

Draft National Electricity Amendment (Use of Total Factor Productivity for the Determination of Prices and Revenues) Rule 2011

1 Title of Rule

This Rule is the *Draft National Electricity Amendment (Use of Total Factor Productivity for the Determination of Prices and Revenues) Rule 2011*.

2 Commencement

The commencement date of the rule will be specified in the procedure for the making of a Rule by the Commission under the National Electricity Law.

3 Amendment of the National Electricity Rules (Chapter 6 - Economic Regulation of Distribution Services)

Chapter 6 - Economic Regulation of Distribution Services of the National Electricity Rules is proposed to be amended as set out in Schedule 1.

4 Amendment of the National Electricity Rules (Chapter 6A - Economic Regulation of Transmission Services)

Chapter 6A - Economic Regulation of Transmission Services of the National Electricity Rules is proposed to be amended as set out in Schedule 2.

5 Amendment of the National Electricity Rules (Chapter 10 - Glossary)

Chapter 10 - Glossary of the National Electricity Rules is proposed to be amended as set out in Schedule 3.

6 Savings and Transitional Amendments to the National Electricity Rules (Chapter 11 - Savings and Transitional Rules)

Chapter 11 - Savings and Transitional of the National Electricity Rules is proposed to be amended as set out in Schedule 4.

**Schedule 1 Amendment of the National Electricity Rules
(Chapter 6 - Economic Regulation of
Distribution Services)**

(Clause 3)

[1] Clause 6.1.2 Structure of this Chapter

After clause 6.1.2(b)(3), insert:

- (3A) Part C1 sets out the principles of Total Factor Productivity and the requirement for the AER to *publish* an *Annual TFP Report* having regard to those principles and the conditions needed to support the use of Total Factor Productivity approach for the determination of prices and revenues of services classified as *standard control services*;

[2] Clause 6.1.2 Structure of this Chapter

After clause 6.1.2(b)(5), insert:

- (5A) Part E1 contains provisions regarding the disclosure, use and protection of information, including the requirement for *Distribution Network Service Providers* to submit annual *Distribution Regulatory Disclosure Data Reports* to the AER;

[3] Clause 6.1.2 Structure of this Chapter

In clause 6.1.2(b)(13), omit "and" where lastly occurring.

[4] Clause 6.1.2 Structure of this Chapter

In clause 6.1.2(b)(14), omit "." and insert:

- ;
- (15) Schedule 6.1 sets out the requirements for the content of *building block proposals*;
- (16) Schedule 6.1A sets out the requirements for the contents of an *Annual TFP Report published* by the AER;
- (16) Schedule 6.1B sets out the items of annual *Distribution Regulatory Disclosure Data Reports* required to be submitted by *Distribution Network Service Providers* to the AER; and
- (17) Schedule 6.2 sets out the opening regulatory asset base for *Distribution Network Service Providers*.

[5] Clause 6.2.8 Guidelines

After clause 6.2.8(a), insert:

- (a1) There must be *Distribution Regulatory Disclosure Data Report Guidelines* in force at all times after the first such guidelines are published by the AER.
- (a2) The *Distribution Regulatory Disclosure Data Report Guidelines* must include, provide guidance on and provide worked examples as to:
 - (1) definitions for terms referred to in each item set out in Schedule 6.1B;
 - (2) acceptable methodologies for the measurement or valuation of each item set out in Schedule 6.1B;
 - (3) identification of items set out in Schedule 6.1B that are subject to financial audit requirements; and
 - (4) identification and management of *confidential information*.

[6] Clause 6.2.8 Guidelines

In clause 6.2.8(e), omit "In" and substitute "Subject to paragraph (f), in".

[7] Clause 6.2.8 Guidelines

After clause 6.2.8(e), insert:

- (f) At any time, in making minor and administrative amendments to the *Distribution Regulatory Disclosure Data Report Guidelines*, the AER is not required to follow the *distribution consultation procedures*.

[8] New Rule 6.6A Total Factor Productivity

After clause 6.6.3. insert:

Part C1 Use of Total Factor Productivity for the Determination of Prices and Revenues

6.6A Total Factor Productivity

6.6A.1 Principles of calculating Total Factor Productivity

- (a) The following constitutes the principles of calculating Total Factor Productivity for *Distribution Network Service Providers*:
 - (1) an index number method is to be used;
 - (2) bias in the Total Factor Productivity growth rate is to be avoided;
 - (3) for output quantities, quantities that accurately reflect *standard control services* supplied by providers are to be used;
 - (4) for input capital costs:
 - (i) costs that are set exogenously are to be used; and
 - (ii) costs that are consistent with the regulatory asset base of the provider are to be used; and

- (iii) costs that are consistent with the concept of financial capital maintenance are to be used; and

Note

Financial capital maintenance means that a regulated provider is compensated for efficient expenditure and efficient investments such that its real financial capital is at least maintained in present value terms.

