

NEM Entry - Electricity Entities Memorandum of Understanding

Dated 30 July 2003

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NEM Entry- Electricity Entities Memorandum of Understanding

Interpretation – definitions are at the end

Parties

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- Recitals
- A The Tasmanian Government proposes that Tasmania will become a participating jurisdiction in the national electricity market (called “**Tasmania’s NEM Entry**”), but only once it is satisfied that Basslink will be successfully completed.
- B The Tasmanian Government has entered into a non-binding memorandum of understanding with NEMMCO under which it has agreed that certain preconditions to Tasmania’s NEM Entry must be satisfied (“**NEMMCO Memorandum**”), some of which require the co-operation of or action by one or more of the parties, NEMMCO and other third parties. A copy of the NEMMCO Memorandum (but excluding Schedule 2 to that memorandum) is attached as Schedule 2.
- C The Tasmanian Government and NEMMCO have agreed a Timetable for endeavouring to meet each Precondition and the parties to this memorandum are prepared to provide the resources necessary to meet the Timetable.

Governing law Tasmania

1 Acknowledgment

Each Electricity Entity acknowledges that the Tasmanian Government has entered into the NEMMCO Memorandum under which it has agreed that certain preconditions will be satisfied in accordance with the timetable set out in that memorandum and that in order to do this, action is required on the part of each Electricity Entity. The parties have entered into this memorandum of understanding to facilitate this.

Each Electricity Entity further acknowledges that it will, at the request of the Tasmanian Government, provide appropriately qualified and experienced personnel to participate in Project Meetings convened under the NEMMCO Memorandum.

2 Preconditions and Timetable

2.1 Meeting the Preconditions

Each party will endeavour to ensure that each of the Preconditions for which it is the Responsible Party is completed in accordance with the Timetable.

Each party agrees to commit the resources necessary to achieve each Precondition in accordance with the Timetable.

2.2 Variations to Schedule 1

The parties acknowledge that Schedule 1 to this memorandum is intended to be identical in all respects to Schedule 1 to the NEMMCO Memorandum and that if any variation to Schedule 1 to the NEMMCO Memorandum is effected by NEMMCO and the Tasmanian Government, the same variation will also be made, or will be taken to have been made, to Schedule 1 to this memorandum by the Tasmanian Government delivering notice of that change to all the Electricity Entities. The parties acknowledge that no variation may otherwise be made to Schedule 1 to this memorandum. The Tasmanian Government will not agree to an amendment to Schedule 1 to the NEMMCO Memorandum in relation to a Precondition for which an Electricity Entity is the Responsible Party without the consent of the relevant Electricity Entity.

2.3 Party Representatives

Each party will appoint a person (“Party Representative”) to be responsible for the development of procedures to ensure that party is able to complete the Preconditions in accordance with the Timetable and to liaise with the other Party Representatives and the Tasmanian Project Manager to ensure a co-ordinated approach to the completion of the Preconditions. At the request of the Tasmanian Government, the Party Representatives of the Electricity Entities will participate in the Project Meetings convened under the NEMMCO Memorandum.

3 Evaluation and Sign-off

3.1 Sign-off process

- (a) Upon completion of a Precondition for which an Electricity Entity is the Responsible Party, that Electricity Entity will request the relevant Sign-off Party to perform the following sign-off process:
 - (i) the Sign-off Party will assess whether the Precondition has been completed;
 - (ii) the Sign-off Party will raise any issues or outstanding items directly with the Responsible Party for that Precondition; and
 - (iii) upon resolution of such issues and the relevant Sign-off Party being satisfied that the Precondition has been completed, the relevant Sign-off Party will sign off the Precondition.

At the same time as the request is given to the Sign-off Party, the Electricity Entity will give the Tasmanian Project Manager a copy of the request.

- (b) Where a Sign-off Party is a party to this memorandum, the Sign-off Party must complete the sign-off process in respect of a Precondition or raise any issues or outstanding items under paragraph 3.1(a)(ii) within ten working days of receiving the request from the Responsible Party and provide written confirmation to the Tasmanian Project Manager that a Precondition has been signed-off within three working days of sign-off.
- (c) Where the Sign-off Party is not a party to this memorandum, each party will use reasonable endeavours to procure that the Sign-off Party completes the sign-off process or raises any issues or outstanding items under paragraph 3.1(a)(ii) within ten working days and provides written confirmation to the Tasmanian Project Manager that the Precondition has been signed-off within three working days of sign-off.

3.2 Reporting

Each Electricity Entity will, on a monthly basis, or as otherwise agreed by the parties, provide a report to the Tasmanian Government of the progress and status of each Precondition for which that Electricity Entity is the Responsible Party, in the format required by clause 3.2 of the NEMMCO Memorandum, such that the Tasmanian Government may use the information provided by the Electricity Entity in its own report to NEMMCO under the NEMMCO Memorandum.

The Tasmanian Government will provide a copy of the consolidated project report prepared by the Tasmanian Project Manager under clause 3.2 of the NEMMCO Memorandum to each Electricity Entity at the same time it provides it to NEMMCO.

3.3 Independent review

The Tasmanian Government may at any time by written notice to the other parties require an independent review of completion of the Preconditions for which an Electricity Entity is the Responsible Party.

If an independent review is required, the Tasmanian Government must appoint a person to be the independent reviewer. The independent reviewer is to be a firm or person independent of any of the parties or NEMMCO.

The following provisions apply after an independent reviewer has been appointed:

- (a) the independent reviewer will perform a review of the relevant Preconditions to ensure that the Preconditions which have been signed off are actually completed;
- (b) any Preconditions for which an Electricity Entity is the Responsible Party which have not been completed will be discussed with the Responsible Party and the relevant Sign-off Party to determine what action is required to complete the Precondition and the expected timetable for completion;
- (c) the independent reviewer will provide a report to the Party Representatives of all outstanding Preconditions for which an Electricity Entity is the Responsible Party together with recommended actions;
- (d) the Party Representatives will then determine what action will be taken; and
- (e) the independent reviewer must give a copy of its report to the Electricity Oversight Committee.

Each party must co-operate fully with an independent reviewer conducting a review under this clause 3.3 and each Electricity Entity must co-operate with any independent review under the NEMMCO Memorandum.

Any person appointed to carry out an independent review in relation to any of the Preconditions will be required to execute confidentiality undertakings in a form reasonably acceptable to all parties to this Memorandum who will be dealing with that person.

4 General

4.1 Memorandum not binding

This memorandum is not legally binding.

4.2 Parties to use reasonable endeavours

Subject to clause 4.1, each party intends to use all reasonable endeavours to comply with its obligations set out in this memorandum and to ensure that any third party can do anything necessary or desirable to meet the Preconditions by the time set out in the Timetable.

4.3 Counterparts

The memorandum may be signed in counterparts.

4.4 Costs and expenses

The parties agree to pay their own costs and expenses in connection with the preparation, execution and completion of this memorandum and other related documentation.

5 Termination

The Tasmanian Government may terminate this memorandum at any time by notice in writing. A notice under this clause 5 takes effect at the later of the time specified in it and the time it is received.

6 Interpretation

6.1 These meanings apply unless the contrary intention appears.

Basslink means the project for the interconnection, by means of a DC electricity transmission link, of the Victorian and Tasmanian electricity systems.

Electricity Entity means each of Hydro Tasmania, Transend and Aurora.

Electricity Oversight Committee means the committee of that name established by the Tasmanian Government to oversee Tasmania's entry to the national electricity market.

Evaluation Criteria in respect of a Precondition means the criteria for the satisfaction of the Precondition as set out in Schedule 1.

