



**Review of the Wholesale Contract Regulatory
Instrument**

Issues Paper

December 2015

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TABLE OF CONTENTS

INVITATION FOR SUBMISSIONS	4
1 BACKGROUND	5
1.1 INTRODUCTION	5
1.1.1 Wholesale electricity market in Australia	5
1.1.2 Wholesale electricity market in Tasmania	5
1.1.3 Tasmanian wholesale regulatory framework	6
1.2 WHOLESALE CONTRACT REGULATORY INSTRUMENT	7
1.3 SUPPORTING REGULATORY ARRANGEMENTS.....	10
1.4 THE PRICING INVESTIGATION.....	10
1.4.1 The Investigation	10
1.4.2 Scope	10
1.4.3 Objectives.....	11
1.4.4 Timing	12
1.5 EVALUATION CRITERIA	13
2 CURRENT PERFORMANCE	14
2.1 REGULATED CONTRACT PRICES IN TASMANIA	14
2.1.1 Price methodology.....	14
2.1.2 Market monitoring.....	16
3 POTENTIAL ISSUES	19
3.1 PRELIMINARY ISSUES	19
3.1.1 Market-based framework.....	19
3.1.2 Full retail competition	19
3.2 PART ONE.....	20
3.2.1 Term of the Instrument	20
3.2.2 Amendment provisions	21
3.2.3 Data, forecasts and calculations.....	22
3.3 PART TWO	22
3.3.1 Types of contract.....	22
3.3.2 Alteration to standard forms	23
3.4 PART THREE	24
3.4.1 Calculation of maximum baseload \$300 cap contract price	24
3.5 PART FOUR	25
3.6 SCHEDULE ONE	27

ATTACHMENT 1 – SUMMARY OF LEGISLATIVE FRAMEWORK

INVITATION FOR SUBMISSIONS

This issues paper has been prepared to assist interested persons in making submissions on the Tasmanian Economic Regulator's (the Regulator) proposed pricing investigation into the approvals contained within the Wholesale Contract Regulatory Instrument (the Instrument). The paper is intended to provide context for, and stimulate discussion about, the scope of the proposed investigation.

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

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

Submissions should be received by close of business on 22 January 2016.

To facilitate the publication of submissions on OTTER's website, submissions by email are preferred. Submissions and enquiries may be made to:

office@economicregulator.tas.gov.au

or to

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A copy of this Issues Paper may also be found at OTTER's website:
www.economicregulator.tas.gov.au.

1 BACKGROUND

1.1 Introduction

1.1.1 Wholesale electricity market in Australia

The Australian wholesale electricity market comprises a physical market for electricity and an associated financial derivatives market. Both markets run simultaneously as parallel systems.

The physical market, known as the National Electricity Market (NEM), is a wholesale electricity spot market in which generators sell electricity and retailers buy electricity to on-sell to consumers. The Australian Energy Market Operator manages this exchange through a centrally coordinated dispatch process where supply and demand are met instantaneously, in real time.

The electricity spot market is extremely volatile due to a number of factors including available capacity and demand, the need to continuously and instantaneously match supply with demand, unexpected generator outages and network constraints and weather. This volatility exposes participants in the NEM to considerable financial risks. In order to manage the volatility of these financial risks, generators and retailers negotiate financial contracts (also known as derivative contracts, options, futures or hedging contracts) that lock in a firm price for electricity that will be consumed at a future date. This process is conducted independently of the NEM and is known as a derivatives market.

Prices for derivative contracts negotiated in this market depend on:

- the period of the contract;
- generators' and retailers' appetite for risk; and
- each party's view on the likely spot market prices over the period of the contract.

Contract prices also include a premium for risk over the expected spot market price. A NEM participant may therefore choose to retain some exposure to the spot market. The level of exposure will depend on the entities' appetite for risk and its expectation of future market conditions.

1.1.2 Wholesale electricity market in Tasmania

In Tasmania, in addition to the derivatives contracts negotiated by NEM participants (as outlined in section 1.1.1), retailers have access to a set of regulated derivatives contracts that are enshrined in legislation and approved by the Tasmanian Economic Regulator (the Regulator).

Under this framework, Tasmanian retailers are, in principle, able to enter into derivative contracts with generators on the Australian mainland in addition to contracting with generators in Tasmania. However, the ability to manage inter-regional price risks is an additional consideration. Outside of this process, and in contrast to the rest of the NEM, Hydro Tasmania

is the only significant generator in Tasmania and is the major counterparty for derivative contracts for retailers wanting to manage the risks of Tasmanian spot price volatility.

Wholesale contract regulation (specifically, the requirement on Hydro Tasmania to offer a set of regulated derivative products in addition to existing derivative contract options) was introduced in Tasmania on 1 January 2014. Regulation was intended to assist retailers in mitigating against the contracting risks associated with Hydro Tasmania's dominance in the Tasmanian wholesale market and to reduce the risk faced by Tasmanian market participants to a level comparable with that facing 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 for retailers entering the Tasmanian electricity market.

Accordingly, since 1 January 2014, Hydro Tasmania has offered a range of regulated derivatives contracts for wholesale electricity to authorised retailers operating in Tasmania. The Regulator is responsible for regulating this activity and approves the types of regulated derivatives contracts that are available and monitors the sale of these contracts and the price at which they are offered. These arrangements are enshrined in legislation and supported by the wholesale regulatory framework.

1.1.3 Tasmanian wholesale regulatory framework

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

- *Electricity Supply Industry Act 1995* (the ESI Act);
- *Electricity Supply Industry (Pricing and Related Matters) Regulations 2013* (the Pricing Regulations);
- Wholesale Contract Regulatory Instrument (the Instrument);
- Electricity Wholesale Contracting Guideline (the Wholesale Guideline);
- Statement of Regulatory Intent; and
- Hydro Tasmania Electricity Generation Licence.

Additional supporting regulatory instruments include the Regulator's:

- Compliance Enforcement Policy;
- Regulatory Reporting Guideline; and
- Electricity Supply Industry Performance and Information Reporting Guideline.

