated contract types.

Part Two of the Instrument also contains the standard forms for each of the approved contract types. The following standard forms were approved under section 43G(1)(b) of the Act:

- International Swaps and Derivatives Association (ISDA) 2002 Master Agreement;
- the Hydro Tasmania schedule (for each authorised retailer); and
- a confirmation (for each contract type).

These approved standard forms are hierarchical in nature and similar to those used in financial contracts associated with the NEM.

The ISDA Master Agreement is a pro-forma high level agreement used to document over the counter (OTC) derivative agreements. It sets out general terms and conditions necessary to properly allocate the risks of the transactions between the parties but does not contain any commercial terms specific to individual transactions. As such, each time that a transaction is entered into, the terms of the master agreement do not need to be re-negotiated and apply automatically.

The parties add to or modify the terms of the ISDA Master through the use of a Schedule to the ISDA Master Agreement. The schedule includes, among other things, clauses dealing with credit, termination, the delivery of documents and addresses for the service of notices. The confirmation sets out details specific to individual transactions entered into under the Schedule.

Section 43G(1)(c) of the Act refers to the methodologies for calculating the price of each of the approved contracts with the approved methods contained in Part Three of the Instrument.

As required under sections 43G(1)(d) and (e) of the Act, Part Four of the Instrument specifies the forward period over which the approved contracts listed in Part Two of the Instrument are to be offered for together with a methodology for determining the minimum volume of regulated contracts that Hydro Tasmania must offer.

In accordance with the Act and the Pricing Regulations, the Regulator is responsible for administering the Instrument and may amend the approvals contained within the Instrument after conducting a pricing investigation.

Figure 1: Explanation of regulated contract types**Baseload Swap & Peak Swap**

These swap contracts (also known as ‘contracts for differences’) fix the cost of electricity for a purchaser (e.g. a retailer) and a seller (e.g. a generator) for a defined volume of electricity. Under these contracts, if the spot price is greater than the agreed contract price, the seller pays the difference between the spot and contract price to the purchaser for the contracted volume of electricity. If the spot price is less than the agreed contract price, the purchaser pays the difference between the spot and contract price to the seller for the contracted volume of electricity.

A baseload swap covers the defined volume of electricity for every half hour of each 24-hour period, seven days a week for a calendar quarter.

A peak swap covers the defined volume of electricity for every half hour between 7am and 10pm Monday to Friday for a calendar quarter.

Baseload \$300 Cap

A cap contract (also known as an options contract) specifies two prices:

- an agreed strike price: the spot price at which the cap applies (ie \$300/MWh); and*
- an option fee: the premium or price the cap purchaser pays to the seller.*

The cap contract only comes into effect if the spot price reaches or exceeds \$300/MWh. If this occurs, the cap seller (the generator) must pay the cap buyer (the retailer), the difference between \$300/MWh and the spot price for the volume of electricity specified in the cap contract. As such, caps help protect a retailer from high spot prices.

Load Following Swap

A load following swap is generally structured to meet an individual retailer’s load profile and tend to be more expensive than either the baseload or peak swap but allow the purchaser to manage ‘volume risk’ (the risk that the retailer’s customers’ demand is higher than the retailer expected, requiring the retailer to pay spot prices for the additional electricity required to meet that demand) as well as ‘price risk’ (the risk that the spot price is higher than the retailer expected).

The regulated load following swap is a contract that is based on the Tasmanian Net System Load Profile (NSLP) as determined by AEMO. The NSLP approximates Tasmanian load after subtracting the load from all customers with half hour meters. It therefore represents the load profile for all small customers in Tasmania. Retailers may however still be exposed to volume risk if their customers’ actual usage is greater than that allowed for in the regulated load following swap.

In making and amending each approval, the Regulator must take into account the principles set out in section 43H of the Act (see section 2.1 below).

2.5. Supporting Regulatory Arrangements

The Instrument is supported by a number of supplementary documents.

The Regulator's Wholesale Guideline sets out Hydro Tasmania's responsibilities in relation to regulated electricity wholesale market contracting and also sets out the weekly regulated contract offer process, consistent with the requirements of the Instrument.

The Regulator is responsible for monitoring and reporting on Hydro Tasmania's compliance with the Instrument and the Wholesale Guideline with compliance enforcement requirements specified in the Regulator's *Compliance Enforcement Policy*.

Furthermore, in accordance with the Regulator's *Regulatory Reporting Guideline*, regulatory audits of the weekly offer and volume scaling (scaling) process are conducted on a periodic basis to ensure that those processes comply with the requirements set out in the relevant regulatory document.

The Regulator has also released a *Statement of Regulatory Intent* which outlines the process the Regulator will undertake in regard to:

- Hydro Tasmania failing to correctly apply the approved pricing methodology;
- a supply disruption event; and
- updating the input values in the Model.

The Regulator has also developed a set of performance indicators to support the wholesale regulatory framework. These indicators are set out in Section 8 of the Regulator's *Electricity Supply Industry Performance and Information Reporting Guideline* (Version 3, July 2021).

3. PRICING INVESTIGATION

3.1. Legislative Requirements

Since 1 January 2014, the Regulator has been responsible, under the Act, for:

- administering wholesale contract pricing, including monitoring Hydro Tasmania's compliance with the Instrument and investigating Hydro Tasmania for suspected non-compliance if necessary;
- investigating and determining future wholesale contract pricing instruments; and
- collecting a range of information from Hydro Tasmania, and making public some of this information, to support the operation of the wholesale contract regulatory framework and the development of competition more broadly.

The Regulator may also determine the prices for regulated contracts if Hydro Tasmania does not comply with its statutory obligations or if a supply disruption event occurs.

The Regulator also has the power under the Act to obtain any information from Hydro Tasmania and retailers serving the small customer market that the Regulator considers necessary to administer the wholesale contract regulatory framework.

The Regulator is required, by regulation 17 of the Pricing Regulations to conduct a pricing investigation prior to making or revoking an approval under section 43G of the Act.

In making an approval under section 43G of the Act, the Regulator is required, in accordance with section 43H, to take the following principles into account:

43H. Principles to be taken into account in approvals

(1) In determining whether to approve a type of contract under section 43G(1), the Regulator must take into account the following principles:

- (a) the principle that authorised retailers should have a choice of different types of contracts to enter into with the Hydro-Electric Corporation;
- (b) the principle that a type of contract ought to be, as far as reasonably practicable, of a type of contract generally used in the national electricity market.

(2) In determining whether to approve a standard form under section 43G(1) in relation to a type of contract to be specified in an approval, the Regulator must take into account the following principles:

(a) the principle that the terms and conditions of the approved standard form should be generally similar to those offered in contracts, of the type of contract, used in the national electricity market;

(b) the principle that the total period referred to in section 43G(1)(d) should be of a duration similar to that generally used, for the purpose specified in that paragraph, in contracts in the national electricity market.

(3) In determining whether to approve a methodology to be used for the calculation of prices in contracts that are in an approved standard form in relation to an approved type of contract, the Regulator must take into account the principle that –

(a) prices in such contracts should be based upon the price in contracts that –

(i) relate to managing the financial risks associated with the wholesale purchase of electricity in the Victorian region of the national electricity market; and

(ii) are of the approved type of contract –

as adjusted to accommodate any estimation by the Regulator of the effect of the difference between the supply of, and demand for, electricity in Tasmania after the approval is made; and

(b) prices in such contracts should reflect the risks, to an authorised retailer that enters into a contract that is in an approved standard form in relation to an approved type of contract, of variations in the demand for, or supply of, electricity in Tasmania that the retailer is required to provide under standard retail contracts with small customers.