NEMMCO means the National Electricity Market Management Company Limited (ACN 072 010 327).

NEMMCO Memorandum has the meaning given in recital B.

Party Representative has the meaning given in clause 2.3.

Precondition means each of the preconditions to the entry of Tasmania as a participating jurisdiction into the national electricity market as described in Schedule 1.

Project Meeting has the meaning given in the NEMMCO Memorandum.

Responsible Party in respect of a Precondition means a person responsible for the satisfaction of that Precondition as set out in Schedule 1.

Sign-off Party in respect of a Precondition means the person set out in schedule 1 who is responsible for assessing whether the precondition has been completed by reference to the Evaluation Criteria.

Tasmanian Project Manager means the person appointed by the Tasmanian Government under the NEMMCO Memorandum to co-ordinate the completion of the Preconditions for which the Tasmanian Government or an Electricity Entity is the Responsible Party, to liaise with the NEMMCO Project Manager, the NEMMCO Party Representative and the Electricity Entity Party Representatives and to manage the interface with NEMMCO on behalf of the Tasmanian Government and the Electricity Entities.

Tasmania's NEM Entry has the meaning given in recital A.

Timetable means the time specified for meeting each of the Preconditions set out in Schedule 1.

6.2 In this memorandum:

- (a) a reference to an agreement, document, instrument or law means that agreement, document, instrument or law as amended from time to time; and

- (b) a Precondition is regarded as being completed when each of the Evaluation Criteria have been met and all associated activities have been carried out to an appropriate standard; and
- (c) a working day means a day other than a Saturday, Sunday or a day which is lawfully observed as a public holiday in Tasmania.

Schedule 1 - Preconditions

No.	Precondition	Evaluation Criteria	Responsible Party	Sign off Party	Date for Completion
A01	Appoint directors and pay NECA and NEMMCO joining fees	Directors appointed	Tasmania	NEMMCO	31/05/2002
A02	Amend ESI Act to account for NEM Entry and retail competition	Relevant provisions proclaimed	Tasmania	Tasmania	27/05/2005
A03	New legislation to separate Bell Bay Power Station from Hydro Tasmania	Legislation proclaimed	Tasmania	Tasmania	30/11/2005
A04	Assign the ACCC the responsibility for regulating transmission pricing in Tasmania	Conferral notice under S25 of ESI Act	Tasmania	Tasmania	30/06/2003
A05	Tasmanian Emergency Powers defined	Powers finalised	Tasmania	NEMMCO	31/03/2004
A07	Appoint a Jurisdictional Regulator	S25 of ESI Amendment Act Proclaimed	Tasmania	Tasmania	29/05/2005
A08	Appoint Jurisdictional Coordinator(s)	Letter to NEMMCO	Tasmania	Tasmania	05/01/2004
A09	Appoint Metrology Coordinator	Appointment effected	Tasmania	Tasmania	05/01/2004
A10	Future role and scope of Tasmanian Reliability & Network Planning Panel decided	Policy position finalised	Tasmania	Tasmania	27/08/2004
A11	Retailer of last resort arrangements advised to NEMMCO	Letter to NEMMCO	Tasmania	Tasmania	04/01/2005
A13	ENST Act proclaimed	New proclamation	Tasmania	Tasmania	27/05/2005
A14	Table of sensitive loads and Load Shedding Priorities and Procedures advised	NEMMCO advised	Tasmania	NEMMCO	15/10/2004
A17	System Security Transition readiness confirmed	Treasurer satisfied with readiness to commence system security transition	Tasmania	Tasmania	17/11/2004
A19	NEM Entry readiness confirmed	Treasurer satisfied due diligence process complete for NEM Entry	Tasmania	Tasmania	04/05/2005
A20	Transends "Starting" regulatory Asset Base for NEC purposes established	Minister advises estimate under ESI Act	Tasmania	Tasmania	31/05/2005
A21	Entity responsible for Transmission System Planning nominated	Minister nominates entity	Tasmania	Tasmania	05/01/2004
A22	Ministerial notice relating to sell down of import interregional revenues and limitations on transport bidding of Basslink	Ministerial notice given	Tasmania	Tasmania	24/12/2003
A23	Regulations prescribing HT's reporting of water in storage as energy hydrological data	Regulations made	Tasmania	Tasmania	27/08/2004
A24	Price Control Regulations	Regulations in place	Tasmania	Tasmania	11/06/2003
A25	Retail Competition Regulations	Regulations in place	Tasmania	Tasmania	04/01/2005
B01	Tasmanian transmission revenue from 01/01/04	Determination issued	ACCC	Tasmania	30/11/2003
B02	ACCC consent to variation of the NEM access code (ie, the access provisions of the National Electricity Code) under section 44ZZAA(6) of the Trade Practices Act	Consent obtained	ACCC	Tasmania	31/03/2005
C01	Any post NEM Agency arrangements in place if required	Agency arrangements / TNSP Operating Agreement executed	NEMMCO	Transend	05/12/2003
C02	Expand appropriate NEMMCO databases to include Tasmania	NEMMCO Energy Management Systems databases updated with Tasmanian data	NEMMCO	Transend	19/05/2004
C03	Systems Operations Procedures and processes agreed	Procedures and processes formally agreed. NEMMCO letter of acceptance	NEMMCO	Transend	21/10/2004
C04	NEMMCO system operators adequately trained	NEMMCO operators competent to operate Tasmanian system	NEMMCO	Transend	31/03/2005
C05	NEMDE models Tasmania correctly	Validation that the NEMMCO NEMDE models Tasmania correctly	NEMMCO	Transend	26/07/2004
C06	PASA transferred	PASA transferred	NEMMCO	Transend	29/05/2005
C07	Pre dispatch system proven	Pre dispatch system proven	NEMMCO	Transend	22/10/2004
C08	Process for system notices in place	Process for system notices in place	NEMMCO	Transend	10/06/2004
C09	Number of Tasmanian pre dispatch sensitivity runs accepted	Tasmanian pre dispatch requirements accepted	NEMMCO	Transend	31/03/2003
C10	Intra regional loss factors published	Intra regional loss factors agreed	NEMMCO	Transend	23/05/2005

A = Treasury, B = ACCC, C = NEMMCO, D = NECA, E = OTTER, X = Transend, Y = Hydro Tasmania, Z = Aurora Energy

