



Draft Report

**Review of the Electricity Wholesale Contract
Regulatory Instrument**

August 2016

Printed August 2016
Office of the Tasmanian Economic Regulator
Level 3, 21 Murray Street, Hobart TAS 7000
GPO Box 770, Hobart TAS 7001
Phone: (03) 6166 4422

ISBN 978-0-7246-5427-7

Copyright
© Office of the Tasmanian Economic Regulator

TABLE OF CONTENTS

GLOSSARY & ACRONYMS	5
SUMMARY OF ECONOMIC REGULATOR'S PROPOSALS.....	7
1 INTRODUCTION	10
1.1 BACKGROUND	10
1.2 WHOLESALE CONTRACT REGULATORY INSTRUMENT.....	12
1.3 SUPPORTING REGULATORY ARRANGEMENTS.....	15
1.4 OBJECTIVE OF THE INVESTIGATION.....	16
1.5 SCOPE	16
1.6 CONSULTATION.....	17
2 APPROACH	18
2.1 LEGISLATIVE REQUIREMENTS.....	18
2.2 INVESTIGATION APPROACH.....	20
3 ISSUES.....	22
3.1 WHOLESALE CONTRACT REGULATORY INSTRUMENT.....	23
3.2 WHOLESALE CONTRACT GUIDELINE.....	36
3.3 STATEMENT OF REGULATORY INTENT	38
4 ATTACHMENTS.....	41
4.1 SUMMARY OF THE REGULATOR'S OBLIGATIONS UNDER THE WHOLESALE REGULATORY FRAMEWORK	41
4.2 SCHEDULE 1 OF THE INSTRUMENT	45
4.3 TRANSITIONAL ARRANGEMENTS – REGULATOR'S INTERPRETATION...	47
4.4 TRANSITIONAL ARRANGEMENTS – HYDRO TASMANIA'S PROPOSAL	48

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**.

“**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 **Economic Regulator** and as revised from time to time.

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

“**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 **Economic Regulator** and as revised from time to time.

“**Exceptional circumstances event**” means an unforeseen event, outside of **Hydro Tasmania**’s control, which results in **Hydro Tasmania** being unable to calculate the **Weekly offer outputs** and / or to comply with the timeframes set out in the **Weekly offer process**, in accordance with the **Wholesale Contract Regulatory Instrument** and within the timeframes of the **Weekly offer process**.

“**Guideline**” means the *Electricity Wholesale Contract Guideline*.

“**Hydro Tasmania**” means Hydro-Electric Corporation (ARBN 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**.

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

“**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**.

“**Regulatory Reporting Guideline**” means the *Regulatory Reporting Guideline, Version 3, November 2014* issued by the **Economic 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 is:

- (i) the approval made by the Minister for Finance on 29 July 2013 (as amended from time to time), in accordance with sections 43G and 43O of the *Electricity Supply Industry Act 1995* and Regulation 20 of the *Electricity Supply Industry (Pricing and Related Matters) Regulations 2013*, having taken into account the principles set out in section 43H of the *Electricity Supply Industry Act 1995*; or
- (ii) the approval made by the Regulator (as amended from time to time), in accordance with section 43G of the *Electricity Supply Industry Act 1995*, having taken into account the principles set out in section 43H of the *Electricity Supply Industry Act 1995*.

SUMMARY OF ECONOMIC REGULATOR'S PROPOSALS

The Tasmanian Economic Regulator has outlined the following proposals in this Draft Report:

Draft Report reference	Regulator's proposal
<i>Wholesale Contract Regulatory Instrument</i>	
3.1.1	The Regulator proposes maintaining the current market-based wholesale regulation framework
3.1.2	The Regulator does not propose making any changes to the Instrument in response to the current level of competition in the small customer segment of the Tasmanian electricity market.
3.1.3	<p>The Regulator proposes:</p> <p>(a) setting the term of the new Instrument to align with a financial year basis rather than a calendar year basis as is currently the case under the existing Instrument; and</p> <p>(b) a 3.5 year term for the new Instrument so that it expires on 30 June 2022 to align with the expected end of the regulatory period for the next standing offer electricity price determination.</p>
3.1.4	The Regulator proposes retaining the current regulated contract types.
3.1.5	<p>The Regulator proposes that the new Instrument not include the requirement for regulatory approval to be granted where parties wish to use either an existing Schedule or negotiate their own Schedule instead of using the Hydro Tasmania Schedule in the Instrument.</p> <p>The Regulator also proposes that the new Instrument require retailers to provide a letter notifying the Regulator that they have chosen to use an alternative Schedule to the Hydro Tasmania Schedule.</p>
3.1.6	The Regulator proposes continuing with the current methodologies for calculating each of the peak period, baseload and load following swap prices.
3.1.7	The Regulator proposes continuing with the current methodology for determining the Maximum Baseload \$300 Cap Contract Price but reviewing the cap price inputs.
3.1.8	The Regulator proposes that the new Instrument incorporate scaling provisions which are based on each retailer's proportion of the small customer load thereby ensuring there is sufficient volume of regulated contracts to enable retailers serving the small customer market to hedge their small customer load.
3.1.9	The Regulator proposes that the new Instrument include a 'fast-track amendment provision'.

3.1.10	<p>The Regulator proposes reviewing the inputs at least annually on the basis of the schedule outlined in section 3.1.10 of this Draft Report.</p> <p>The Regulator further proposes amending the Statement of Regulatory Intent to incorporate the formal review schedule for the inputs set by the Regulator as outlined in section 3.1.10 of this Draft Report.</p>
3.1.11	<p>The Regulator proposes amending the Wholesale Contract Guideline to require Hydro Tasmania to:</p> <ul style="list-style-type: none"> ▪ publish current and past ‘Forecast current yield’ values; ▪ maintain and publish a database of past prices on its website; and ▪ to clearly indicate, on its website, the date that updates have been made to the Model. <p>The Regulator also proposes amending the Statement of Regulatory Intent to commit the Regulator to publishing details of any changes made to source data on its website.</p>
3.1.12	<p>The Regulator proposes that the transition between the existing Instrument and the new Instrument should occur as outlined in Attachment 4.3 such that retailers should have the option of contracting under either the existing Instrument or the new Instrument.</p>
3.1.13	<p>The Regulator proposes that minor changes be made to the Instrument to replace references ‘oil-fired peaking plant’ with references to ‘gas-fired peaking plant’; and amend Clause 2.3 to include “dates” in the list of values that the Regulator may change.</p>
3.1.14	<p>The Regulator proposes incorporating, where relevant and as appropriate, the changes proposed for the new Instrument in the existing Instrument.</p> <p>The Regulator also proposes applying changes made in relation to the administration of the new Instrument in administering the existing Instrument.</p>
Wholesale Contract Guideline	
3.2.1	<p>The Regulator proposes amending the Guideline to add a clause similar to the existing Clause 3.5 (exceptions to the standard weekly process) to allow for the possibility of Hydro Tasmania instigating a trading halt and not offering weekly prices.</p> <p>The Regulator also proposes requiring Hydro Tasmania to offer make-up volumes in the event that Hydro Tasmania instigates a trading halt and does not offer weekly prices.</p>
3.2.2	<p>The Regulator does not propose any changes to the weekly offer process.</p>
Statement of Regulatory Intent	
3.3.1	<p>The Regulator proposes:</p> <ol style="list-style-type: none"> (a) removing the current reference, in the Statement of Regulatory Intent, to the Regulator instructing Hydro Tasmania to set all regulated contract prices at \$300/MWh; and (b) adding the following criteria to the Statement of Regulatory Intent:

	<ul style="list-style-type: none">(i) Will the Regulator’s proposed response provide regulatory certainty and transparency?(ii) Will the benefit of any proposed changes to the current Wholesale Regulatory Framework outweigh the costs to change the Framework?(iii) Will the Regulator’s proposed response effect the efficiency of the Tasmanian Wholesale Electricity derivatives market? <p>(c) if a supply disruption event occurs in the future, adopting the following process:</p> <ul style="list-style-type: none">(i) the current weekly offer process will continue to operate unless advised otherwise;(ii) the Regulator will contact all current market participants to seek their views as to the appropriate response to the event;(iii) in its deliberations, the Regulator will apply the criteria noted in (b)(i)-(iii) inclusive above to assess the most appropriate course of action to take in response to the event.
--	--

Section 1.6 of this Draft Report sets out the instructions for interested parties wishing to make a submission in response to this Draft Report.

