



Proposed Changes to the ASX Energy End of Day File Delivery

Version 1.0 – July 2014



Table of Contents

1.	INTRODUCTION	3
1.1.	THE SERVICE TODAY.....	3
1.2.	SUMMARY OF CURRENT DAILY SETTLEMENT FILES	3
2.	PROPOSED ENHANCEMENTS	4
2.1.	MAIN ENHANCEMENTS.....	4
2.2.	SUMMARY OF PROPOSED END OF DAY FILES.....	4
2.3.	PROPOSED FILES DESCRIPTION.....	6
2.3.1.	<i>Closing Snapshot File</i>	6
2.3.2.	<i>Open Interest File</i>	6
2.3.3.	<i>Trade Log File</i>	6
3.	SYMBOLOLOGY	7
3.1.	FUTURES SYMBOLOLOGY	7
3.2.	OPTIONS SYMBOLOLOGY.....	7
3.3.	COMMODITY CODES.....	8
3.4.	EXPIRY MONTH CODE	8
3.5.	INSTRUMENT TYPE CODE	9
3.6.	TRADE TYPE CODE	9
4.	DELIVERY MECHANISM	10
5.	HISTORY OF FILES	11
6.	SUMMARY OF PROPOSED CHANGES TO END OF DAY FILES	12
6.1.	AUSTRALIAN ELECTRICITY	12
6.2.	NEW ZEALAND ELECTRICITY	13
6.3.	VICTORIAN GAS	13
6.4.	RENEWABLE ENERGY CERTIFICATES.....	14
7.	CUSTOMER FEEDBACK	15
8.	APPENDIX A – SAMPLE FILE CONTENTS	16

1. Introduction

ASX currently distributes Daily Settlement Price information to energy market customers via the ASX Energy Data Centre.

ASX is evaluating enhancements to the way Daily Settlement Price files are distributed to customers in the Australian and New Zealand energy market based on customer feedback. The objectives of these enhancements are to:

- improve robustness – to ensure the accuracy and completeness of daily settlement price files prior to distribution and;
- maximise timeliness – to distribute the futures and options daily settlement price to customers as soon as technically possible after the market has settled.

1.1. The Service Today

The Daily Files are one of the features of the subscription based Data Centre. Initially, these files were available for download online (www.asxenergy.com.au/daily) and via email on a daily basis. There have been ongoing enhancements to the delivery and content of these files over the past 12 years. More recently, the files delivery times have moved from a fixed time of 5:10pm to a target delivery time of as soon as the market settles.

1.2. Summary of Current Daily Settlement Files

	File Name	Product	File format	Target Delivery Time*
1	settlement-futures-au-electricity-YYYYMMDD	AU Electricity	txt	4:20pm
2	settlement-options-au-electricity-YYYYMMDD	AU Electricity	txt	4:30pm
3	settlement-caps-au-electricity-YYYYMMDD	AU Electricity	txt	4:20pm
4	closing-snapshot-au-electricity-futuresYYYYMMDD	AU Electricity	csv	4:20pm
5	closing-snapshot-au-electricity-optionsYYYYMMDD	AU Electricity	csv	4:30pm
6	open-interest-au-electricity-futures-YYYYMMDD	AU Electricity	txt	6:10am (T+1)
7	open-interest-au-electricity-options-YYYYMMDD	AU Electricity	txt	6:10am (T+1)
8	open-interest-au-electricity-caps-YYYYMMDD	AU Electricity	txt	6:10am (T+1)
9	tradelog-au-electricity-YYYYMMDD	AU Electricity	txt	6:10am (T+1)
10	settlement-futures-nz-electricity-YYYYMMDD	NZ Electricity	txt	2:20pm
11	settlement-options-nz-electricity-YYYYMMDD	NZ Electricity	txt	2:30pm
12	closing-snapshot-nz-electricity-futuresYYYYMMDD	NZ Electricity	csv	2:20pm
13	closing-snapshot-nz-electricity-optionsYYYYMMDD	NZ Electricity	csv	2:30pm
14	open-interest-nz-electricity-futures-YYYYMMDD	NZ Electricity	txt	6:10am (T+1)
15	open-interest-nz-electricity-options-YYYYMMDD	NZ Electricity	txt	6:10am (T+1)
16	tradelog-nz-electricity-YYYYMMDD	NZ Electricity	txt	6:10am (T+1)
17	settlement-futures-vic-gas-YYYYMMDD	VIC Gas	txt	4:20pm
18	closing-snapshot-vic-gas-futuresYYYYMMDD	VIC Gas	csv	4:20pm
19	open-interest-futures-vic-gas-YYYYMMDD	VIC Gas	txt	6:10am (T+1)
20	tradelog-vic-gas-YYYYMMDD	VIC Gas	txt	6:10am (T+1)
21	settlement-futures-au-recs-YYYYMMDD	RECs	txt	4:20pm
22	closing-snapshot-recs-futuresYYYYMMDD	RECs	csv	4:20pm
23	open-interest-futures-recs-YYYYMMDD	RECs	txt	6:10am (T+1)
24	tradelog-au-recs-YYYYMMDD	RECs	txt	6:10am (T+1)