C11	NEMMCO initial load forecasting process agreed	Method of forecasting accepted	NEMMCO	Transend	12/01/2004
C12	NEMMCO initial load forecasting process validated	Load forecast is reviewed and accepted	NEMMCO	Transend	01/06/2004
C13	Ancillary services framework for Tasmania agreed	Conceptual framework documented and signed	NEMMCO	Tasmania	27/06/2003
C14	NEMMCO ancillary services systems, procedures and processes in place	Systems implemented	NEMMCO	Transend	13/07/2004
C15	SRAS contracts in place between Hydro and NEMMCO	SRAS contracts in place. Executed contract	NEMMCO	Transend	08/07/2004
C16	Critical constraint equations accepted	Transend validates NEMMCO constraint equations	NEMMCO	Transend	22/10/2004
C17	Communications & IT	Agree on communications & IT Schedule for Tasmania – NEMMCO interface	NEMMCO	Transend	31/10/2002
C18	VCAS contracts in place with Hydro Tasmania	VCAS contracts in place. Executed contract	NEMMCO	Transend	12/07/2004
C19	Replacement National Electricity Market Emergency Protocol developed and agreed	Designated Officers of the jurisdictions/NEMMCO agree to the replacement National Electricity Market Emergency Protocol	NEMMCO	Tasmania	20/07/2004
C20	NEMMCO/NECA formally determine regional boundaries/regional reference nodes for the NEM	Regional boundaries/reference nodes determined in accordance with the Tasmanian derogation	NEMMCO	Tasmania	12/07/2004
D01	Implement Code changes and derogations for Tasmanian NEM entry	Code changes published/gazetted in Tas and SA	NECA	Tasmania	13/01/2005
D02	Registrar or deputy registrar for the National Electricity Tribunal appointed in Tasmania	Appointment made	NECA	Tasmania	13/01/2005
D03	Notice Gazetted of the commencement of Tasmania as a participating jurisdiction, under section 5(6) of the National Electricity Law	Notices published in SA and Tas	NECA	Tasmania	17/04/2005
D04	Administered price cap for Tasmania specified	Schedule set	NECA	Tasmania	13/01/2005
E01	Incorporate TEC amendments for transmission pricing	Changes to TEC implemented	OTTER	Tasmania	15/08/2003
E02	Review and recommend amendments to TEC to reflect NEM Entry, amendments to ESI Act for NEM entry and retail competition	Changes to TEC implemented	OTTER	Tasmania	30/06/2004
E03	Ring fencing of Aurora electricity retail and distribution function licence requirements developed	Licences amended	OTTER	Tasmania	30/06/2004
E04	Ring fencing provisions in TEC	Code change implemented and guidelines issued	OTTER	Tasmania	30/06/2004
E07	Aurora distribution and retail licences amended	Licences amended	OTTER	Tasmania	30/06/2004
E08	Transend licence reissued/amended	Licence amended	OTTER	Tasmania	30/06/2004
E09	Metrology	Publication of data specifications	OTTER	Tasmania	28/02/2005
E10	Issue Generator licences to HT/BBL	Licences issued	OTTER	Tasmania	30/06/2004
E11	TNSP metering obligations imposed	TEC code change executed	OTTER	Tasmania	15/08/2003
X01	PSSE Power System Model (2003) delivered to NEMMCO	NEMMCO letter of receipt of the Tasmanian power system model	Transend	NEMMCO	14/03/2003
X02	Dynamic rating SCADA data appropriately used in NEMDE	Transend validates NEMMCO's use of dynamic data supplied by Transend. Transend's letter of acceptance to NEMMCO	Transend	Transend	26/07/2004
X03	State estimator / contingency analyser accepted	NEMMCO letter of receipt of the Tasmanian power system model	Transend	NEMMCO	10/09/2004
X04	Voice, Market Data and SCADA communications required for NEM Entry	Communications systems tested and proven. Issuing of completion certificate	Transend	NEMMCO	05/05/2004
X05	Transend system operators adequately trained	Transend operators have completed an appropriate training program	Transend	NEMMCO	31/03/2005
X06	Operational Procedures and processes agreed	Procedures and processes formally agreed. NEMMCO letter of acceptance	Transend	NEMMCO	12/10/2004
X07	Any Post NEM transition agency arrangements in place	Agency arrangements executed	Transend	NEMMCO	05/12/2003

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X08	NEMMCO boundary of direct oversight agreed	Agreement on NEMMCO boundary definition. Letter of Acceptance from NEMMCO	Transend	NEMMCO	26/06/2003
X09	Real time SCADA data meets NEMMCO requirements	SCADA data sent by Transend meets NEMMCO requirements	Transend	NEMMCO	29/10/2004
X10	Compliant Network Outage Planning practices in place	Meets NEMMCO requirements	Transend	NEMMCO	21/02/2005
X11	Transend able to view NEMMCO data	Transend confirms with NEMMCO that it is able to view data	Transend	Transend	24/08/2004
X12	Tasmanian emergency procedures and contingency plans agreed	Emergency procedures and contingency plans formally agreed and in place	Transend	NEMMCO	12/07/2004
X14	Grid Support Service contracts in place with Hydro Tasmania and/or Aurora	Executed contracts	Transend	NEMMCO	04/03/2004
X15	Agreement on the quantity of ancillary services required. (Both total and balance amounts)	Ancillary service quantities agreed	Transend	NEMMCO	14/10/2003
X19	NEC Compliant wholesale metering equipment is installed and commissioned at all wholesale connection points. (In conjunction with Aurora & Hydro)	Sign off that metering installations are NEC compliant at all wholesale connection points	Transend	NEMMCO	17/04/2005
X22	Business processes and systems in place for notifications regarding connection points and associated standing data	MSATS interface is operating. Transend is able to log into MSATS System through NEMNET	Transend	Transend	17/02/2005
X23	Metering responsible person role agreed for all connection points	Responsible person roles agreed. Letter between companies nominating responsible persons	Transend	NEMMCO	04/02/2005
X24	Registration of connection points and associated standing data placed into MSATS	Registration of standing data accepted by NEMMCO and placed in MSATS	Transend	NEMMCO	17/04/2005
X25	Transend receive metering information from MDA	Metering information received from MDA for TUOS purposes	Transend	Transend	17/04/2005
X26	Business processes in place between Transend, Hydro Tasmania and Aurora for billing purposes	Business processes proven between Transend, Hydro Tasmania and Aurora for billing purposes (TUOS)	Transend	Transend	15/04/2005
X28	NEMMCO & Transend reach agreement in principle that registration data is available and acceptable to NEMMCO and that NEMMCO will register Transend as TNSP	Letter from NEMMCO acknowledging that Transend has met registration requirements	Transend	NEMMCO	15/10/2004
X29	Access undertaking in place	Access undertaking in place. ACCC decision / determination	Transend	ACCC	14/07/2004
X30	NEM compliant power system protection in place	Protection systems audited and proven to be NEM compliant Acceptance of audit report	Transend	NEMMCO	15/04/2005
X32	Transend / Hydro Tasmania connection agreements completed	Transend / Hydro Tasmania connection agreements executed	Transend	HT	30/06/2004
X33	Transend / Aurora connection agreements completed	Transend / Aurora connection agreements executed	Transend	Aurora	26/03/2004
X34	Transmission pricing framework in place	Transmission pricing in place	Transend	ACCC	01/06/2004
X35	Communications agreements with Hydro Tasmania in place	Communications agreements in place	Transend	HT	27/10/2003
X36	Austraclear account Established	Transend has established an Austraclear account	Transend	Transend	15/10/2004
X37	Power system model (2004) delivered to NEMMCO represents system to be managed	NEMMCO letter of receipt of the Tasmanian power system model	Transend	NEMMCO	28/11/2003
X38	Ready for System Security Transition Start	Tasmanian System Controller confirms that all systems are adequately advanced for the transition phase to begin	Transend	Tasmania	31/10/2004
X39	Ready for System Security Transfer	Tasmanian System Controller confirms that the transfer of responsibility for System Security to NEMMCO may proceed	Transend	Tasmania	17/04/2005
X40	Generator power system stabilisers settings agreed HT/BBP	Letter of approval	Transend	NEMMCO	17/05/2004
X41	Transend delegation arrangement pre-transition in place	Executed contract with NEMMCO	Transend	Tasmania	30/09/2004