1 INTRODUCTION

1.1 Background

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.

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 (AEMO) 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 demand and supply, 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 or hedging contracts) that lock in a price for a specified volume of electricity bought in the future. This process is conducted independently of the NEM and is known as a derivatives market. In Australia electricity derivatives are publically traded on ASX Energy market and as over-the-counter products.

Prices for derivative contracts 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.

Regulated weekly offer contract prices (contract prices) generally 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), authorised retailers operating in the small customer market in Tasmania have access to a set of regulated derivatives contracts provided for in the *Electricity Supply Industry Act 1995* (ESI Act) and approved by the Tasmanian Economic Regulator (the Regulator).

Wholesale price regulation (specifically, the requirement for Hydro Tasmania to offer prices for a set of regulated derivative products in addition to existing non-regulated derivative contracts) 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.

The Regulator is responsible for regulating Hydro Tasmania’s wholesale contracting activity and approves the types of regulated derivatives contracts offered and the prices at which the contracts are offered and monitors the sale of these contracts. These arrangements are part of 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:

- the ESI Act;
- *Electricity Supply Industry (Pricing and Related Matters) Regulations 2013* (the Pricing Regulations);
- *Wholesale Contract Regulatory Instrument* (the Instrument);
- *Electricity Wholesale Contract Guideline* (Version 1, December 2013) (the Wholesale 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), *Regulatory Reporting Guideline* (Version 3, July 2014) and *Electricity Supply Industry Performance and Information Reporting Guideline* (Version 2.3, September 2014).

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 4 1.

1.2 Wholesale Contract Regulatory Instrument

The Instrument was made on 29 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 was subsequently amended by the Minister for Finance on 6 November 2013 to incorporate changes identified, after the making of the Instrument in July 2013, by the Department of Treasury and Finance. The Instrument applies for the period from 1 January 2014 to 31 December 2018.

Part 3, Division 4A of the ESI 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. Section 43G of the ESI Act requires the Regulator to approve:

- the types of derivative contracts that Hydro Tasmania must offer as approved financial risk contracts (eg 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 following approvals have been made under the Instrument:

- (a) The following four approved financial risk 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.

The first three contracts types are based on the futures contract available on the ASX Energy market, while Load Following Swap Contracts are an “over the counter” (OTC) product. The contracts are designed to manage the financial risks faced by retailers when retailing electricity to small customers in Tasmania. With the exception of the Load Following Swap the Regulator can, under the ESI Act, revoke an approved contract type if it no longer meets the principles in section 43H(1).

As retail prices are linked to the regulated Load Following Swap the approval of a regulated Load Following Swap is mandatory.

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.

This approval is contained in Part Two of the Instrument.

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

- (b) The following standard forms for each of the approved contracts noted in (a) 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 approved 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 nature. This approval is contained in Part Two of the Instrument.

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. 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, amongst 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.

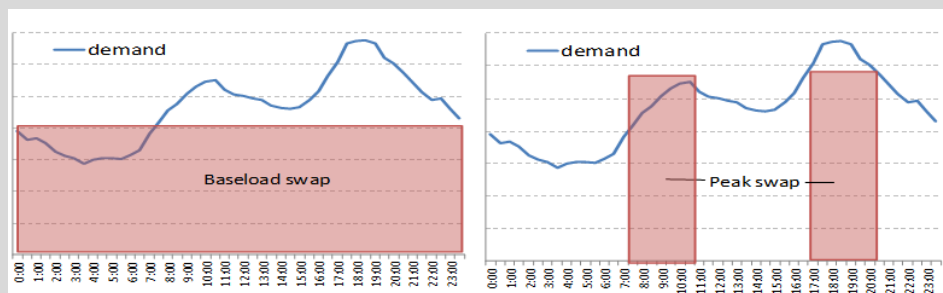
- (c) Section 43G(1)(c) of the ESI Act refers to the methodology for calculating the price of each of the approved contracts and the approved methodology is contained in an approval in Part Three of the Instrument.

Figure 1: Explanation of regulated contract types**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).

- (d) 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, in section 43H of the ESI Act:

- authorised retailers should have a choice of 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.

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 with compliance enforce 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 with regards 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 reflected in Section 8 of the

Regulator's *Electricity Supply Industry Performance and Information Reporting Guideline* (Version 2.3, September 2014).

1.4 Objective of the investigation

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

- (a) are delivering outcomes reflective of an efficient, effective competitive market;
- (b) are facilitating this process as effectively and as efficiently as possible; and
- (c) 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 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 ESI Act, the Regulator's objectives include, more generally:

- (i) the promotion of efficiency and competition in the electricity supply industry; and
- (ii) the establishment and maintenance of an efficient system of electricity generation, transmission, distribution and supply.

1.5 Scope

The investigation scope extends to considering issues relating to the Instrument, the Statement and the Wholesale Guideline.

1.7 Consultation

Written comments are invited on the Regulator's proposals as set out in this Draft Report.

Submissions will be considered prior to the Draft Report being finalised and must be received by the close of business on 23 September 2016.

Receipt of written comments by email to office@economicregulator.tas.gov.au is preferred.

Written submissions and enquiries may also be made to:

Glenn Bounds (Assistant Director – Price and Service)

Office of the Tasmanian Economic Regulator

GPO Box 770

Hobart 7001

Telephone: 03 6166 4422

The Regulator's normal practice is to publish all submissions on its website unless the author of the submission requests confidentiality in relation to the submission (or any part of the submission). Any parts of a submission that the author has requested remain confidential should be submitted as a separate attachment to those parts of a submission that the author considers suitable for publication.

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

2 APPROACH

2.1 Legislative Requirements

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

- administering wholesale contract pricing, including monitoring Hydro Tasmania's compliance with the Wholesale Contract Regulatory Instrument (Instrument) and investigating Hydro Tasmania for suspected non-compliance if necessary;
- investigating and determining future wholesale contract pricing instruments (the first instrument was made by the then Minister for Finance on 6 November 2013 and is in effect for the period 1 January 2014 to 31 December 2018); 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 in the event that Hydro Tasmania does not comply with its statutory obligations or if a supply disruption event occurs.

The Regulator also has the power under the ESI Act to obtain any information from Hydro Tasmania that the Regulator considers necessary to administer the wholesale contract regulatory framework.

As noted in Section 1.2 of this Draft Report and in accordance with section 43G of the ESI Act, the Instrument contains approvals in relation to the types of regulated contracts, the standard form(s) 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.