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

- administering and monitoring the pricing of regulated wholesale derivative contracts;
- investigating and determining future wholesale contract pricing instruments; and
- collecting information from Hydro Tasmania to support the operation of the framework and the development of full retail competition.

A full summary of the Regulator's obligations under the wholesale regulatory framework is provided at Attachment 1.

1.2 Wholesale Contract Regulatory Instrument

The Instrument was made on 30 July 2013, and outlines, in detail, how the requirements set out in Part 3, Division 4A of the ESI Act are to apply in practice. The Instrument applies for the period from 1 January 2014 to 31 December 2018.

Part 3, Division 4A 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. For instance, section 43G of the ESI Act requires that the Regulator approve:

- the types of derivative contracts that Hydro Tasmania must offer as regulated contract products (such as financial swaps and caps);
- the standard form(s) (including terms and conditions) for each regulated derivative contract type;
- the methodology for determining the prices for each regulated derivative contract type;
- the forward period over which regulated derivative contracts are to be offered; and
- the volume of regulated derivative contracts that Hydro Tasmania must offer.

The Regulator approves each matter by specifying in the Instrument, for example, the terms and conditions for the regulated contracts and how prices for the contracts are derived. Each item, contained within the Instrument and made under section 43G, is thus known as an 'approval'.

Since 30 July 2013, the Regulator (or the responsible Minister on the Regulator's behalf¹) has made the following approvals:

(a) The following four regulated derivative contracts were approved under section 43G(1)(a) of the ESI Act:

- Baseload Swap Contract;
- Peak Period Swap Contract;
- Baseload \$300 Cap Contract; and
- Load Following Swap Contract.

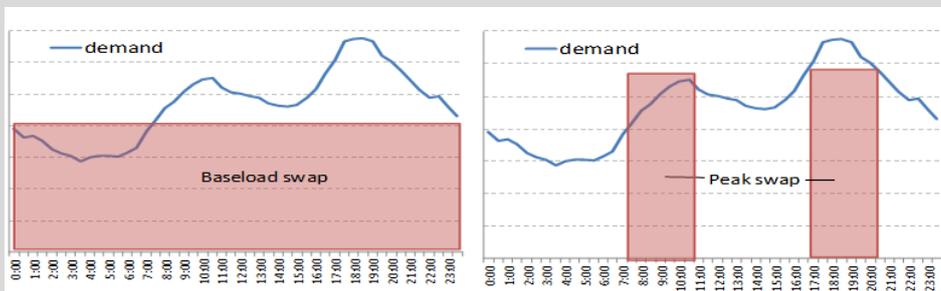
¹ Under section 43O of the ESI Act, the responsible Minister (at the time, the Minister for Finance) could make approvals under section 43G, as if the Minister were the Regulator, within six months of Division 4A of Part 3 of the ESI Act commencing (as this Division commenced on 1 June 2013 the Minister was permitted to make or revoke approvals until 1 December 2013). For further information see: <http://www.economicregulator.tas.gov.au/domino/otter.nsf/elect-v/06R>

Baseload Swap Contracts & Peak Period Swap Contracts

Swap contracts (also known as 'contracts for differences') fix the cost of electricity for a purchaser (eg a retailer) and a seller (eg a generator) for a defined volume of energy. Under this arrangement, if the spot price is greater than the agreed contract price, the seller pays the difference between the two prices to the purchaser. If the spot price is less than the agreed contract price, the purchaser pays the difference to the contract seller.

If the defined volume of energy is set as a constant volume for every half hour of a 24 hour period, covering a 'baseload', the contract is known as a baseload swap.

If the fixed price is only to apply for certain volumes of energy occurring over specific periods in a 24 hour period, for example in peak periods, the contract is known as a peak swap.



Baseload \$300 Cap Contracts

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

- an agreed strike price: the spot price at which the cap applies (eg \$300/MWh); and
- an option fee: the premium or price payable to the seller for the contract itself.

The cap contract only comes into effect if the spot price, for a specified volume of electricity at a specified period of time, reaches or exceeds the strike price. If the spot price exceeds this strike price, the seller of the cap (usually a generator) must pay the difference to the buyer of the cap (usually a retailer). A common strike price for a cap contract is \$300/MWh. In return, the buyer of the cap will pay the seller a fee, which provides the generator with an extra source of revenue. Buying these contracts helps protect the retailer from high spot prices.

Load Following Swap Contracts

In Tasmania, the load following swap product is a contract that is shaped to the Tasmanian net system load profile (the net system load profile is an approximation of the amount of electricity used by all consumers within a defined region). The volumes of electricity covered by the contract vary at different times of the day to follow a pre-agreed profile of Tasmanian electricity usage.

These types of contracts are generally more expensive 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 to meet that demand) as well as 'price risk' (the risk that the spot price is higher than the retailer expected).

Each contract is designed to manage the financial risks faced by retailers when retailing electricity to small customers in Tasmania. This approval is contained in Part Two of the Instrument.

(b) The following standard forms for each of the approved contracts above were approved under section 43G(1)(b) of the ESI 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 standard forms are generally similar to those offered for the types of contracts used in the derivatives market associated with the NEM and are hierarchical in nature². This approval is contained in Part Two of the Instrument.

(c) Under section 43G(1)(c) of the ESI Act, the methodology was approved for the calculation of the price of each of the approved contracts above. This approval is contained in Part Three of the Instrument.

(d) Under sections 43G(1)(d) and (e) of the ESI Act, the forward period was approved over which the approved contracts listed in (a) above are to be offered, and a methodology for determining the minimum volume of those contracts, which Hydro Tasmania must offer. These approvals are contained in Part Four of the Instrument.

In accordance with the ESI Act and the Pricing Regulations, the Regulator is responsible for administering the Instrument and may amend the approvals contained within the Instrument by conducting a pricing investigation. In making and amending each approval, the Regulator must take into account the following principles, which are enshrined in section 43H of the ESI Act:

- 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.

² For further information see Chapter 3, section 3.2.1 and:
<http://www.economicregulator.tas.gov.au/domino/otter.nsf/8f46477f11c891c7ca256c4b001b41f2/e0d7003344be1defca257c4a000375e3?OpenDocument>

1.3 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. Accordingly, the Wholesale Guideline is supported by compliance monitoring action, as appropriate, consistent with the Regulator's Compliance Enforcement Policy.