Under section 43G(9) of the Act an approval made under section 43G(1) remains in force for the period determined in accordance with the regulations. In this regard, regulation 24(2) of the Pricing Regulations provides for an approval made under section 43G of Act remaining in force until it is revoked or ceases to be in force under regulation 20.

In summary, the Act and the Pricing Regulations do not permit the expiry date of the existing Instrument to be extended beyond the expiry date specified in the approvals. Furthermore, the Regulator is required to conduct an investigation before making or revoking an approval.

3.2. Objective of the investigation

The objective of the pricing investigation was to investigate whether the approvals made under section 43G of the Act:

- are delivering outcomes reflective of an efficient, effective competitive market;
- are facilitating this process as effectively and as efficiently as possible; and
- continue to reflect the requirements of section 43H of the Act.

The investigation also took into account the design principles that informed the development of the initial wholesale regulatory framework, including that:

- market participants should have confidence that they can manage their wholesale risks appropriately in Tasmania;
- the risks of operating in the Tasmanian market should be no greater than those in other jurisdictions in the NEM;
- market participants should have flexibility to manage wholesale market risk using similar business models to those used in other NEM jurisdictions; and
- the framework should recognise the interaction between spot and contract markets without creating unintended incentives or consequences.

In performing its functions under the Act, the Regulator's objectives include, more generally:

- (i) promoting efficiency and competition in the electricity supply industry; and
- (ii) establishing and maintaining an efficient system of electricity generation, transmission, distribution and supply.

3.3. Scope

The investigation reviewed issues raised since the previous wholesale contract regulatory instrument pricing investigations, issues raised through interaction between the Regulator and market participants/stakeholders and issues identified by the Regulator.

The investigation has considered issues raised relating to the Instrument, the Statement and the Wholesale Guideline.

3.4. Approach

In September 2023, the Regulator provided notice of the investigation as required under regulation 18 of the Pricing Regulations.

After commencing the investigation, the Regulator contacted market participants and other stakeholders to identify current or potential issues they have with the Instrument.

3.5. Timelines

The timeline for the completion of the investigation is set out in Table 1.

Table 1: Investigation timeline

Date(s)	Action
4 April - 3 May 2024	Consultation on the Draft Report, draft Guideline, draft Statement and draft Instrument
28 June 2024	Regulator makes approvals and approves release of the final report (and other supporting regulatory instruments)
1 July 2024	New approvals become effective

4. ISSUES

4.1. Summary

The Regulator contacted market participants and stakeholders in late 2023 to identify issues that they considered should be considered as part of the pricing investigation.

The following issues were identified through this process:

Lack of liquidity in peak swaps ie lack of a valid market price and the possibility of ASX Energy delisting the peak swaps contract

This is the main issue, as the Instrument is predicated on the availability of ASX Energy Victorian prices for peak swaps, baseload swaps and \$300 baseload caps.

Open interest for peak swaps does not meet the 100MW threshold

Where the open interest for peak swaps is below the 100MW and the prices are for quarter five and beyond, the Instrument calculates some price inputs using an alternate formula which may result in significant price changes. The resultant prices may not be indicative of the market prices in the affected quarters.

Time to construct new capacity, the cost and type of the additional capacity and the need for additional peaking capacity

Currently the Instrument factors into Tasmanian prices the construction of a new gas peaking generator in ten years' time.

Contract volumes available under the Instrument

Currently, the weekly minimum contract volumes and other volume provisions in the Instrument are based on ensuring a sufficient volume of contracts for retailers serving the Tasmanian small customer load.

Changing Basslink capacity values quarterly

Quarterly changes to the Basslink capacity value may not align with the design of the model that underlies the Instrument.

This chapter discusses the issues identified both by market participants/stakeholders and by the Regulator.

4.2. Wholesale Contract Regulatory Instrument

4.2.1. Victorian peak future contract availability

Increased renewable generation, in particular the uptake of solar PV generation on both a small and large scale, has resulted in significantly different price profiles in all jurisdictions. Whereas previously there was increased demand from morning to late afternoon, there are now two distinct peak periods, a smaller peak in the morning and a larger peak in the late afternoon / early evening with a decrease in demand in the intervening hours. In addition, in contrast to the past, the new load profile pattern also exists during non-business days as it is primarily the result of the significant increase in PV generation. The change in the load profile has seen the demand for the existing peak contract ie based on a continuous increase in demand from 7am to 10pm on business days, decreasing as the product is no longer considered a cost-effective hedging product.

The Victorian Default Offer (VDO), determined by the Essential Services Commission, included ASX Energy listed Victorian peak futures prices in the calculation of the wholesale cost benchmark in the draft 2023-24 VDO. However, due to the low level of market interest, the ESC removed the peak futures contract prices from the final VDO calculation for 2023-24.

Similarly, the AER considered ASX Energy listed peak futures contract prices in the calculation of the Default Market Offer (DMO) for 2022-23 but excluded peak futures prices for the DMO for 2023-24 due to the lack of an active market.

The Independent Competition and Regulatory Commission in the Australian Capital Territory also excludes the ASX Energy listed Victorian peak futures prices from the wholesale cost component of the regulated retail electricity prices from 2024-25 onwards.

In response to the decreasing demand for the current peak futures contract and calls from market participants for a contract based on the changed load profile, ASX Energy published a consultation paper on 7 February 2024.³ The paper proposed a number of possible changes to the contract such as a new peak futures contract that reflects the current price profile.

The timeline for introducing a new contract is not definite as it depends on a number of factors including the time required to close out existing contracts. However, the Regulator considers it likely there will be a period between the delisting of the existing contract and the start of any new contract during which there will be no peak futures contract available. Furthermore, ASX Energy expects that it will be some time before a liquid market develops for the new product.

The possibility of the current peak futures being delisted at some point has been raised by a number of market participants.

³ [Consultation on ASX Australian Peak Load Electricity Futures Contract Specifications \(asxonline.com\)](#)

