

NEM SETTLEMENTS PROCESS

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FINAL

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Version Control

VERSION	DATE	DETAILS
Version 5	Nov 2006	Introduced Exigo (Austraclear cash transaction system) – Previous papers did not log version history
Version 6	Aug 2007	Spot Market Operations Timetable Rules 4.2 amended to: <ol style="list-style-type: none">1. move the obligation for Market Participants to pay AEMO in cleared funds by 10:00am (Sydney Time) to 10:30am (Sydney Time) on Settlement Day (+20 business days);2. clarify AEMO's payment time obligations to pay in cleared funds to Market Participants on Settlement Day (+20 business days) if:<ol style="list-style-type: none">a) All payments to AEMO are cleared by 10:30am andb) Participant's, to be paid by NEMCO, have entered their settlement transactions into Exigo by 13:00 Sydney Time
6.3	Nov 2009	Update to AEMO Format

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1. INTRODUCTION

In accordance with the National Electricity Rules as amended (the Rules”), AEMO must provide, for Market Participants registered under the provisions of Chapter 2, a financial settlement service for the billing and clearance of all market trading transactions under Chapter 3 of the Rules including:

- spot market transactions;
- reallocation transactions; and
- ancillary service transactions.

AEMO also provides a settlement service for Registered Participants who participate in the Settlement Residue Auction.

The purpose of this paper is to set out the processes to be used by AEMO in relation to settlements, rather than exhaustively detail all Rules requirements or procedural steps concerning these matters. Accordingly, these guidelines should be read in conjunction with Chapters 2 and 3 of the Rules and the Spot Market Operations Timetable available on AEMO’s website.

This paper addresses only the settlement and clearing activities undertaken by AEMO.

The prudential supervision activities are discussed in the paper NEM Settlement Prudential Supervision Process which is available on the AEMO website.

Settlement Residue Auction information can be found in the AEMO Settlement Residue Auction Information Memorandum and the Auction Participant Agreement document which are published on the AEMO website.

2. SETTLEMENT STATEMENTS

2.1 Data Collection for Energy Trading

- A Billing Period is a period of seven days commencing at the start of the trading interval ending 12:30 am Sunday and includes 336 half hour trading intervals. A Trading Interval comprises six five-minute dispatch intervals.
- Regional Reference Prices for each half hour trading interval are determined by averaging the six embedded dispatch interval prices immediately after those dispatch prices are published. The Regional Reference Prices are already available to AEMO in the Market Management System (MMS).
- Metering Data Providers (MDPs) download electricity metering data through communication links after the end of each billing period. i.e. after Saturday 2400 hours. The energy flows through the connection points are recorded as half hourly values, validated for completeness and substituted with estimated values to replace any missing or incorrect values.
- In the case of connection points which are not large enough to require metering communication links under the jurisdictional metrology procedures, the MDPs estimate the interval metering data or the date and value of the next manual meter read and forward this information to AEMO.
- The MDP passes the validated metering data to AEMO by the second business day after the end of the billing period (normally a Tuesday).

- The Market Management System (MMS) software supports the various functions comprising market operations, including bidding, dispatch, pricing and settlements. The storage and aggregation of metering data to the transmission connection point level is carried out by the Metering Settlement and Transfer Solution (MSATS). The MSATS system converts the monthly or 3-monthly energy readings of consumption meters to half hourly profiles based on the net system load profiles for each distribution network area.
- The wholesale market electricity transactions for each Market Participant for each trading interval are calculated using the Regional Reference Price, relevant transmission loss factors and metered data values for the relevant connection points. The transaction results for each interval are summed over the entire billing period to determine the settlement amount for wholesale market electricity for each Market Participant in the billing period.

2.2 Retail Transfer Process

- Consumers of electricity can elect to be supplied by a retailer other than their local (franchise) retailer when their annual consumption exceeds the current threshold limit, if any, determined by the State jurisdictions. The thresholds have been reduced in stages, and have been removed in NSW, SA, VIC and Queensland from 2007.
- As each consumer is transferred, its metered energy consumption from that day forward is subtracted from the total boundary metering of its franchise retailer and is added to the energy account of the new retailer of choice. This is also referred to as Settlement's by difference.