- (5) for input capital quantities, quantities that accurately reflect the physical service potential of assets employed in the provision of *standard control services* supplied by providers are to be used.

6.6A.2 Publication of Distribution Regulatory Disclosure Data Reports by the AER

- (a) As soon as practicable after the AER has received a *Distribution Regulatory Disclosure Data Report* from a *Distribution Network Service Provider*, subject to paragraph (b), it must *publish* that report.
- (b) The AER must not publish:
 - (1) *confidential information*; or
 - (2) information identified by the relevant *Distribution Network Service Provider* in a *Regulatory Disclosure Data Report* as confidential and only where the AER, exercising its discretion with a view that all information reported in a *Distribution Regulatory Disclosure Data Report* should be made publicly available, considers confidential or is commercially sensitive.

6.6A.3 Publication of an Annual TFP Report by the AER and alterations to data contained in Distribution Regulatory Disclosure Data Reports

- (a) Not later than 1 March each year, in publishing an *Annual TFP Report*, the AER must:
 - (1) comply with the principles of calculating Total Factor Productivity set out in clause 6.6A.1(a);
 - (2) consider data contained in *Distribution Regulatory Disclosure Data Reports* submitted to it, and only alter that data in accordance with paragraph (d);
 - (3) provide an assessment of the factors for consideration to test the possible use of Total Factor Productivity for the determination of prices and revenues set out in clause 6.6A.4, that assessment can either be for *Distribution Network Service Providers* as a whole, relevant groups of providers as identified by the AER, or individual providers;
 - (4) comply with the contents of an *Annual TFP Report* set out in clause S6.1A;

- (5) provide Total Factor Productivity index results for *Distribution Network Service Providers* as a whole, relevant groups of providers as identified by the *AER* and individual providers based upon operating environment conditions and using a common specification of outputs and inputs; and
 - (6) *publish* all data used in calculating the Total Factor Productivity index results.
- (b) In *publishing* an *Annual TFP Report*, the *AER* may use historical data only if that data is consistent with the definitions for terms in the *Distribution Regulatory Disclosure Data Report Guidelines*.
 - (c) For the avoidance of doubt, the *AER* may jointly *publish Annual TFP Reports* required under paragraph (a) and clause 6A.8A.2(a).
 - (d) In preparing an *Annual TFP Report*, the *AER* may only make alterations to data contained in a *Distribution Regulatory Disclosure Data Report*:
 - (1) to alter for structural differences to improve the consistency of data; and

Example

For example, the *AER* may only make alterations to data contained in a *Distribution Regulatory Disclosure Data Report* to align relevant Total Factor Productivity datasets to reflect different classification of *standard control services* between different *Distribution Network Service Providers*.

 - (2) to alter for exceptional circumstances.
 - (e) In the event that the *AER* makes an alteration to data contained in a *Distribution Regulatory Disclosure Data Report*, it:
 - (1) must explain how the alteration to that data was performed;
 - (2) must give reasons for the alteration to that data; and
 - (3) must present Total Factor Productivity index results with and without alteration to that data,
in its *Annual TFP Report*.

6.6A.4 Consideration of the use of Total Factor Productivity for the Determination of Prices and Revenues

- (a) The following constitutes assessment factors to test the use of Total Factor Productivity for the determination of prices and revenues for *Distribution Network Service Providers*:
 - (1) a Total Factor Productivity dataset of sufficient length to establish reliable trends that is available, robust and consistent both through time and across providers;
 - (2) calculation of Total Factor Productivity indexes that represent an accurate measure of productivity growth for *Distribution Network Service Providers* as a whole, relevant groups of providers as identified by the *AER* and individual providers;

- (3) sufficient service providers are included in each group such as to allow for calculation of Total Factor Productivity indexes for distribution determinations so that the Total Factor Productivity index cannot be manipulated by an individual provider or a collective of related providers with common ownership; and
- (4) calculation of Total Factor Productivity index growth rates using historic data that represents a fair and reasonable estimate of future productivity growth for providers in the relevant grouping.