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X42	Transend CEO confirms to Treasurer that Transend Networks is ready for NEM Entry and is NEC Code compliant to the extent necessary for the Treasurer to agree to Tasmania's NEM Entry	Letter to Treasurer	Transend	Tasmania	21/04/2005
Y01	HT has Systems in place to allow real time SCADA operational data to be received from Transend with suitable back up processes	End to end test results signed off	HT	NEMMCO	05/12/2003
Y02	HT/BBP has a system in place to retrieve NEMMCO PASA /pre-dispatch/dispatch data from NEMNET to facilitate the dispatch process to NEMMCO	Tested and able to perform under shadow market conditions	HT	NEMMCO	26/07/2004
Y03	HT/BBP has systems in place to send bids and rebids for energy and ancillary services	Tested and able to perform under shadow market conditions	HT	NEMMCO	26/07/2004
Y04	Document procedures for dispatchable loads and the systems for dispatching loads, if required	Publication of documents	HT	NEMMCO	5/01/04
Y05	NEMMCO & HT/BBP reach agreement in principle that registration data is available and acceptable to NEMMCO and that NEMMCO will register HT/BBP as market participants, generators and scheduled generators	Letter from NEMMCO acknowledging that HT/BBP has met registration requirements	HT	NEMMCO	15/10/04
Y06	HT/BBP Procedures for the dispatch of Ancillary Services comply with NEMMCO procedures	Test of procedures	HT	NEMMCO	29/10/2004
Y08	HT/BBP Dispatch equipment (ECS) and ControlNet installed and tested	Review of procedures, test plans and results of tests	HT	NEMMCO	21/05/2004
Y09	NEM Compliant metering installations in place (with any approved derogations). (Includes BBP)	Acceptance of metering system	HT	NEMMCO	17/04/2005
Y10	Metering contract in place between Hydro Tas and a registered and accredited MP and MDP. (Includes BBP)	Signed contract	HT	NEMMCO	30/06/2003
Y11	All physical electricity purchase contracts (including vesting contracts) in force at the time of NEM Entry in Tasmania are converted into appropriate financial hedges	Contracts are signed & executed	HT	Tasmania	18/02/2005
Y14	HT/BBP hold Financial Services Reform Act licences	Licence obtained	HT	HT	01/03/2004
Y16	HT/BBP provide generator models to Transend	Settings for models to NEMMCO	HT	Transend	14/11/2003
Y17	HT/BBP Control Systems tuned against NEMMCO AGC	Completion of AGC unit tuning	HT	NEMMCO	30/07/2004
Y18	Energy data from all metering connection points available to NEMMCO through MDP	MSATS interface is operating	HT	HT	17/04/2005
Y19	HT/BBP Market Systems in place to handle NEM settlements data	MMS interface is operating (receives settlements data)	HT	HT	15/04/2005
Y20	HT passes on BPL confirmation that Basslink is expected to be ready for commercial service 6 months after NEM Entry	EOC agreement	HT	Tasmania	17/04/2005
Y21	Registration of connection points and associated standing data placed into MSATS	Registration of standing data accepted by NEMMCO and placed in MSATS	HT	NEMMCO	17/04/2005
Y22	Hydro Tasmania CEO confirms to Treasurer that Hydro Tasmania is ready for NEM Entry and is NEC Code compliant to the extent necessary for the Treasurer to agree to Tasmania's NEM Entry	Letter to Treasurer	HT	Tasmania	21/04/2005
Z01	Aurora (Retail) registered with NEMMCO as a Market Customer	Achieved – refer to NEMMCO web site for verification	Aurora	NEMMCO	29/06/2001
Z02	NEMMCO & Aurora reach agreement in principle that registration data is available and acceptable to NEMMCO and that NEMMCO will register Aurora as an 'NSP' (Distribution)	Letter from NEMMCO acknowledging that Aurora has met registration requirements	Aurora	NEMMCO	15/10/2004

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Z03	NEMMCO & Aurora reach agreement in principle that registration data is available and acceptable to NEMMCO and that NEMMCO will register Aurora as a 'Special Participant Distribution System Operator'	Letter from NEMMCO acknowledging that Aurora has met registration requirements	Aurora	NEMMCO	15/10/2004
Z04	NEC Compliant wholesale metering equipment is installed and commissioned at all wholesale connection points ie connection points with the pool. (In conjunction with Transend & Hydro)	Sign off that metering installations are NEC compliant at all wholesale connection points	Aurora	NEMMCO	17/04/2005
Z06	Business processes and systems in place for metering data	MSATS interface is operating	Aurora	Aurora	28/03/2005
Z07	Business processes & systems in place to handle NEM settlements data	MMS interface is operating	Aurora	Aurora	28/03/2005
Z08	All physical electricity purchase contracts (including vesting) in force at the time of NEM Entry in Tasmania are converted into appropriate financial hedges	Contracts are signed & executed	Aurora	Tasmania	18/02/2005
Z09	Energy Purchasing function is in place. Trading function established	Confirmation of CEO	Aurora	Tasmania	17/04/2005
Z10	DNISP functions in place	Aurora is ready to perform in accordance with the Code requirements for a DNISP	Aurora	Aurora	17/04/2005
Z11	Distribution Systems Operator function in place	Aurora is ready to perform in accordance with the Code requirements for a Distribution Systems Operator	Aurora	Aurora	17/04/2005
Z13	Distribution loss factors provided to NEMMCO after OTTER review	Letter to NEMMCO	Aurora	NEMMCO	01/12/2004
Z14	Access undertaking provided to the ACCC	Access undertaking is in accordance with Chapter 5 of the Code	Aurora	ACCC	12/10/2004
Z17	Metering contract in place between Aurora and an MDA	Signed contract	Aurora	Aurora	25/11/2003
Z18	Aurora Energy CEO confirms to Treasurer that Aurora Energy is ready for NEM Entry and is NEC Code compliant to the extent necessary for the Treasurer to agree to Tasmania's NEM Entry	Letter to Treasurer	Aurora	Tasmania	21/04/2005

Schedule 2- MOU with NEMMCO

NEM Entry- NEMMCO Memorandum of Understanding

Interpretation – definitions are at the end

Parties

Tasmanian Government	Name	The Crown in right of the State of Tasmania
	Address	21 Murray Street, Hobart 7000
	Telephone	(03) 6233 2600
	Fax	(03) 6233 5646
	Attention	Richard Sulikowski

NEMMCO	Name	National Electricity Market Management Company Limited
	ACN/ARBN	072 010 327
	Address	Level 16, 461 Bourke Street, Melbourne, Victoria, 3000
	Telephone	(03) 9648 8707
	Fax	(03) 9648 8653
	Attention	Brett Hausler

Recitals	A	The Tasmanian Government proposes that Tasmania will become a participating jurisdiction in the national electricity market (called " Tasmania's NEM Entry "), but only once it is satisfied that Basslink will be successfully completed.
	B	In order to facilitate Tasmania's NEM Entry, the Tasmanian Government has become a member of NEMMCO and NECA and a party to the National Electricity Market Legislation Agreement.
	C	The parties agree that certain Preconditions will need to be met before Tasmania's NEM Entry. This fulfilment of the Preconditions requires action on the part of the parties, the Electricity Entities and other third parties.
	D	The parties have agreed a Timetable for endeavouring to meet each Precondition and are prepared to provide the resources necessary to meet the Timetable.
	E	The Electricity Entities have entered into a non-binding memorandum of understanding with the Tasmanian Government, (" Electricity Entities Memorandum of Understanding ") under which each Electricity Entity has

agreed with the Tasmanian Government to endeavour to satisfy the Preconditions for which that Electricity Entity is the Responsible Party in accordance with the Timetable.

