

## 1. Schedule of Standardisation Cost Charges (“Standardisation Charges”)

**Table 1 - OTSA Standardisation Charges (as at 7 October 2019)**

Service Type	Fixed Charge, \$/month	Tariff, \$/GJ
CTP Compression	750	0.02
DAA Compression	750	0.0461

*Note: charges are ex-GST in 2019\$ and are not CPI escalated*

*Note: Variable tariffs are applied to the Buyer's MDQ*

**Table 2 - OTSA Standardisation Charges (1 March 2019 - 6 October 2019)**

Service Type	Fixed Charge, \$/month	Tariff, \$/GJ
CTP Compression	0	0.10
DAA Compression	1000	0.50

**Table 3 - Standardisation Costs**

Cost category	Function	Cost Description	Upfront Costs (\$000's)	Ongoing Costs (\$000's, p/a)
OTSA	Legal	External legal assistance in designing and drafting a standard OTSA, including re-drafts as needed	50	15.6
Systems & Procedures	Regulatory	External Regulatory services for advice regarding Capacity Trading and the designated Iona Compression Facility (ICF)	23	0
Systems & Procedures	Legal	External legal advice on interpretation and application of amendments to the Rules and new AEMO Procedures (other than directly related to OTSA design/drafting) and assistance with design of systems and processes required to meet CTP and DAA obligations	10	0
Systems & Procedures	Commercial	A portion of time from new headcount allocated to meeting CTP and DAA obligations and managing related systems and procedures	0	10
Systems & Procedures	IT	External IT services for system design and build of an Auction and Capacity Trading interface with the API gateway	56	2.4
<b>Total</b>			<b>139</b>	<b>28.0</b>

*Note: Cost figures are ex-GST in 2018\$, and are a combination of actual and estimated costs and are therefore subject to change.*

## 2. Standardisation Costs

Lochard has incorporated CTP and DAA processes into its daily business activities. In doing so, Lochard has incurred incremental Upfront Costs, and incurs modest Ongoing Costs. All relevant Standardisation Costs are captured in Table 3, and include only incremental expense items for IT systems, legal support, regulatory support, and commercial operations headcount/resourcing.

Lochard only considers Upfront and Ongoing Costs to be incremental where they would not have otherwise been incurred. In Lochard's case, all legal, regulatory, and IT costs captured were externally contracted as fit-for-purpose services necessary to establish operation of CTP and DAA services. As such, no basis of apportionment was required for the majority of Standardisation Costs, with the exception of a portion of time allocated from new Commercial headcount to managing CTP and DAA obligations. Where apportionment does apply to Lochard's Standardisation Costs, the level of apportionment is reviewed as part of Lochard's annual Standardisation Cost recovery true-up and cost inputs are adjusted as appropriate.

### 3. OTSA Trading Volume Assumptions

Lochard’s assumptions used for the calculation of Standardisation Cost recovery modelling and the determination of Standardisation Charges are:

- The traded volume of OTSA services are expected to be weighted towards CTP rather than DAA as storage customers seek to monetise strips of underutilised firm capacity.
- Two OTSA users in 2020 with a step-up up in OTSA numbers in subsequent years. The relatively low forecast number of OTSAs is primarily based on:
  - the sizeable contract positions of existing Iona storage customers with marginal discernible demand for incremental compression services; and,
  - the ability of existing Iona storage customers to trade compression rights under Gas Storage Service Agreements at no extra charge.
- OTSA users are estimated to gradually increase the use of CTP and DAA transactions from 2020-2023 as they grow comfortable with the new services and associated risks.
- The average settlement price of DAA services are estimated to be 10 cents/GJ and reflects expectations of minimal competition from a relatively small number of OTSA users at Iona.

**Table 4 - OTSA Trading Volume Assumptions**

Year ending	2019	2020	2021	2022	2023
# OTSA users	0	2	3	3	4
Avg DAA proceeds, \$/GJ	0	0.1	0.1	0.1	0.1
Avg quantity per transaction - CTP, TJ	0	50	100	200	200
Avg quantity per transaction - DAA, TJ	0	5	10	10	10
Avg # transactions per user - CTP	0	1	2	2	2
Avg # transactions per user - DAA	0	10	10	10	10
<b>Projected OTSA Quantities</b>					
Total quantity - CTP, TJ	0	100	600	1200	1600
Total quantity - DAA, TJ	0	100	300	300	400

### 4. Standardisation Charges and cost recovery methodology

In October 2019, Lochard undertook a review of its OTSA assumptions, Standardisation Cost recovery methodology, and Standardisation Charges. Results of the review included:

- An increase in total fixed Standardisation Charges from \$1000 per month for DAA services to \$750 per for CTP and DAA services (each) to reflect shared cost recovery between the two capacity platforms; and,
- A significant reduction of the variable Standardisation Charge tariffs for CTP and DAA services in order to lower barriers to efficient trade, and primarily due to greater estimated use of these services and an extended cost recovery timeline.

Lochard’s current Standardisation Charges were determined in accordance with the following high level approach:

1. Recover Standardisation Costs from OTSA users only once and recover no more than the relevant costs incurred or expected to be incurred
2. Using the estimated number of OTSAs, set reasonable fixed Standardisation Charges that are:
  - a. sufficient to recoup upfront Standardisation Costs over approximately 4 years in real dollar terms, and
  - b. are broadly consistent with fixed Standardisation Charges of industry peers
3. Use goal-seek to determine the variable Standardisation Charges for CTP and DAA services required to recover Ongoing Standardisation Costs, and ensure that the DAA variable charge reflects the higher daily administrative requirement on a dollar per GJ basis than the CTP variable charge

A more detailed, although simplified, numerical representation of the methodology Lochard applies to determine Standardisation Charges is shown in the following table along with explanatory comments.