[9] New rule 6.14A Information Disclosure

After rule 6.14, insert:

Part E1 Information Disclosure

6.14A Regulatory Disclosure Data Report

6.14A.1 Submission of Regulatory Disclosure Data Report to the AER

- (a) By no later than 1 November each year, each *Distribution Network Service Provider* must submit to the *AER*, a *Distribution Regulatory Disclosure Data Report* that:
 - (1) provides a true and fair statement of the financial, asset and operational data for each item set out in Schedule 6.1A;
 - (2) is certified by the provider's:
 - (i) Chief Executive Officer; and
 - (ii) Company Secretary or a Director; and
 - (3) otherwise complies with the requirements of the *Rules* and the *Distribution Regulatory Disclosure Data Report Guidelines*.
- (b) In addition to the *Distribution Regulatory Disclosure Data Report*, the *AER* may require a *Distribution Network Service Provider* to submit, by a date and in the form and manner specified by the *AER*, any additional information the *AER* reasonably requires for a purpose set out in paragraph (c).
- (c) The *Distribution Regulatory Disclosure Data Report* submitted by a *Distribution Network Service Provider* to the *AER* under paragraph (a) may only be used by the *AER* for the following purposes:
 - (1) to monitor, report on and enforce the compliance of the provider with the *total revenue cap* for the provider for a *regulatory control period*, the *maximum allowed revenue* for the provider for each *regulatory year*, and any requirements that are imposed on the provider under a distribution determination;
 - (2) as an input regarding the financial, asset and operational performance of the provider, to inform the *AER* in regards to its

assessment of the Total Productivity Factor approach for the determination of prices and revenues under Part C1 of this Chapter;

- (3) as an input regarding the financial, asset and operational performance of the provider, to inform the AER's decision-making for the making of *revenue determinations* or other regulatory controls to apply in future *regulatory control periods*;
 - (4) to monitor and report on the performance of the provider for any scheme that applies to it under Part C of this Chapter;
 - (5) for the preparation of an *Annual TFP Report*; and
 - (6) for the preparation of a *network service provider performance report*.
- (d) The AER may request, or arrange to undertake, verification or independent audit of any information sought by it, or submitted to it, under this rule 6.14A.

[10] New Schedule 6.1A Contents of Annual TFP Reports relating to Distribution Network Service Providers

After clause S6.1.3, insert:

Schedule 6.1A Annual TFP Report

S6.1A.1 Contents of Annual TFP Reports relating to Distribution Network Service Providers

An *Annual TFP Report* published by the AER relating to *Distribution Network Service Providers* must include, but is not limited to, the following:

- (a) a summary on:
 - (1) the possible use of the Total Factor Productivity approach for the regulation of prices and revenues of *Distribution Network Service Providers* in accordance with the assessment factors set out in clause 6.6A.4;
 - (2) related research used to calculate indexes for *Distribution Network Service Providers* as a whole, relevant groups of providers as identified by the AER and individual providers;
- (b) an assessment of Total Factor Productivity data and methodological matters, including:
 - (1) identification of the sources of Total Factor Productivity data;
 - (2) identification of appropriate industry groups;
 - (3) approach and construction of the specifications for input and outputs variables used to calculate Total Factor Productivity indexes;

- (c) an assessment of Total Factor Productivity research conducted by the *AER*; and
- (d) Total Factor Productivity index results for *Distribution Network Service Providers*, as a whole, relevant groups of providers as identified by the *AER*, or individual providers for relevant groups of providers as identified by the *AER* based upon operating environment conditions and using a common specification of outputs and inputs.

Schedule 6.1B Distribution Regulatory Disclosure Data Reports

S6.1B.1 Items for Distribution Regulatory Disclosure Data Reports

The following tables set out the output and input items required to be submitted by *Distribution Network Service Providers* to the *AER* in *Distribution Regulatory Disclosure Data Reports*.

- (a) Terms referred to in each item set out in the first column of Tables S6.1B.1 and S6.1B.2 are defined in the *Distribution Regulatory Disclosure Data Reports Guidelines*, in accordance with clause 6.2.8(a2)(1).
- (b) Each item requiring the submission of a \$m figure in the second column of Tables S6.1B.1 and S6.1B.2 is subject to financial audit requirements set out in the *Distribution Regulatory Disclosure Data Reports Guidelines*, in accordance with clause 6.2.8(a2)(3).