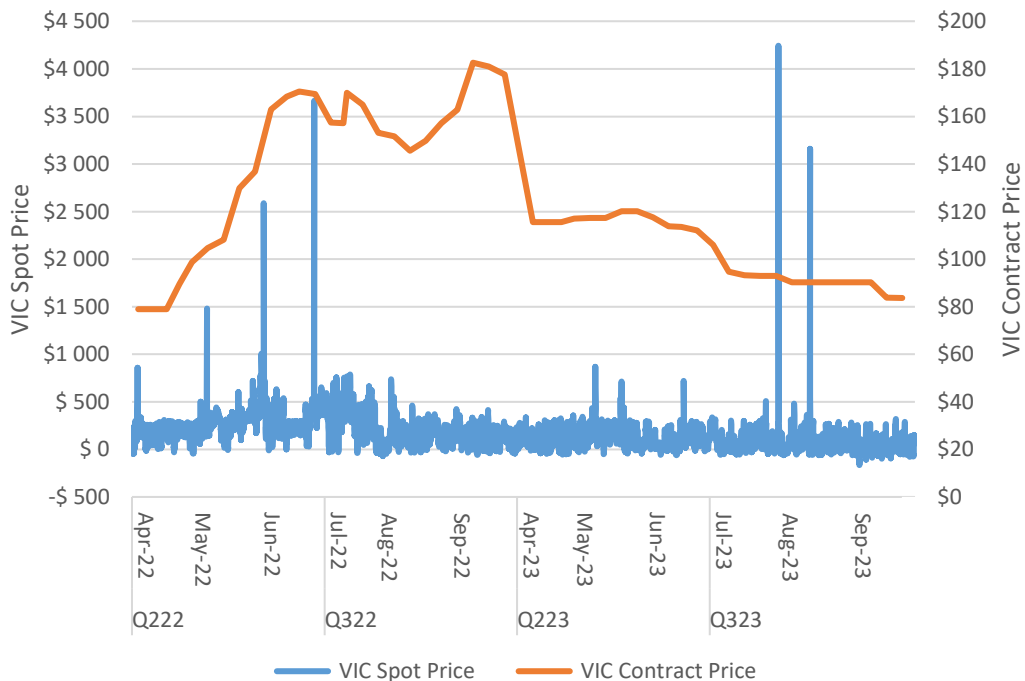
The Instrument is predicated on the availability of ASX Energy Victorian prices for peak futures, baseload futures and \$300 baseload caps. As such excluding peak futures prices from the Instrument would necessitate the development of a new regulated wholesale contract price methodology.

To enable the continuity of the current weekly wholesale contracting process, the Regulator considers there are two options for creating a proxy Victorian peak futures price:

1. a non-market peak swap price based on past market determined peak futures prices; or
2. past peak spot prices, or a peak swap price based on contemporary baseload futures contract.

The Regulator considers a peak swap price based on past prices, whether contract or spot, is not preferable and is not a viable option as the wholesale electricity market is very volatile and changing rapidly. As such, past prices are unlikely to reflect contemporary market conditions, even if the prices were from the corresponding quarters in previous years. This is evidenced by the comparison of peak prices during Q2 and Q3 2022 to Q2 and Q3 2023 as shown in Figure 2.

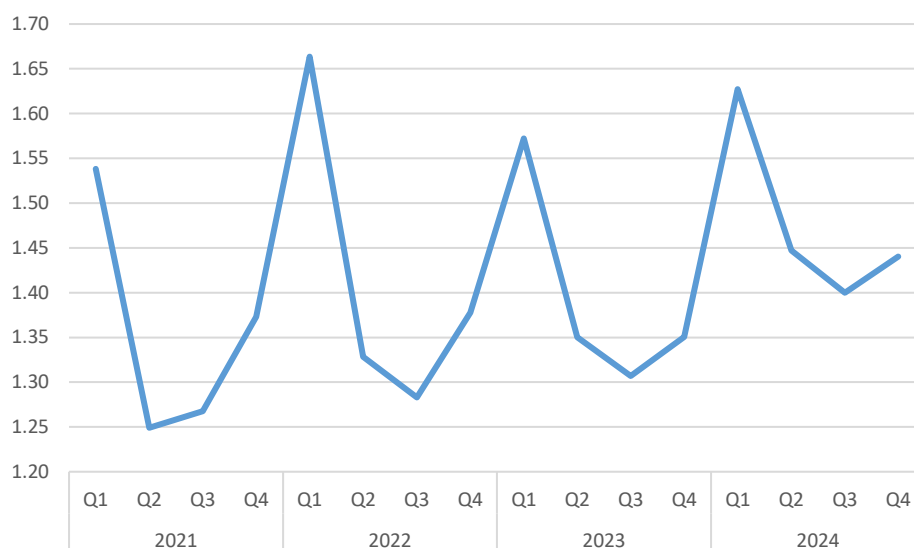
Figure 2: comparison of peak prices between Q2 2022 and Q3 2023



The preferred option is to determine peak prices by applying a multiplier to contemporary baseload prices. A similar method was also proposed by Hydro Tasmanian based on a report prepared by a consultancy it engaged to review the Instrument.

The Regulator analysed baseload and peak futures prices from Q1 2021 to Q4 2024 using linear regression and found a high level of correlation between baseload and peak futures prices although the relationship varied by quarter as shown in 3.

Figure 3: Average peak to baseload swap price ratio



Based on this analysis, the Regulator proposes calculating proxy weekly Victorian peak futures contracts based on the weekly Victorian baseload futures prices with the following multipliers applied for each calendar quarter:

Q1	1.6
Q2	1.3
Q3	1.3
Q4	1.4

The Regulator also proposes that the proxy Victorian peak futures price would be calculated (and used in the weekly wholesale price calculations) from the time the current peak futures contract is delisted until such time as the new peak contract reaches open interest of 100MW. At this point the market determined peak futures price will once again be included in the regulated wholesale price calculation.

On this basis, the Regulator proposes inserting the following text in clause 7.2 of the Instrument:

If there is no settlement price for Victorian peak swaps for that Quarter \$ / MWh, the Peak Reference Swap equals the Baseload Reference Swap Value multiplied by the relevant Peak Multiplier for that Quarter.

The effect on regulated wholesale prices of the replacement peak futures cannot be determined at this time as it will depend on the time period/s ASX Energy decides to

use and the prices for that product. The replacement peak futures contract will have fewer peak hours which the Regulator expects, by itself, would reduce regulated prices. However, any reduction in price could be offset if prices are relatively higher for the replacement contract.

During the period when there is no listed peak futures contract and in the period until there is 100 MW in open interest in the replacement product, the Regulator proposes calculating the Victorian peak swap by applying a quarterly multiplier to the weekly Victorian baseload price. Once the open interest in peak futures has reached 100 MW the Instrument will revert to using ASX Energy's peak futures value.

4.2.2. Open interest - Victorian peak futures contracts

As discussed in 4.2.1, the demand for Victorian peak futures contracts has been declining for a number of years. The lack of demand and therefore lack of liquidity in the peak futures market is matched by a decrease in the volume of open interest. The Instrument includes a minimum open interest limit for both Victorian baseload and peak futures contracts. This was originally included in the Instrument to ensure that the futures prices used in calculating regulated wholesale prices reflect the market.

Where the open interest for Victorian peak futures contracts is below the open interest limit of 100 MW, and the prices are for quarter five and beyond, clause 8.3 of Instrument requires the use of the Victorian peak futures price for the corresponding quarter of the previous year. Therefore, a previous year's price may be used to calculate prices that will apply at least a year into the future.

The previous quarter's price reflects the market conditions at that time and may be materially different to current conditions let alone the conditions expected in the future. In addition, there has been a general lack of open interest for peak futures contracts since 2021. The Regulator therefore considers it probable that the applicable previous price is the result of the open interest limit not being met and is therefore also not reflective of the contemporary market in the corresponding quarter of the previous year.

The Victorian peak price input when the open interest is not met may therefore result in Tasmanian peak prices which are not reflective of the contemporary market. This occurred in early 2023 when the open interest limit not being met resulted in a higher Tasmanian peak swap prices than would be expected based on the market conditions at the time.