The Regulator is required, by regulation, to conduct a pricing investigation prior to making or revoking an approval under section 43G of the ESI Act (Regulation 21 of the *Electricity Supply Industry (Pricing and Related Matters) Regulations 2013* (the Pricing Regulations)).

The Pricing Regulations also require the pricing investigation to be conducted prior to the expiry of the Minister for Finance's existing approval.

In making an approval under section 43G of the ESI 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 ESI 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.

Under Regulation 20(2), the initial approvals made by the Minister under Regulation 20(1) remain in force for the period specified in the approval.

In summary, the ESI Act and the Pricing Regulations do not permit the expiry date of the existing Instrument to be extended beyond the specified expiry date of 31 December 2018 (see Clause 1(b) of the Instrument). Furthermore, as explained above, the Regulator is required to conduct an investigation before making or revoking an approval.

2.2 Investigation Approach

As noted in section 2.1, under Regulation 21 of the Pricing Regulations, the pricing investigation must be completed before the expiry of the existing Instrument on 31 December 2018. However, the Regulator has decided to conduct and complete the investigation and make the necessary approvals well before the Instrument's expiry date.

The Regulator has taken this decision to provide market participants with as much certainty as possible and in response to concerns raised by market participants about the potential impact on their respective forward contracting activities in the event that the approvals were made closer to the expiry date of the existing Instrument.

The Regulator considers that it is not in a position to release a draft Instrument for public consultation at this time. In this Draft Report the Regulator is proposing how the Instrument could be changed and, as such, the Regulator does not wish to pre-empt potential submitters by releasing a marked-up draft of the Instrument with the Draft Report.

The Regulator acknowledges that this approach adds another step to the investigation process. However, it will provide stakeholders outside those who participated in the 15 July 2016 Workshop with the opportunity to have further input.

The major tasks for the pricing investigation and the associated timeframes for their completion are outlined in Table 2.1 (completed tasks are highlighted).

Table 2.1 Investigation timeline

Task description	Date
Issues Paper released for public consultation	December 2015
Public consultation on Issues Paper closes	22 January 2016
Discussion Paper released to workshop attendees	Early-July 2016
Workshop held with representatives from Hydro, Aurora, ERM, Department of State Growth and the Department of Treasury and Finance to identify and discuss issues and provide feedback on the Regulator’s proposals to address the identified issues	15 July 2016
Regulator releases its Draft Report for public consultation	19 August 2016
Public consultation on the Draft Report ends	23 September 2016
Regulator releases Draft Instrument, Draft Statement and Draft Guideline for public consultation	7 October 2016
Public consultation on the Draft Instrument, Draft Statement and Draft Guideline ends	28 October 2016
Regulator releases its Final Report (together with the Final Instrument, Final Statement and Final Guideline) and makes/revokes the section 43G approvals to apply from 1 January 2019	9 December 2016

3 ISSUES

The Regulator released an Issues Paper in December 2015 to provide context for, and stimulate discussion about, the scope of the proposed investigation in relation to its review of the Instrument.

The Issues Paper also included a set of evaluation criteria that the Regulator will take into account when reviewing the “approvals’ in section 43G of the Act. The evaluation criteria are as follows:

- **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.

Following public consultation on the Regulator’s Issues Paper, the Regulator addressed the issues raised in submissions in a Discussion Paper which formed the agenda for a workshop attended by staff from the Office of the Tasmanian Economic Regulator, Department of State Growth and Department of Treasury and Finance as well as current participants in the Tasmanian small customer retail electricity market (Hydro Tasmania, ERM and Aurora Energy).

The issues outlined in the Discussion Paper and the comments made by workshop participants in relation to the Instrument are discussed in section 3.1 of this Draft Report while issues relating to the Guideline and Statement are discussed separately in sections 3.2 and 3.3 respectively of this Draft Report.

3.1 Wholesale Contract Regulatory Instrument

3.1.1 Market-based wholesale regulation framework

The Issues Paper sought views from stakeholders as to whether the Government should consider adopting a non-market based solution in which prices are prescribed in legislation.

There were no submissions supporting a move away from the current market-based approach on the basis that the current approach provides certainty for market participants.

The Regulator notes that, as no stakeholders expressed opposition to continuing with a market-based framework in either submissions on the Issues Paper or during the workshop, the Regulator proposes maintaining the current market-based framework.

The Regulator proposes maintaining the current market-based wholesale regulation framework.

3.1.2 Wholesale contract regulation and increasing competition in the small customer market

The Issues Paper asked whether market participants considered that the Instrument and wholesale regulatory framework supported the Regulator's objectives under the ESI Act of promoting efficiency and competition in the electricity supply industry.

In its submission Aurora Energy considered that the Instrument addresses some barriers to entry and that the Instrument is utilised by retailers serving the small business sector.

The Tasmanian Small Business Council (TSBC) considered that the wholesale regulatory arrangements, which include the Instrument, have failed to achieve the objective of encouraging the entry of new retailers into the Tasmanian small customer electricity market. Furthermore, the TSBC stated that with the virtual absence of competition, businesses have little or no choice of electricity retailer and price competition is extremely limited. Therefore, the significant discounts available to small businesses in other NEM jurisdictions do not exist in the Tasmanian electricity market.

Having regard to the Regulator's legislative objectives of promoting efficiency and competition in the electricity supply industry in Tasmania, the Regulator is mindful of the impact any changes to the Instrument may have on the development of retail competition.

Workshop participants noted that the current lack of competition in the small customer market was unlikely to be caused, or resolved, solely by the Instrument.

In this regard, in a recent report, the Australian Energy Market Commission (AEMC) noted that:

On average, retailers considered entry and expansion in Tasmania to be the most difficult of all jurisdictions except regional Queensland. They identified significant impediments including the structure and size of the wholesale market and price regulation.¹

In relation to wholesale market conditions and access to hedging products the AEMC noted that:

Retailers consistently mentioned tightening wholesale market conditions as a barrier to entry. This was particularly the case in South Australia and Queensland but also the case in States such as Tasmania and the Australian Capital Territory.

In Tasmania, retailer responses suggested that wholesale market conditions are difficult due to the:

- small demand base in the jurisdiction;
- structure of the wholesale market, with Hydro Tasmania being the only generator in the market;
- reliance on a single physical link to Victoria (the Basslink), which failed in late 2015; and
- inability of retailers to rely on interregional hedges to cover their wholesale positions.

Access to hedging products has also been a particularly important barrier in Queensland and Tasmania².

The Regulator notes while the AEMC referred to hedging issues, it did not specifically refer to the Instrument. The Regulator also notes that the AEMC raised other issues outside the scope of the Instrument such as market size and NEM interconnector arrangements.

The Regulator does not propose making any changes to the Instrument in response to the current level of competition in the small customer segment of the Tasmanian electricity market.

3.1.3 Term of the Instrument and review timeframes

The Issues Paper asked stakeholders if the term of the existing Instrument (five years) was an appropriate term for the new Instrument and whether market participants

¹ AEMC, *Final Report, 2016 Retail Competition Review, 30 June 2016, Page 28.*

² *Ibid*, Pages 97-8.

would prefer the term of the new Instrument to reflect financial years (currently the Instrument is based on calendar years).

In their respective submissions on the Issues Paper, both Hydro Tasmania and Aurora Energy supported the Instrument applying for a longer term and aligning the term of the Instrument with standing offer price determination regulatory periods which are currently in financial years. In its submission the Tasmanian Small Business Council (TSBC) suggested a review of the Instrument after three years.