Table S6.1B.1 Output items for Distribution Regulatory Disclosure Data Reports from Distribution Network Service Providers

Items	Units
<i>DUOS Revenue</i>	
From fixed customer charges	\$m
From on-peak energy deliveries	\$m
From off-peak energy deliveries	\$m
From contracted maximum demand	\$m
From measured maximum demand	\$m
From domestic customers	\$m
From commercial customers	\$m
From small industrial customers	\$m
From large industrial customers	\$m

Items	Units
From other customers	\$m
<i>Total</i>	\$m
<i>Revenue/penalties from incentive schemes (e.g. S factor)</i>	\$m
<i>Total energy delivered</i>	
On-peak energy deliveries	GWh
Off-peak energy deliveries	GWh
Summated contracted maximum demand (for customers charged on this basis)	MW
Summated Measured Maximum Demand (for customers charged on this basis)	MW
Domestic customer energy deliveries	GWh
Commercial customer energy deliveries	GWh
Small industrial customer energy deliveries	GWh
Large industrial customer energy deliveries	GWh
Other customer energy deliveries	GWh
<i>Non-coincident system annual peak demand</i>	MW
<i>Coincident System Annual Peak Demand</i>	MW
<i>Total Distribution Customer Numbers</i>	
Domestic customer numbers	No.
Commercial customer numbers	No.
Small industrial customer numbers	No.
Large industrial customer numbers	No.
Other customer numbers	No.
<i>Total</i>	No.

Items	Units
<i>Reliability</i>	
Distribution–related SAIDI	
Distribution–related SAIFI	
Line losses	%

Table S6.1B.2 Input items for Distribution Regulatory Disclosure Data Reports from Distribution Network Service Providers

Items	Units
<i>Total distribution O&M expenditure (opex) (excluding depreciation and all capital costs)</i>	\$m
<i>Shared allocation of opex overheads to distribution activities (eg head office) included in above</i>	\$m
<i>Opex by category</i>	
<i>The costs of operating and maintaining the network (excluding all capital costs and capital construction costs) disaggregated as follows</i>	
Network operating costs	\$m
Network maintenance costs	\$m
- Inspection	\$m
- Maintenance and repair	\$m
- Vegetation management	\$m
- Emergency response	\$m
- Other network maintenance	\$m
Other operating costs (specify items > 5% total opex)	\$m
<i>Total opex</i>	\$m
NOTE: Corporate overhead costs should be allocated to the relevant categories in producing these figures	

Items	Units
<p><i>Additionally, the following item is required</i></p> <p>An estimate of the opex costs that would be associated with end-user contributed assets that are operated and maintained by directly connected end-users (eg transformers) if the operation and maintenance were provided by the DNSP (please describe basis of estimation)</p>	\$m
<p><i>Direct employees</i></p> <p>Number of full-time equivalent employees in operating and maintenance activities (including shared overhead allocation). Employee time spent on capital construction projects is to be excluded.</p>	No
<p><i>Direct labour cost</i></p> <p>Labour cost (including on-costs) of employees in operating and maintenance activities (including shared overhead allocation). Cost of time spent on capital construction projects is to be excluded.</p>	\$m
<i>Distribution system capital quantities and capacities</i>	
Overhead network circuit length	
Low voltage distribution	
- HV 11 kV	km
- HV 22 kV	km
- HV 33 kV (if used as distribution voltage)	km
- Single Wire Earth Return	km
- S/T 44/33 kV (if used as sub-transmission)	km
- S/T 66 kV	km
- S/T 132 kV	km
- Other voltages	km
<i>Total overhead circuit</i>	km

Items	Units
Underground network circuit length	
Low voltage distribution	
- HV 11 kV	km
- HV 22 kV	km
- HV 33 kV (if used as distribution voltage)	km
- S/T 66 kV	km
- S/T 132 kV	km
- Other voltages	km
<i>Total underground circuit</i>	km
Transformer total installed capacity	
Zone substation transformer capacity	MVA
Zone substation capacity where there are two transformation steps (e.g. 132 kV to 66 kV then 66 kV to 11 kV)	MVA
Zone substation capacity where there is a single transformation step (e.g. 132 kV to 22 kV)	MVA
Distribution transformer capacity owned by utility	MVA
Distribution transformer capacity owned by High Voltage Customers	MVA
<i>Regulatory Asset Base Values</i>	
Overhead distribution assets (wires and poles)	\$m
Underground distribution assets (cables)	\$m
Distribution substations including transformers	\$m
Sub-transmission assets (wires and poles)	\$m
Sub-transmission substations including transformers	\$m
<i>Total</i>	\$m