2.3 Statement Production

- The Annual Settlements Calendar shows the dates for delivery of statements and settlement of trading amounts relating to each weekly period. The Monthly Settlement Calendar shows the dates for delivery of statements and settlement trading amounts relation to each weekly billing period. Both documents include posting dates for 20 week and 30 week revision. Both documents are published on the AEMO website.

- (Clause 3.15.14) • The settlement amount for wholesale market energy traded over a billing period is consolidated with other transactions for ancillary service payments and recoveries, reallocation, intervention payment and recovery, GST and Market Participant fees for inclusion in the Preliminary Statement. These statements are sent to Market Participants within five business days after the billing period (normally a Friday).
- (Clause 3.15.18) • The Preliminary Statement is an indication of the amounts to be included in the final statement, enabling Market Participants to refine their cash flow projections and refer any apparent discrepancies for investigation and amendment if necessary. The Rules require Market Participants and AEMO to use reasonable endeavours to resolve disputes about Preliminary Statements before the corresponding Final Statement is issued.
- (Clause 3.15.15) • Within eighteen business days after the billing period (normally a Wednesday), the calculations are redone to incorporate any changes to metering data, or billing configuration and the Final Statement is issued at around 12 noon to Market Participants.
- For all statements, additional supporting data used in the calculations will be available for the Market Participants from the Market Management System shortly after the statement is issued. The supporting data includes half-hour results and is available either as CSV files or in database form from the Infoserver.

- (Clause 3.15.16 + 3.15.18) The net settlement amount shown on the Final Statement is due and payable on the twentieth business day after the billing period (normally a Friday) or two business days after receiving the final statement, whichever is later. Under the Rules convention, positive amounts are payable by AEMO to the Market Participant, and negative amounts are payable by the Market Participant to AEMO. Financial settlement is covered under section 3 of this paper.

2.4 Revised Settlement Statements

- It is not practical for all inaccuracies in the metering data to be identified and remedied by the time the Final Statement is issued. This is due to the large amount of metering data to be processed, and because discrepancies, when discovered, may have been affecting results for more than a month. Under full retail competition, a growing percentage of meters are read on a quarterly basis. Estimated values are used to prepare final statements pending the availability of the actual readings from these meters.
- Disputes raised with AEMO within 6 months of the end of the disputed billing period, may lead to changes in the settlement results. Any financial adjustments arising from these changes are accounted through revised settlement statements.
- Routine revised statements for a billing period are issued at approximately 20 weeks and again at approximately 30 weeks after that billing period to cover outstanding minor adjustments, if any. This arrangement provides for orderly and systematic processing of revisions, and keeps the number of revisions to a minimum.

- (Clause 3.15.19(a)) An adjustment is considered to be major if it represents an amount exceeding 5% of the Market Participant's settlement amount for the billing period. Major adjustments and adjustments from resolutions of formal disputes may result in the issue of special revised statements as soon as practicable, to minimise the distortion to Participant cash flows.