The open interest limit provision for peak futures contracts does not appear to provide any more price certainty as to market reflective prices than using the current market price even with low liquidity and low open interest. To the contrary, because the peak futures contract prices affect Tasmanian baseload, peak and load following swap prices, the open interest limit may result in these Tasmanian regulated prices being materially different to those expected in the contemporary market. Based on

the above discussion, the Regulator proposes removing the open interest limit requirement for Victorian peak futures contracts.

The Regulator proposes removing from clause 8.3 of the Instrument the open interest limit requirement for Victorian peak futures contracts.

4.2.3. Term of the Instrument

The Regulator notes the market is changing rapidly and will conduct another pricing investigation in the event of change in the Tasmanian electricity market which has a material effect on the Instrument.

Subject to any material changes occurring, the Regulator therefore proposes the approvals to be made under section 43G of the Act apply for five years.

The Regulator proposes the approvals to be made under section 43G of the Act apply for five years so that the approvals in the new Instrument expire on 30 June 2029.

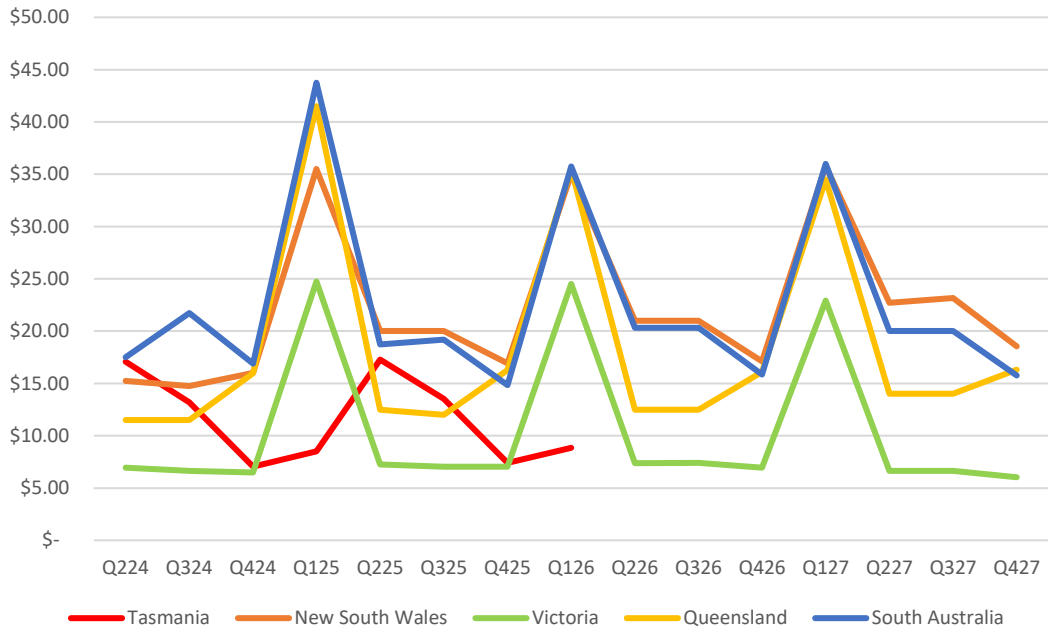
4.2.4. Calculation of Maximum Baseload \$300 Cap Contract Price

Cap prices in other jurisdictions are generally in response to two scenarios. Firstly, increased demand which cannot be supplied by the baseload generation due to insufficient capacity that must therefore be met by electricity which can be provided quickly, such as a gas peaking plant. Secondly, baseline generation is insufficient to meet demand due to an outage or other technical issue whereby demand must also be met by generators that can quickly change their output. In both scenarios there is insufficient lower cost baseload capacity to meet demand. In these situations, demand is currently and generally met by higher-cost generators, predominately gas fired generators, which have relatively high operating costs and are only viable to operate when prices are high.

In mainland NEM jurisdictions high spot prices correlate with the periods of greatest demand and increased price volatility which generally occurs in the late afternoon during the summer months. This is reflected in baseload cap prices which are materially higher during Q1 in all NEM jurisdictions as shown in Figure 4.⁴

⁴ Tasmanian regulated prices are for eight forward quarters only.

Figure 4: Baseload cap prices between Q2 2024 and Q4 2027 (as at 13 March 2024)



In Tasmania, spot prices generally increase during the winter months when demand is higher and storage levels may be relatively low ahead of winter inflows. However, given that high spot prices (ie above \$300 / MWh) occur during trading intervals with relatively low demand, high prices are most likely due to other factors such as plant outages and network constraints.

In contrast to regulated peak, baseload and load following swap prices which are based on market reflective Victorian futures prices adjusted for Tasmanian specific factors such as hydro yield and Basslink imports, the regulated baseload cap price is based on the long run marginal cost of new peak capacity, specifically a gas fired peaking generator, built in 10 years.

The non-market-based baseload cap value is used in calculating the regulated Tasmanian baseload, peak and load following swap price and therefore affects the link between market based Victorian prices and Tasmanian regulated contract prices.

The rationale for using the costs associated with constructing a gas peaking generator in the Tasmanian baseload cap calculation was that surplus peaking capacity generation (provided by hydro generation) would reduce over time as demand increased and prices should be high enough to ensure sufficient peaking capacity is maintained in perpetuity.

When the regulatory framework was set up, it was decided that the most expedient method for determining the cost of providing peaking capacity was to firstly determine the construction and fixed operating costs of a generic peaking generator

constructed in the future when the additional capacity is expected to be required and then discount those costs back to the current year.

The cost of this future generation is then apportioned across four quarters to reflect the risk of possible capacity shortfalls (including a capacity shortfall due to a Basslink outage) throughout the year. Adjustments are also made in the Instrument based on Victorian baseload cap futures prices, water storages and Tasmanian demand, with the latter two factors more aligned with energy supply shortfalls than capacity supply shortfalls. Therefore, Tasmanian caps appear to address the opportunity cost of water and energy supply risks rather than the risk of capacity shortfalls.

In its review of the Wholesale Contract Regulatory Instrument⁵, EMCa also noted that, while energy shortages may result in price increases, there was adequate capacity to ensure continuity of supply such that prices remained below \$300 / MWh.

The link between the opportunity cost of water and high prices is demonstrated by the Tasmanian spot prices in 2022 and 2023 when, due to volatile fuel prices, there was a significant increase in prices in all NEM jurisdictions. Tasmanian spot prices were greater than \$300 / MWh in 1 359 half hour periods during 2022. In comparison, Tasmanian spot prices were greater than \$300 / MWh in only 11 half hour periods during 2023. The Regulator considers that these price differences are most likely due to an increased opportunity cost of water in a high-priced environment as there were no changes in storages or capacity that can account for the differences.

As part of the Regulator's direct consultation with stakeholders for this investigation, Aurora Energy raised the inclusion in the Instrument of the future construction of a gas peaking plant as a major factor impacting on Tasmanian cap prices. Specifically, Aurora Energy considers it improbable that a gas peaker would ever be built in Tasmania and queries the construction timeline which is fixed at a maximum of 10 years.

Aurora Energy also considers that the current method of calculating the cap price has resulted in an inflated cap price leading to much higher regulated contract prices than would otherwise be the case based on a situation which is improbable.

Aurora Energy stated that in the 10 years that the Instrument has been operating, wholesale energy prices have been elevated as they reflect the costs of new capacity being built in 10 years' time, with those costs recovered from customers through wholesale prices over that period. For example, in 2014, the cap prices were set on the basis that new capacity would be required in 2024. Today, in 2024, this capacity has not been built and nor does an additional 10-year ES00⁶ outlook from today suggest it is required.

