

NEM SETTLEMENTS PROCESS

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IMPORTANT NOTICE

Purpose

AEMO has prepared this document to provide summary information about AEMO's settlement process for the application and administration of the GST to National Electricity Market transactions, as at the date of publication.

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VERSION RELEASE HISTORY

Version	Effective Date	Summary of Changes
5.0	Nov 2006	Introduced Exigo (Austraclear cash transaction system) – Previous papers did not log version history
6.0	Aug 2007	Sport Market operations Timetable Rules 4.2 amended to: <ol style="list-style-type: none"> 1. Move the obligations for Market pParticipants 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"> I. All payments to AEMO are cleared by 10.30am and II. Participant's, to be paid by AEMO, have entered their settlement transactions into Exigo by 13:00 Sydney Time
6.3	Nov 2009	Update to AEMO format
7.0		Update for <u>Five Minute and Global Settlement rules, SMS and</u> new AEMO format <u>and general review</u>

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1. INTRODUCTION

1.1. Purpose and scope

In accordance with the National Electricity Rules (~~NER~~as amended (the Rules¹), AEMO must provide ~~for Market Participants registered under the provisions of Chapter 2,~~ a financial settlement service for the billing and clearance of all ~~National Electricity Market (NEM)~~ market trading transactions under Chapter 3 of the ~~NER~~Rules including:

- Spot market transactions.
- Reallocation transactions.
- Ancillary service transactions.

AEMO also provides a settlement service for Registered Participants who participate in ~~the S~~settlement ~~r~~Residue ~~A~~uctions.

The purpose of this ~~document~~paper is to ~~provide a high level description of AEMO's set out~~ the ~~settlement and clearing~~ processes ~~to be used by AEMO in relation to settlements. It is not intended to, rather than exhaustively~~ detail all ~~NER~~Rules requirements or procedural steps concerning these matters. ~~Accordingly, this document must these guidelines should~~ be read in conjunction with Chapters 2 and 3 of the ~~NER~~Rules, and the ~~S~~spot ~~m~~Market ~~O~~perations ~~T~~imetable ~~and settlement calendars~~ available on AEMO's website.

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

~~AEMO's~~ The prudential supervision activities are ~~summarised in a separate document: discussed in the paper~~ NEM Settlement Prudential Supervision Process, ~~also -which is-~~ available on the AEMO website.

Settlement ~~R~~esidue ~~a~~Auction information can be found in the AEMO Settlement Residue Auction ~~Rules, Information Memorandum and the~~ Auction Participant Agreement ~~and related information document~~ which ~~are~~ published on the AEMO website.

2. SETTLEMENT STATEMENTS

2.1. Data Collection for Energy Trading

- ~~A~~ ~~B~~illing ~~P~~eriod is a period of seven days commencing at the start of the ~~first~~ trading interval ~~on each Sunday ending 12:05am Sunday~~ and includes:
 - ~~Until 30 June 2021, 336 30-minute trading intervals~~
 - ~~From 1 July 2021, 2,016 five-minute trading intervals.~~
- Regional ~~r~~Reference ~~P~~rices are ~~recorded available to by~~ AEMO's ~~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 ~~five minute~~ trading interval values, validated for completeness and substitute 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 readings to consumption meters to five minute trading interval profiles based on the net system load profiles for each distribution network area.

2.2. Retail Transfer ProcessGlobal Settlement

• 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 QLD 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-by-difference.