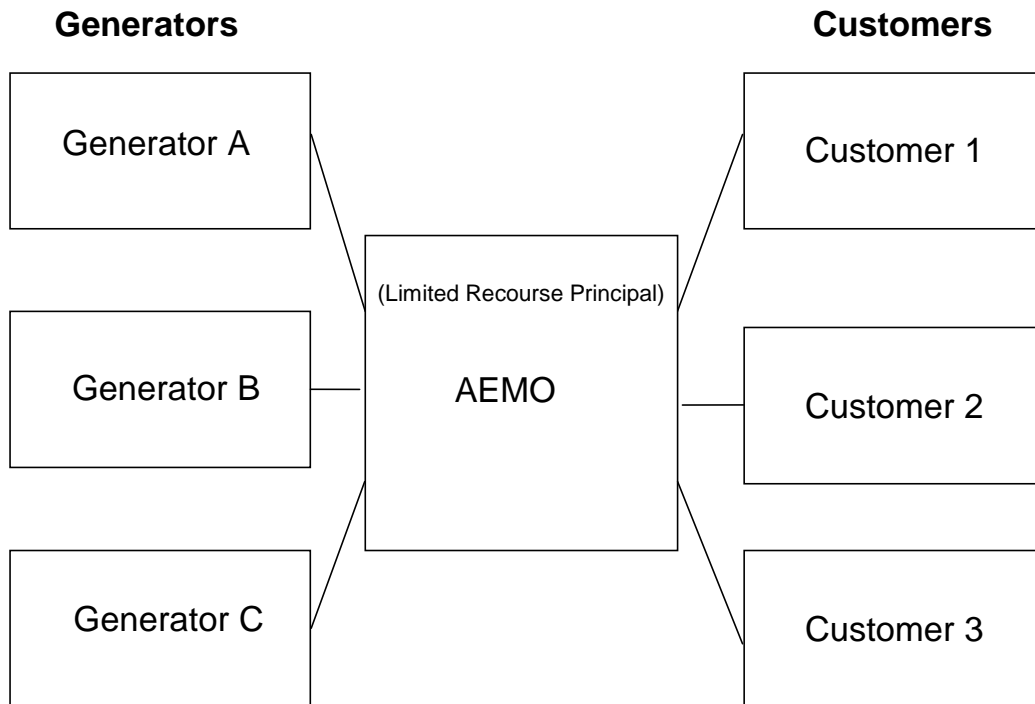
- (Clause 3.15.19) Any adjustment resulting from the issue of a revised settlement statement is incorporated into a final statement issued between 8 and 13 business days later.

3. FINANCIAL SETTLEMENTS

3.1 Introduction

AEMO is charged under the Rules to administer and operate the National Electricity Market (the "Market"), including a Market clearing role. When selling or purchasing electricity or settling other market transactions, Market Participants deal with AEMO, rather than with each other.

The Rules provide limits on recourse to ensure that AEMO's obligations to make payments to Generators are limited to the money available to AEMO from receipts from Market Participants. If this did not occur then there would be a need for a large source of capital, either on AEMO's balance sheet or available from some other source, to meet a default.



Any shortfall in AEMO’s recovery from any Market Participant in relation to a billing period is shared across the generators of electricity by reducing the amount paid to them for electricity supplied through the Market in that billing period.

3.2 Principles

- All payments to AEMO and by AEMO are as cleared funds, and transactions are not completed until they clear.
- Austraclear’s electronic Exigo Settlement System is used by all Market Participants.
- All market transactions in the weekly billing period, adjustments for prior billing periods and Participant fees are combined into a single settlement amount per Participant each week.
- Participants pay amounts due to AEMO on settlement date and AEMO pays amounts due to participants on the same day.
- The existence of a dispute is not a valid basis under the Rules for withholding settlement payments. **Further information about AEMO’s dispute resolution process is available from the AEMO Information Centre on 1300 361 011.**
- Settlements process is underpinned by prescribed deadlines for payment in accordance with the Spot Market Operations Timetable.
- If deadlines for payment are not met then settlement default procedures are invoked as described in the NEM Settlement Prudential Supervision Process paper on the AEMO website.

(Clause 3.15.16)

3.3 Settlement Process

Note: In this section “S” refers to the settlement date and the number following “S₂” refers to the number of days before or after the settlement date.