Items	Units
<i>RAB Reconciliation</i>	
Opening value	\$m
Inflation addition	\$m
Regulatory depreciation	\$m
Actual additions (recognised in RAB)	\$m
Retirements	\$m
Resulting summation for asset value	\$m
<i>Smoothed asset value with respect to revaluations</i>	\$m
<i>Actual Capital Expenditure</i>	
Overhead distribution assets (wires and poles)	\$m
Underground distribution assets (cables)	\$m
Distribution substations including transformers	\$m
Sub-transmission assets (wires and poles)	\$m
Sub-transmission substations including transformers	\$m
Services	\$m
Meters	\$m
SCADA and other remote control	\$m
Other – IT	\$m
Other – non IT	\$m
<i>Total capital expenditure</i>	\$m
<i>Asset Lives – estimated total and residual</i>	
Overhead distribution assets (wires and poles)	Years
Underground distribution assets (cables)	Years
Distribution substations including transformers	Years
Sub-transmission assets (wires and poles)	Years

Items	Units
Sub-transmission substations including transformers	Years
Services	Years
Meters	Years
SCADA and other remote control	Years
Other – IT	Years
<i>Value of capital contributions or contributed assets</i>	\$m
<i>Price index for labour inputs</i>	
<i>Price index for O&M expenditure</i>	
<i>Price index for network assets</i>	

**Schedule 2 Amendment of the National Electricity Rules
(Chapter 6A - Economic Regulation of
Transmission Services)**

(Clause 4)

**[1] Clause 6A.1.1 Economic regulation of transmission
services generally**

After clause 6A.1.1(b), insert:

- (b1) Part C1 of this Chapter sets out the principles of Total Factor Productivity, and the requirement for the *AER* to *publish* an *Annual TFP Report* having regard to those principles and the conditions needed to support the use of Total Factor Productivity approach to regulate the revenues that may be earned by *Transmission Network Service Providers* from the provision by them of *transmission services* that are the subject of *transmission determinations*.

**[2] Clause 6A.1.1 Economic regulation of transmission
services generally**

After clause 6A.1.1(k), insert:

- (l) Schedule 6A.1 sets out the requirements for content of *building block proposals*.
- (m) Schedule 6A.1A sets out the requirements for contents of an *Annual TFP Report published* by the *AER* relating to *Transmission Network Service Providers*.
- (n) Schedule 6A.1B sets out items of annual *Transmission Regulatory Disclosure Data Reports* required to be submitted by *Transmission Network Service Providers* to the *AER*.
- (o) Schedule 6A.2 sets out the opening regulatory asset base for *Transmission Network Service Providers*.
- (p) Schedule 6A.3 sets out the *CRNP methodology* and the *modified CRNP methodology*.
- (q) Schedule 6A.4 sets out the application of this Chapter 6A to *AEMO* and *declared transmission system operators*.

[3] New Rule 6A.8A Total Factor Productivity

After clause 6A.8.2. insert:

Part C1 Use of Total Factor Productivity for the Determination of Prices and Revenues

6A.8A Total Factor Productivity

6A.8A.1 Principles of calculating Total Factor Productivity

- (a) The following constitutes the principles of calculating Total Factor Productivity for *Transmission Network Service Providers*:
- (1) an index number method is to be used;
 - (2) bias in the Total Factor Productivity growth rate is to be avoided;
 - (3) for output quantities, quantities that accurately reflect *prescribed transmission services* supplied by providers are to be used;
 - (4) for input capital costs:
 - (i) costs that are set exogenously are to be used;
 - (ii) costs that are consistent with the regulatory asset base of the provider are to be used; and
 - (iii) costs that are consistent with the concept of financial capital maintenance are to be used; and

Note

Financial capital maintenance means that a regulated provider is compensated for efficient expenditure and efficient investments such that its real financial capital is at least maintained in present value terms.

- (5) for input capital quantities, quantities that accurately reflect the physical service potential of assets employed in the provision of *prescribed transmission services* supplied by providers are to be used.

6A.8A.2 Publication of Transmission Regulatory Disclosure Data Reports by the AER

- (a) As soon as practicable after the *AER* has received a *Transmission Regulatory Disclosure Data Report* from a *Transmission Network Service Provider*, subject to paragraph (b), it must *publish* that report.
- (b) The *AER* must not *publish*:
- (1) confidential information; or
 - (2) information identified by the relevant *Transmission Network Service Provider* in a *Regulatory Disclosure Data Report* as confidential and only where the *AER*, exercising its discretion with a view that all information reported in a *Transmission Regulatory Disclosure Data Report* should be made publicly available, considers confidential or is commercially sensitive.

