

NEM DIRECTION COMPENSATION RECOVERY

PREPARED BY: AEMO Market Management
VERSION: 2
EFFECTIVE DATE: dd month yyyy
STATUS: FINAL

Approved for distribution and use by:

APPROVED BY: Peter Geers
TITLE: Executive General Manager - Markets

DATE: / / 20

IMPORTANT NOTICE

Purpose

AEMO has prepared this document to provide information about how compensation amounts for directions are recovered from Market Participants ~~the application and administration of the GST to the National Electricity Market transactions~~, as at the date of publication.

Disclaimer

This document or the information in it may be subsequently updated or amended. This document does not constitute legal or business advice, and should not be relied on as a substitute for obtaining detailed advice about the National Electricity Law, the National Electricity Rules, taxation legislation or any other applicable laws, procedures or policies. AEMO has made every reasonable effort to ensure the quality of the information in this document but cannot guarantee its accuracy or completeness.

Accordingly, to the maximum extent permitted by law, AEMO and its officers, employees and consultants involved in the preparation of this document:

- make no representation or warranty, express or implied, as to the currency, accuracy, reliability or completeness of the information in this document; and
- are not liable (whether by reason of negligence or otherwise) for any statements or representations in this document, or any omissions from it, or for any use or reliance on the information in it.

Copyright

© 2019 Australian Energy Market Operator Limited. The material in this publication may be used in accordance with the copyright permissions on AEMO's website.

VERSION RELEASE HISTORY

Version	Effective Date	Summary of Changes
1.1	19-Mar-2010	Initial version
1.2	15-Nov-2011	Added disclaimer, and recovery for system security directions post 1-Jul-2011
1.3	13-Jan-2015	Updated to reflect the introduction of Small Generation Aggregators in the NEM
2.0		Updated for 5-minute settlements and new AEMO format

CONTENTS

1.	INTRODUCTION	4
1.1.	Purpose and scope	4
2.	DIRECTION COMPENSATION	4
3.	DIRECTION COMPENSATION RECOVERY	4
3.1.	Energy Direction Compensation Recovery	54
3.2.	Market Ancillary Services Direction Compensation Recovery	5
3.3.	Other Service (System Security) Direction Compensation Recovery	6
4.	RECONCILIATION OF DIRECTION RECOVERY AMOUNTS	7
5.	INFORMATION AVAILABLE	87
APPENDIX A.	DIRECTION RECONCILIATION FILES	9

1.	INTRODUCTION	4
1.1.	Purpose and scope	4
1.2.	Definitions and interpretation	4
1.3.	Related documents	4
2.	DIRECTION COMPENSATION	4
3.	DIRECTION COMPENSATION RECOVERY	5
3.1.	Energy Direction Compensation Recovery	5
3.2.	Market Ancillary Services Direction Compensation Recovery	6
3.3.	Other Service (System Security) Direction Compensation Recovery	6
4.	RECONCILIATION OF DIRECTION RECOVERY AMOUNTS	8
5.	INFORMATION AVAILABLE	8
APPENDIX A.	DIRECTION RECONCILIATION FILES	9

1. INTRODUCTION

1.1. Purpose and scope

Under the National Electricity Law and clause 4.8.9 of the National Electricity Rules (NER), AEMO can issue "directions" to Registered Participants take action as necessary to maintain or restore the power system security or reliability in a secure, satisfactory, or reliable operating state. Certain types of direction may result in the payment of compensation to the directed Market Participants and some other participants directly impacted by any resulting changes in dispatch outcomes if a direction is issued compensation may be payable to one or more participants.

This document describes the types of direction compensation payable, and summarises how AEMO will recover direction the recovery of compensation amounts from Mmarket Pparticipants.

2. DIRECTION COMPENSATION

After a relevant direction has been issued, AEMO will determine the service or service(s) that were provided as part of the direction. The service will be one or more of the following:

- Energy
- Market Ancillary Service
- Other Service (for Ssystem sSecurity)

Compensation may be payable to:

- Directed Participant
For the generating units or services that were the subject of the direction. Directed Participant
Refer to NER Rules clause 3.15.7, 3.15.7A, 3.15.7B3-12.2
- Affected Participants and Market Customers (with scheduled load) Eligible Persons
Refer to NER Rules clause 3.12.2 For scheduled generating units or scheduled network service providers that were not the subject of the direction, but which had their dispatched quantity affected by the direction.
- Eligible Person
Refer to NER clause 3.12.2
- An independent expert may be engaged in order to determine the compensation amount in some circumstances.
 - Eligible Persons
For persons entitled to receive an amount from AEMO pursuant to NER clause 3.18.1(b)(1) where there has been a change in flow of a directional interconnector, for which the eligible person holds Settlement Residue Auction units for the intervention price trading interval, as a result of the direction.

An independent expert may be engaged in order to determine the compensation amount.

3. DIRECTION COMPENSATION RECOVERY

The compensation amount, interest, and any applicable independent expert fees if applicable, are recovered from Mmarket Pparticipants.

To assist participants in reconciling billing amounts relating to the recovery of direction compensation, reconciliation files are created for each billing week in which dDirection

compensation recovery amounts are included. The reconciliation files set out the market-wide inputs to the recovery calculation.

