



**Wholesale Contract Regulatory Instrument Pricing  
Investigation**

**Final Report**

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# I. BACKGROUND

The Tasmanian Economic Regulator (Regulator) is responsible for the regulation of some of Hydro Tasmania's wholesale contract activities under the *Electricity Supply Industry Act 1995* (ESI Act).

Under section 43G(1) of the ESI Act, the Regulator is required to approve a number of matters relating to Hydro Tasmania's wholesale contract activities. The approval is effected by the Regulator making a Wholesale Contract Regulatory Instrument (the Instrument).

Hydro Tasmania is required under section 43I of the ESI Act to offer approved financial risk contracts (approved contracts) to authorised retailers selling electricity in Tasmania, and, if requested by the retailers, to enter into these contracts with these retailers.

## I.1 Reason for pricing investigation

On 28 November 2017, the Australian Energy Market Commission amended the National Electricity Rules by changing the settlement period for the electricity spot price in the National Electricity Market (NEM) from 30 minutes to five minutes. The change is scheduled to take effect from 1 July 2021 and therefore will apply from the third quarter of 2021.

On 19 June 2019, Hydro Tasmania raised concerns with the Regulator that the November 2017 Instrument did not provide for the change in the settlement period.

The November 2017 Instrument required Hydro Tasmania to offer prices for approved contracts each week for a minimum of eight future quarters. Consequently, from 1 July 2019, Hydro Tasmania would have been required to offer prices for approved contracts for the third quarter in 2021 and potentially enter into approved contracts that refer to settlement periods that will be inconsistent with the National Electricity Rules expected to be in place from 1 July 2021.

The Regulator conducted a pricing investigation in June 2019 to address this issue and published a consultation paper proposing a number of changes to the Instrument. The proposed solution was rejected because there are both direct and indirect references to a 30 minute settlement period in the Instrument and there was insufficient time prior to the start of the third quarter of 2019 to make the required changes and ensure there are no unforeseen consequences in other parts of the Instrument.

As an interim solution, the Regulator decided to make a new Instrument effective from 2 July 2019 that required Hydro Tasmania to offer contracts for a minimum of seven future quarters; as a result, Hydro Tasmania was not required to offer contracts from the third quarter of 2021 during the third quarter of 2019.

In its final report from the July 2019 investigation the Regulator advised that it intended conducting a further pricing investigation that was to be finalised prior to 30 September 2019 that would result in an Instrument that fully reflects the new NEM settlement arrangements (ie a long-term solution).

## I.2 Objective of pricing investigation

The Regulator does not have the ability to amend an approval made under section 43G(1) of the ESI Act. Under section 43G(4) the Regulator has the ability to revoke an approval made under section 43G(1) and make a new approval. However, Regulation 21 of the *Electricity Supply Industry (Pricing and Related*

*Matters) Regulations 2013* (the Pricing Regulations) requires the Regulator to conduct a pricing investigation prior to revoking or making an approval.

The objective of the August 2019 pricing investigation was to provide the Regulator with information to determine whether to revoke the approval in the July 2019 Instrument, and whether to make a new approval, to be embodied in a new Instrument, which reflects the spot market settlement arrangements in the NEM both before and after 1 July 2021.

The investigation also considered potential changes to the Instrument where there were consequential changes arising from the changed spot market settlement arrangements and updated Schedule 1 input values, these values are updated annually and are available on the Regulator's website.

## 2. PROPOSED CHANGES

The Regulator released the *Pricing investigation relating to certain provisions in the Wholesale Contract Regulatory Instrument, Consultation Paper, August 2019* (Consultation Paper) on 30 August 2019.

The Consultation Paper proposed revoking the existing approval and making a new Instrument that contains all the provisions in the existing Instrument but with the changes shown in Table 1.

Where applicable, the proposed changes seek to align with wording used by AFMA (The Australian Financial Markets Association). The proposed changes are designed to enable the Instrument to apply in a manner which will be unaffected by any delay in the timing of the change to a five minute settlement period.

**Table 1 Proposed changes to July 2019 Instrument**

<i>Main body of Instrument</i>	
Part 4 – Offer Process and Limits on Offer Obligation, (page 29)	<p>Change the number of future quarters that Hydro Tasmania must offer contracts for from seven to eight as follows:</p> <p>Replace</p> <p>“that Contract Quarter is more than 7 Quarters in the future”</p> <p>with</p> <p>“that Contract Quarter is more than 8 Quarters in the future”</p>
<i>Definitions in Instrument</i>	
Calculation Period in Clause 28.1 (page 55)	<p>Change the definition from:</p> <p><b>Calculation Period</b> means each consecutive period of 30 minutes, the first commencing at 12.00am each day.</p> <p>to:</p> <p><b>Calculation Period</b> means each successive period corresponding to a trading interval (as defined in the National Electricity Rules) with the first of those periods starting at 0000 hours Eastern Standard Time (EST) on a day and the last of those periods ending at 2400 hours (EST) on a day.</p>
Peak Calculation Period in Clause 28.1 (page 62)	<p>To ensure the consistent use of 24 hour time, change the definition from:</p> <p><b>Peak Calculation Period</b> means a Calculation Period that occurs between 7.00am and 10.00pm (both inclusive) on a Business Day.</p> <p>to:</p>