3.3.1 EFT Agent

(Clause 3.15.2)

- The Rules require AEMO to arrange an EFT mechanism for settlements and the collection and payment of Market fees.
- AEMO uses Austraclear as the provider of the EFT settlement facility called Exigo, for the following reasons:
 - transparency of the process in tracing status of transactions for both AEMO and Market Participants;
 - cleared fund settlements are underpinned by Austraclear’s role in the Real Time Gross Settlement (RTGS) environment. This means that once a transaction has cleared, it cannot be unwound later in the day; and
 - Austraclear’s provision of Electricity Associate Membership provides a low cost framework that does not disadvantage smaller Market Participants.
- Cash transfers in Austraclear require two “sides” of a transaction to be entered - one by the sender and one by the receiver. When both sides are entered and matched, the cash transfer is processed through the RTGS system, and cleared funds either received or paid.
- In order to trace transactions with an effective audit trail to/from Market Participants, it is necessary for each registered Market Participant to have a unique Austraclear code for which financial responsibility is taken.
- A Market Participant may elect to use a single Austraclear identifier to cover transactions relating to more than one Market Participant identifier in the MMS.

3.3.2 AEMO Receipts

- The MMS produces final statements for dispatch to Market Participants two business days prior to the settlement date (S_{-2}), which is 18 business days after the end of the billing period. Each Market Participant’s statement identifies settlement amount by class of transaction, along with a net settlement amount payable by/to that Market Participant.
- Transactions payable to AEMO (ie where AEMO is receiving funds from Participants) are entered electronically into Austraclear by AEMO, as the first side of payments to AEMO (S_{-2}).
- Market Participants paying to AEMO must pay in cleared funds by 10:30am (Sydney time) on settlement day (S_0).
- Market Participants must ensure that their transactions are completed by the required time. Liasing with their banking representatives is essential for this process to occur successfully. Please refer to the AEMO paper “Austraclear: Participant Settlement Responsibilities” which is published on the AEMO website.
- Matched Austraclear transactions are processed via RTGS. Therefore AEMO receives electronic confirmation of cleared funds from Austraclear in real time.
- After confirmation by AEMO that full receipts are received from all paying Market Participants, the AEMO Full Payment process takes place as described in section 3.3.3.
- If all receipts are not cleared by 10:30am, then the Short Payment is commenced as set out in section 3.3.4.

(Clause 3.15.16)

3.3.3 AEMO Payments

- AEMO Payment transactions are entered into Austraclear by automatic file transfer from MMS after confirmation that all receipts have been received prior to 2pm on settlement day (S_0).
- Receiving Market Participants also enter Austraclear transactions to confirm payments to them. Market Participants may enter these transactions anytime after the posting of the relevant final statement (S_2). However AEMO will not enter the Austraclear transactions until all receipts have been received on settlement day (S_0).
- Matched transactions are processed via RTGS. Creditor Market Participants receive confirmation of cleared funds.
- AEMO pays to Creditor Market Participants in cleared funds the amount stated on the relevant final statement by 2pm Sydney time, should the transactions be matched by 1:00pm.

3.3.4 Default Procedure

- If one or more receipts have not been cleared before the 10:30am deadline, AEMO becomes aware of this through the Austraclear facility and confirms by telephone contact with the relevant Market Participant(s). This is a default event as defined in the Rules.

- Upon recognising the default event AEMO may :

- issue a Default Notice to the defaulting Market Participant(s), to be remedied within 24 hours of the Default Notice being issued, and/or
- draw upon credit support or security deposits provided by the defaulter(s) in order to recover funds necessary to meet settlement payment obligations from the relevant credit support providers.(see NEM Settlement Prudential Supervision Process, which is available on the AEMO website, for further details.)

- The Maximum Total Payment amount is the total payment amount AEMO was due to receive, less the amount of shortfall in receipts, plus any payments received from credit support providers by 2:00pm. If credit support payments received cover the shortfall, then no reduction in payments is necessary. Otherwise, reductions to individual payments for energy and reallocation transactions of receiving Market Participants are determined on a pro-rata basis as detailed in the Rules.

- AEMO notifies creditor Market Participants of the payment reductions.
- Reduced payments are processed through Austraclear as per section 3.3.3 above by 4:00pm on S_0 , with reduced transaction amounts.

- If all or part of the default amount is recovered by AEMO on a later date, then those recoveries will be returned to the short-paid Market Participants on a pro-rata basis.