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

The Regulator has also released a Statement of Regulatory Intent which identifies the conditions under which, and the process whereby, the Regulator may step in and fix regulated wholesale contract prices.

Finally, the Regulator has also developed a set of performance indicators to support the wholesale regulatory framework, which are reflected in Section 8 of the Regulator's Electricity Supply Industry Performance and Information Reporting Guideline.

1.4 The Pricing Investigation

1.4.1 The Investigation

In accordance with Regulation 21 of the Pricing Regulations, the Regulator is required to conduct a pricing investigation prior to making or revoking an approval under section 43G of the ESI Act. The Regulator's review of the Instrument will, therefore, be conducted as a Regulation 21 pricing investigation. The Investigation will determine, amongst other things, whether each approval in the Instrument requires amendment or revocation.

1.4.2 Scope

The Investigation will focus on the Instrument and the associated approvals made under section 43G of the ESI Act.

The following items will not be considered during the course of the Investigation:

- the Wholesale Guideline;
- the Statement of Regulatory Intent;
- the calculation/adjustment of the Wholesale Electricity Price;
- Compliance Enforcement Policy;
- Regulatory Reporting Guideline; and
- Electricity Supply Industry Performance and Information Reporting Guideline.

Whilst this Investigation is focused on the Instrument, the Regulator acknowledges the relationship between the Wholesale Guideline, the Statement of Regulatory Intent and the Instrument and is open to receiving comments on both the Wholesale Guideline and the Statement of Regulatory Intent in the context of this Issues Paper and the Investigation. In this regard, it is noted that both the Wholesale Guideline and the Statement of Regulatory Intent may require amendment should the outcomes from the Investigation lead to changes to the Instrument. If the Wholesale Guideline is amended, the Regulator will consult on any changes in accordance with its Consultation Policy.

1.4.3 Objectives

1.4.3.1 Issues Paper

To stimulate stakeholder discussion about the scope of the proposed investigation into the approvals made by the Regulator under section 43G of the ESI Act.

1.4.3.2 Pricing Investigation

To investigate whether the approvals made under section 43G of the ESI 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 ESI Act.

The Investigation will also take account of the design principles that informed the development of the initial regulatory framework³, 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.

1.4.3.3 Objectives of the Regulator under the ESI Act

In performing its functions under the ESI Act, more generally, the Regulator's objectives are⁴:

- 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.

³ See the Department of Treasury and Finance's [Wholesale Contract Regulatory Framework Guide](#).

⁴ Section 6(2) of the ESI Act.

- The establishment and enforcement of proper standards of safety, security, reliability and quality in the electricity supply industry.
- The protection of the interests of electricity consumers.

1.4.4 Timing

Regulation 21 requires a pricing investigation to be conducted at a reasonable time before an existing approval expires. However, to give stakeholders as much certainty as possible about the wholesale contract regulatory arrangements that are to apply from 1 January 2019, the Regulator considers that it is desirable to conduct and complete the Investigation well before the Instrument's expiry date of 31 December 2018.

It is noted that the timeframes for the Investigation will depend on the outcomes of this consultation process. That is, the engagement of a consultant is dependent on the nature of the issues stakeholders raise in response to this Issues Paper. If the issues raised are such that the Regulator considers that a consultant is not required, timeframes will differ and will likely result in the final report being delivered earlier than October 2016.

With this in mind, the Regulator expects the pricing investigation to comprise the following major tasks and be conducted in accordance with one of the following timeframes:

Milestone	Investigation timeframes if consultation on Issues Paper identifies few or minor issues	Investigation timeframes if consultation on Issues Paper identifies technical issues
Regulator releases Issues Paper for public consultation	11 December 2015	11 December 2015
Public consultation period closes	22 January 2016	22 January 2016
Regulator gives notice of intention to conduct an investigation	March 2016	March 2016
Regulator engages consultant	N/A	March 2016
Regulator releases a draft report for public consultation	April/May 2016	July 2016
Regulator releases a final report and makes/revokes section 43G approval	August 2016	October 2016

1.5 Evaluation Criteria

Chapter Three of this paper provides an overview of potential issues that the Regulator will consider when conducting the Investigation. The list of issues is indicative only and is intended to stimulate further discussion to inform the scope of the Investigation. The Regulator welcomes comment on issues additional to those identified in this Issues Paper.

In considering the section 43G approvals contained within the Instrument, the Regulator has chosen to adopt a set of evaluation criteria based on standard assessment criteria for assessing regulatory frameworks⁵. Accordingly, the Regulator will take account of the following evaluation criteria:

- **Accountability/transparency:** the framework includes a clear demarcation of roles and process and allows for open decision making based on accurate information. The framework includes a process for appropriate review.
- **Simplicity/clarity:** information is clear, simplistic and accessible and provided to stakeholders on a timely basis.
- **Consistency/predictability:** the process creates regulatory certainty across market participants (consistency in decision making, the application of rules and the engagement of stakeholders) and thus facilitates planning by market participants.
- **Consultative:** the regulatory process credibly satisfies the demands of both consumers and investors and encourages stakeholder participation.
- **Effectiveness:** the regulatory process produces outcomes reflective of competitive market outcomes and provides sufficient certainty for new and existing market retailers.
- **Flexibility:** the regulatory process is appropriate for the stage of development in the market and the regulatory framework is capable of responding to change of circumstance in an appropriate manner.
- **Independence:** the regulatory process is administered independently and in line with statutory requirements.

⁵ See, for example:

- The Australian National Audit Office's *Administering Regulation Better Practice Guide*.

- "Best Practice Utility Regulation" set out by Australian Utility Regulators Forum – AURF, Discussion Paper, 1999.

- *Reducing administrative burdens – effective inspection and enforcement* (the Hampton Report), Philip Hampton, 2005.

2 CURRENT PERFORMANCE

The Instrument has been in effect since 1 January 2014. Since this time, the Regulator has monitored the prices offered under the regulatory framework, by Hydro Tasmania, to track performance against unregulated Tasmanian contract prices as well as market outcomes in the Victorian derivatives market associated with the NEM.