Aurora Energy further stated that "... Tasmanian customers have, via their retailer, continued to pay a premium to Hydro Tasmania based on a need for new capacity in

⁵ [EMCa, Review of the Tasmanian Wholesale Electricity Market Regulatory Pricing Framework - Final Interim Report.pdf \(treasury.tas.gov.au\)](#), page 46.

⁶ ES00 - Electricity Statement of Opportunities.

a generation market that is not capacity constrained. On the contrary, Tasmania lacks energy, not capacity. This suggests that the cap methodology should be reviewed to reflect the market need for capacity rather than providing a payment to a generator that does not require capacity to meet Tasmanian demand.”

Specifically, Aurora Energy raised the following points:

- i. Alternative technologies such as a four-hour battery peaker plant, which is used for covering the peak hours (two four-hour periods per day), is more expensive to build than a gas peaker plant.
- ii. Hydro Tasmania currently has sufficient capacity to meet demand during peak hours.
- iii. Energy in storage arrangements mitigate the risk of a need for peaking capacity (ie increased minimum storage levels).
- iv. Hydro Tasmania is increasing the capacity of its existing generating plants, therefore increasing its ability to provide peak services.
- v. When the Instrument was drafted, it was considered that there would be a need for additional peaking capacity in 10 years and this is the hardcoded value in the Instrument. AEMO reports have consistently stated that there are no capacity shortfalls in Tasmania in the foreseeable future and a maximum time of 10 years until construction of new capacity effectively penalises customers with higher prices.
- vi. In Tasmania, wind farms have progressively displaced hydro energy for baseload energy and freed up Hydro’s capacity, enabling it to provide peaking services.
- vii. If built, Marinus Link would provide an additional 750 MW of capacity that would free up even more of Hydro Tasmania’s capacity for peaking / firming purposes.
- viii. The Tamar Valley Power Station is also a peaking generator but does not get used for this purpose as Hydro Tasmania is providing peaking capacity from its hydro generation assets.
- ix. Increased market alignment between Tasmania and Victoria. The price pattern of winter / summer and am / pm “super peaks” are now more closely aligned between Tasmania and Victoria than they were when the Instrument commenced in 2014.
- x. The market in Tasmania is different to other NEM jurisdictions, all of which have capacity shortages of varying degrees which are reflected in the cap prices in each jurisdiction. Furthermore, peak capacity in other jurisdictions is predominately met by gas peaking generators.

In response to the above issues, Aurora Energy suggested the following options (in order of Aurora Energy’s preference) regarding the cap inputs in the Instrument:

1. The inputs relating to the costs of the peaking plant should be removed from the Instrument until AEMO indicates there is need to build such a plant in Tasmania in the future. In the interim, the Victorian cap price can be used for the Tasmanian cap price due to a greater alignment between Victorian and Tasmanian prices.
2. Changing the timeframe for building a new gas peaker plant from 10 years to 20 years.
3. Now there is greater alignment between Victorian and Tasmanian prices, the Victorian cap price can be used for the Tasmanian cap price.
4. Include a nominal amount for new peaking capacity.
5. The cap price could reflect the cost of wind instead of gas noting this would result in higher cap prices than those derived using a gas peaker.

The Regulator carried out a sensitivity analysis on Tasmanian contract prices by replacing the costs associated with constructing a gas peaker plant with different types of technologies and changing the expected construction date for the new generation plant. The build cost and fixed operating costs used in this analysis were sourced from AEMO's *2023 IASR Assumptions Workbook*.⁷ Noting that information on a pumped hydro plant was not included, based on load following swap prices, the analysis found that prices were lowest using battery storage (one hour), battery storage (two hours), Open Cycle Gas Turbine (large) and Open Cycle Gas Turbine (small).

With respect to Aurora Energy's suggestion of basing the cap price on the cost of wind, the Regulator confirmed this option would increase the cap price and, therefore, regulated contract prices which in turn, all other things being equal, would increase retail prices. Furthermore, the characteristics of wind generation means that it is not designed to provide peaking capacity (and therefore does not align with the market in other jurisdictions where the underlying driver of cap prices is the cost of capacity to meet peak demand). However, the availability of wind generation increases overall capacity which would allow more of Hydro Tasmania's capacity to be used for when there is insufficient non-hydro generation.

Aurora Energy's suggestion of using the Victorian cap price as a substitute for the Tasmanian cap price would result in significantly lower Tasmanian regulated load following swap prices (on average 10 per cent lower) as Victorian cap prices are generally much lower than Tasmanian cap prices. The exception is in Q1 when the situation is reversed, and the Victorian cap prices are significantly higher. To address this issue, the average of the previous three quarters could be used as the price for the Tasmanian cap price in Q1 to reflect that there is no seasonal capacity shortage in Tasmania.

⁷ AEMO, [2023-IASR-assumptions-workbook](#)

Based on AEMO's August 2023 *Electricity Statement of Opportunities*⁸, which looks at a 10-year reliability outlook for the NEM, there is no forecast additional capacity required in Tasmania to meet the electricity reliability standard. As such there is unlikely to be an energy capacity issue in Tasmania in the next 10 years. Aurora Energy's suggestion of removing the peaker plant inputs until AEMO indicates additional capacity is required would result in significantly lower Tasmanian regulated load following swap prices (on average around 18 per cent lower).

The Regulator considers that including a nominal amount for peaking capacity may be a viable alternative but would most likely require an element of judgement as to how the nominal amount would be determined.

The Regulator's analysis has found that cap prices were slightly lower if the time to build a new gas peaking plant was extended from 10 years to 20 years. This change does not appear to have a significant impact on regulated prices with regulated load following swap prices reduced by around four per cent.

Overall, there appears to be no justification as to why Tasmanian cap prices should be higher than Victorian cap prices considering Victorian peak capacity is met by gas generators.

In light of AEMO effectively stating there no capacity shortage envisaged for the next 10 years and taking into consideration the legislated requirements that prices be based on the applicable Victorian price, the Regulator proposes that Tasmanian baseload cap price equals the lesser of the Victorian baseload cap price and the price calculated using the current baseload cap price formula in clause 11.1 of the Instrument ie:

$$BCV = \text{MAX}(FSF \times ABRCV_{\text{FLEX}} + PCV - ABRCV_{\text{FLEX}}, OCV)$$

Where:

- (a) *BCV is the Baseload Cap Value for the Quarter, in \$/MWh;*
- (b) *FSF is the Flex Scale Factor for the Quarter, calculated in accordance with clause 11.2;*
- (c) *ABRCV_{FLEX} is the Flexible Portion of the Annual Baseload Reference Cap Value for the Quarter, in \$/MWh, calculated in accordance with clause 11.5;*
- (d) *PCV is the Peaker Capacity Value for the Quarter; in \$/MWh, calculated in accordance with clause 11.6; and*
- (e) *OCV is the Off-Peak Cap Value for the Quarter, in \$/MWh, calculated in accordance with clause 12.3.*

⁸ AEMO, [2023-electricity-statement-of-opportunities](#), page 73.