6A.8A.3 Publication of an Annual TFP Report by the AER and alterations to data contained in Transmission Regulatory Disclosure Data Reports

- (a) Not later than 1 March each year, in *publishing* an *Annual TFP Report*, the *AER* must:
- (1) comply with the principles of calculating Total Factor Productivity set out in clause 6A.8A.1(a);
 - (2) consider data contained in *Transmission Regulatory Disclosure Data Reports* submitted to it, and only alter that data in accordance with paragraph (d);
 - (3) provide an assessment of the factors for consideration to test the possible use of Total Factor Productivity for the determination of prices and revenues set out in clause 6.6A.4, that assessment can either be for *Transmission Network Service Providers* as a whole, relevant groups of providers as identified by the *AER*, or individual providers;
 - (4) comply with the contents of an *Annual TFP Report* set out in clause S6A.1;
 - (5) provide Total Factor Productivity index results for *Transmission Network Service Providers* as a whole, relevant groups of providers as identified by the *AER* and individual providers based upon operating environment conditions and using a common specification of outputs and inputs; and
 - (6) *publish* all data used in calculating the Total Factor Productivity index results.
- (b) In *publishing* an *Annual TFP Report*, the *AER* may use historical data only if that data is consistent with the definitions for terms in the *Transmission Regulatory Disclosure Data Report Guidelines*.
- (c) For the avoidance of doubt, the *AER* may jointly *publish Annual TFP Reports* required under paragraph (a) and clause 6.6A.3(a).
- (d) In preparing an *Annual TFP Report*, the *AER* may only make alterations to data contained in a *Transmission Regulatory Disclosure Data Report*:
- (1) to alter for structural differences to improve the consistency of data; and

Example

For example, the *AER* may only make alterations to data contained in a *Transmission Regulatory Disclosure Data Report* to align relevant Total Factor Productivity datasets to reflect different classification of *prescribed transmission services* between different *Transmission Network Service Providers*.

- (2) to alter for exceptional circumstances.

- (e) In the event that the *AER* makes an alteration to data contained in a *Transmission Regulatory Disclosure Data Report*, it:
 - (1) must explain how the alteration to that data was performed;
 - (2) must give reasons for the alteration to that data; and
 - (3) must present Total Factor Productivity index results with and without alteration to that data,in its *Annual TFP Report*.

6A.8A.4 Consideration of the use of Total Factor Productivity for the Determination of Prices and Revenues

- (a) The following constitutes assessment factors to test the use of Total Factor Productivity for the determination of prices and revenues for *Transmission Network Service Providers*:
 - (1) a Total Factor Productivity dataset of sufficient length to establish reliable trends that is available, robust and consistent both through time and across providers;
 - (2) calculation of Total Factor Productivity indexes that represent an accurate measure of productivity growth for *Transmission Network Service Providers* as a whole, relevant groups of providers as identified by the *AER* and individual providers;
 - (3) sufficient service providers are included in each group such as to allow for calculation of Total Factor Productivity indexes for *transmission determinations* so that the Total Factor Productivity index cannot be manipulated by an individual provider or a collective of related providers with common ownership; and
 - (4) calculation of Total Factor Productivity index growth rates using historic data that represents a fair and reasonable estimate of future productivity growth for providers in the relevant grouping.

[4] Clause 6A.17.1 Information to be provided to AER

In clause 6A.17.1(a), after "In this rule 6A.17" insert "(but excluding clause 6A.17.3)".

[5] Clause 6A.17.1 Information to be provided to AER

After clause 6A.17.1(d)(3), insert:

- (3A) as an input regarding the financial, asset and operational performance of the provider, to inform the *AER* in regards to its assessment of the Total Productivity Factor approach for the determination of prices and revenues under Part C1 of this Chapter;

[6] New clause 6A.17.3 Transmission Regulatory Disclosure Data Report Guidelines

After clause 6A.17.2, insert:

6A.17.3 Transmission Regulatory Disclosure Data Report Guidelines

- (a) There must be *Transmission Regulatory Disclosure Data Report Guidelines* in force at all times after the first such guidelines are published by the AER.
- (b) The *Transmission Regulatory Disclosure Data Report Guidelines* must include, provide guidance on and provide worked examples as to:
 - (1) definitions for terms referred to in each item set out in Schedule 6A.1B;
 - (2) acceptable methodologies for the measurement or valuation of each item set out in Schedule 6A.1B;
 - (3) identification of items set out in Schedule 6A.1B that are subject to financial audit requirements; and
 - (4) identification and management of *confidential information*.
- (c) At any time, in making minor and administrative amendments to the *Transmission Regulatory Disclosure Data Report Guidelines*, the AER is not required to follow the *transmission consultation procedures*.