Governing law Tasmania

1 Obligations under the Code and NEMMCO acknowledgment

1.1 NEMMCO code obligations

The parties agree that, in the event that the responsibilities and roles set out in this Memorandum of Understanding are outside the scope of, or otherwise conflict with NEMMCO's obligations under the Code, the National Electricity Law or any other law (NEMMCO's legal obligations), NEMMCO's legal obligations will, to the extent of such conflict, prevail over the responsibilities and roles set out in this memorandum and NEMMCO will advise the Tasmanian Government as soon as NEMMCO becomes aware of such a conflict.

1.2 NEMMCO Acknowledgment

NEMMCO acknowledges that the Tasmanian Government is relying upon each Electricity Entity to satisfy the Preconditions for which that Electricity Entity is the Responsible Party and for this purpose, it has entered into the Electricity Entities Memorandum of Understanding in the form of Schedule 2.

NEMMCO acknowledges that at the request of the Tasmanian Government, representatives of the Electricity Entities may attend the Project Meetings referred to in clause 3.3.

2 Preconditions and Timetable

2.1 Meeting the Preconditions

Each party will endeavour to ensure that each of the Preconditions for which it is the Responsible Party is completed in accordance with the Timetable. Subject to clause 5.1, the Tasmanian Government's obligations in respect of the Electricity Entities are confined to using its reasonable endeavours to procure that each Electricity Entity completes the Preconditions for which that Electricity Entity is the Responsible Party in accordance with the Timetable.

Each party agrees to commit the resources necessary to achieve each Precondition in accordance with the Timetable.

2.2 Variations to Schedule 1 and waiver

- (a) Schedule 1 will need to be updated over time as the Project develops. Accordingly, Schedule 1 may be varied by agreement between appropriately authorised persons appointed by the parties.
- (b) The parties may by agreement waive the completion of any Precondition.

2.3 Project Managers

NEMMCO will appoint a person to be the NEMMCO Project Manager.

The Tasmanian Government will appoint a person to be the Tasmanian Project Manager.

To avoid doubt, a party's Project Manager may also be that party's Party Representative appointed under clause 2.4.

2.4 Party Representatives

Each party will appoint a person ("Party Representative") to be responsible for the development of procedures to ensure that party is able to complete the Preconditions for which it is the Responsible Party in accordance with the Timetable and to liaise with the Project Managers and the other Party Representatives, including the Party Representatives appointed by the Electricity Entities under the Electricity Entities Memorandum of Understanding.

3 Evaluation and Sign-off

3.1 Sign-off process

- (a) Upon completion of a Precondition for which NEMMCO or the Tasmanian Government is the Responsible Party, the Responsible Party will request the relevant Sign-off Party to perform the following sign-off process:
 - (i) the Sign-off Party will assess whether the Precondition has been completed;
 - (ii) the Sign-off Party will raise any issues or outstanding items directly with the Responsible Party for that Precondition; and
 - (iii) upon resolution of such issues and the relevant Sign-off Party being satisfied that the Precondition has been completed, the relevant Sign-off Party will sign off the Precondition.

At the same time as the request is given to the Sign-off Party, the Responsible Party will give each of the Project Managers a copy of the request.

- (b) The Tasmanian Government will use its reasonable endeavours to procure that a Responsible Party which is not NEMMCO or the Tasmanian Government adopts the process described in clause 3.1(a) in relation to the sign-off of a Precondition.
- (c) Where a Sign-off Party is NEMMCO or the Tasmanian Government, the Sign-off Party must complete the sign-off process in respect of a Precondition or raise any issues or outstanding items under paragraph 3.1(a)(ii) within ten working days of receiving the request from the Responsible Party and provide written confirmation to each of the Project Managers that a Precondition has been signed-off within three working days of sign-off.
- (d) Where the Sign-off Party is not NEMMCO or the Tasmanian Government, the Tasmanian Government will use reasonable endeavours to procure that the Sign-off Party completes the sign-off process or raises any issues or outstanding items under paragraph 3.1(a)(ii) within ten working days and provides written confirmation to each of the Project Managers that the Precondition has been signed-off within three working days of sign-off.

3.2 Reporting

Each party will, on a monthly basis, or as otherwise agreed by the parties, provide a report to the other party. The report will document the progress and status of each Precondition for which it is the Responsible Party, and in the case of the Tasmanian Government, for which an Electricity Entity is the Responsible Party, including any issues or problems impacting on meeting a Precondition and an expected completion and sign-off date for each Precondition.

The Tasmanian Project Manager will review the status reports of NEMMCO and the Tasmanian Government and prepare a consolidated progress report on a monthly basis, or as otherwise agreed by the parties. The report will be distributed by the Tasmanian Project Manager to the NEMMCO Project Manager for consideration.

3.3 Project Meeting

At least once each month, the Tasmanian Project Manager will convene a meeting of the Project Managers and the Party Representatives to review the latest consolidated progress report and the status of the Project ("**Project Meeting**").

Representatives of the Electricity Entities, representatives of the Tasmanian Department of Treasury and Finance and any other person as agreed between the Project Managers may also attend the Project Meetings.

3.4 Independent review

Either party may by written notice to the other party require an independent review of completion of the Preconditions.

If an independent review is required, the parties must jointly appoint a person to be the independent reviewer. The independent reviewer is to be a firm or person independent of either of the parties or an Electricity Entity.

The following provisions apply after an independent reviewer has been appointed:

- (a) the independent reviewer will perform a review of the Preconditions to ensure that the Preconditions which have been signed off are actually completed;
- (b) any Preconditions which have not been completed will be discussed with the Responsible Party and the relevant Sign-off Party to determine what action is required to complete the Precondition and the expected timetable for completion;
- (c) the independent reviewer will provide a report to Project Managers of all outstanding Preconditions together with recommended actions;
- (d) the Project Managers will then determine what action will be taken; and
- (e) the independent reviewer must give a copy of its report to the Electricity Oversight Committee.

Each party must co-operate fully with an independent reviewer conducting a review under this clause 3.4.

3.5 Completion of Project

When the Project Managers are satisfied that all Preconditions have been completed or waived, then the Tasmanian Project Manager will notify the Electricity Oversight Committee.

4 Communications protocol

- 4.1 It is the intention of the parties that information made public about a NEM Entry Matter should be consistent and the release of such information be co-ordinated where appropriate.
- 4.2 If NEMMCO intends to make a press or other announcement or release relating to any NEM Entry Matter it must first consult the Tasmanian Project Manager.
- 4.3 NEMMCO must ensure that each of its officers and employees complies with this clause 4 as if a reference to "NEMMCO" was a reference to the officer or employee.
- 4.4 NEMMCO must provide to the Tasmanian Project Manager a copy of any press or other announcement or release it makes relating to any NEM Entry Matter as soon as practicable after it is made (whether released under embargo or otherwise).
- 4.5 For the purpose of this clause, briefing a journalist (whether on or off the record) or confirming a matter raised by a journalist (whether directly or indirectly) will be regarded as making an announcement.
- 4.6 This clause 4 does not apply to the Tasmanian Government.

5 General

5.1 Memorandum not binding

This memorandum is not legally binding.

5.2 Parties to use reasonable endeavours

Subject to clause 5.1, each party intends to use all reasonable endeavours to comply with its obligations set out in this memorandum and to ensure that any third party can do anything necessary or desirable to meet the Preconditions by the time set out in the Timetable.

5.3 Counterparts

The memorandum may be signed in counterparts.

5.4 Costs and expenses

The parties agree to pay their own costs and expenses in connection with the preparation, execution and completion of this memorandum and other related documentation.

6 Termination

The Tasmanian Government may terminate this memorandum at any time by notice in writing. A notice under this clause 6 takes effect at the later of the time specified in it and the time it is received.