At the July 2016 Workshop, Aurora Energy reiterated its support for aligning the term of the Instrument with standing offer regulatory periods at the workshop so as to prevent the misalignment that will occur when the current Instrument ends in December 2018 but the standing offer regulatory period ends six months later in June 2019.

Adopting a financial year basis, rather than a calendar year basis for the new Instrument was also supported by other workshop participants. For example, a term of 3.5 years would align the new Instrument with the end of the next standing offer regulatory period on 30 June 2022 assuming another three year standing offer regulatory period following the end of the 2016 Standing Offer Determination regulatory period on 30 June 2019.

The Regulator proposes:

- (a) setting the term of the new Instrument to align with a financial year basis rather than a calendar year basis as is currently the case under the existing Instrument; and
- (b) a 3.5 year term for the new Instrument so that it expires on 30 June 2022 to align with the expected end of the regulatory period for the next standing offer electricity price determination.

3.1.4 Regulated contract types

The current range of regulated products are outlined in Section 1.2 of this Draft Report.

The Issues Paper sought comments on whether the range of regulated products that are available to market participants was appropriate.

In their respective submissions both Aurora Energy and Hydro Tasmania indicated that they were satisfied with the types of contracts available. However, in its submission, the TSBC stated that the current range of contracts was not achieving the desired outcome of increasing competition and that a more diverse range of contracts is required.

The TSBC's submission stated that it considers the current range of regulated products combined with the lack of an "margin products" (available in other NEM jurisdictions through products available on the ASX Energy) is too limiting with retailers seeking other hedging products having to enter into unregulated contracts with Hydro Tasmania.

The TSBC also considered that a greater range of regulated products will create greater liquidity in the Tasmanian wholesale financial contract market. The TSBC also contended that the regulated contracts are inconsistent with the evaluation criteria outlined in the Issues Paper (reproduced on page 19 of this Draft Report) as the contracts are subject to Hydro Tasmania’s credit policy which is not publically available.

Hydro Tasmania stated at the Workshop that it also offered a range of unregulated products and did not see any benefit in being required to offer additional regulated contract types given the active unregulated market. Hydro Tasmania also noted that the introduction of additional regulated contract types could have unforeseen negative consequences.

The retention of the current regulated contract types was supported by other workshop participants.

Regulated base load and peak swaps and regulated \$300 baseload caps are based on products available to market participant in other NEM jurisdictions with the fourth product, a load following swap, an over-the-counter product. The Regulator understands that, during the then Government’s development of the wholesale regulatory framework during 2013, these products were considered to be adequate to achieve the objective of retailers operating in Tasmania facing a similar level of risk to those operating in other NEM jurisdictions.

The decision to increase the range of regulated products would need to factor in the cost of offering additional products. The Regulator understands that the ASX Energy does not offer Tasmanian products due to a lack of demand. Additionally, over-the-counter products that include a margin component are complex and therefore would be costly both to develop and maintain. As market participants have not requested a wider range of regulated products the Regulator proposes retaining the current regulated contract types.

The Regulator proposes retaining the current regulated contract types.

3.1.5 Use of existing Schedule as an alternative to the Hydro Tasmania Schedule

The current approved standard forms are outlined in Section 1.2 of this Draft Report.

Under the current Instrument, parties wishing to either use an existing Schedule or negotiate their own Schedule instead of using the Hydro Tasmania Schedule in the Instrument, must seek the Regulator’s approval of the alternative Schedule. An alternative Schedule is referred to in the Instrument as a “separate standard form”.

The ability to use a “separate standard form” was included in the Instrument to provide new retailers with a choice of using the Hydro Tasmania Schedule, an existing Schedule or negotiating their own Schedule.

In its submission to the Issues Paper, Hydro Tasmania suggested that a letter from the retailer to the Regulator requesting they be allowed to use their existing Schedule should suffice. The TSBC’s submission supported retailers not being required to use

the Hydro Tasmania Schedule and did not see the need for the Regulator to approve the use of an alternative Schedule. Workshop participants supported Hydro Tasmania’s proposal.

Retailers entering into wholesale financial contracts with Hydro Tasmania are wholesale electricity market participants who are aware of the risks of operating in the wholesale electricity market. The Regulator therefore considers the requirement for regulatory approval where both parties agree to use a Schedule other than the Hydro Tasmania Schedule is administratively burdensome and serves no purpose.

The Regulator proposes that the new Instrument not include the requirement for regulatory approval to be granted where parties wish to use either an existing Schedule or negotiate their own Schedule instead of using the Hydro Tasmania Schedule in the Instrument.

The Regulator also proposes that the new Instrument require retailers to provide a letter notifying the Regulator that they have chosen to use an alternative Schedule to the Hydro Tasmania Schedule.

3.1.6 Peak Swap, Baseload Swap and Load Following Swap price calculations

In its Issues Paper, the Regulator sought feedback from stakeholders on the calculation of peak period swap, baseload swap and load following swap prices.

In its submission on that paper, Hydro Tasmania stated that the correlation between Tasmanian regulated baseload swap prices and the prices in other states demonstrates that the Instrument delivers very reasonable outcomes.

In its submission, TSBC expressed concern that the prices calculated for both peak and baseload swaps are significantly higher than in Victoria and the difference has increased over time. The TSBC also noted that the December 2015 Issues Paper did not explain why this is the case.

Aurora Energy’s submission stated that it considered that the current methodology is operating appropriately.

The prices for the regulated products are determined using an Excel Model that reflects the inputs and calculation methodology specified in the Instrument. Tasmanian prices are based on Victorian futures prices adjusted for a number of factors including the inflows into Hydro Tasmania’s storages, transport costs across Bass Strait via Basslink, forecast load. Tasmanian prices also factor in the cost of meeting peak demand through the construction of a new gas-fired peaking plant. The inputs and calculation methodology has resulted higher prices for peak and base load swaps than in Victoria but there is no evidence that the difference has increased over time. As the Regulator has not received support for an alternative methodology to calculate the Peak, Baseload and Load Following Swap prices the Regulator proposes continuing to apply the current methodology.

The Regulator proposes continuing with the current methodologies for calculating each of the peak period, baseload and load following swap prices.

3.1.7 Calculation of Maximum Baseload \$300 Cap Contract Price

The prices for regulated baseload \$300 cap contracts for Tasmania are significantly higher than the Victorian Baseload \$300 caps available on the ASX Energy market.

The maximum baseload \$300 cap contract price is based on Victorian cap futures prices, Tasmanian load, inflows, and the cost of a new gas (or possible oil) peaking plant. The timing of the construction and the cost of the construction and operating a gas peaking plant are the major factors determining the regulated cap price, which has an impact on the remaining three regulated contract prices.

The inputs associated with the cost and timing of a new gas peaking plant are static inputs in Schedule 1 of the Instrument (see Table 6 in Attachment 4.2 to this Draft Report).

In their respective submissions on the Issues Paper both Hydro Tasmania and Aurora Energy supported maintaining the current methodology for determining the cap price. In particular, Aurora Energy referred to the consistent outcomes delivered by the operation of the Instrument while Hydro Tasmania's submission noted that:

The current methodology is theoretically sound because the physical way of backing a cap product is to have an open cycle gas turbine which is the methodology embodied in the Instrument currently.³

Hydro Tasmania's submission on the Issues Paper also noted that the Instrument needs to be considered as a whole as the inter-connected nature of the Instrument meant that amending one component of the pricing methodology may have unintended flow-on effects to other parts of the Instrument.