As such the Regulator proposes that clause 11.1 in the new Instrument read as follows (changes in red):

$$BCV = \text{MIN}(\text{MAX}(\text{FSF} \times \text{ABRCV}_{\text{FLEX}} + \text{PCV} - \text{ABRCV}_{\text{FLEX}}, \text{OCV}), \text{BRCV})$$

Where:

- (a) *BCV is the Baseload Cap Value for the Quarter, in \$/MWh;*
- (b) *FSF is the Flex Scale Factor for the Quarter, calculated in accordance with clause 11.2;*
- (c) *ABRCV_{FLEX} is the Flexible Portion of the Annual Baseload Reference Cap Value for the Quarter, in \$/MWh, calculated in accordance with clause 11.5;*
- (d) *PCV is the Peaker Capacity Value for the Quarter; in \$/MWh, calculated in accordance with clause 11.6;*
- (e) *OCV is the Off-Peak Cap Value for the Quarter, in \$/MWh, calculated in accordance with clause 12.3; and*
- (f) *BRCV the Baseload Reference Cap Value for the Quarter, in \$/MWh, calculated in accordance with clause 7.3.*

The Regulator proposes that the Tasmanian baseload cap price equal the lesser of the Victorian baseload cap price and the price calculated using the current baseload cap price formula in clause 11.1 of the Instrument.

4.2.5. Volume of regulated contracts and scaling process

The Instrument was designed to provide retailers operating in the Tasmanian electricity market with similar risks to retailers in other jurisdictions with regards to hedging their exposure to spot prices. The Instrument does so by regulating both the prices and volume of financial contracts that Hydro Tasmania must offer. The Instrument requires Hydro Tasmania to offer a minimum volume of regulated contracts each week⁹ with the minimum volume equal to the total small customer load in Tasmania, spread over 102 weeks. The weekly volumes are seasonally adjusted each quarter based on historical quarterly load. Volume can increase up to total Tasmanian customer load, depending on Hydro Tasmania's overall contract position.

Some stakeholders have raised the issue that there is an insufficient volume of regulated contracts. The issue arose during and after the significant spot price increases in 2022 and correlate with unregulated contracts becoming consistently more expensive than regulated contracts.

⁹ Except for the week around Christmas and in another week that meets the requirements in section 3.5 of the Guideline.

Previously the price differences between unregulated and regulated contracts were relatively small and both positive and negative. The contract volume provided under the Instrument did not appear to be an issue.

The Regulator's analysis has found that there is a correlation between:

- the increase in unregulated contract prices relative to regulated contract prices;
- an increase in the number of unregulated contracts entered into; and
- an increase in the number of times scaling was applied.

Consequently, the Regulator considers that the concerns about contract volume availability stems from market participants wanting to contract at the lowest price, which, at the time, was regulated contracts therefore increasing the demand for regulated contracts, rather than any fundamental issue with the volume of regulated contracts that Hydro Tasmania must offer under the Instrument.

All authorised retailers can purchase regulated contracts. However, if there is a greater demand for regulated contracts than Hydro Tasmania is offering, the available volume offered must be rationed. This is done through the scaling provisions in clause 27 of the Instrument. The scaling provisions ensure that retailers currently serving the small customer market have priority allocation compared to new retailers entering the market or existing retailers serving the non-small customer market.

In the absence of any stakeholders raising specific concerns with the current volume release process and the current scaling rules set out in the Instrument, the Regulator has decided to maintain the current contract volume and scaling provisions.

The Regulator proposes maintaining the current volume and scaling provisions in the Instrument.

4.2.6. Schedule 1 input values

General

Schedule 1 of the Instrument lists inputs set by the Regulator. These inputs include amounts, rates and percentages that are used in the calculations outlined in the Instrument.

The Regulator reviewed the inputs in Schedule 1 in 2017 and released the *Approach to updating the inputs in Schedule 1 of the Wholesale Contract Regulatory Instrument* in August 2017.¹⁰ The document sets out the method and source data for updating the values together with the updated values, which applied from September 2017.

¹⁰ Tasmanian Economic Regulator, [Approach to updating Schedule 1 values](#), 2017.

The Regulator also decided to review the values annually based on the availability of information, in particular information published by AEMO that is used in updating a number of the inputs.

Basslink import / export values

Prior to 2020, the values for “Average Basslink Flow Export” and “Average Basslink Flow Import” were based on the Basslink technical specifications current at the time the Instrument was created in 2013.

In May 2020 the Regulator determined new values for each input in response to Hydro Tasmania’s changed bidding instructions for Basslink Pty Ltd as specified in Hydro Tasmania’s Enhancement Compliance Plan notice dated 10 March 2020.

The values in Hydro Tasmania’s compliance plan vary throughout the year rather than using a single value. As the Instrument is based on quarterly data, the Regulator calculated quarterly values which necessitated the values in the model being updated quarterly. However, Aurora Energy pointed out that the current Instrument does not have the functionality to change these values quarterly, resulting in the updated quarterly value being used for all future quarters.

The Instrument can be changed to provide for the quarterly values to be used. Alternately, the inputs can revert to a single value as used in the original Instrument; in either case the value/s are updated as part of the annual Schedule 1 update.

Based on the difference between using a quarterly value and an annual value being less than 0.01 per cent, the Regulator proposes reverting to a single value calculated as the average of the continuous capacity values provided annually by the current owner, the APA Group.

Off-peak cap values

The Off-Peak Cap Value refers to the Tasmanian market while the Off-Peak Reference Cap Value refers to the Victorian market. The values are calculated using a ten-year average of quarterly Tasmanian and Victorian off-peak spot prices over \$300 / MWh.

Tasmanian and Victorian wholesale spot prices were significantly higher during 2022 compared to previous years. Off-peak spot prices during 2022 were not only materially higher than in previous years but the incidence of prices above \$300 / MWh was also more frequent. This resulted in the Off-Peak Cap Value increasing from \$1.38 / MWh to \$2.17 / MWh and the Off-Peak Reference Cap Value increasing from \$0.11 / MWh to \$1.03 / MWh.

In response to the effects of the volatility during 2022 on future off-peak cap values the Regulator investigated the option of calculating normalised prices by removing extreme prices (outliers). This is akin to the Major Event Day calculation used by electricity networks when calculating the System Average Interruption Duration Index where outlier duration values are replaced with a standardised duration value. This method would reduce the range of price variance above \$300 / MWh but will not affect the frequency of prices greater than \$300 / MWh.

The Regulator used two relatively simple methods to identify outlier prices above \$300 / MWh. The first method used identified outliers as values above 1.5 times the inter quartile range of all prices greater than \$300 / MWh with these prices being replaced with a price equal to 1.5 times the inter quartile range. The second method identified outliers as prices above the mean of the prices greater than \$300 / MWh multiplied by 2.5 standard deviations. As with the first method prices greater than \$300 / MWh were replaced with the mean price plus 2.5 standard deviations. The outcomes from applying these two methods are set out in Table 2.

Table 2: Off-Peak Cap values - removal of outliers (\$/MWh)

Defined term	No change to calculation method	Remove outliers - method 1	Remove outliers - method 2
Off-Peak Reference Cap Value	1.03	0.86	0.89
Off-Peak Cap Value	2.17	1.80	2.00

In the initial calculation of the Off-Peak Cap Values the model developers excluded 2010 from the calculation as the prices in that year were deemed to be unusual. The Regulator considers that in the event of significant changes in prices there are three alternatives:

- the entire year could be excluded from the calculations;
- the high prices are replaced with normalised values (as discussed above); or
- no adjustment is made.