2.1 Regulated contract prices in Tasmania

2.1.1 Price methodology

The price of most regulated contracts for wholesale electricity in Tasmania is largely based on, and thus should be reflective of, the price of contracts for wholesale electricity in Victoria.

As Tasmania is connected to the Victorian region of the NEM via Basslink, Tasmanian spot prices are related to Victorian spot prices, with differences reflecting the cost of transport between the regions and the average direction of flow (that is, whether Tasmania is on average a net energy exporter or importer with respect to Victoria). Only where transmission constraints apply, do spot prices between the two regions diverge significantly.

As Tasmanian and Victorian spot prices are closely linked, when the Instrument was developed, it was decided that Tasmanian contract prices for wholesale electricity should also mirror those offered in Victoria. To this end, section 43H(3) of the ESI Act mandates that:

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.

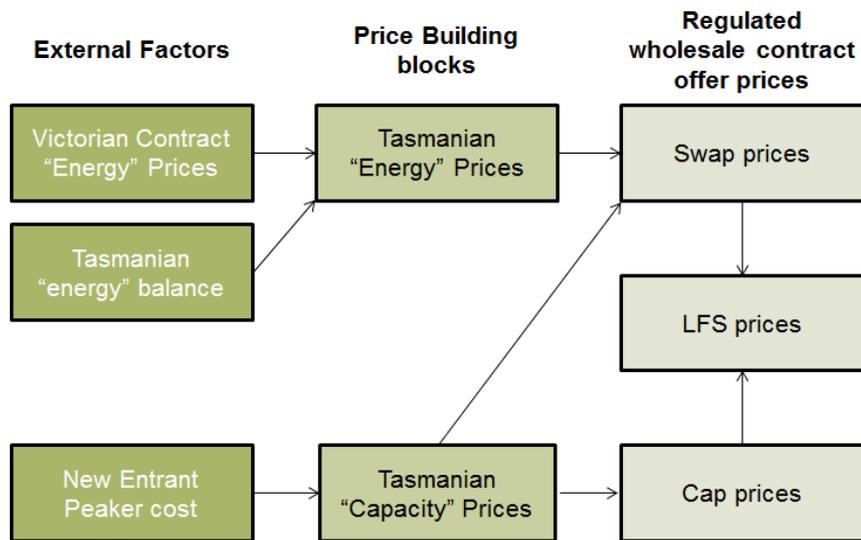
Accordingly, the methodology for determining the prices of most of Hydro Tasmania's regulated contracts uses published Victorian forward contract prices as a starting variable (or input) and makes a number of adjustments (taking into account the supply/demand balance in Tasmania) to translate these values into regulated Tasmanian contract prices. Of the four approved derivatives contracts, Victorian contract prices are used as the starting point for the

three regulated swap products (ie the baseload swap contract, peak period swap contract and load following swap contract). The Tasmanian baseload \$300 cap does take account of Victorian market prices but, in contrast to the regulated swap products, the prices for the regulated Tasmanian baseload \$300 cap contract are based, initially, on a discounted new entrant generator cost calculation for a generic peaking plant⁶. This process is outlined in Part Three of the Instrument and includes the following steps:

1. Use published Victorian forward contract prices for the baseload swap, peak period swap and \$300 baseload cap to derive implied Victorian quarterly contract prices for ‘capped-swaps’ (that is, the value of ‘energy’ in Victoria implied by traded contracts).
2. Translate the Victorian capped-swap values to Tasmanian ‘energy’ values, accounting for the implications of expected Basslink transfers.
3. Derive \$300 baseload cap prices for Tasmania using the discounted new entry cost for a generic peaking plant, allocated between quarters according to capacity shortfall risk in the event of a Basslink failure.
4. Derive prices for the Tasmanian baseload swap, peak period swap and load following swap products from the underlying capacity and energy price building blocks.

This process is represented in Figure 2.1 below.

Figure 2.1 Tasmanian regulated wholesale contract pricing methodology



An Excel-based pricing model has been developed to give effect to this pricing methodology and enable the prices for regulated Tasmanian contract prices to be determined. It is noted that, while prices for the majority of the regulated Tasmanian contract products are based on Victorian market prices, as Tasmanian prices are derived through a model (rather than a market), the regulated prices are unlikely to reflect market outcomes in all instances.

⁶ For further information, see Chapter 3, section 3.3.1.

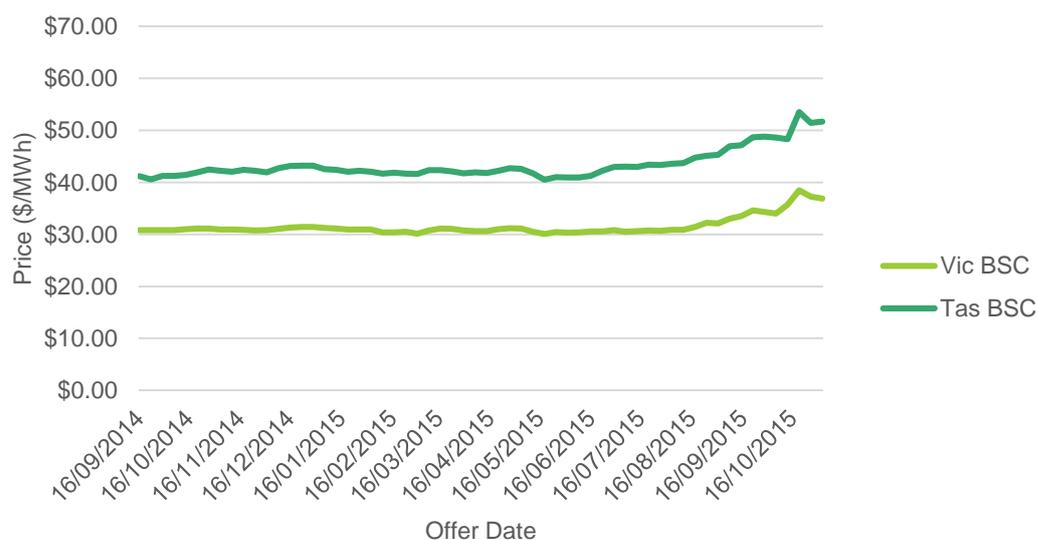
2.1.2 Market monitoring

Each week the Regulator monitors Hydro Tasmania's wholesale trading activity and gathers data on both regulated and unregulated Tasmanian prices, as well as Victorian contract market prices. This data is used to map Tasmanian price movements against those in Victoria, over time, for specific quarters. For instance, taking quarter four of 2016 and charting the forecast Tasmanian and Victorian prices for peak period swaps and baseload swaps, it appears that, over time, for this period, the framework has been delivering swap prices that are more expensive than, but that largely mirror, Victorian pricing patterns (see Figure 2.2 and 2.3).