6A.17.4 Submission of Transmission Regulatory Disclosure Data Report to the AER

- (a) By no later than 1 November each year, each *Transmission Network Service Provider* must submit to the AER, a *Transmission Regulatory Disclosure Data Report* that:
 - (1) provides a true and fair statement of the financial, asset and operational data for each item set out in Schedule 6A.1A;
 - (2) is certified by the provider's:
 - (i) Chief Executive Officer; and
 - (ii) Company Secretary or a Director; and
 - (3) otherwise complies with the requirements of the *Rules* and the *Transmission Regulatory Disclosure Data Report Guidelines*.

[7] New Schedule 6A.1A Contents of Annual TFP Reports relating to Transmission Network Service Providers

After clause S6A.1.3, insert:

Schedule 6A.1A Annual TFP Report

S6A.1A.1 Contents of Annual TFP Reports relating to Transmission Network Service Providers

An *Annual TFP Report* published by the AER relating to *Transmission Network Service Providers* must include, but is not limited to, the following:

- (a) a summary on:
 - (1) the possible use of the Total Factor Productivity approach for the regulation of prices and revenues of *Transmission Network Service Providers* in accordance with the assessment factors set out in clause 6A.8A.4(a);
 - (2) related research used to calculate the *TFP Index*;
- (b) an assessment of TFP data and methodological matters, including:
 - (1) identification of the sources of TFP data;
 - (2) identification of appropriate industry groups;
 - (3) approach and construction of the specifications for input and outputs variables used to calculate Total Factor Productivity indexes;
- (c) an assessment of TFP research conducted by the AER;
- (d) Total Factor Productivity index results for each *Transmission Network Service Provider*, as a whole, relevant groups of providers as identified by the AER and individual providers based upon operating environment conditions and using a common specification of outputs and inputs.

Schedule 6A.1B Transmission Regulatory Disclosure Data Reports

S6A.1B.1 Items for Transmission Regulatory Disclosure Data Reports submitted by Transmission Network Service Providers

The following tables sets out the output and input items required to be submitted by *Transmission Network Service Providers* to the AER in *Transmission Regulatory Disclosure Data Reports*.

- (a) The terms referred to in each item set out in the first column of Tables S6.1B.1 and S6.1B.2 are defined in the *Transmission Regulatory Disclosure Data Reports Guidelines*, in accordance with clause 6A.17.3(b)(1).
- (b) Each item requiring the submission of a \$m figure in the second column of Tables S6.1B.1 and S6.1B.2 is subject to financial audit requirements set out in the *Transmission Regulatory Disclosure Data Reports Guidelines*, in accordance with clause 6A.17.3(b)(3).

Table S6.1B.1 Output items for Transmission Regulatory Disclosure Data Reports for Transmission Network Service Providers

Items	Units
<i>TUOS Revenue</i>	
From fixed customer (exit point) charges	\$m
From variable customer (exit point) charges	\$m
From fixed generator (entry point) charges	\$m
From variable generator (entry point) charges	\$m
From fixed energy usage charges (charge per day basis)	\$m
From variable energy usage charges (charge per kWh basis)	\$m
From energy based common service and general charges	\$m
From capacity based common service and general charges	\$m
From fixed demand based usage charges	\$m
From variable demand based usage charges	\$m
From other connected transmission networks	\$m
From distribution networks	\$m
From directly connected end-users	\$m
From generators	\$m
<i>Total</i>	\$m
<i>Revenue/penalties from incentive schemes (eg S factor)</i>	\$m
<i>Throughput Energy</i>	
To other connected transmission networks	GWh
To distribution networks (split between each distribution network)	GWh
To directly connected end-users (please specify voltage)	GWh
<i>Total energy delivered</i>	GWh

Items	Units
<i>Maximum demand</i>	MW
<i>Transmission System Capital Quantities and Capacities</i>	
Line length by voltage level	
Network circuit kilometres (route length multiplied by number of circuits per tower at year end) for the following voltage classes:	km
- 500 kV	km
- 330 kV	km
- 275 kV	km
- 220 kV	km
- 132 kV	km
- Other (please specify)	km
<i>Total circuit</i>	km
Data for each voltage is to be given separately for overhead and underground circuits	
<i>Transmission circuit availability</i>	
Total number of hours for the following (force majeure events to be excluded)	
Circuit hours actually available	Hours
Maximum possible number of circuit hours	Hours
<i>Number of loss of connection events by time</i> (Give separated data for total and planned events)	
The total and planned numbers of loss of connection (outage) events by the following outage lengths	
- Less than 0.2 minutes (including momentary unavailability pending a reclosure which is successful)	No.
- Greater than 0.2 minutes	No.
- Greater than 1 minute	No.