3.1. Energy Direction Compensation Recovery

NERRules clause 3.15.8(b) requires that compensation determined for Energy directions must be recovered from Market Customers in proportion to their ir respective shares of total customer energy.

If an energy direction compensation payment is applied in a given billing week, the recovery amount payable by a Market Customer participant in that week will be:

$$\begin{aligned} & \textit{Participant Recovery Amount} \\ &= \textit{CRA} \times \sum_{\textit{Region}} \left(\textit{RBF} \times \frac{\textit{Participant Regional Customer Energy}}{\textit{Total Regional Customer Energy}} \right) \end{aligned}$$

where:

Participant Recovery Amount (\$) = Recovery amount payable by the relevant Market Customer participant (excl GST).

CRA (\$) = The Compensation Recovery Amount being recovered from the NEM for the direction.

Participant Regional Customer Energy (in MWh) =
The Market Customer's customer energy for the participant in each region for the period from the direction start trading interval to the direction end trading interval (inclusive) excluding any scheduled loads for which in which the customer submitted a dispatch bid was submitted for in the intervention price trading interval.

Total Regional Customer Energy (in MWh) =
The total customer energy for all Market Customers in each region for the period from the direction start trading interval to the direction end trading interval (inclusive) excluding any scheduled loads for which in which the customer submitted a dispatch bids were submitted for in the intervention price trading interval.

RBF = The regional benefit factor for each region, determined by AEMO (as a fraction).

The energy used in the calculations is the customer energy in all trading intervals during which the direction applied i.e. if a direction applied for only part of a trading interval at the start or end of the direction period, energy in those whole trading intervals are included in the calculation.

All of the values required to calculate the participant recovery amount, except the Participant Regional Customer Energy, are available from the energy direction reconciliation file. The reconciliation file contains information outlined in Appendix Error! Reference source not found.A.

3.2. Market Ancillary Services Direction Compensation Recovery

NERRules clause 3.15.8(f) requires that Compensation determined for Market Ancillary Services directions be recovered using the same recovery process applicable to the recovery of as Market ancillary Services costs, except that the recovery is done over all of the trading

intervals during which the direction applied. ~~According to the Market Ancillary Services recovery rules:~~

- ~~• Contingency raise services (6sec, 60sec, and 5min raise) are recovered from Market Generators and Market Small Generation Aggregators. Recovery is in proportion to the sent out generation for each Participant for net exports to the grid only.~~
- ~~• Contingency lower services (6sec, 60sec, and 5min lower) are recovered from Market Customers.~~
- ~~• Regulation services (raise and lower regulation) are recovered according to causer pays, with any residual amount recovered from Market Customers.~~

The reconciliation file for market ancillary service direction compensation recovery contains information outlined in Appendix Error! Reference source not found.A.

3.3. Other Service (System Security) Direction Compensation Recovery

Rules-NER clause 3.15.8(g) requires that Ccompensation determined for directions other than for energy and ancillary services directions must be recovered from Market Customers, Market Generators, and Market Small Generation Aggregators in proportion to the customer energy, generator energy, and small generation aggregator energy respectively.

If a System Security compensation payment for this type of direction is applied in a given billing week, the recovery amount payable by a Market Participant participant in that week will be:

$$Participant\ Recovery\ Amount = CRA \times \sum_{Region} \left(RBF \times \frac{PGE + PSGE - PCE}{TGE + TSGE - TCE} \right)$$

where:

- Participant Recovery Amount* (\$) = Recovery amount payable by the relevant Market Pparticipant (excl GST).
- CRA* (\$) = The Compensation Recovery Amount being recovered from the NEM for the direction.
- PGE* (in MWh) = Participant regional generator energy.
The generator energy for the Market Pparticipant (if a Market Generator) in each region for the period from the Ddirection start trading interval to the Ddirection end trading interval (inclusive), where generator energy is the net generation with a floor of 0MWh applied in each trading interval.
- PSGE* (in MWh) = Participant regional small generation aggregator energy.
The small generation aggregator energy for the Market Pparticipant (if a Market Small Generation Aggregator) in each region for the period from the Ddirection start trading interval to the dDirection end trading interval (inclusive), where small generation aggregator energy is the net generation with a floor of 0MWh applied in each trading interval.
- PCE* (in MWh) = Participant regional customer energy.
The customer energy for the Market Pparticipant (if a Market Customer) in each region for the period from the dDirection

	start trading interval to the d irection end trading interval (inclusive).
<i>TGE</i> (in MWh)	= Total regional generator energy. The total generator energy for all Market Generators in each region for the period from the D irection start trading interval to the D irection end trading interval (inclusive), where generator energy is the net generation with a floor of 0MWh applied for each Participant in each trading interval.
<i>TSGE</i> (in MWh)	= Total regional small generation aggregator energy. The total small generation aggregator energy for all Market Small Generation Aggregators in each region for the period from the D irection start trading interval to the d irection end trading interval (inclusive), where small generation aggregator energy is the net generation with a floor of 0MWh applied for each Participant in each trading interval.
<i>TCE</i> (in MWh)	= Total regional customer energy. The total customer energy for all Market Customers in each region for the period from the d irection start trading interval to the d irection end trading interval (inclusive).
<i>RBF</i>	= The regional benefit factor for each region, determined by AEMO (as a fraction).