Hydro Tasmania stated at the 15 July 2016 Workshop that, while cap prices may be calculated differently in other jurisdictions, Tasmanian cap prices were similar to those in other smaller jurisdictions (eg South Australia and Queensland) where there is competition. Therefore the cap prices reflect what prices would be if there was more competition in Tasmania.

Aurora Energy also stated at the Workshop that the implications of any changes to the Instrument should be carefully considered as they may compromise regulatory certainty.

Workshop participants did not provide or support an alternative method for determining cap prices but supported a review of the cap price inputs.

In its submission on the Issues Paper, the TSBC's supported a detailed review of the \$300 cap contract price and the other regulated contracts. In particular, the TSBC considers that the contracts may be priced at a level that is unreasonable and unrepresentative of how markets determine prices thereby discouraging smaller

³ Hydro Tasmania, Submission on the Issues Paper in relation to the Review of the Wholesale Contract Regulatory Instrument, page 5.

retailers who use these products as their primary financial risk management tool. TSBC also states that the current inputs values are likely to be out of date. The TSBC also noted that the single regulated \$300 cap could be too limiting and adding other products would improve market participants' ability to manage their risks.

In the absence of an alternative method of determining the price of Baseload \$300 Caps the Regulator proposes continuing with the current methodology but reviewing the cap price inputs (see 3.1.10 for a discussion on the proposed changes to inputs).

The Regulator proposes continuing with the current methodology for determining the Maximum Baseload \$300 Cap Contract Price but reviewing the cap price inputs.

3.1.8 Weekly offer process and limits, scaling rules and calculations

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. The weekly offer process is set out in detail in the Guideline.

The Issues Paper sought feedback from stakeholders regarding the weekly offer process and limits, scaling rules and calculations.

In its submission on the Issues Paper, Hydro Tasmania suggested that, as there was one dominant retailer in the small customer market, it may be more appropriate if scaling was based on all customer numbers rather than the number of small customers alone.

At the Workshop, Aurora Energy stated that, as the Instrument was designed to protect retailers serving the small customer market, it considered that the scaling is working as intended ie ensuring there is sufficient volume of regulated contracts to enable retailers serving the small customer market to hedge their small customer load. Aurora Energy also noted that changing scaling from being based on small customer numbers to small customer load would disadvantage retailers with a high proportion of residential customers (relatively small loads) and benefit retailers who serve only small business customers (ie customers with relatively larger loads).

However, ERM Energy expressed a contrary view at the Workshop and suggested that scaling should be based on customer load rather than customer numbers.

The Overview of Part 4 on page 29 of the Instrument states that:

A priority allocation is made to Authorised Retailers who serve Small Customers, based on the share of the Small Customer market (in terms of the number of Small Customers) that they supply.

However, the Regulator notes that the physical and financial electricity markets are based on the volume of electricity sold ie load.

The Regulator also notes that the Volume scaling arrangements were designed with the expectation that, initially, there would be two retailers operating in the Tasmanian

retail market and customers (and therefore the approximate load) would be allocated equally between each retailer.

However, this situation would have been unlikely to remain intact for long once customers (and their associated load) began switching between retailers. The Regulator considers that each retailer’s proportion of the small customer load is a more appropriate basis for scaling than an allocation based on customer numbers.

The Regulator proposes that the new Instrument incorporate scaling provisions which are based on each retailer’s proportion of the small customer load thereby ensuring there is sufficient volume of regulated contracts to enable retailers serving the small customer market to hedge their small customer load.

3.1.9 Amendment Provisions

Under the current framework, the Regulator cannot amend the Instrument (except for specific inputs) without conducting a pricing investigation. While limiting the Regulator’s capacity to amend the Instrument provides regulatory certainty to market participants it is time consuming and costly where the Instrument requires minor or administrative changes to ensure that it operates as intended.

The Issues Paper sought feedback from market participants on whether the Instrument should allow for greater flexibility to amend the Instrument to rectify errors and correct minor procedural and administrative matters

All submissions on the Issues Paper supported providing the Regulator with the ability to amend the Instrument and make minor procedural and administrative adjustments. Workshop participants also supported including a “fast track” amendment provision in the Instrument. The Regulator proposes including the following clause in the Instrument:

“Fast Track” Change to the Instrument by the Regulator

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

(ii) the proposed change to the Instrument 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 change to the Instrument is consistent with the objectives of the ESI Act.

(b) In the case of any of the matters referred to in Clause (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.

The Regulator proposes that the new Instrument include a ‘fast-track amendment provision’.

3.1.10 Values determined by the Regulator

Schedule 1 of the Instrument lists inputs set by the Regulator. These inputs include amounts, rates, and percentages that are used in the calculations within the Instrument (Schedule 1 of the Instrument is reproduced in Attachment 4.2 to this Draft Report).

In its Issues Paper, the Regulator sought feedback from stakeholders regarding the validity of the values currently listed in Schedule 1 of the Instrument together with the validity of the assumptions adopted for, and the associated sources of, those values.

In its submission on the Issues Paper Hydro Tasmania suggested that the Regulator should commit to review, at least annually, values as they may no longer be current eg new committed wind generation. Hydro Tasmania also suggested that other variables, which do not vary over time, should be reviewed by the Regulator on the request of a market participant.

There was general agreement among Workshop participants that the inputs should be reviewed annually with ERM stating that, due to the volatility in gas prices, the Tasmanian cap value inputs should be updated every six months.

Aurora Energy expressed concern about the Regulator updating inputs in the existing Instrument due to Aurora Energy having already entered into forward contracts based on the assumption that the values outlined in the existing Instrument would not be changed.

Hydro Tasmania also suggested not all inputs should be updated at once and that inputs could be updated on a rolling basis over two years.

Clause 4.2 of the current Statement describes the process for updating the inputs in Schedule 1 of the Instrument. At present, the review of one or more inputs relies on one or more of the Regulator, Hydro Tasmania, an authorised retailer or other stakeholder requesting a review.

However, the Regulator considers market participants are incentivised to request an update of the inputs only where the updated values are to their benefit. To provide greater transparency and provide all current and potential market participants with greater certainty while ensuring that all parties in the small customer electricity market are protected, the Regulator considers that the existing input review process should be amended to include the following input review schedule:

Schedule 1 - Inputs set by Regulator	Review Frequency
Table 1 Off-Peak Cap Values	Annual
Table 2 Absolute Minimum Capacity Offer Volume	Annual
Table 3 Supplementary Offer Volumes, Headroom Buffers and Reserved Percentage	Annual
Table 4 Marginal Loss Factors	Annual
Table 5 New Committed Wind Generation	Annual
Table 6 Calculation of Tasmanian Cap Values	
Costing Quarter	Annual
Economic Life	Annual
Forecast Inflation Rate	Quarterly
Nominal Post Tax Debt Cost	Quarterly
Pre-Tax Real WACC	Quarterly
Real Annual Operating Cost	Annual
Real Total Capital Cost	Annual
Contract premiums	Annual

To provide transparency the Regulator proposes linking inputs, where possible, to verifiable, independent third party data (for example, the Reserve Bank of Australia's quarterly consumer price index movements and the Australian Energy Market Operator's annual demand forecasts).

The Regulator proposes reviewing the inputs at least annually on the basis of the schedule outlined in section 3.1.10 of this Draft Report.