* All times are Sydney time.

2. Proposed Enhancements

2.1. Main Enhancements

1. Reducing the number of files being created. Specifically;
 - a. Merging of Settlement and Closing Snapshot Files – the removal of Settlement Files as the prices are already reflected in the Closing Snapshot File.
 - b. Merging of Closing Snapshot and Open Interest Files from different contract group types. I.e. Futures, Options and Caps will be all captured in the same file.
2. The introduction of a Preliminary Closing Snapshot File and Final Closing Snapshot. The Preliminary Snapshot File will be made available at the Target Delivery Time of 40 minutes after relevant market close. To address the potential for settlement price amendments post the delivery of the preliminary snapshot file, a Final Snapshot File will be made available daily at 7:10pm.
3. Delivery Mechanism - Currently the end of day files are delivered via email which is often an unreliable source of delivery but has been the way since the Data Centres inception. Moving forward, the recommended primary delivery mechanism is secure FTP.
4. Quality of Data - The main source of intraday data for the ASX Energy website has been via a 3rd party vendor. In a separate initiative, ASX Energy is proposing to switch vendors in-house to improve the level of quality and reliability to the website. The target completion date will be Q3 2014.
5. File format will move from txt to csv only.
6. Decommissioning the existing files. Both delivery mechanisms will run in parallel for a specified period of time until clients are familiarised with the new files, its contents and delivery mechanism. The specified period of time is TBD.
7. Options Settlement Time - The timeliness of the Options market settlement procedure is currently under review as part of a separate internal project. These proposed enhancements may subsequently result in a more reliable delivery time for the Preliminary Closing Snapshot File.

2.2. Summary of Proposed End of Day Files

1. Closing Snapshot
2. Open Interest
3. Trade Log

All files will be delivered in csv format. File name format is outlined below:

	File Type	Filename format
1	Closing Snapshot	<Commodity>-<Region>-<File>-<Date>
2	Open Interest	<Commodity>-<Region>-<File>-<Date>
3	Trade Log	<Commodity>-<Region>-<File>-<Date>

where:

<Commodity> = Electricity, Gas, REC

<Region> = Au, NZ, Vic

<File> = PrelimSnapshot, FinalSnapshot, OpenInterest, TradeLog

<Date> = Date in the format YYYYMMDD

Examples:

Electricity-Au-PrelimSnapshot-20140501.csv
 Electricity-Au-FinalSnapshot-20140501.csv
 Electricity-Au-OpenInterest-20140501.csv
 Electricity-Au-TradeLog-20140501.csv