Figure 2.2 Value of Q4 2016 Peak Period Swap Contracts (September 2014 – November 2015)



Figure 2.3 Value of Q4 2016 Baseload Swap Contracts (September 2014 – November 2015)



In contrast to Figure 2.2 and 2.3 above, Figure 2.4 demonstrates that Tasmanian baseload \$300 cap contract prices, for this period, are significantly higher than their Victorian market counterparts. While it is acknowledged that the spread between Victorian cap prices and regulated Tasmanian cap prices is larger than for the other regulated contracts, it is also noted that the spread between Victorian cap prices and unregulated Tasmanian cap prices is larger. Based on the information available to the Regulator, this suggests that, regardless of any inter-jurisdictional disparities, the regulated Tasmanian cap price is still largely reflective of the market price, for Tasmania.

Figure 2.4 Value of Q4 2016 Baseload \$300 Cap Contracts (September 2014 - November 2015)



As well as comparing pricing patterns across jurisdictions, the Regulator also monitors the regulated and unregulated contract prices offered by Hydro Tasmania. Table 2.1, for example, shows the minimum and maximum difference between regulated Tasmanian contract prices as a percentage of unregulated Tasmanian prices for each approved contract type, from January 2014 to May 2015. Table 2.1 is derived by dividing unregulated Tasmanian prices by the regulated prices for each contract, so to determine price fluctuations in regulated prices comparative to the unregulated, market price.

Table 2.1 Tasmanian regulated and unregulated contract price differences (January 2014 – May 2015)

Contract	Minimum %	Maximum %
Load following swap	80	104
Baseload \$300 Cap	87	121
Baseload swap	96	105
Peak period swap	90	121

This indicates that, while there are some differences in Tasmania, there is a reasonably consistent band of variation between regulated contract outcomes and market outcomes.

It is also important to note that the regulated prices offered by Hydro Tasmania act as a price ceiling for those regulated contract products. Authorised retailers are free at all times to purchase unregulated products if they appear to offer more favourable outcomes.

In addition to the data collected to monitor wholesale contract pricing, Hydro Tasmania is required to provide the Regulator with information about its wholesale trading activity. From this data (as presented in Table 2.2) it appears that participants in the Tasmanian wholesale electricity derivatives market are favouring unregulated, over regulated, contract products. This trend may be indicative of either the price, or the 'safety-net' nature, of each regulated product.

It is also noted that there are few regulated or unregulated cap and load following swap products being sold. Again, this trend may be indicative of price, or alternatively of the availability of more attractive unregulated products and the way in which retailers are choosing to hedge their customer load.

Table 2.2 Hydro Tasmania's wholesale contracting activity (January 2014 – November 2015)

Contract	Number of Trades
Regulated Products	
Regulated baseload swap	22
Regulated peak period swap	8
Regulated baseload \$300 cap	0
Regulated load following swap	0
Unregulated Products	
Baseload (flat) swap	86
Peak period swap	7
Structured swap	36
Load following swap	6
Cap	5

In summary, it appears that the pricing and trading outcomes of wholesale regulation are currently meeting the objectives of the Instrument, in that:

- prices are largely reflective of the pricing patterns experienced in an established derivatives market (the Victorian market) associated with the NEM and;
- regulated contracts are not being relied upon by market participants⁷.

⁷ The Regulator accepts that this may be due to the price of regulated contracts as opposed to reliance on a safety-net product to mitigate against the generator's perceived market power.

3 POTENTIAL ISSUES

The Regulator has identified a number of matters relating to the Instrument that it proposes to consider as part of the Pricing Investigation.

3.1 Preliminary Issues

3.1.1 Market-based framework

The current wholesale regulatory framework is a contract-based, market orientated, framework, which is designed to deliver outcomes that are reflective of an effective and efficient electricity market. This contract-based form of regulation has been enshrined in the ESI Act in the form of a requirement for Hydro Tasmania to offer regulated contract products in Tasmania. This form of regulation is consistent with the use of contract products as the main form of risk management across the NEM. Despite this, this specific regulatory mechanism is unique to Tasmania and has not been applied in other Australian jurisdictions.

As an alternative to the current form of regulation, the Government could consider adopting a non-market based solution in which prices are prescribed in legislation. It is noted that a more prescriptive regulatory approach would require substantial legislative amendment, would create market risk and have potential ramifications on the financial position of Hydro Tasmania.

What risks do market participants foresee, should a more prescriptive regulatory approach to wholesale regulation be adopted?

3.1.2 Full retail competition

The introduction of the Instrument in 1 January 2014 was intended to facilitate full retail competition in Tasmania by providing medium term certainty to market participants when managing wholesale risks specific to the State. Since this time, no new retailers have entered the Tasmanian market⁸. However, the Regulator is also yet to receive any adverse feedback from potential new entrant retailers, in relation to the Tasmanian wholesale regulatory framework. It is also noted that, any changes made to the regulatory framework as it currently exists may result in regulatory risk which could potentially undermine the objective of attracting new entrant retailers. As such, any proposed amendments to the Instrument will need to be considered in light of the public objectives that the Instrument was designed to achieve (see section 1.4.3).

Do market participants consider that the Instrument and wholesale contract regulatory framework support the objective of achieving full retail competition?

⁸ For a full list of authorised retailers operating in Tasmania see:
<http://www.power.tas.gov.au/domino/powernew.nsf/v-lu-pages/Useful+Contacts?OpenDocument>

3.2 Part One

Part One of the Instrument sets out preliminary information including the term of the Instrument and clauses relating to the provision of data and forecast information, updating values and data sources, and definitions and interpretation.