	<p><b>Peak Calculation Period</b> means a Calculation Period that occurs between 0700 hours Eastern Standard Time (EST) and 2200 hours (EST) (both inclusive) on a Business Day.</p>
<p>Quarterly Load Maximum in Clause 28.1 (page 63)</p>	<p>Change the definition from:</p> <p><b>Quarterly Load Maximum</b> means, for a Quarter, the maximum half-hourly electricity demand experienced in a Calculation Period in Tasmania in that Quarter, determined using the aggregate price and demand data most recently published for that Quarter by AEMO, in MW.</p> <p>to:</p> <p><b>Quarterly Load Maximum</b> means, for a Quarter, the maximum electricity demand experienced in a Calculation Period in Tasmania in that Quarter, determined using the aggregate price and demand data most recently published for that Quarter by AEMO, in MW.</p>
<p><b><i>Schedules (applicable as indicated)</i></b></p>	
<p>Calculation Periods in Clause 1 of Schedules 3, 4 and 6 (pages 92, 100 and 110 respectively)</p>	<p>Change the definition from:</p> <p>Each consecutive period of 30 minutes, the first period commencing at 0000 on the Effective Date and the last commencing at 2330 on the Termination Date.</p> <p>to:</p> <p>Each successive period corresponding to a trading interval (as defined in the National Rules) with the first of those periods starting at 0000 hours Eastern Standard Time (EST) on the Effective Date and the last of those periods ending at 2400 hours (EST) on the Termination Date.</p>
<p>Peak Calculation Periods in Clause 1 of Schedule 5 (page 105)</p>	<p>Change the definition from:</p> <p>Each Peak Calculation Period on each Business Day in the Term.</p> <p>to:</p> <p>Each successive period corresponding to a trading interval (as defined in the National Rules) occurring between 0700 hours Eastern Standard Time (EST) and 2200 hours (EST) (both inclusive) on a Business Day.<sup>1</sup></p>
<p>Note on Market Disruption Event in Clause 1 of Schedules 3 to 6 (pages 91, 100, 105, 110).</p> <p>(new term)</p>	<p>Add Market Disruption Event as follows:</p> <p>For the purpose of this Transaction, the change to the National Rules as a result of the National Electricity Market (Five Minute Settlement) Rule 2017 No. 15 is not a Market Disruption Event.<sup>2</sup></p>

<sup>1</sup> AFMA does not have specific wording for 'Peak Calculation Periods'.

<sup>2</sup> This addition is proposed for consistency with AFMA terms.



<p>Clause 2.3 of Schedule 3 (page 93)</p>	<p>Amend the formula in clause 2.3 from:</p> $CNSL_{Avg} = \frac{\sum NSL_{DP}}{2 \times n_{HP}}$ <p>to:</p> $CNSL_{Avg} = \frac{\sum NSL_{DP}}{n_{CP}}$ <p>And change clause 2.3(c) by deleting:</p> <p><math>n_{HP}</math> is the number of hours from (and including) the first hour of the Term, up to (and including) the last hour on the earlier of:</p> <ul style="list-style-type: none"> <li>(i) the last day of that <i>billing period</i>; and</li> <li>(ii) the Termination Date</li> </ul> <p>and inserting:</p> <p><math>n_{CP}</math> is the number of Calculation Periods from (and including) the first Calculation Period of the Term, up to (and including) the last Calculation Period on the earlier of:</p> <ul style="list-style-type: none"> <li>(i) the last day of that <i>billing period</i>; and</li> <li>(ii) the Termination Date</li> </ul>
<p>Clause 2.4 of Schedule 3 (page 94)</p>	<p>Amend the formula in clause 2.4 from:</p> $HNSL_{Avg} = \frac{\sum HNSL_{DR}}{2 \times n_{HR}}$ <p>to:</p> $HNSL_{Avg} = \frac{\sum HNSL_{DR}}{n_{CP}}$ <p>Change clause 2.4(c) by deleting:</p> <p><math>n_{HR}</math> is the number of hours from (and including) the first hour on the day on which the Corresponding Trading Interval for that <i>billing period</i> occurs, up to (and including) the last hour of the Previous Corresponding Quarter.</p> <p>and inserting:</p> <p><math>n_{CP}</math> is the number of Calculation Periods from (and including) the Corresponding Trading Interval for that <i>billing period</i>, up to (and including) the last Calculation Period of the Previous Corresponding Quarter.</p>