	File Name	Product	File Type	File Format	Target Delivery Time*
1	Electricity-Au-PrelimSnapshot-YYYYMMDD	AU Electricity	Closing Snapshot	csv	4:40pm
2	Electricity-Au-FinalSnapshot-YYYYMMDD	AU Electricity	Closing Snapshot	csv	7:10pm
3	Electricity-Au-OpenInterest-YYYYMMDD	AU Electricity	Open Interest	csv	6:10am
4	Electricity-Au-TradeLog-YYYYMMDD	AU Electricity	Tradelog	csv	6:10am
5	Electricity-NZ-PrelimSnapshot-YYYYMMDD	NZ Electricity	Closing Snapshot	csv	2:40pm
6	Electricity-NZ-FinalSnapshot-YYYYMMDD	NZ Electricity	Closing Snapshot	csv	7:10pm
7	Electricity-NZ-OpenInterest-YYYYMMDD	NZ Electricity	Open Interest	csv	6:10am
8	Electricity-NZ-TradeLog-YYYYMMDD	NZ Electricity	Tradelog	csv	6:10am
9	Gas-Vic-PrelimSnapshot-YYYYMMDD	VIC Gas	Closing Snapshot	csv	4:40pm
10	Gas-Vic-FinalSnapshot-YYYYMMDD	VIC Gas	Closing Snapshot	csv	7:10pm
11	Gas-Vic-OpenInterest-YYYYMMDD	VIC Gas	Open Interest	csv	6:10am
12	Gas-Vic-TradeLog-YYYYMMDD	VIC Gas	Tradelog	csv	6:10am
13	REC-Au-PrelimSnapshot-YYYYMMDD	REC	Closing Snapshot	csv	4:40pm
14	REC-Au-FinalSnapshot-YYYYMMDD	REC	Closing Snapshot	csv	7:10pm
15	REC-Au-OpenInterest-YYYYMMDD	REC	Open Interest	csv	6:10am
16	REC-Au-TradeLog-YYYYMMDD	REC	Tradelog	csv	6:10am
* All times are Sydney times.					

2.3. Proposed Files Description

2.3.1. Closing Snapshot File

The closing snapshot file is a copy of the entire market taken at close. All Closing Snapshot files will be generated after market close containing the following data fields. Any data fields that are inactive will be left blank/empty.

See Appendix A for an example of file contents.

Field Heading	Description	Field format
Code	Product Code	String (max 64 char)
Expiration	The product's expiration date	Date (dd/mm/yyyy)
Bid Price	The price offered to buy a futures or options contract (opposite to ask price).	Number (6 decimal places)
Bid Size	The number of contracts a buyer is willing to purchase at the quoted bid price.	Number
Ask Price	The price at which someone is prepared to sell futures (opposite to bid price).	Number (6 decimal places)
Ask Size	The number of contracts a seller is willing to sell at the quoted ask price.	Number
Last Price	The most recent price a futures contract has traded at that day	Number (6 decimal places)
Traded Volume	The total number of contracts transacted throughout that day	Number
Open Price	The first price quoted during the day	Number (6 decimal places)
High Price	The maximum price traded during the day	Number (6 decimal places)
Low Price	The minimum price traded during the day	Number (6 decimal places)
Settlement Price	Today's Settlement Price	Number (6 decimal places)
Settlement Date	The date related to the Settlement Price	Date (dd/mm/yyyy)
Implied Volatility	The value of option volatility (if applicable)	Number (2 decimal places)
Last Trade Time	The time the contract traded on the Settlement Date	Time (hh-mm-ss.sss)

2.3.2. Open Interest File

The Open Interest file reports the previous day's total number of contracts that are not closed or delivered on a particular day. Any contracts with zero Open Interest will return a "0" result.

See Appendix A for an example of file contents.

Field Heading	Description	Field format
Code	Product Code	String (max 64 char)
Open Interest	The number of open contracts that are not closed or delivered as at close of business for the previous day.	Number
Date	The date related to the contracts Open Interest.	Date (dd/mm/yyyy)

2.3.3. Trade Log File

The Trade Log file reports the previous days' trading activity. Kindly note, any H futures strip trade reports the volume and price as well as the underlying strip legs to that trade. These legs resulting from a strip trade will be denoted with a Trade Type of "Z". This feature remains unchanged from the existing Data Centre file.

See Appendix A for an example of file contents.

Field Heading	Description	Field format
Date	The date the contract traded	Date (dd/mm/yyyy)
Time	The time the contract traded	Time (hh-mm-ss.sss)
Trade Type	The trading mechanism the traded contract executed via	String (max 1 char)
Code	The traded product code	String (max 64 char)
Volume	The number of contracts traded	Number
Price	The price the contract traded.	Number (6 decimal places)

3. Symbology

All codes displayed for ASX futures instruments will follow a symbols format as described below.