- Under the Full Retail Contestability (FRC), consumers of electricity consumers whose loads are contestable in each participating jurisdiction can elect to be supplied by a retailer other than their designated local (franchise) retailer.
- Until 5 February 2022, a 'settlement-by-difference' framework applies in the NEM. When aAs each consumer is transfers from the local retailerretired, its metered energy consumption is excludedfrom that day forward is subtracted from the total boundary metering of its local franchise retailer and becomes a 'second-tier load'is added to the energy account of the new retailer of choice. The local retailer is responsible for settlement of the total metered energy at the boundary of its area less the metered energy of all second-tier loads in the area. This is also referred to as settlement-by-difference.
- Under the 'settlement-by-difference' framework, meant that the local (franchise) retailer bears the risk of all residual electricity losses in its designated local that area – known as unaccounted for energy (UFE). UFE includes unaccounted for technical and commercial losses as well as errors in estimating the consumption of basic metering installations.
- From Post-6 February 2022, a under the new 'global settlements' framework applies in the NEM. AEMO will receive metering data for all first-tier as well as second-tier loads, and, the UFE in a distribution network (local area) will be allocated between all Market Customers in proportion to their of each market customers' share of metered consumption in the local area.

2.3. Statement Production

- AEMO issues Market Participants with preliminary, final and revised settlement statements for each billing period.
- The annual Ssettlements calendar published by AEMO shows the dates for delivery of statements and settlement of trading amounts relating to each billing weekly period. The monthly settlement calendars shows the dates for delivery of statements and settlement trading amounts relation to each weekly billing period. Both calendarsdocuments includes

posting dates for 20 week and 30 week revised statements. The calendars Both documents are published on the AEMO website.

- 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 pPreliminary sStatement. These statements are sent to Market Participants within five business days after the billing period ~~(normally a Friday)~~.
- The pPreliminary sStatement is an indication of the amounts to be included in the Ffinal sStatement, enabling Market Participants to check refine their cash flow projections and refer any apparent discrepancies to AEMO for investigation and amendment if necessary. The NERRules require Market Participants and AEMO to use reasonable endeavours to resolve disputes about pPreliminary sStatements before the corresponding fFinal sStatement is issued.
- Within 18 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 fFinal sStatements are~~ 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 MMSMarket Management System shortly after the statement is issued. The supporting data includes five-minutetrading interval results and is available either as CSV files or in database form from the Info-server.
- The net settlement amount shown on the Ffinal sStatement is due and payable on the 20th twentieth business day after the billing period, or two business days after receiving the Ffinal sStatement, whichever is later. Under NERthe Rules conventions, 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 documentpaper.

2.4. Revised Settlement Statements

- It is not practical for all metering data to be provided and any inaccuracies in the metering data to be identified and remedied by the time the Final Statement is issued. This is due to meter reading frequencies, 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 fFinal sStatements 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 also 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 any outstanding minor adjustments for metering data improvements or corrections, if any. This arrangement provides for orderly and systematic processing of revisions, and keeps the number of revisions to a minimum.
- An adjustment is considered to be major if it represents an amount exceeding 5% of atthe Market Participant's settlement amount for the billing period. Major adjustments resulting from and adjustments from the resolutions of formal disputes or by agreement of affected

~~participants may be made on an ad hoc basis through result in the issue of special revised statements as soon as practicable.~~

- ~~• For more information regarding the special revision process, please refer to the NEM Settlement Revisions policy, to minimise the distortion to Participant cash flows.~~
- ~~• Any adjustment resulting from the issue of a revised settlement statement is incorporated into the next final statement, issued between 8 and 13 business days later.~~
- ~~• For more information on revised statements refer to the NEM Settlement Revisions policy on AEMO’s website.~~
- ~~•~~