The Regulator has identified the following potential issues concerning Part One of the Instrument.

3.2.1 Term of the Instrument

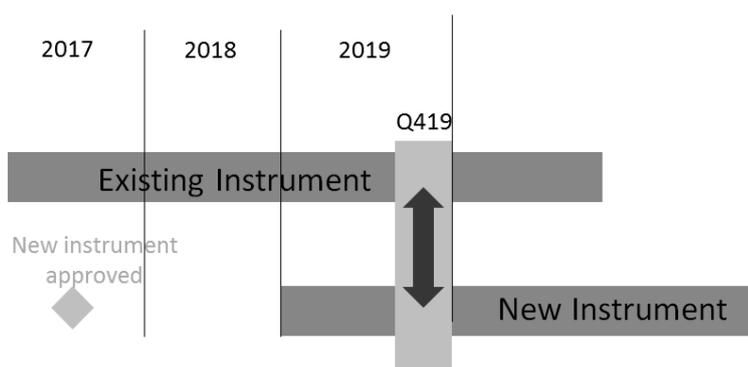
In order to provide medium term certainty to market participants, the Instrument was made for a period of five years, beginning on 1 January 2014 and adopted a calendar year basis. This is in contrast to regulatory determination timeframes which are based on financial years.

Is the term of the existing Instrument appropriate for the new Instrument, in the context of the evaluation criteria?

Would market participants prefer the term of the new Instrument to align with financial years?

The Regulator notes that, in amending the approvals, an overlap may occur between the existing Instrument (and the current approvals contained within) and the new Instrument, in that Hydro Tasmania will be offering contracts for future quarters (e.g. Q419) under the existing Instrument that will also be covered by the new arrangements (see Figure 3.1).

Figure 3.1 Overlap between new and existing Instrument approvals



Should the approvals require substantial amendment as a result of the pricing investigation, an issue may arise if the prices produced by the methodologies prescribed in each Instrument differ. In this instance, the Regulator will need to consider the transitional arrangements that are put in place in the new Instrument to ensure ease of administration and that market participants are not disadvantaged by such an overlap.

The Regulator is seeking feedback from stakeholders regarding the potential impact of any overlap between the existing Instrument and the new Instrument and the transitional arrangements, if any, that may be required.

3.2.2 Amendment provisions

Under the current framework, while the Regulator has the capacity to make or revoke approvals in the Instrument, this can only be done through the conduct of a pricing investigation, with public consultation. In addition, the ESI Act includes a range of principles that govern the investigation process. Limiting the Regulator’s capacity to amend the Instrument provides a level of certainty to market participants when contracting into the future. However, this process may prove timely and costly in the event that a minor or administrative component of the Instrument requires amendment.

When dealing with statutory instruments such as codes and the Instrument, it is common practice to include clauses providing discretion to statutory bodies when conducting amendments relating to changes that are minor or of a procedural nature. For example, clause 12.3.4 of the Tasmanian Electricity Code provides as follows:

12.3.4 “Fast Track” Code Change by the Regulator

(a) The Regulator may change the Code if the Regulator considers that it is necessary or desirable to change the Code in relation to any matter (including any change which is submitted to it by a Licensee or an interested party under clause 12.3.2), which is:

- (1) of a minor or procedural nature;*
- (2) required to reflect a change in industry technical standards;*
- (3) required to correct a manifest error; or*
- (4) one on which the Regulator has previously consulted with all relevant*

Licensees or interested parties in accordance with the Regulator’s Consultation Guidelines, and

(i) it was explained during the consultation that the decision or solution based on that consultation may be given effect by a Code change;

(ii) the proposed Code change does give effect to that decision or solution in relation to the matter;

(iii) adequate records of the consultation and submissions received during the consultation are publicly available; and

(iv) the proposed Code change is consistent with the objectives of the ESI Act.

(b) In the case of any of the matters referred to in clause 12.3.4(a), the Regulator may consult or ask for submissions from only such Licensees and interested parties as the Regulator considers appropriate (if any).

(c) After holding any such consultations or receiving any such submissions, the Regulator must notify all Licensees and interested parties of the proposed change. Licensees and interested parties may make a submission in writing to the Regulator regarding the proposed change within the period provided in the notice after the notice is published.

(d) *The Regulator must consider any timely submissions received by the Regulator.*

Would participants prefer greater flexibility to amend the Instrument to rectify errors and correct minor procedural and administrative matters over the certainty provided under the existing Instrument?

3.2.3 Data, forecasts and calculations

Part One sets parameters for the determination and forecasting of values, that are used in the Instrument, by Hydro Tasmania, as well as the provision and publication of information associated with that process⁹.

The Regulator has not identified any issues with the parameters concerning data, forecasts and calculations used in Part One of the Instrument.

The Regulator is seeking feedback from stakeholders regarding the determination and forecasting of values by Hydro Tasmania, as listed in Part One of the existing Instrument.

3.3 Part Two

Part Two of the Instrument lists the types of contracts that are approved for the purposes of section 43G(1)(a) of the ESI Act and specifies the approved standard form of each of those types of contracts, including the permitted and required alterations that may be made to each standard form contract.

The Regulator has identified the following potential issues concerning Part Two of the Instrument.

3.3.1 Types of contract

At present, the Instrument lists four approved regulated derivative contracts:

- Baseload Swap Contract;
- Peak Period Swap Contract;
- Baseload \$300 Cap Contract; and
- Load Following Swap Contract.

The first three contracts are the most common derivative contract types transacted in the derivatives market associated with the NEM, while the load following swap product is a common 'niche' product in this market. Each contract is designed to manage the financial risks faced by retailers when retailing electricity to small customers in Tasmania.

⁹ See pages 1 and 2 of the Instrument for the full list of requirements, Hydro Tasmania is required to comply with.

Under the ESI Act, the Regulator can revoke an approved contract type, with the exception of the load following swap product, if it no longer meets the principles in section 43H(1). Given its linkage with retail prices, the approval of the regulated load following swap product is mandatory.

Is the range of regulated products that are available to market participants appropriate in the context of the evaluation criteria?