7 Interpretation

7.1 These meanings apply unless the contrary intention appears.

Basslink means the project for the interconnection, by means of a DC electricity transmission link, of the Victorian and Tasmanian electricity systems.

Electricity Entity means each of Hydro-Electric Corporation, Transend Networks Pty Ltd and Aurora Energy Pty Ltd and Electricity Entities means all of them.

Electricity Entities Memorandum of Understanding has the meaning given in recital E.

Electricity Oversight Committee means the committee of that name established by the Tasmanian Government to oversee Tasmania's entry to the national electricity market.

Evaluation Criteria in respect of a Precondition means the criteria for the satisfaction of the Precondition as set out in Schedule 1.

National Electricity Market Legislation Agreement means the agreement of that name between each of the Existing Participating Jurisdictions and dated 9 May 1996 as amended on 7 December 2001 to include Tasmania as a party.

NECA means National Electricity Code Administrator Limited (ACN 073 942 775)

NEM Entry Matter means any matter concerning or relating to any Precondition, the completion or non-completion of any Precondition, or the timing or status of Tasmania's NEM Entry.

NEMMCO Project Manager means the person appointed by NEMMCO to oversee the completion of the Preconditions for which NEMMCO is the Responsible Party.

Party Representative means a party representative appointed under clause 2.4.

Precondition means each of the preconditions to the entry of Tasmania as a participating jurisdiction into the national electricity market as described in Schedule 1.

Project means the project to facilitate Tasmania's NEM Entry.

Project Managers mean the NEMMCO Project Manager and the Tasmanian Project Manager.

Project Meeting has the meaning given in clause 3.3.

Responsible Party in respect of a Precondition means a person responsible for the satisfaction of that Precondition as set out in Schedule 1.

Sign-off Party in respect of a Precondition means the person set out in Schedule 1 who is responsible for assessing whether the precondition has been completed by reference to the Evaluation Criteria.

Tasmanian Project Manager means the person appointed by the Tasmanian Government to co-ordinate the completion of the Preconditions for which the Tasmanian Government or an Electricity Entity is the Responsible Party, to liaise with the NEMMCO Project Manager, the NEMMCO Party Representative and the Electricity Entity Party Representatives and to manage the interface with NEMMCO on behalf of the Tasmanian Government and the Electricity Entities.

Tasmania's NEM Entry has the meaning given in recital A.

Timetable means the time specified for meeting each of the Preconditions set out in Schedule 1.

7.2 In this memorandum:

- (a) a reference to an agreement, document, instrument or law means that agreement, document, instrument or law as amended from time to time; and
- (b) a Precondition is regarded as being completed when each of the Evaluation Criteria have been met and all associated activities have been carried out to an appropriate standard; and
- (c) a working day means a day other than a Saturday, Sunday or a day which is lawfully observed as a public holiday in Tasmania.

Schedule 1 - Preconditions

No.	Precondition	Evaluation Criteria	Responsible Party	Sign off Party	Date for Completion
A01	Appoint directors and pay NECA and NEMMCO joining fees	Directors appointed	Tasmania	NEMMCO	31/05/2002
A02	Amend ESI Act to account for NEM Entry and retail competition	Relevant provisions proclaimed	Tasmania	Tasmania	27/05/2005
A03	New legislation to separate Bell Bay Power Station from Hydro Tasmania	Legislation proclaimed	Tasmania	Tasmania	30/11/2005
A04	Assign the ACCC the responsibility for regulating transmission pricing in Tasmania	Conferral notice under S25 of ESI Act	Tasmania	Tasmania	30/06/2003
A05	Tasmanian Emergency Powers defined	Powers finalised	Tasmania	NEMMCO	31/03/2004
A07	Appoint a Jurisdictional Regulator	S25 of ESI Amendment Act Proclaimed	Tasmania	Tasmania	29/05/2005
A08	Appoint Jurisdictional Coordinator(s)	Letter to NEMMCO	Tasmania	Tasmania	05/01/2004
A09	Appoint Metrology Coordinator	Appointment effected	Tasmania	Tasmania	05/01/2004
A10	Future role and scope of Tasmanian Reliability & Network Planning Panel decided	Policy position finalised	Tasmania	Tasmania	27/08/2004
A11	Retailer of last resort arrangements advised to NEMMCO	Letter to NEMMCO	Tasmania	Tasmania	04/01/2005
A13	ENST Act proclaimed	New proclamation	Tasmania	Tasmania	27/05/2005
A14	Table of sensitive loads and Load Shedding Priorities and Procedures advised	NEMMCO advised	Tasmania	NEMMCO	15/10/2004
A17	System Security Transition readiness confirmed	Treasurer satisfied with readiness to commence system security transition	Tasmania	Tasmania	17/11/2004
A19	NEM Entry readiness confirmed	Treasurer satisfied due diligence process complete for NEM Entry	Tasmania	Tasmania	04/05/2005
A20	Transends "Starting" regulatory Asset Base for NEC purposes established	Minister advises estimate under ESI Act	Tasmania	Tasmania	31/05/2005
A21	Entity responsible for Transmission System Planning nominated	Minister nominates entity	Tasmania	Tasmania	05/01/2004
A22	Ministerial notice relating to sell down of import interregional revenues and limitations on transport bidding of Basslink	Ministerial notice given	Tasmania	Tasmania	24/12/2003
A23	Regulations prescribing HT's reporting of water in storage as energy hydrological data	Regulations made	Tasmania	Tasmania	27/08/2004
A24	Price Control Regulations	Regulations in place	Tasmania	Tasmania	11/06/2003
A25	Retail Competition Regulations	Regulations in place	Tasmania	Tasmania	04/01/2005
B01	Tasmanian transmission revenue from 01/01/04	Determination issued	ACCC	Tasmania	30/11/2003
B02	ACCC consent to variation of the NEM access code (ie, the access provisions of the National Electricity Code) under section 44ZZAA(6) of the Trade Practices Act	Consent obtained	ACCC	Tasmania	31/03/2005
C01	Any post NEM Agency arrangements in place if required	Agency arrangements / TNSP Operating Agreement executed	NEMMCO	Transend	05/12/2003
C02	Expand appropriate NEMMCO databases to include Tasmania	NEMMCO Energy Management Systems databases updated with Tasmanian data	NEMMCO	Transend	19/05/2004
C03	Systems Operations Procedures and processes agreed	Procedures and processes formally agreed. NEMMCO letter of acceptance	NEMMCO	Transend	21/10/2004
C04	NEMMCO system operators adequately trained	NEMMCO operators competent to operate Tasmanian system	NEMMCO	Transend	31/03/2005
C05	NEMDE models Tasmania correctly	Validation that the NEMMCO NEMDE models Tasmania correctly	NEMMCO	Transend	26/07/2004
C06	PASA transferred	PASA transferred	NEMMCO	Transend	29/05/2005
C07	Pre dispatch system proven	Pre dispatch system proven	NEMMCO	Transend	22/10/2004
C08	Process for system notices in place	Process for system notices in place	NEMMCO	Transend	10/06/2004
C09	Number of Tasmanian pre dispatch sensitivity runs accepted	Tasmanian pre dispatch requirements accepted	NEMMCO	Transend	31/03/2003
C10	Intra regional loss factors published	Intra regional loss factors agreed	NEMMCO	Transend	23/05/2005