The energy used in the calculations is the energy in all trading intervals during which the direction applied i.e. if a direction applied for only part of a trading interval at the start or end of the direction period, energy in those whole trading intervals are included in the calculation.

All of the values required to calculate the participant recovery amount, except the Participant Regional Generator Energy, Small Generation Aggregator Energy, and Customer Energy, are available from the system security direction reconciliation file. The reconciliation file contains information outlined in Appendix [Error! Reference source not found.A](#).

~~Note that prior to 1-Jul-2011, system security direction compensation was recovered from Participants in the same proportion as the largest single fixed component of Participant fees.~~

4. RECONCILIATION OF DIRECTION RECOVERY AMOUNTS

The information provided in the direction reconciliation files can be used by Participants to reconcile their billing amounts relating to direction recovery. The information contained in direction compensation recovery reconciliation files is outlined in Appendix [Error! Reference source not found.A](#). Note the following:

- Direction funding attracts GST. Participants should add 10% to the participant recovery amount to arrive at the GST inclusive funding amount.
- When sourcing participant customer, generator, or small generation aggregator energy data for use in a reconciliation calculation, the version of data used should be that which represents the most recently posted data at the time that the billing run for the week with compensation was run.

- Reconciliation files are available on the day of posting of statements to which the recovery amounts are applied.

5. INFORMATION AVAILABLE

Information regarding the compensation amounts paid is available on the AEMO web site in the form of market notices and/or Independent Expert Reports:

- Market Notices:

<https://www.aemo.com.au/Market-Notices>

- Independent Expert Reports

<https://www.aemo.com.au/Electricity/National-Electricity-Market-NEM/Market-notice-and-events/Market-event-reports>

Direction compensation reconciliation files are available from:

- Settlements Direct:
Category 'NEM Summary Data'
Type: NEM Directions Recovery Reconciliation'

- AEMO web page:
http://www.nemweb.com.au/REPORTS/CURRENT/Directions_Reconciliation

APPENDIX A. DIRECTION RECONCILIATION FILES

Reconciliation files for direction compensation recovery post 1-Jul-2011 contain the information outlined in Table 1 below.

Table 1 Direction Compensation Recovery Reconciliation File Contents

Field Name	Description
DIRECTION_ID	The direction identifier for the direction to which the compensation applied. The date on which the direction started can be determined from the first eight digits of the direction identifier. Eg 20111214.D001 is the direction identifier for the first direction on 14 Dec 2011.
MARKET_NOTICE	The market notices which refer to the direction.
DIRECTION_TYPE_ID	The type of direction (eg NON_ENERGY_NON_AS).
DIRECTION_START_DATE	Define the start date and trading interval from which the direction applied.
DIRECTION_START_INTERVAL	
DIRECTION_END_DATE	Define the end date and trading interval to which the direction applied.
DIRECTION_END_INTERVAL	
INTEREST_AMOUNT	Interest paid by AEMO. Interest is determined at the average bank bill rate between the settlement date corresponding to the Direction date and the settlement date of the Final Determination week.
INDEPENDENT_EXPERT_FEE	Independent expert fee.
CRA	The Compensation Recovery Amount. This is equal to the sum of COMPENSATION_AMOUNT, INTEREST_AMOUNT, and INDEPENDENT_EXPERT_FEE.
XXX_CUSTOMER_ENERGY	The total regional customer energy for all Market Customers in region XXX for the period to which the direction applied (as defined by DIRECTION_START_DATE, DIRECTION_START_INTERVAL, DIRECTION_END_DATE, and DIRECTION_END_INTERVAL).
XXX_GENERATOR_ENERGY	The total regional generator and small generation aggregator energy for all Market Generators and Market Small Generation Aggregators in region XXX for the period to which the direction applied (as defined by DIRECTION_START_DATE, DIRECTION_START_INTERVAL, DIRECTION_END_DATE, and DIRECTION_END_INTERVAL).
XXX_RBF	The regional benefit for region XXX determined by AEMO

APPENDIX B SAMPLE REPORTS

Information regarding the recovery of direction compensation will appear in the Settlement Report (SR) file for the billing week in which the recovery amount is payable. A sample SR file (for System Security compensation recovery) is presented below.

Figure 1 Sample SR file for System Security compensation recovery

Final Determination Statement Transactions			
Direction ID	20090617.D0001		
Direction Description	Direction to Port Lincoln.. Market Notices 26588 and 26591 refer.		
Start Date	17/06/2009	PeriodID	40
End Date	17/06/2009	PeriodID	43
Direction Type	NON_ENERGY_NON_AS		
Summary Final Determination Statement			
	Final	Provisional	Net
Net AMOUNT for Direction	-\$0.03	\$0.00	-\$0.03
Interest Payment	\$0.00		
Compensation Funding			
Compensation Recovery Amount	-\$40,225.70		
Your CRA recovery share	-\$0.03		