3.3.2 Alteration to standard forms

Under the Instrument, each of the approved regulated derivative contracts listed in section 3.2.1 are to take a 'standard form' consisting of:

- the International Swaps and Derivatives Association (ISDA) 2002 Master Agreement;
- the Hydro Tasmania Schedule for that authorised retailer (see Schedule 2 of the Instrument); and
- a confirmation for the relevant product (see Schedules 3-6 of the Instrument).

The ISDA 2002 Master Agreement is the most commonly used master service agreement for over-the-counter derivative transactions in Australia. It is part of a framework of documents typically consisting of a master agreement, a schedule and confirmations. The schedule contains the 'terms and conditions' of the agreement, including any alterations to the Master Agreement and allows parties to choose whether and how certain optional provisions in the ISDA agreement will apply. The confirmation outlines the economic terms of the transaction including aspects such as price and quantity.

Under the current Instrument, parties wishing to use an existing Schedule, instead of the Hydro Tasmania Schedule, must seek the Regulator's approval. The approved schedule is referred to in the Instrument as a 'separate standard form'. The separate standard form must not contain any alterations other than the permitted alterations or required alterations as noted in clauses 5.1(e)(i), (ii) and (iv) and 5.1(f)(iii) of the Instrument respectively.

The Regulator understands that these provisions were included in the Instrument to provide new entrant retailers with a choice of entering into an existing Hydro Tasmania standard form contract or an approved standard form contract. However, the requirement for regulatory approval in a situation where two parties agree to use alternative contractual arrangements appears to be administratively burdensome for all parties involved.

Does the Regulator need to approve alternative contractual arrangements in circumstances where both parties wish to use an existing Schedule, instead of the Hydro Tasmania Schedule?

3.4 Part Three

Part Three of the Instrument outlines the methodology for calculating the maximum prices for the contracts approved under section 43G(1)(a) of the ESI Act, for each quarter.

The Regulator has not identified any issues with the calculation of the maximum price of the peak period swap contract, baseload swap contract or the load following swap contract. As discussed in Chapter Two, Tasmanian prices for the baseload swap and peak period swap products are, for the most part, tracking the prices of similar products offered in Victoria.

While the Regulator has not compared load following swap prices to a Victorian market product (as there is not a comparable Victorian product), it is noted that, since the introduction of the Instrument in January 2014, Hydro Tasmania has not sold any regulated load following swap contracts.

The Regulator is seeking feedback from stakeholders regarding the calculation of the prices for the peak period swap, baseload swap and load following swap products, as mentioned above, in the context of the evaluation criteria.

3.4.1 Calculation of maximum baseload \$300 cap contract price

As discussed in Chapter Two, the price of the regulated baseload \$300 cap contract for Tasmania has been significantly higher than the Victorian market equivalent. This outcome could be a product of the market in Tasmania, or, alternatively, of the methodology prescribed in the Instrument to calculate the maximum price of the contract. At present, the Regulator has not identified an alternative pricing methodology.

The Regulator is also aware that concerns have been raised by some stakeholders (primarily during the development of the Instrument by Government) regarding the inputs used in the calculation of the maximum baseload \$300 cap contract price. In addition, as noted in Chapter Two, since the introduction of the Instrument in January 2014, Hydro Tasmania has not sold any regulated baseload \$300 cap contracts.

The maximum baseload \$300 cap contract price incorporates Victorian cap prices, load, storage levels and the cost of a new gas peaking plant. The timing and cost of the peaking plant are the major determinants of the regulated cap price and substantially influence the remaining three regulated contract prices. The key inputs in the cap price calculation are provided in Table 6 in Schedule One of the Instrument (see Table 3.1).

These are static inputs, as is the year adopted in the MS Excel based Wholesale Pricing Model for the construction of the peaking plant (2022). The future cost of the capacity of a new peaking plant is discounted back to the relevant contract year and incorporated into the cap contract price.

Table 3.1 Schedule 1, Table 6 of the Instrument – Calculation of Tasmanian cap value

Defined Term	Value
Costing Quarter	Quarter ending 31 December 2012
Economic Life	30 years
Forecast Inflation Rate	2.7% p.a.
Nominal Post Tax Debt Cost	5.55% p.a.
Pre-Tax Real WACC	8.0% p.a.
Real Annual Operating Cost	14.1/kW (\$ as at Costing Quarter)
Real Total Capital Cost	\$1 016/kW (\$ as at Costing Quarter)

The inputs for the maximum baseload \$300 cap contract price were determined in 2013 and may, or may not, be appropriate now. The Instrument gives the Regulator the power to change the inputs in Schedule One of the Instrument and the construction year for the peaking plant. Given the complexity of the Instrument, and that the inputs to cap prices feed into all regulated contract price outcomes, it is considered that any changes would need to be considered in the context of changes to the entire contract pricing methodology, as outlined in the Instrument. Further, due to the inter-connected nature of the Instrument, changing any of the inputs may have unintended consequences in another part of the Instrument and therefore is not without risk.

Is there an alternative methodology that may be applied to the calculation of the maximum baseload \$300 cap contract price in the context of the evaluation criteria?

3.5 Part Four

Part Four of the Instrument relates to section 43K of the ESI Act.

In order to ensure that Hydro Tasmania has sufficient stored water and thermal fuel available to reliably cover the volume of energy required to meet small customer load in Tasmania (ie the proportion of customer load in Tasmania that is subject to standing offer price regulation), section 43K of the ESI Act imposes volume limits. These limits determine when Hydro Tasmania is (or is not) required to offer regulated contracts.

The volume limit that is imposed is dependent on a set of ‘traffic light conditions’ based on the total existing capacity (that is, the physical amount of generation Hydro has available to serve customer load) and energy volumes (that is, the amount of electricity (produced from capacity) customers consume over time) for that specific quarter. For example, in a situation where Hydro Tasmania has already entered into contracts, for a specific forward quarter, that have a combined capacity or energy volume that is close or equal to Hydro Tasmania’s total existing capacity volume or energy volume for that specific forward quarter (known as ‘red light conditions’), Hydro Tasmania is only required to offer a minimum amount of capacity and

energy volume (via regulated contracts). The minimum amount, in this situation, must be equal to, or greater than, the specified 'red light' capacity or energy volume limit.