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C11	NEMMCO initial load forecasting process agreed	Method of forecasting accepted	NEMMCO	Transend	12/01/2004
C12	NEMMCO initial load forecasting process validated	Load forecast is reviewed and accepted	NEMMCO	Transend	01/06/2004
C13	Ancillary services framework for Tasmania agreed	Conceptual framework documented and signed	NEMMCO	Tasmania	27/06/2003
C14	NEMMCO ancillary services systems, procedures and processes in place	Systems implemented	NEMMCO	Transend	13/07/2004
C15	SRAS contracts in place between Hydro and NEMMCO	SRAS contracts in place. Executed contract	NEMMCO	Transend	08/07/2004
C16	Critical constraint equations accepted	Transend validates NEMMCO constraint equations	NEMMCO	Transend	22/10/2004
C17	Communications & IT	Agree on communications & IT Schedule for Tasmania – NEMMCO interface	NEMMCO	Transend	31/10/2002
C18	VCAS contracts in place with Hydro Tasmania	VCAS contracts in place. Executed contract	NEMMCO	Transend	12/07/2004
C19	Replacement National Electricity Market Emergency Protocol developed and agreed	Designated Officers of the jurisdictions/NEMMCO agree to the replacement National Electricity Market Emergency Protocol	NEMMCO	Tasmania	20/07/2004
C20	NEMMCO/NECA formally determine regional boundaries/regional reference nodes for the NEM	Regional boundaries/reference nodes determined in accordance with the Tasmanian derogation	NEMMCO	Tasmania	12/07/2004
D01	Implement Code changes and derogations for Tasmanian NEM entry	Code changes published/gazetted in Tas and SA	NECA	Tasmania	13/01/2005
D02	Registrar or deputy registrar for the National Electricity Tribunal appointed in Tasmania	Appointment made	NECA	Tasmania	13/01/2005
D03	Notice Gazetted of the commencement of Tasmania as a participating jurisdiction, under section 5(6) of the National Electricity Law	Notices published in SA and Tas	NECA	Tasmania	17/04/2005
D04	Administered price cap for Tasmania specified	Schedule set	NECA	Tasmania	13/01/2005
E01	Incorporate TEC amendments for transmission pricing	Changes to TEC implemented	OTTER	Tasmania	15/08/2003
E02	Review and recommend amendments to TEC to reflect NEM Entry, amendments to ESI Act for NEM entry and retail competition	Changes to TEC implemented	OTTER	Tasmania	30/06/2004
E03	Ring fencing of Aurora electricity retail and distribution function licence requirements developed	Licences amended	OTTER	Tasmania	30/06/2004
E04	Ring fencing provisions in TEC	Code change implemented and guidelines issued	OTTER	Tasmania	30/06/2004
E07	Aurora distribution and retail licences amended	Licences amended	OTTER	Tasmania	30/06/2004
E08	Transend licence reissued/amended	Licence amended	OTTER	Tasmania	30/06/2004
E09	Metrology	Publication of data specifications	OTTER	Tasmania	28/02/2005
E10	Issue Generator licences to HT/BBL	Licences issued	OTTER	Tasmania	30/06/2004
E11	TNSP metering obligations imposed	TEC code change executed	OTTER	Tasmania	15/08/2003
X01	PSSE Power System Model (2003) delivered to NEMMCO	NEMMCO letter of receipt of the Tasmanian power system model	Transend	NEMMCO	14/03/2003
X02	Dynamic rating SCADA data appropriately used in NEMDE	Transend validates NEMMCO's use of dynamic data supplied by Transend. Transend's letter of acceptance to NEMMCO	Transend	Transend	26/07/2004
X03	State estimator / contingency analyser accepted	NEMMCO letter of receipt of the Tasmanian power system model	Transend	NEMMCO	10/09/2004
X04	Voice, Market Data and SCADA communications required for NEM Entry	Communications systems tested and proven. Issuing of completion certificate	Transend	NEMMCO	05/05/2004
X05	Transend system operators adequately trained	Transend operators have completed an appropriate training program	Transend	NEMMCO	31/03/2005
X06	Operational Procedures and processes agreed	Procedures and processes formally agreed. NEMMCO letter of acceptance	Transend	NEMMCO	12/10/2004
X07	Any Post NEM transition agency arrangements in place	Agency arrangements executed	Transend	NEMMCO	05/12/2003

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X08	NEMMCO boundary of direct oversight agreed	Agreement on NEMMCO boundary definition. Letter of Acceptance from NEMMCO	Transend	NEMMCO	26/06/2003
X09	Real time SCADA data meets NEMMCO requirements	SCADA data sent by Transend meets NEMMCO requirements	Transend	NEMMCO	29/10/2004
X10	Compliant Network Outage Planning practices in place	Meets NEMMCO requirements	Transend	NEMMCO	21/02/2005
X11	Transend able to view NEMMCO data	Transend confirms with NEMMCO that it is able to view data	Transend	Transend	24/08/2004
X12	Tasmanian emergency procedures and contingency plans agreed	Emergency procedures and contingency plans formally agreed and in place	Transend	NEMMCO	12/07/2004
X14	Grid Support Service contracts in place with Hydro Tasmania and/or Aurora	Executed contracts	Transend	NEMMCO	04/03/2004
X15	Agreement on the quantity of ancillary services required. (Both total and balance amounts)	Ancillary service quantities agreed	Transend	NEMMCO	14/10/2003
X19	NEC Compliant wholesale metering equipment is installed and commissioned at all wholesale connection points. (In conjunction with Aurora & Hydro)	Sign off that metering installations are NEC compliant at all wholesale connection points	Transend	NEMMCO	17/04/2005
X22	Business processes and systems in place for notifications regarding connection points and associated standing data	MSATS interface is operating. Transend is able to log into MSATS System through NEMNET	Transend	Transend	17/02/2005
X23	Metering responsible person role agreed for all connection points	Responsible person roles agreed. Letter between companies nominating responsible persons	Transend	NEMMCO	04/02/2005
X24	Registration of connection points and associated standing data placed into MSATS	Registration of standing data accepted by NEMMCO and placed in MSATS	Transend	NEMMCO	17/04/2005
X25	Transend receive metering information from MDA	Metering information received from MDA for TUOS purposes	Transend	Transend	17/04/2005
X26	Business processes in place between Transend, Hydro Tasmania and Aurora for billing purposes	Business processes proven between Transend, Hydro Tasmania and Aurora for billing purposes (TUOS)	Transend	Transend	15/04/2005
X28	NEMMCO & Transend reach agreement in principle that registration data is available and acceptable to NEMMCO and that NEMMCO will register Transend as TNSP	Letter from NEMMCO acknowledging that Transend has met registration requirements	Transend	NEMMCO	15/10/2004
X29	Access undertaking in place	Access undertaking in place. ACCC decision / determination	Transend	ACCC	14/07/2004
X30	NEM compliant power system protection in place	Protection systems audited and proven to be NEM compliant Acceptance of audit report	Transend	NEMMCO	15/04/2005
X32	Transend / Hydro Tasmania connection agreements completed	Transend / Hydro Tasmania connection agreements executed	Transend	HT	30/06/2004
X33	Transend / Aurora connection agreements completed	Transend / Aurora connection agreements executed	Transend	Aurora	26/03/2004
X34	Transmission pricing framework in place	Transmission pricing in place	Transend	ACCC	01/06/2004
X35	Communications agreements with Hydro Tasmania in place	Communications agreements in place	Transend	HT	27/10/2003
X36	Austraclear account Established	Transend has established an Austraclear account	Transend	Transend	15/10/2004
X37	Power system model (2004) delivered to NEMMCO represents system to be managed	NEMMCO letter of receipt of the Tasmanian power system model	Transend	NEMMCO	28/11/2003
X38	Ready for System Security Transition Start	Tasmanian System Controller confirms that all systems are adequately advanced for the transition phase to begin	Transend	Tasmania	31/10/2004
X39	Ready for System Security Transfer	Tasmanian System Controller confirms that the transfer of responsibility for System Security to NEMMCO may proceed	Transend	Tasmania	17/04/2005
X40	Generator power system stabilisers settings agreed HT/BBP	Letter of approval	Transend	NEMMCO	17/05/2004