Considering that the third option will result in prices being affected for 10 years, the Regulator proposes using the inter quartile range method to normalise the values. This is considered preferable to removing prices for an entire year as this would be subjective as it would require a judgement call to be made as to which years to exclude.

Contract premiums

The peak and off-peak contract premium values only affect the load following swap price used in calculating the over-hedged component in the load following swap calculation. As the load following swap is an aggregate of fixed volume baseload, peak and cap hedges, there is invariably an amount of over-hedging and the contract premiums are used in calculating the over-hedged component of the load following swap.

The Instrument uses the peak and off-peak contract premiums as calculated in the 2010 report *Review of Wholesale Energy Price for Period 2010-2013* by IES.¹¹ The peak and off-peak premiums are calculated as the difference between the peak contract prices for a quarter and the peak spot prices for that quarter and the difference between the off-peak contract prices for a quarter and the off-peak spot prices for that quarter respectively. IES found that, between 2003 and 2008, contract prices were consistently above spot prices and calculated a premium of the average of this premium to spot prices was \$15.60 / MWh for peak contracts and \$3.40 / MWh for off-peak contracts.

Since there are no off-peak futures contracts traded on ASX Energy, and a lack of liquidity for the peak futures contract, the Regulator has calculated off-peak and peak premiums using the Victorian baseload futures and peak and off-peak spot prices between 2014 and 2023 (excluding 2022) and determined a premium of \$2.54 / MWh. The data for 2022 is excluded from the calculation because of the high-price event during that year affecting the wholesale market which resulted in the Victorian contract prices being significantly lower than the Victorian spot market prices. Based on peak and off-peak periods, the Regulator calculated a pro-rated peak swap premium of \$1.59 / MWh and a pro-rated off-peak swap premium of \$0.95 / MWh.

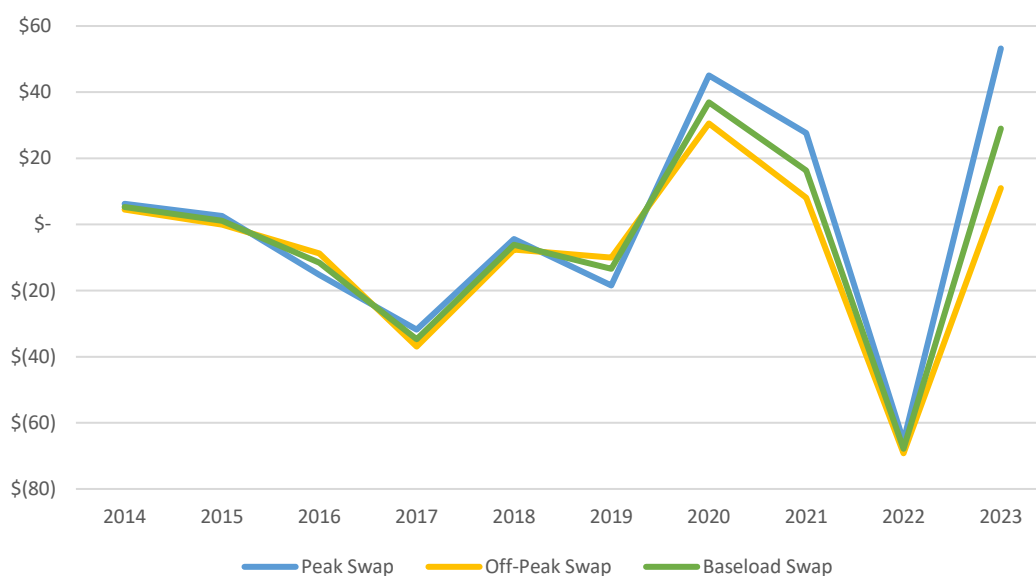
In contrast to previous results and as shown in 5, the Regulator found that the contract premium prices were both higher and lower than the relevant spot prices in different years. Due to a lack of publicly traded off-peak futures the Regulator proposes using the Victorian baseload futures in calculating the peak and off-peak contract premiums and in updating the values of those inputs as part of the annual update of Schedule 1 input values.

Construction quarter

The current time for construction of new capacity is 10 years unless AEMO indicates new capacity is required earlier. Noting the issues raised by Aurora Energy regarding the time to construction of new capacity in section 4.2.4 of this report, and subject to feedback from stakeholders, the Regulator proposes that, unless AEMO indicates a specific period by which additional capacity is required, the time for construction be extended to 20 years as this is the maximum time period currently provided for under AEMO's IASR Assumptions.

¹¹ As provided to the Regulator for the [Report on the investigation of maximum prices for interim price-regulated electricity retail services for small customers on mainland Tasmania](#).

Figure 5: Annual Victorian contract premium (2014-2023)



Pre-Tax Real WACC

The current weighted average cost of capital includes a beta equal to one.

This was used in the 2013 Instrument as it was deemed appropriate at the time for a new entrant gas generator. As part of this investigation, the Regulator has calculated an equity beta of 0.8 using the unlevered betas¹² of the following listed comparator companies:

- Origin Energy Limited;
- APA Group;
- AGL Energy Limited; and
- Genex Power Limited.

The average of the unlevered betas was converted to a levered beta using a capital structure of 40 per cent debt and 60 per cent equity.

The Regulator notes that AEMO includes a beta of 0.83 in its latest reserve capacity price report¹³ and considers that this value is more reflective of current market outcomes for utilities companies. The Regulator also notes the AER's 2018 equity beta

¹² Data sourced from Infront Analytics on 13 March 2024.

¹³ [Final Report:2021 Benchmark Reserve Capacity Price for the 2023-24 Capacity Year, December 2020](#)

discussion paper¹⁴ which calculated an equity beta for utilities of less than 0.6. Based on this information, the Regulator considers a beta of less than one is appropriate and proposes using a beta of 0.75 (average of 0.83, 0.8 and 0.6) in calculating the weighted average costs of capital in Schedule 1 of the Instrument.

The Regulator proposes:

- using a single annual Basslink import / export value;
- using the inter-quartile range to remove outliers from the values used to calculate off-peak cap values;
- updating the contract premium using pro-rated baseload contract values;
- using a beta of 0.75 in calculating the weighted average cost of capital; and
- extending the construction time to 20 years, unless AEMO indicates a specific period by which additional capacity is required.

4.2.7. Miscellaneous amendments to the Instrument

During this investigation the Regulator has identified that a number of minor changes need to be made to the Instrument including replacing references to 'd-cypha' with 'ASX Energy'.

The Regulator proposes making minor changes to the Instrument to remove redundant references and updating out-of-date references including replacing references to 'd-cypha' with 'ASX Energy'.

4.3. Wholesale Contract Guideline

4.3.1. Miscellaneous changes

The Regulator proposes making a number of minor drafting changes to the Guideline to correct typographical and grammatical errors, and to clarify the intent of the relevant clauses in the Guideline.

4.4. Statement of Regulatory Intent

4.4.1. Supply Disruption Event - Basslink outages

Under section 43M(2) of the Act, the Regulator may fix regulated wholesale contract prices if the Regulator is of the opinion that a 'supply disruption event' has occurred. The Act defines a supply disruption event as:

“...an event (other than a drought) that, in the opinion of the Regulator, is likely to cause a prolonged interruption to a substantial quantity of the

¹⁴ [Australian Energy Regulator - Equity Beta Discussion Paper - March 2018.pdf](#)

electricity that would otherwise be supplied under normal circumstances by Hydro Tasmania”.