Traffic Light Indicators

The traffic light indicators were developed to advise market participants of the availability of regulated contracts in each of the eight forward quarters in which Hydro Tasmania is required to offer regulated contracts.

The availability of regulated contracts in each quarter depends on:

- *forecast Tasmanian demand;*
- *total volume of contracts sold; and*
- *the remaining Absolute Minimum Offer Volume.*

As the volume of existing contracts sold can vary in terms of capacity and energy the traffic light indicators for capacity and energy can be different colours in any given week.

Green light

Where the difference between the volume of contracts sold by Hydro Tasmania and forecast Tasmanian demand is above a certain level Hydro Tasmania is required to increase the volume of regulated contracts offered. Therefore Hydro Tasmania is required to offer the Absolute Minimum Offer Volume plus a "Supplementary Offer".*

Red light

Where the difference between the volume of contracts sold by Hydro Tasmania and forecast Tasmanian demand is less than or is equal to zero Hydro Tasmania is still required to offer the Absolute Minimum Offer Volume.

Amber light

Where the difference between the volume of contracts sold by Hydro Tasmania and forecast Tasmanian demand is above zero but below the green light level, Hydro Tasmania is required to increase the volume of regulated contracts available but the increase is less than that required for green light conditions. Therefore Hydro Tasmania is required to offer the Absolute Minimum Offer Volume plus a "Reduced Supplementary Offer".*

To ensure market participants are provided with sufficient notice of a reduction in the volume of regulated contracts available Hydro Tasmania must maintain amber light conditions for 13 weeks before changing to red light conditions.

** Defined in clause 28 of the Instrument.*

Part Four of the Instrument outlines the weekly volume offer process and sets out the formulae for determining the traffic light conditions and calculating the corresponding volume limits. Tables 2 and 3 listed in Schedule One of the Instrument provide the key inputs for these calculations.

The Regulator has not identified any issues with Part Four of the Instrument.

The Regulator is seeking feedback from stakeholders regarding the weekly offer process and limits, scaling rules and calculations included in Part Four of the Instrument.

3.6 Schedule One

Schedule One of the Instrument lists those inputs, including amounts, rates, percentages and periods, that are used in the calculations within the Instrument and set by the Regulator. These include:

- off-peak cap values (\$/MWh);
- absolute minimum capacity offer volumes (MW);
- supplementary offer volumes, headroom buffers and reserved percentages;
- marginal loss factors;
- new committed wind generation values (GWh);
- values for the calculation of the Tasmanian cap product; and
- off-peak and peak contract premiums (\$/MWh).

All Schedule One inputs are listed on pages 68 to 70 of the Instrument.

The Regulator notes that, due to the intricate nature of the Instrument, a change made to one table of inputs is likely to result in changes to the outcomes of a number of calculations within the Instrument. For example, as mentioned in section 3.3.1, changes to the inputs set by the Regulator in Table 6 (calculation of the Tasmanian Cap Value) would result in changes to all regulated contract price outcomes.

The Regulator is seeking feedback from stakeholders regarding the perceived validity of the values currently listed in Schedule One together with the validity of the assumptions adopted for, and the associated sources of, those values.

ATTACHMENT 1 – Summary of Legislative Framework: The Tasmanian Economic Regulator’s obligations when conducting a Regulation 21 Pricing Investigation

Instrument	Obligation
<i>ELECTRICITY SUPPLY INDUSTRY ACT 1995</i>	
ESI Act – 6(2)	<p>In exercising its powers and functions under the ESI 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 contract must include a load following swap.
ESI Act – 43G (4)&(5)	The Regulator may revoke an approval under 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.
<p><i>ELECTRICITY SUPPLY INDUSTRY (PRICING AND RELATED MATTERS) REGULATIONS 2013</i></p> <p>The Pricing Regulations make provisions in relation to 43G(1) approvals and 43G(4) revocations of approvals.</p>	
REG - 21	<p>The Regulator must conduct a pricing investigation:</p> <ul style="list-style-type: none"> ▪ before making/revoking an approval under 43G (ESI Act); or ▪ at a reasonable time before the expiry of the Ministerial Approval (expires 31 December 2018).
REG – 22(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 – 22(2)	<p>The regulation 22(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 – 22(3)	<p>Before conducting the Investigation, the regulation 22(1) notice must be available on the Regulator’s website (and remain there for at least 6 months).</p>

REG – 22(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 – 23	<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 – 24	<p>After completing the Final Report of the Investigation, the Regulator can make or revoke an approval under 43G of the Act. The new approval remains in force until it is revoked.</p>
REG – 49	<p>Regulation outlines 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.</p>
REG – 51 & 52	<p>Regulations 51 and 52 detail those 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.</p>
REG – 53 (1)	<p>At an appropriate time during the Investigation, the Regulator is to prepare a draft report.</p>
REG – 53 (2)	<p>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.</p>
REG – 53 (3)	<p>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.</p>
REG – 54 (1)	<p>The Regulator must prepare a final report.</p> <p>The Final Report must be given to the Minister, Hydro Tasmania and each authorised retailer.</p> <p>Notice of the Report must be published in newspapers, or in such other manner as the Regulator considers appropriate (for example, its website).</p>
REG – 54 (3)	<p>The Final Report is to be consistent with the ESI Act and Regulations (specifically Reg 23).</p>
REG – 54 (6)	<p>The Final Report must be available on the Regulator’s website.</p>

WHOLESALE CONTRACT REGULATORY INSTRUMENT	
Part 1 - 1	The current Instrument ceases to have effect at the end of December 2018.
2.2	The Regulator may determine replacement data sources if a source (as used in the Instrument) ceases to be published.
2.3	<p>The Regulator has discretion as to whether a new parameter (e.g. amount, rate, percentage or period) should be determined.</p> <p>The Regulator must notify Hydro of any new parameter and publish any new item on its website.</p> <p>The Regulator may determine different values to those specified in Schedule 1 of the Instrument (this is dependent on the definition of those items in clause 28 of the Instrument).</p>