The Regulator further proposes amending the Statement of Regulatory Intent to incorporate the formal review schedule for the inputs set by the Regulator as outlined in section 3.1.10 of this Draft Report.

3.1.11 Availability and transparency of data

The weekly prices for each regulated contract type are calculated using an Excel model. A copy of the Excel model is available on Hydro's Tasmania's website as it was the Government's intention that any interested party would be able to use the model to calculate the weekly regulated prices and therefore verify Hydro Tasmania's calculations.

However, in reality, it is unlikely that anyone could run the model without contacting either Hydro or the Regulator to determine the applicable source data. Even where the data is publically available (for example, from AEMO) how the data is provided and what data is provided has changed since the model was created.

Additionally, forecast current Hydro Yield is calculated by Hydro and only available for one week (as part of the weekly regulated price offer) ie the forecast current Hydro Yield is not publicly available once Hydro Tasmania publishes the following week's regulated prices.

Workshop participants generally supported increased transparency although Hydro Tasmania expressed concern with regards to publishing commercially sensitive data.

The Regulator also considers that it is highly desirable, in the interests of providing greater transparency, to make additional information relating to the operation of the Instrument and the wholesale regulatory framework publicly available.

The Regulator proposes amending the Wholesale Contract Guideline to require Hydro Tasmania to:

- publish current and past forecast current Hydro Yield values;
- maintain and publish a database of past prices on its website; and
- to clearly indicate, on its website, the date that updates have been made to the Model.

The Regulator also proposes amending the Statement of Regulatory Intent to commit the Regulator to publishing details of any changes made to source data on its website.

3.1.12 Transitional arrangements between the existing Instrument and the new Instrument

Submissions from both Aurora Energy and Hydro Tasmania in response to the Issues Paper sought a smooth transition between the existing and new Instrument.

The Regulator notes that Part 4 of the existing Instrument requires Hydro Tasmania to offer contracts for eight future quarters (subject to meeting the liquidity test) until the Instrument expires on 31 December 2018. When the new Instrument becomes effective on 1 January 2019, Hydro Tasmania would only be able to offer contracts under the new Instrument from the second quarter in 2019. There will, therefore, be seven quarters during which Hydro Tasmania is subject to contracts entered into under different Instruments as shown in the diagram in Attachment 4.3.

As the details of the new Instrument will be known by late 2016, retailers will be fully aware of the rules applying, and the assumptions made, under each of the existing Instrument and the new Instrument and could, therefore, choose whether to contract under the existing Instrument or under the new Instrument.

Aurora Energy stated at the workshop that it considers contracts entered into prior to the expiry of the existing Instrument should remain in force notwithstanding that those contracts are not concluded until after the expiry of the existing Instrument. On this point the Regulator notes section 43G(10) of the ESI Act states that:

(10) The making of an approval under subsection (1) or a revocation under subsection (4) of such an approval does not affect the validity or operation of a contract, in an approved standard form, that was entered into before the approval or revocation came into force.

Hydro Tasmania contended at the Workshop that a situation whereby it would be subject to contracts for the same period but under different Instruments would allow for arbitrage opportunities in that market participants would know where prices were going and could choose which instrument to buy under (and when to buy) as soon as the new pricing methodology was finalised. Hydro Tasmania considers that this has the potential to change buyer behaviour.

To address this, Hydro Tasmania proposed that:

- the existing Instrument is amended so that Hydro Tasmania is only required to offer contracts which mature up to the last quarter of the existing Instrument (ie Q4, 2018); and
- Hydro Tasmania should then be permitted to offer contracts under the new Instrument for quarters commencing 1 January 2019 as shown in the diagram in Attachment 4 4.

In the event that the existing Instrument is amended in response to the issues raised in submissions to this Draft Report, market participants and other stakeholders would be provided reasonable notice as to when the amendments commence.

Based on the Regulator's understanding of the operation of the transitional arrangements, retailers will have the option of entering into contracts under the existing Instrument or defer contracting until Quarter 1, 2019 (see Attachment 4.3).

While adopting this approach may provide retailers with arbitrage opportunities, it also provides certainty for retailers as to the arrangements that will be in place into the

future. Adopting this approach would also meet the accountability/transparency and consistency/predictability evaluation criteria set out in page 20 of this Draft Report. This approach would, however, require Hydro Tasmania to manage contractual arrangements under both the existing Instrument and the new Instrument for seven quarters.

The adoption of Hydro Tasmania’s proposal would, as the Regulator understands it, remove the potential arbitrage opportunities. However, further amendments would be required to the existing instrument to progressively reduce the number of quarters that Hydro Tasmania is required to make weekly contract offers. As section 43G(10) of the ESI Act gives market participants certainty by providing for contracts made under an approval remaining in force irrespective of any subsequent changes to the regulatory arrangements, adopting this approach would also require amendment to the ESI Act.

Considering the relative advantages and disadvantages of each of the suggested arrangements for transitioning between the existing Instrument and the new Instrument, the Regulator considers that retailers should have the option of contracting under either the existing Instrument or the new Instrument as set out in Attachment 4.3 ie based on the Regulator’s interpretation of the intended operation of the transitional arrangements under the existing Instrument.

The Regulator proposes that the transition between the existing Instrument and the new Instrument should occur as outlined in Attachment 4.3 such that retailers should have the option of contracting under either the existing Instrument or the new Instrument.

3.1.13 Miscellaneous amendments to the Instrument

During the course of its review the Regulator has identified that the following minor changes need to be made to the Instrument:

- replace references to ‘oil-fired peaking plant’ with references to ‘gas-fired peaking plant’; and
- amend Clause 2.3 to include “dates” in the list of values that the Regulator may change.

The Regulator proposes that minor changes be made to the Instrument to replace references ‘oil-fired peaking plant’ with references to ‘gas-fired peaking plant’; and amend Clause 2.3 to include “dates” in the list of values that the Regulator may change.

3.1.14 Carry over of changes proposed in relation to the new Instrument

Subject to stakeholders’ comments, the Regulator considers it appropriate that the changes proposed to be made to the new Instrument are reflected in the existing Instrument (for example, changes to input values and definitions).

The Regulator also considers that changes proposed for the administration of the new Instrument be applied to the administration of the existing Instrument (for example, the frequency of updates to the input values and the applicable source data for those updates).

The Regulator proposes incorporating, where relevant and as appropriate, the changes proposed for the new Instrument in the existing Instrument.

The Regulator also proposes applying changes made in relation to the administration of the new Instrument in administering the existing Instrument.

3.2 Wholesale Contract Guideline

3.2.1 Insider trading

During the Basslink outage Hydro Tasmania advised the Regulator that it was possible that circumstances may arise where Hydro Tasmania would consider itself in possession of “inside information” and therefore would instigate a trading halt for both regulated and unregulated contracts.

The Regulator’s initial view was that, although Hydro Tasmania may have information that could potentially be deemed to be “inside information”, this would not impact on regulated prices as these are derived from inputs outside of Hydro Tasmania’s control.

Hydro Tasmania subsequently advised that the insider trading provisions in the *Corporations Act 2001* (Cwlth) apply more broadly than solely possessing information which may impact prices. Hydro Tasmania considers that the information has the potential to influence whether or not retailers enter into regulated contracts and, therefore, have a “material effect on the price or value”.

The Regulator considers that it would be difficult to establish a process to investigate Hydro Tasmania’s compliance with its obligations under the wholesale regulatory framework in the event that Hydro Tasmania does not offer the weekly prices on the basis of being in possession of market sensitive information.