3.1. Futures Symbology

CCmyyyy[i]

Where

CC = 2-character commodity code

m = expiry month code

yyyy = 4-digits of year

[i] = instrument

Examples of Futures Symbology

BNM2016F

Where

BN = mnemonic for Australian Electricity Base NSW

M = June expiry

2016 = year 2016

F = mnemonic for Future

3.2. Options Symbology

CCmyyyy[i]sssssss

Where

CC = 2 character commodity code

m = expiry month code

yyyy = 4 digits of year

[i] = call or put instrument

sssssss = strike price

Example of Options Symbology

BQZ2014C0004800

Where

BQ = mnemonic for Australian Electricity Base QLD

Z = December expiry

2014 = year 2014

C = call

0004800 = strike price of \$48.00

HNM2017P0004200

Where

HN = mnemonic for Australian Electricity Base Strip NSW

M = June expiry

2017 = year 2017
P = put
0004200 = strike price of \$42.00

3.3. Commodity Codes

Commodity Code	Instrument
EN	Australian Electricity New South Wales Base Month Futures
EV	Australian Electricity Victoria Base Month Futures
EQ	Australian Electricity Queensland Base Month Futures
ES	Australian Electricity South Australia Base Month Futures
BN	Australian Electricity New South Wales Base Quarter Futures and Options
BV	Australian Electricity Victoria Base Quarter Futures and Options
BQ	Australian Electricity Queensland Base Quarter Futures and Options
BS	Australian Electricity South Australia Base Quarter Futures and Options
PN	Australian Electricity New South Wales Peak Quarter Futures
PV	Australian Electricity Victoria Peak Quarter Futures
PQ	Australian Electricity Queensland Peak Quarter Futures
PS	Australian Electricity South Australia Peak Quarter Futures
GN	Australian Electricity New South Wales \$300 Cap Base Quarter Futures
GV	Australian Electricity Victoria \$300 Cap Base Quarter Futures
GQ	Australian Electricity Queensland \$300 Cap Base Quarter Futures
GS	Australian Electricity South Australia \$300 Cap Base Quarter Futures
HN	Australian Electricity New South Wales Base Strip Futures and Options
HQ	Australian Electricity Victoria Base Strip Futures and Options
HV	Australian Electricity Queensland Base Strip Futures and Options
HS	Australian Electricity South Australia Base Strip Futures and Options
DN	Australian Electricity New South Wales Peak Strip Futures
DV	Australian Electricity Victoria Peak Strip Futures
DQ	Australian Electricity Queensland Peak Strip Futures
DS	Australian Electricity South Australia Peak Strip Futures
RN	Australian Electricity New South Wales \$300 Cap Base Strip Futures
RV	Australian Electricity Victoria \$300 Cap Base Strip Futures
RQ	Australian Electricity Queensland \$300 Cap Base Strip Futures
RS	Australian Electricity South Australia \$300 Cap Base Strip Futures
ED	New Zealand Electricity Otahuhu Base Month Futures
EH	New Zealand Electricity Benmore Base Month Futures
EA	New Zealand Electricity Otahuhu Base Quarter Futures and Options
EE	New Zealand Electricity Benmore Base Quarter Futures and Options
EC	New Zealand Electricity Otahuhu Peak Quarter Futures
EG	New Zealand Electricity Benmore Peak Quarter Futures
EB	New Zealand Electricity Otahuhu Base Strip Futures and Options
EF	New Zealand Electricity Benmore Base Strip Futures and Options
EO	Renewable Energy Certificate (REC) Futures
GX	Victorian Wholesale Gas Futures
GY	Victorian Wholesale Gas Strip Futures

3.4. Expiry Month Code

Month Code	Expiry
F	January
G	February
H	March
J	April
K	May
M	June
N	July
Q	August
U	September
V	October

X	November
Z	December

3.5. Instrument Type Code

Month Code	Expiry
F	Future
C	Call
P	Put

3.6. Trade Type Code

	Trade Type
N	Normal Trade
B	Block Trade
E	Exchange For Physical (EFP)
Z	Strip legs

4. Delivery Mechanism

The proposed primary mechanism for subscribers to receive the files will be via an ASX secure FTP (sFTP) service. ASX will provide subscribers with login credentials to access the service. Customers are required to "pull" the files from the ASX service. ASX will not "push" the files to subscribers via FTP.

The sFTP will be monitored by ASX 24 hour operations. Any delayed or failed jobs will be communicated to subscribers via market alerts if the job has not been run by a fixed time. The proposed time is 45 minutes after market close (i.e. 5 minutes after target delivery time). Currently this equates to 2:45pm for NZ Electricity and 4:45pm for AU Electricity (both Sydney time).