Although the Regulator did not fix prices, the Basslink outage in 2015-16 was deemed to be a supply disruption event as Hydro Tasmania controlled the flows across Basslink through the Basslink Services Agreement at that time such that electricity imported across Basslink was treated as ‘electricity that would otherwise be supplied under normal circumstances by Hydro Tasmania’.

Basslink’s current owners, the APA Group, have applied to the AER to convert Basslink from a Market Network Service Provider to a regulated Transmission Network Service Provider. The Regulator considers that once Basslink is a regulated interconnector, any failure to supply electricity to Tasmania due to an outage will not meet the definition of a supply disruption event in that Hydro Tasmania will no longer control the flows across the interconnector.

4.4.2. Updating inputs in the Instrument

The Regulator updates Schedule 1 of the Instrument annually. The values are sourced from a range of publicly available data which are updated at various times depending on the availability of the required data. As the dates of publication of the updated data vary, the Regulator proposes amending the Statement to reflect that timing of the annual update is subject to the availability of the input data.

The Regulator proposes amending the Statement to update the Schedule 1 values annually subject to the availability of the input data.

4.4.3. Miscellaneous changes

The Regulator has also made a number of minor drafting changes to the Statement to correct typographical and grammatical errors and to clarify the intent of the relevant clauses in the document.

The Regulator proposes making a number of changes to the Statement to correct minor errors and to improve clarity and readability.

APPENDICES

A. Summary of the Regulator's obligations under the wholesale contract pricing regulatory framework

Instrument	Obligation
<i>ELECTRICITY SUPPLY INDUSTRY ACT 1995</i>	
ESI Act – 6(2)	<p>In exercising its powers and functions under the Act, the Regulator's objectives include:</p> <ul style="list-style-type: none"> ▪ the promotion of efficiency and competition in the electricity supply industry; ▪ the establishment and maintenance of an efficient system of electricity generation, transmission, distribution and supply; ▪ the establishment and enforcement of proper standards of safety, security, reliability and quality in the electricity supply industry; and ▪ the protection of the interests of electricity consumers.
ESI Act – 43G(1)	<p>Section 43G requires the Regulator to make approvals in relation to:</p> <ul style="list-style-type: none"> ▪ the types of contracts that Hydro Tasmania must offer as regulated contract products; ▪ the standard form(s) – including terms and conditions – for each regulated contract type; ▪ the methodology for determining the prices for each regulated contract type; ▪ the forward period over which regulated contracts are to be offered; and ▪ the volume of regulated contracts that Hydro Tasmania must offer. <p>Section 43G also provides for the Regulator to revoke an existing approval, after undertaking a process outlined in supporting regulations, if the Regulator considers that the approval no longer reflects the principles outlined in section 43H (see below).</p>
ESI Act – 43G(3)	Contract types - approved types of contracts must include a load following swap.

ESI Act – 43G(4) and (5)	The Regulator may revoke an approval under section 43G(1) if it is of the opinion that the approval has ceased to reflect any of the principles specified in section 43H.
ESI Act – 43G(7)	Approvals and revocations must be made by the Regulator in accordance with the Regulations.
ESI Act – 43G(8)	<p>(a) The Regulator must provide a copy of any approval/revocation to Hydro Tasmania and each authorised retailer in the state.</p> <p>(b) The Regulator must publish any approval/revocation made on its website.</p>
ESI Act – 43G(9)	Any approval made by the Regulator under the ESI Act remains in force for a period that is to be determined in accordance with the Regulations.
ESI Act – 43H	<p>Section 43H outlines a number of principles that must be taken into account by the Regulator in making a section 43G approval. These principles include that:</p> <ul style="list-style-type: none"> ▪ authorised retailers should have a choice of different contract types to enter into with Hydro Tasmania; ▪ the types of contracts and standard form of those contracts should, where reasonably practicable, be of a type used in the NEM; and ▪ the methodology for determining the prices of Hydro Tasmania’s regulated contracts should reflect Victorian contract prices, adjusted to take into account the supply / demand balance in Tasmania.

ELECTRICITY SUPPLY INDUSTRY (PRICING AND RELATED MATTERS) REGULATIONS 2023

The Pricing Regulations make provisions in relation to section 43G(1) approvals and section 43G(4) revocations of approvals.

REG - 17	<p>The Regulator must conduct a pricing investigation:</p> <ul style="list-style-type: none"> ▪ before making/revoking an approval under section 43G of the ESI Act; or
REG – 18(1)	<p>Before conducting the Investigation, the Regulator must give notice to:</p> <ul style="list-style-type: none"> ▪ the Minister; ▪ Hydro Tasmania; ▪ any relevant authorised retailers; and ▪ the public – by publishing notice in a daily newspaper or the Regulator’s website (as The Regulator considers appropriate).
REG – 18(2)	<p>The Regulation 18(1) notice should specify:</p> <ul style="list-style-type: none"> ▪ the objective of the Investigation; ▪ the period within which submissions may be made; ▪ matters the Regulator would like submissions to address; and ▪ the date by which the Regulator is to complete the Investigation and provide a final report.
REG – 18(3)	<p>Before conducting the Investigation, the Regulation 18(1) notice must be available on The Regulator’s website (and remain there for a reasonable time).</p>
REG – 18(4)&(5)	<p>The notice to the Minister may be amended in writing, to the Minister, Hydro Tasmania and relevant authorised retailers, if necessary.</p> <p>The Regulator may not amend the objective of the Investigation.</p>
REG – 19	<p>The Final Report of the Investigation is to set out:</p> <ul style="list-style-type: none"> ▪ a summary of the information obtained during the Investigation; and ▪ the decision as to whether to make and revoke an approval (and on what terms).

REG – 20	After completing the Final Report of the Investigation, the Regulator can make or revoke an approval under section 43G of the Act.
REG – 57	Requirements of the Regulator when conducting pricing investigations. This regulation details the form any submissions must take, as well as who the Regulator may consult with, and how. In conducting an investigation, The Regulator is not bound by rules of evidence and may inform itself in any way it considers appropriate.
REG – 59 & 60	Details of the persons that may be required to give evidence or provide documentation. These regulations also prescribe how the Regulator may use such information once it has been received.
REG – 61(1)	At an appropriate time during the Investigation, The Regulator is to prepare a draft report.
REG – 61 (2)	The Draft Report must be provided (together with the relevant notice) to the Minister, Hydro Tasmania and each authorised retailer. The Draft Report (and the relevant notice) must be available on the Regulator’s website, for at least 6 months.
REG – 61 (3)	The relevant notice to accompany the Draft Report is to be a notice inviting submissions in respect of the Report before the date specified in the notice.
REG – 62 (1)	The Regulator must prepare a final report. The Final Report must be given to the Minister, Hydro Tasmania and each authorised retailer. Notice of the Report must be published in newspapers, or in such other manner as the Regulator considers appropriate (for example, its website).
REG – 62 (3)	The Final Report is to be consistent with the ESI Act and Regulations (specifically Regulation 19).
REG – 62(6)	The Final Report must be available on the Regulator’s website.