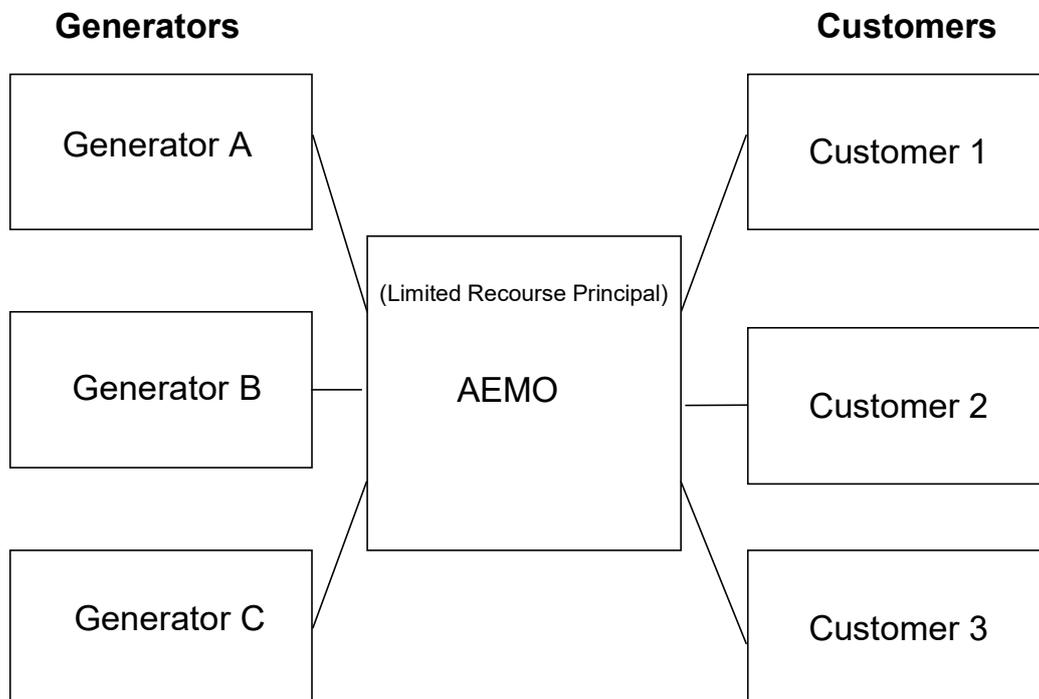
3. FINANCIAL SETTLEMENTS

3.1. Introduction

~~AEMO has a market clearing role in the NEM. 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 ~~NER~~Rules provide ~~limits on recourse to ensure~~ that AEMO’s obligations to make payments ~~otherwise due to Market Participants providing energy and ancillary services 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 ~~of payments due~~ from ~~any~~ Market Participants in relation to a billing period is shared across ~~settlement recipients (typically the generators of electricity and reallocators)~~ by reducing the amount paid to them for ~~supplied electricity supplied~~ and reallocations 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 Market Participant fees are combined into a single settlement amount per Market Participant each week.
- Market Participants pay amounts due to AEMO on settlement date and AEMO pays amounts due to Market Participants on the same day subject to cleared funds being sufficient.
- The existence of a dispute is not a valid basis under the ~~NERRules~~ for withholding settlement payments. Further information about AEMO's dispute resolution process is available from AEMO's Information and Support Hub via supporthub@aemo.com.au or 1300 236 600.
- ~~NEM sSettlements-process~~ is underpinned by prescribed deadlines for payment in accordance with the ~~sSpot Mmarket Ooperations Ttimetable~~.
- If deadlines for payment are not met then settlement default procedures are invoked as described in the 'NEM Settlement Prudential Supervision Process' ~~guidepaper~~ on the AEMO website.

3.3. Settlement Process

Note: In this section "S" refers to the settlement date and the number following, e.g. "S-2", refers to the number of days before or after the settlement date.

3.3.1. EFT Agent

- The ~~NERrules~~ 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 (Se).
- 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 [Market Clearing Procedure 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 Shortfall payment process is commenced as set out in section 3.3.4.

3.3.3. AEMO Payments

- AEMO pPayment 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 (Se).
- 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 (Se).
- 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 [RulesNER](#).
- 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 defaulting Market Participant/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 [RulesNER](#).
- ~~AEMO notifies creditor Market Participants of the payment reductions through the posting of a Settlement Shortfall Statement. Any Settlement Shortfall Statement will be posted to Market Participants affected by payment reductions.~~
- Reduced payments are processed through Austraclear as per section 3.3.3 above by 4:00pm on day S_e, 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 after the end of the fFinancial Y_y year when the default event occurred.