A secondary delivery mechanism of email will be available. However, the quality of service in this delivery mechanism becomes difficult to guarantee as control over routing and latency is outside existing ASX infrastructure.

5. History of Files

The proposed sFTP will store the previous 3 months' worth of historical daily files. For any longer dated files these will be available for download via the existing ASX Energy Daily Files web page: www.asxenergy.com.au/daily.

6. Summary of Proposed Changes to End of Day Files

6.1. Australian Electricity

Australia	Type of File	Existing	Proposed
Files	Settlement File – Futures	✓	✗ Content moved to Closing Snapshot file
	Settlement File - Caps	✓	✗ Content moved to Closing Snapshot file
	Settlement File - Options	✓	✗ Content moved to Closing Snapshot file
	Closing Snapshot File – Futures + Caps	✓	✓ Content moved to Preliminary Snapshot File
	Closing Snapshot File – Options	✓	✓ Content moved to Preliminary Snapshot File
	Open Interest File – Futures	✓	✓ Content moved to combined Open Interest File
	Open Interest File – Caps	✓	✗ Content moved to combined Open Interest File
	Open Interest File – Options	✓	✗ Content moved to combined Open Interest File
	Trade Log	✓	✓
File Format	All Files	Txt and csv	csv
Target delivery time	Settlement File – Futures	4:20pm	✗ Content moved to Closing Snapshot file
	Settlement File – Caps	4:20pm	✗ Content moved to Closing Snapshot file
	Settlement File – Options	4:30pm	✗ Content moved to Closing Snapshot file
	Closing Snapshot File – Futures	4:20pm	4:40pm (prelim) 7:10pm (final)
	Closing Snapshot File – Options	4:30pm	✗ Content moved to combined Closing Snapshot file
	Open Interest File – Futures	6:10am (T+1)	6:10am
	Open Interest File – Options	6:10am (T+1)	✗ Content moved to combined Open Interest file
	Trade Log	6:10am (T+1)	6:10am
Delivery	All Files	Email FTP (ASX Energy push) API	sFTP (Customer pull)

6.2. New Zealand Electricity

New Zealand	Type of File	Existing	Proposed
Files	Settlement File – Futures	✓	✗ Content moved to Closing Snapshot file
	Settlement File - Options	✓	✗ Content moved to Closing Snapshot file
	Closing Snapshot File – Futures	✓	✓
	Closing Snapshot File – Options	✓	✓
	Open Interest File – Futures	✓	✓
	Open Interest File – Options	✓	✗ Content moved to combined Open Interest file
	Trade Log	✓	✓
File Format	All Files	Txt and csv	Csv
Target delivery time (Sydney time)	Settlement File – Futures	2:20pm	✗ Content moved to Closing Snapshot file
	Settlement File - Options	2:30pm	✗ Content moved to Closing Snapshot file
	Closing Snapshot File – Futures	2:20pm	2:40pm (prelim) 7:10pm (final)
	Closing Snapshot File – Options	2:30pm	✗ Content moved to combined Closing Snapshot file
	Open Interest File – Futures	6:10am (T+1)	6:10am
	Open Interest File – Options	6:10am (T+1)	✗ Content moved to combined Open Interest file
	Trade Log	6:10am (T+1)	6:10am
Delivery	All Files	Email FTP (ASX Energy push) API	sFTP (Customer pull)

6.3. Victorian Gas

VIC Gas	Type of File	Existing	Proposed
Files	Settlement File	✓	✗ Content moved to Closing Snapshot file
	Closing Snapshot File	✓	✓
	Open Interest File	✓	✓
	Trade Log	✓	✓
File Format	All Files	Txt and csv	csv
Target delivery	Settlement File	4:20pm	✗

time (Sydney time)			Content moved to Closing Snapshot file
	Closing Snapshot File	4:20pm	4:40pm (prelim) 7:10pm (final)
	Open Interest File	6:10am (T+1)	6:10am
	Trade Log	6:10am (T+1)	6:10am
Delivery	All Files	Email FTP (ASX Energy push) API	sFTP (Customer pull)