At the July 2016 Workshop, Hydro Tasmania proposed that the Instrument and/or the Guideline be amended to account for the possibility of Hydro Tasmania instigating a trading halt.

Aurora Energy stated at the Workshop that it wanted to receive notification of a trading halt. However, the Regulator understands that, due to the nature of a trading halt and the associated legislation governing insider trading, Hydro Tasmania would be unable to inform market participants that a trading halt was in place due to insider trading.

This being the case, Hydro Tasmania suggested that a new provision be added to the Guideline to provide a further exception to the standard weekly process to cover this possibility. Currently, Clause 3.5 of the Guideline provides that, where an “exceptional circumstances event” occurs which results in Hydro Tasmania being unable to offer weekly prices (eg due to an information technology problem), Hydro Tasmania may defer the making of the weekly pricing offers by one working day. Clause 3.5 also

requires Hydro Tasmania to provide notice of the delay on its website and to advise the Regulator of the reasons for the occurrence of the event and the steps it has taken to remove or reduce the risk of the event recurring. The Regulator believes that the Guideline could be amended to add a similar clause to allow for the possibility of Hydro Tasmania instigating a trading halt due to possession of inside information.

Aurora Energy also stated that a make-up provision was needed particularly if a trading halt was called on the last trading day of a quarter as retailers may miss their last chance to purchase contracts for the following quarter.

The Regulator proposes amending the Guideline to add a clause similar to the existing Clause 3.5 (exceptions to the standard weekly process) to allow for the possibility of Hydro Tasmania instigating a trading halt and not offering weekly prices.

The Regulator also proposes requiring Hydro Tasmania to offer make-up volumes in the event that Hydro Tasmania instigates a trading halt and does not offer weekly prices.

3.2.2 Weekly offers

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. The weekly offer process is set out in more detail in Section 3 of the Guideline.

In response to the Issues Paper, Hydro Tasmania considered that the Regulator should allow Hydro Tasmania not to offer contracts under some well-defined situations and circumstances in preference to setting the price to \$300/MWh (particularly in the event of a supply disruption).

The Regulator has proposed changes to the Guideline and Statement in respect to Hydro Tasmania not making the required weekly offers during a trading halt or in the event of a supply disruption as outlined in sections 3.2.1 and 3.3.1 respectively of this Draft Report, however based on previous submissions from, and discussions with, market participants, the Regulator does not believe that any changes to the weekly offer process itself are necessary.

The Regulator does not propose any changes to the weekly offer process.

3.2.3 Miscellaneous changes

The Regulator intends to make 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.

3.3 Statement of Regulatory Intent

3.3.1 Supply Disruption Event

Under section 43M(2) of the ESI Act, the Regulator may fix regulated wholesale contract prices if the Regulator is of the opinion that a “supply disruption event” has occurred. The ESI 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 electricity that would otherwise be supplied under normal circumstances by Hydro Tasmania”.

The definition of a supply disruption event excludes a drought in Tasmania as this is considered to be a normal commercial risk for Hydro Tasmania that is reflected in the methodology for pricing the regulated wholesale contracts.

In addition, the Regulator’s Statement provides that, when a supply disruption event has occurred, the Regulator will move to fix regulated contract prices at \$300/MWh to effectively suspend the regulated contract market until a further assessment of the situation is made.

On 22 December 2015, Basslink Pty Ltd announced that a fault had been identified in the Basslink electricity interconnector, resulting in a disruption to Basslink’s electricity transmission service. Initially, Basslink advised that the outage would be for 60 days. This was subsequently extended on a number of occasions and the outage was not rectified until June 2016.

In response to the initial notification from Basslink, the Regulator undertook consultation with market participants in January 2016. During this consultation, market participants raised concerns about the increased uncertainty and the potential adverse impacts upon the efficient operation of the market of proceeding to set prices at \$300/MWh in the event that a supply disruption event was declared due to the Basslink outage.

Following further consultation with market participants, and having considered further delays in rectifying the Basslink outage, the Regulator resolved on 7 March 2016 that the Basslink outage met the relevant requirements of the ESI Act and, therefore, constituted a supply disruption event. However, given feedback from consultation with market participants, the Regulator advised that it did not intend to instruct Hydro Tasmania to set all regulated contract prices at \$300/MWh. In addition, the Regulator advised that it had made no decision, at that stage, to exercise the legislative option to fix regulated contract prices using a different methodology to that which currently applied.

The Regulator did, however, leave open the option of changing the above position if it was presented with sufficient arguments from market participants on the need to do so. No subsequent submissions were made by market participants and the Basslink outage was resolved in June 2016. Therefore, the Basslink outage did not impact upon regulated electricity wholesale contracting arrangements.

In its submission to the Issues Paper, Hydro Tasmania considered that the Statement of Regulatory Intent should include a definition of “prolonged” and “substantial”. The Regulator is concerned about both the difficulty of clearly defining these terms and the potential loss of flexibility in the event that these terms are defined and restrict the Regulator’s ability to respond to an, as yet, unknown scenario.

Hydro Tasmania also proposed linking the Basslink capacity input values in the Instrument to Basslink’s actual capacity during an outage and rather than maintaining the existing values.

Hydro Tasmania proposed this approach because:

- there is no change to the methodology so pricing is still consistent with the Instrument;
- it is an understandable and predictable therefore provides certainty for participants;
- it maintains the integrity of the wholesale contract framework; and
- there is no change to the coding in the Model and therefore no potential for unforeseen consequences.

At the 15 July 2016 Workshop, Hydro Tasmania reiterated its proposal that, in response to a Basslink outage, the model should be modified so that quarters affected by the outage should reflect actual Basslink capacity values. Hydro Tasmania also proposed that when a supply disruption event occurs the weekly process continues to operate for a given period (eg one month) while the Regulator consults on the most appropriate response to the supply disruption event.

Aurora Energy and Hydro Tasmania both agreed that the appropriate response to a supply disruption event depends on the nature of the event with Aurora Energy stating that, under some pre-defined events, the Regulator should be able to make a decision in a relatively short time period such as one week.

Noting the experience gained from the December 2015 Basslink outage and, in particular, the feedback provided by market participants during consultation in relation to the outage, the Regulator has concerns about the potential impact on the market if a supply disruption occurs in the future and the Regulator, as currently required under the Statement, instructs Hydro Tasmania to set all regulated contract prices at \$300/MWh. The Regulator therefore proposes removing this requirement.

In the event of a future supply disruption event, the Regulator considers that there is value in adopting a consultative process with market participants, prior to deciding on the appropriate course of action to take. The Regulator therefore proposes consulting with market participants and introducing specific criteria to assist it in deciding on the appropriate course of action to take in response to a supply disruption event.

The Regulator also considers that there is merit in Hydro Tasmania’s suggestion to link Basslink flows to the actual Basslink capacity values. However, the Regulator sees value in this suggestion from a general point of view rather than in the limited

context of future Basslink outages and will, therefore, consider adopting this approach as part of the Regulator’s review of the input values as outlined in section 3.1.10 of this Draft Report.