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X41	Transend delegation arrangement pre-transition in place	Executed contract with NEMMCO	Transend	Tasmania	30/09/2004
X42	Transend CEO confirms to Treasurer that Transend Networks is ready for NEM Entry and is NEC Code compliant to the extent necessary for the Treasurer to agree to Tasmania's NEM Entry	Letter to Treasurer	Transend	Tasmania	21/04/2005
Y01	HT has Systems in place to allow real time SCADA operational data to be received from Transend with suitable back up processes	End to end test results signed off	HT	NEMMCO	05/12/2003
Y02	HT/BBP has a system in place to retrieve NEMMCO PASA /pre-dispatch/dispatch data from NEMNET to facilitate the dispatch process to NEMMCO	Tested and able to perform under shadow market conditions	HT	NEMMCO	26/07/2004
Y03	HT/BBP has systems in place to send bids and rebids for energy and ancillary services	Tested and able to perform under shadow market conditions	HT	NEMMCO	26/07/2004
Y04	Document procedures for dispatchable loads and the systems for dispatching loads, if required	Publication of documents	HT	NEMMCO	5/01/04
Y05	NEMMCO & HT/BBP reach agreement in principle that registration data is available and acceptable to NEMMCO and that NEMMCO will register HT/BBP as market participants, generators and scheduled generators	Letter from NEMMCO acknowledging that HT/BBP has met registration requirements	HT	NEMMCO	15/10/04
Y06	HT/BBP Procedures for the dispatch of Ancillary Services comply with NEMMCO procedures	Test of procedures	HT	NEMMCO	29/10/2004
Y08	HT/BBP Dispatch equipment (ECS) and ControlNet installed and tested	Review of procedures, test plans and results of tests	HT	NEMMCO	21/05/2004
Y09	NEM Compliant metering installations in place (with any approved derogations). (Includes BBP)	Acceptance of metering system	HT	NEMMCO	17/04/2005
Y10	Metering contract in place between Hydro Tas and a registered and accredited MP and MDP.(Includes BBP)	Signed contract	HT	NEMMCO	30/06/2003
Y11	All physical electricity purchase contracts (including vesting contracts) in force at the time of NEM Entry in Tasmania are converted into appropriate financial hedges	Contracts are signed & executed	HT	Tasmania	18/02/2005
Y14	HT/BBP hold Financial Services Reform Act licences	Licence obtained	HT	HT	01/03/2004
Y16	HT/BBP provide generator models to Transend	Settings for models to NEMMCO	HT	Transend	14/11/2003
Y17	HT/BBP Control Systems tuned against NEMMCO AGC	Completion of AGC unit tuning	HT	NEMMCO	30/07/2004
Y18	Energy data from all metering connection points available to NEMMCO through MDP	MSATS interface is operating	HT	HT	17/04/2005
Y19	HT/BBP Market Systems in place to handle NEM settlements data	MMS interface is operating (receives settlements data)	HT	HT	15/04/2005
Y20	HT passes on BPL confirmation that Basslink is expected to be ready for commercial service 6 months after NEM Entry	EOC agreement	HT	Tasmania	17/04/2005
Y21	Registration of connection points and associated standing data placed into MSATS	Registration of standing data accepted by NEMMCO and placed in MSATS	HT	NEMMCO	17/04/2005
Y22	Hydro Tasmania CEO confirms to Treasurer that Hydro Tasmania is ready for NEM Entry and is NEC Code compliant to the extent necessary for the Treasurer to agree to Tasmania's NEM Entry	Letter to Treasurer	HT	Tasmania	21/04/2005
Z01	Aurora (Retail) registered with NEMMCO as a Market Customer	Achieved – refer to NEMMCO web site for verification	Aurora	NEMMCO	29/06/2001

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Z02	NEMMCO & Aurora reach agreement in principle that registration data is available and acceptable to NEMMCO and that NEMMCO will register Aurora as an 'NSP' (Distribution)	Letter from NEMMCO acknowledging that Aurora has met registration requirements	Aurora	NEMMCO	15/10/2004
Z03	NEMMCO & Aurora reach agreement in principle that registration data is available and acceptable to NEMMCO and that NEMMCO will register Aurora as a 'Special Participant Distribution System Operator'	Letter from NEMMCO acknowledging that Aurora has met registration requirements	Aurora	NEMMCO	15/10/2004
Z04	NEC Compliant wholesale metering equipment is installed and commissioned at all wholesale connection points ie connection points with the pool. (In conjunction with Transend & Hydro)	Sign off that metering installations are NEC compliant at all wholesale connection points	Aurora	NEMMCO	17/04/2005
Z06	Business processes and systems in place for metering data	MSATS interface is operating	Aurora	Aurora	28/03/2005
Z07	Business processes & systems in place to handle NEM settlements data	MMS interface is operating	Aurora	Aurora	28/03/2005
Z08	All physical electricity purchase contracts (including vesting) in force at the time of NEM Entry in Tasmania are converted into appropriate financial hedges	Contracts are signed & executed	Aurora	Tasmania	18/02/2005
Z09	Energy Purchasing function is in place. Trading function established	Confirmation of CEO	Aurora	Tasmania	17/04/2005
Z10	DNSP functions in place	Aurora is ready to perform in accordance with the Code requirements for a DNSP	Aurora	Aurora	17/04/2005
Z11	Distribution Systems Operator function in place	Aurora is ready to perform in accordance with the Code requirements for a Distribution Systems Operator	Aurora	Aurora	17/04/2005
Z13	Distribution loss factors provided to NEMMCO after OTTER review	Letter to NEMMCO	Aurora	NEMMCO	01/12/2004
Z14	Access undertaking provided to the ACCC	Access undertaking is in accordance with Chapter 5 of the Code	Aurora	ACCC	12/10/2004
Z17	Metering contract in place between Aurora and an MDA	Signed contract	Aurora	Aurora	25/11/2003
Z18	Aurora Energy CEO confirms to Treasurer that Aurora Energy is ready for NEM Entry and is NEC Code compliant to the extent necessary for the Treasurer to agree to Tasmania's NEM Entry	Letter to Treasurer	Aurora	Tasmania	21/04/2005

Signing page

SIGNED for and on behalf of the)
Crown in right of the State of)
Tasmania by **D W CHALLEN**,)
Secretary of the Department of)
Treasury and Finance:)

.....
D W Challen

Witnessed by:)

.....)
Signature)

.....
Dated

.....)
Name)

SIGNED for and on behalf of Hydro)
Electric Corporation by **G L WILLIS**,)
Chief Executive Officer:)

.....
G L Willis

Witnessed by:)

.....)
Signature)

.....
Dated

.....)
Name)

SIGNED for and on behalf of)
Transend Networks Pty Ltd by)
R BEVAN, Chief Executive Officer:)

.....
R Bevan

Witnessed by:)

.....)
Signature)

.....
Dated

.....)
Name)

SIGNED for and on behalf of Aurora)
Energy Pty Ltd by)
N A McILFATRICK, Chief)
Executive Officer:)

.....
N A McIlfatrick

Witnessed by:)

.....)
Signature)

.....
Dated

.....)
Name)