<p>Transmission Fee Increase Clauses (Clause 5(c) of Schedule 3 and clause 2(c) of Schedules 4 and 5) (pages 96, 102, 108)</p>	<p>(Note the below describes the changes using clause references applicable to Schedule 3).</p> <p>Remove the example in the defined term (C) in 5(c)(i).</p> <p>Update the formula in 5(c)(ii) from:</p> $A = \left[ \frac{C \times 2}{1730} \right]$ <p>to:</p> $D = A \left[ \frac{E}{1730} \right]$ <p>where:</p> <p>(D) is the allocated amount;</p> <p>(A) is the amount calculated under paragraph 5(c)(i); and</p> <p>(E) is the Notional Quantity for the Calculation Period (in MW (calculated by taking the Notional Quantity for the Calculation Period in MWhs and multiplying by the number of Calculation Periods in an hour).</p>
<p>Schedule 1 (page 69)</p>	<p>Change the text from</p> <p><b>Schedule 1 – Inputs Set by Regulator</b></p> <p>to:</p> <p><b>Schedule 1 – Inputs Set by Regulator</b></p> <p>These input values are updated annually and the updated values will be available on the Regulator’s website.</p>
<p>Schedule 1 input values (page 69,70, 71)</p>	<p>Update the Schedule 1 input values in accordance with the 2019 Schedule 1 values in Appendix 1.</p>

## 2.1 Submissions

Submissions were sought by 16 September 2019. No submissions were received in response to the Consultation Paper.

### 3. REGULATOR'S DECISION

The Regulator has decided to implement the solution proposed in the Consultation Paper and will:

- revoke the current approval; and
- make a new approval that includes the changes set out in Table 1.

The new approval is embodied in a new Instrument effective from 1 October 2019.

# Attachment I

	2018	2019
<b>Table 1 Off-Peak Cap Values</b>		
Off-peak Reference Cap Value	\$0.04/MWh	\$0.04/MWh
Off-Peak Cap Value	\$1.16/MWh	\$1.49/MWh
<b>Table 2 Absolute Minimum Capacity Offer Volume</b>		
Quarters ending 31 March	4.5MW	4.7MW
Quarters ending 30 June	5.5MW	5.5MW
Quarters ending 30 September	5.2MW	5.1MW
Quarters ending 31 December	5.1MW	4.9MW
<b>Table 3 Supplementary Offer Volumes, Headroom Buffers and Reserved Percentage</b>		
Supplementary Offer Capacity Volume	20MW	20MW
Supplementary Offer Energy Volume	44GWh	44GWh
Reduced Supplementary Offer Capacity Volume	10MW	10MW
Reduced Supplementary Offer Energy Volume	15GWh	15GWh
Capacity Headroom Buffer	130 MW	130 MW
Energy Headroom Buffer	200GWh	200GWh
Reserved Percentage	90%	90%
<b>Table 4 Marginal Loss Factors</b>		
Maximum Export Marginal Loss Factor	0.899	0.894
Maximum Import Marginal Loss Factor	1.075	1.069
Off-Peak Marginal Loss Factor	1.000	1.001
Peak Marginal Loss Factor	0.949	0.952
Average Basslink Flow Export	500MW	500MW
Average Basslink Flow Import	462MW	462MW
<b>Table 5 New Committed Wind Generation</b>		
Quarters ending 31 March	206	203
Quarters ending 30 June	201	204
Quarters ending 30 September	230	234
Quarters ending 31 December	232	227
<b>Table 6 Calculation of Tasmanian Cap Values</b>		
Costing Quarter	Quarter ending 30 June 2016	Quarter ending 30 June 2019
Economic Life	30 years	25 years
Forecast Inflation Rate	2.25% p.a.	2.00% p.a.
Nominal Post Tax Debt Cost	3.20% p.a.	2.39% p.a.
Pre-Tax Real WACC	5.8% p.a.	4.7% p.a.
Real Annual Operating Cost	\$10.13/kW (\$ as at Costing Quarter)	\$4.87kW (\$ as at Costing Quarter)
Real Total Capital Cost	\$1 067/kW (\$ as at Costing Quarter)	\$895/kW (\$ as at Costing Quarter)
Construction Quarter	2028	2029
<b>Table 7 Contract premiums</b>		
Off-Peak Contract Premium	\$3.40/MWh	\$3.40/MWh
Peak Contract Premium	\$15.60/MWh	\$15.60/MWh