The Regulator proposes:

- (a) removing the current reference, in the Statement of Regulatory Intent, to the Regulator instructing Hydro Tasmania to set all regulated contract prices at \$300/MWh; and
- (b) adding the following criteria to the Statement of Regulatory Intent:
 - (i) Will the Regulator’s proposed response provide regulatory certainty and transparency?
 - (ii) Will the benefit of any proposed changes to the current Wholesale Regulatory Framework outweigh the costs to change the Framework?
 - (iii) Will the Regulator’s proposed response effect the efficiency of the Tasmanian Wholesale Electricity derivatives market?
- (c) if a supply disruption event occurs in the future, adopting the following process:
 - (i) the current weekly offer process will continue to operate unless advised otherwise;
 - (ii) the Regulator will contact all current market participants to seek their views as to the appropriate response to the event;
 - (iii) in its deliberations, the Regulator will apply the criteria noted in (b)(i) – (iii) inclusive above to assess the most appropriate course of action to take in response to the event.

3.3.2 Updating Inputs

The Regulator intends making a number of consequential amendments to the Statement to reflect the outcomes of consultation on the proposals outlined in section 3.1.10 of this Draft Report.

3.3.3 Miscellaneous changes

The Regulator also intends making 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.

4 ATTACHMENTS

4.1 Summary of the Regulator’s obligations under the wholesale regulatory framework

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 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)	(a) The Regulator must provide a copy of any approval/revocation to Hydro Tasmania and each authorised retailer in the state. (b) The Regulator must publish any approval/revocation made on its website.
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	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: <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.
<i>ELECTRICITY SUPPLY INDUSTRY (PRICING AND RELATED MATTERS) REGULATIONS 2013</i>	
The Pricing Regulations make provisions in relation to section 43G(1) approvals and section 43G(4) revocations of approvals.	
REG - 21	The Regulator must conduct a pricing investigation: <ul style="list-style-type: none"> ▪ before making/revoking an approval under section 43G of the ESI Act; or ▪ at a reasonable time before the expiry of the Ministerial Approval (expires 31 December 2018).
REG – 22(1)	Before conducting the Investigation, the Regulator must give notice to: <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)	The Regulation 22(1) notice should specify: <ul style="list-style-type: none"> ▪ the objective of the Investigation; ▪ the period within which submissions may be made;

	<ul style="list-style-type: none"> ▪ 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)	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).
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	After completing the Final Report of the Investigation, the Regulator can make or revoke an approval under section 43G of the Act. The new approval remains in force until it is revoked.
REG – 49	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.
REG – 51 & 52	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.
REG – 53 (1)	At an appropriate time during the Investigation, the Regulator is to prepare a draft report.
REG – 53 (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 – 53 (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 – 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>

	Notice of the Report must be published in newspapers, or in such other manner as the Regulator considers appropriate (for example, its website).
REG – 54 (3)	The Final Report is to be consistent with the ESI Act and Regulations (specifically Regulation 23).
REG – 54 (6)	The Final Report must be available on the Regulator’s website.
<i>WHOLESALE CONTRACT REGULATORY INSTRUMENT</i>	
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 (eg 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>

4.2 Schedule 1 of the Instrument

Table 1 Off-Peak Cap Values

Defined term	Value
Off-Peak Reference Cap Value	\$0.33/MWh
Off-Peak Cap Value	\$0.33/MWh

Table 2 Absolute Minimum Capacity Offer Volume

Quarter	Absolute Minimum Capacity Offer Volume (MW)
Quarters ending 31 March	4.3
Quarters ending 30 June	6.9
Quarters ending 30 September	6.6
Quarters ending 31 December	5.1

Table 3 Supplementary Offer Volumes, Headroom Buffers and Reserved Percentage

Defined term	Value
Supplementary Offer Capacity Volume	20 MW
Supplementary Offer Energy Volume	44 GWh
Reduced Supplementary Offer Capacity Volume	10 MW
Reduced Supplementary Offer Energy Volume	15 GWh
Capacity Headroom Buffer	130 MW
Energy Headroom Buffer	200 GWh
Reserved Percentage	90%

Table 4 Marginal Loss Factors

Defined term	Value
Maximum Export Marginal Loss Factor	0.88
Maximum Import Marginal Loss Factor	1.064
Off-Peak Marginal Loss Factor	1.002
Peak Marginal Los Factor	0.94
Average Basslink Flow Export	500 MW
Average Basslink Flow Import	462 MW

Table 5 New Committed Wind Generation

Quarter	New Committed Wind Generation (GWh)
Quarters ending 31 March	107
Quarters ending 30 June	130
Quarters ending 30 September	161
Quarters ending 31 December	134

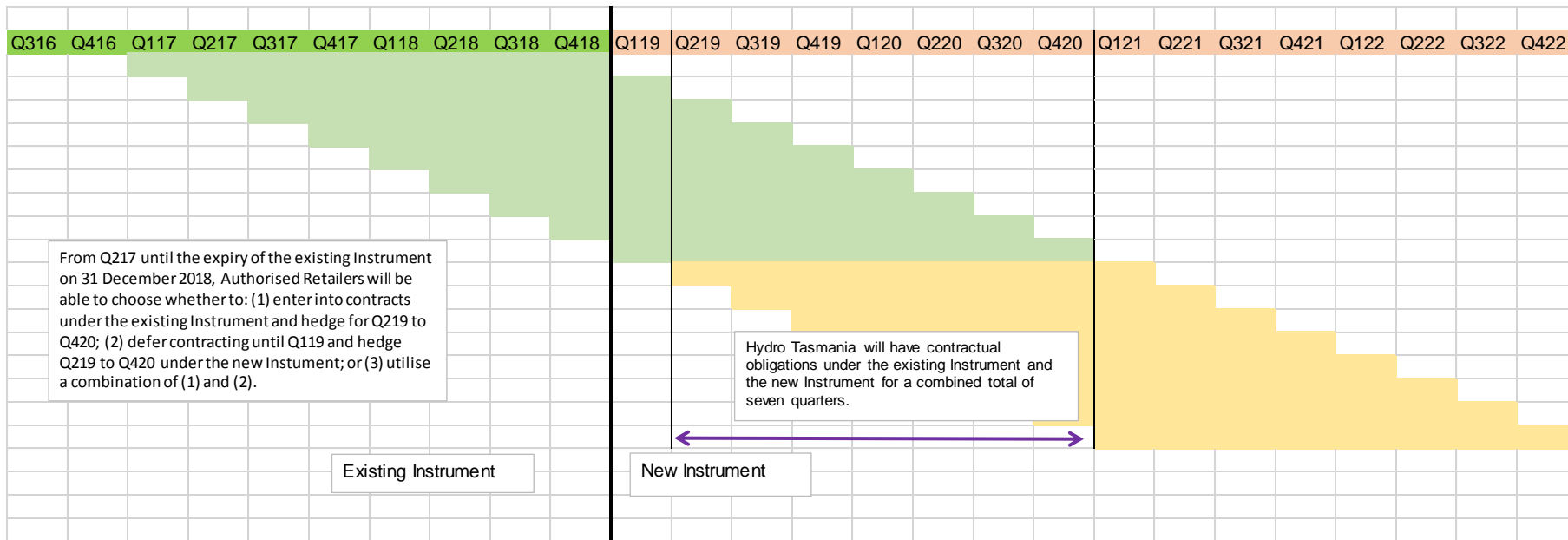
Table 6 Calculation of Tasmanian Cap Value

Defined term	Value
Costing Quarter	Quarter ending 31 December 2012
Economic Life	30
Forecast Inflation Rate	2.7%
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)

Table 7 Contract Premiums

Defined term	Value
Off-Peak Contract Premium	\$3.4/MWh
Peak Contract Premium	\$15.60/MWh

4.3 Transitional arrangements – Regulator’s interpretation



4.4 Transitional arrangements – Hydro Tasmania’s proposal