**Table 5 – Determination of Standardisation Charges**

<b>Fixed Standardisation Charges</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
<b>Key Assumptions</b>					
# of OTSA users	0	2	3	3	4
Term to Upfront Cost recovery: approx 4 years	-	-	-	Costs fully recovered	-
<b>Fixed Charges (\$000's)</b>					
Fixed charge per OTSA, per month (1)	1.5	1.5	1.5	1.5	0.0
<b>Fixed Revenues (\$000's)</b>					
Total Fixed Charge revenue per year	0	36	54	54	0
<b>Fixed Costs (\$000's)</b>					
Upfront Costs incurred	-139	0	0	0	0
<b>Fixed Net Gain/Loss (\$000's)</b>					
Unrecovered Upfront Cost (cumulative)	-139	-103	-49	5	0
Refund for over recovery of upfront costs (2)	0	0	0	0	-5
<b>Variable Standardisation Charges</b>	<b>2019</b>	<b>2020</b>	<b>2021</b>	<b>2022</b>	<b>2023</b>
<b>Key assumptions</b>					
Projected CTP compression services, TJ	0	100	600	1200	1600
Projected DAA compression services, TJ	0	100	300	300	400
Average DAA proceeds, \$/GJ	0	0.1	0.1	0.1	0.1
<b>Variable Charges (3)</b>					
CTP compression services, \$/GJ	0.02	0.02	0.02	0.02	0.00
DAA compression services, \$/GJ	0.0461	0.0461	0.0461	0.0461	0.0000
<b>Variable Revenue (DAA Proceeds) (\$000's)</b>					
DAA Proceeds (4)	0	10	30	30	40
<b>Variable Costs (\$000's)</b>					
Ongoing Costs incurred	-28	-29	-29	-30	-31
<b>Variable Net Gain/Loss (after DAA Proceeds) (\$000's)</b>					
Unrecovered Ongoing Costs (cumulative) after DAA proceeds	-28	-47	-46	-46	-37
<b>Variable Revenue (Other variable charges) (\$000's)</b>					
CTP Variable Charge revenue	0	2	12	24	0
DAA variable Charge revenue	0	5	14	14	0
Total Variable Charge revenue (excl DAA Proceeds)	0	7	26	38	0
<b>Variable Net Gain/Loss (after all variable revenue) (\$000's)</b>					
Unrecovered Ongoing Costs (cumulative) after DAA Proceeds and other Variable Charge revenue	-28	-40	-14	24	33
Refund for over recovery of Variable Charges (5)	0	0	0	-24	0

**Comments**

- 1) Monthly Fixed Standardisation Charges are comprised of two charges of \$750 for CTP and DAA services, and are set at a reasonable level and in line with industry peers so as not to impede efficient OTSA trade.
- 2) Fixed Charge revenue is allocated solely to the recovery of upfront Standardisation Costs. This methodology will eventually result in the removal of fixed Standardisation Charges from Lochard's OTSA, following the full recovery of Lochard's upfront Standardisation Costs (in real dollar terms). Lochard will refund any incidental over recovery of fixed charges, for instance, for the month in which upfront Standardisation Costs become fully recovered.
- 3) After setting fixed charges to recoup upfront costs, variable Standardisation Charges are back-calculated using the goal-seek function to recover the balance of ongoing Standardisation Costs over the same four year timeline. The DAA variable charge is purposely set marginally higher than the CTP variable charge to reflect greater administrative requirements of managing daily auction services.
- 4) Lochard treats DAA proceeds as variable revenue for the purposes of recovering Ongoing Costs, and applies DAA proceeds to cost recovery before applying other variable Standardisation Charge revenue. The contribution of estimated DAA proceeds to recovery of Ongoing Costs has enabled Lochard to set its variable Standardisation Charges lower than they otherwise would be. If, in the future, DAA proceeds consistently exceed the cumulative unrecovered Ongoing Costs, and Lochard considers that this trend is likely to continue, Lochard will cease to charge users for CTP and/or DAA variable charges.
- 5) Lochard monitors variable Standardisation Cost recovery on a monthly basis and undertakes an annual true-up to determine if a refund is required for the incidental over recovery of Ongoing Costs, for instance, due to higher than estimated use of OTSA services, or where DAA proceeds alone sufficiently offset Ongoing Costs in a year. A refund of variable charges will be determined in a fair and equitable manner, taking into account the amount of services used by each OTSA user as a proportion of all OTSA services in a period. Lochard considers that an annual true-up is acceptable in place of a monthly true-up on the basis that ongoing costs will be either under-recovered or over-recovered in each month and should balance out over a period of 12 months. If a pattern of over-recovery occurs or the size of over-recovery become significant within or after a year, Lochard may review and revise its cost recovery assumptions, methodology, and Standardisation Charges to better match the ongoing Standardisation Costs incurred by Lochard.

**Notes**

- Unless otherwise indicated, all dollar amounts are rounded to the nearest thousand dollars and represent values at year end (calendar years)
- Actual future cash flows require economic discounting in order for Lochard to recover standardisation costs in real dollar terms.