6.4. Renewable Energy Certificates

VIC Gas	Type of File	Existing	Proposed
Files	Settlement File		✗ Content moved to Closing Snapshot file
	Closing Snapshot File		✓
	Open Interest File		✓
	Trade Log		✓
File Format	All Files	Txt and csv	csv
Target delivery time (Sydney time)	Settlement File	4:20pm	✗ Content moved to Closing Snapshot file
	Closing Snapshot File	4:20pm	4:40pm (prelim) 7:10pm (final)
	Open Interest File	6:10am (T+1)	6:10am
	Trade Log	6:10am (T+1)	6:10am
Delivery	All Files	Email FTP (ASX Energy push) API	sFTP (Customer pull)

7. Customer Feedback

ASX is seeking feedback from Data Centre subscribers on the proposed changes by cob Wednesday 6 August 2014. Please email feedback to Melissa.tan@asxenergy.com.au.

ASX will consider all customer feedback to finalise requirements for the enhancements to the service. ASX will communicate to subscribers when the enhancements will go live.

8. Appendix A – Sample File Contents

A) Preliminary and Final Closing Snapshot File

Code	Expiration	Bid Price	Bid Size	Ask Price	Ask Size	Last Price	Traded Volume	Open Price	High Price	Low Price	Settlement Price	Settlement Date	Implied Volatility	Last Trade Time
BNM2014F	30/06/2014	50.75	2	51.35	5	50.75	5	50.75	50.75	50.75	50.75	6/05/2014		12-36-21.123
BNU2014F	30/09/2014	41.6	5	41.8	2	41.6	20	41.3	41.8	41.3	41.6	6/05/2014		12-36-21.123
BNZ2014F	31/12/2014	35.65	5	35.85	5	35.75	5	35.75	35.75	35.75	35.75	6/05/2014		12-36-21.123
BNH2015F	31/03/2015	38.4	5	38.8	5	38.5	7	38.5	38.85	38.5	38.47	6/05/2014		12-36-21.123
GNH2015F	31/03/2015										4.50	6/05/2014		
GNM2015F	30/06/2015										3.00	6/05/2014		
BNM2015CO002000	30/06/2015										14.7	6/05/2014	16	
BNM2015PO002000	30/06/2015										0	6/05/2014	16	
BNU2015CO002000	30/09/2015										16.21	6/05/2014	16	
BNU2015PO002000	30/09/2015										0	6/05/2014	16	

B) Open Interest File

Code	Open Interest	Date
BNM2014F	3317	6/05/2014
BNU2014F	2674	6/05/2014
BNZ2014F	2141	6/05/2014
BNH2015F	1593	6/05/2014

C) Trade Log File

Date	Time	Trade Type	Code	Volume	Price
6/05/2014	09:43:50.223	N	HNZ2015F	5	36.05
6/05/2014	09:43:50	Z	BNH2015F	5	37.66
6/05/2014	09:43:50	Z	BNM2015F	5	34.65
6/05/2014	09:43:50	Z	BNU2015F	5	36.00
6/05/2014	09:43:50	Z	BNZ2015F	5	35.91
6/05/2014	10:00:00	B	BNM2015PO002000	25	0.80
6/05/2014	10:56:51	N	HNM2016F	5	36.50
6/05/2014	10:56:51	Z	BNU2015F	5	36.11
6/05/2014	10:56:51	Z	BNZ2015F	5	36.01
6/05/2014	10:56:51	Z	BNH2016F	5	38.47
6/05/2014	10:56:51	Z	BNM2016F	5	35.42

Disclaimer

This document provides general information only and may be subject to change at any time without notice. ASX Limited (ABN 98 008 624 691) and its related bodies corporate ("ASX") makes no representation or warranty with respect to the accuracy, reliability or completeness of this information. To the extent permitted by law, ASX and its employees, officers and contractors shall not be liable for any loss or damage arising in any way, including by way of negligence, from or in connection with any information provided or omitted, or from anyone acting or refraining to act in reliance on this information. The information in this document is not a substitute for any relevant operating rules, and in the event of any inconsistency between this document and the operating rules, the operating rules prevail to the extent of the inconsistency.

ASX Trademarks

The trademarks listed below are trademarks of ASX. Where a mark is indicated as registered it is registered in Australia and may also be registered in other countries. Nothing contained in this document should be construed as being any licence or right to use of any trademark contained within the document.

ASX®, LEPO®