Items	Units
Excluded events to include circuit interruptions caused by third party systems such as intertrip signals from another party, generator outage or by customer installations, and force majeure events	
<i>Average outage duration</i> Aggregate minutes of duration of all and planned outages divided by the number of respective outage events. Excluded events to include circuit interruptions caused by third party systems such as intertrip signals from another party, generator outage or by customer installations and force majeure events.	Minutes
<i>Line losses</i>	%

Table S6.1B.2 Input items for Transmission Regulatory Disclosure Data Reports for Transmission Network Service Providers

Items	Units
<i>Opex</i>	
<i>Total Transmission opex (excluding depreciation and all capital costs)</i>	\$m
<i>Shared allocation of opex overheads to transmission activities (e.g. head office) included in above</i>	\$m
<i>Opex by category</i>	
<i>The costs of operating and maintaining the network (excluding all capital costs and capital construction costs) disaggregated as follows</i>	
Network operating costs	\$m
Network maintenance costs:	
- Inspection	\$m
- Maintenance and repair	\$m
- Vegetation management	\$m
- Emergency response	\$m

Items	Units
- Other network maintenance	\$m
- Other operating costs (specify items > 5% total opex)	\$m
<i>Total opex</i>	\$m
Corporate overhead costs should be allocated to the relevant categories	
<i>Additionally, the following item is required</i> An estimate of the opex costs that would be associated with end-user contributed assets that are operated and maintained by directly connected end-users (eg transformers) if the operation and maintenance were provided by the TNSP (please describe basis of estimation)	\$m
<i>Direct employees</i> Number of full-time equivalent employees in operating and maintenance activities (including shared overhead allocation). Employee time spent on capital construction projects is to be excluded.	No.
<i>Direct labour cost</i> Labour cost (including on-costs) of employees in operating and maintenance activities (including shared overhead allocation). Cost of time spent on capital construction projects is to be excluded.	No.
<i>Installed transformer capacity</i>	
Transmission substations (eg 500 kV to 275 kV)	MVA
Terminal points	MVA
Transformer capacity for directly connected end-users owned by the TNSP	MVA
Transformer capacity for directly connected end-users owned by the end-user	MVA
Other (please specify)	MVA
<i>Regulatory asset base values</i>	
Overhead lines	\$m

Items	Units
Underground cables	\$m
Transformers owned by the TNSP	\$m
Transformers owned by directly connected end-users	\$m
Other assets including:	
- Communications equipment	\$m
- Land and buildings	\$m
- Other items not elsewhere included	\$m
<i>Total</i>	\$m
<i>RAB Reconciliation</i>	
Opening value	\$m
Inflation addition	\$m
Regulatory depreciation	\$m
Actual additions (recognised in RAB)	\$m
Retirements	\$m
Resulting summation for asset value	\$m
<i>Actual capital expenditure</i>	
Overhead lines	\$m
Underground cables	\$m
Transformers owned by the TNSP	\$m
Transformers owned by directly connected end-users	\$m
Other assets including:	

Items	Units
- Communications equipment	\$m
- Land and buildings	\$m
- Other items not elsewhere included	\$m
<i>Total</i>	\$m
<i>Asset Lives – estimated total and residual</i>	
Overhead lines	Years
Underground cables	Years
Transformers owned by the TNSP	Years
Transformers owned by directly connected end-users	Years
Other assets including:	
- Communications equipment	Years
- Land and Buildings	Years
- Other items not elsewhere included	Years
<i>Value of capital contributions or contributed assets</i>	\$m
<i>Price index for labour inputs</i>	
<i>Price index for O&M expenditure</i>	
<i>Price index for network assets</i>	

Schedule 3 Amendment of the National Electricity Rules (Chapter 10 - Glossary)

(Clause 5)

[1] Chapter 10 Substituted definitions

In Chapter 10, substitute the following definitions:

confidential information

In relation to a *Registered Participant* or *AEMO* or the *AER*, information which is or has been provided to that *Registered Participant* or *AEMO* or the *AER* under or in connection with the *Rules* and which is stated under the *Rules*, or by *AEMO*, the *AER* or the *AEMC*, to be *confidential information* or is otherwise confidential or commercially sensitive. It also includes any information which is derived from such information.

[2] Chapter 10 New definitions

In Chapter 10, insert the following new definitions in alphabetical order:

Annual TFP Report

The report, or reports, prepared and *published* by the *AER* under clauses 6.6A.3(a) and 6A.8A.2(a).

Distribution Regulatory Disclosure Data Reports

The report prepared by a *Distribution Network Service Provider*, and required to be submitted to the *AER* under clause 6.14A.1(a).

Distribution Regulatory Disclosure Data Report Guidelines

The guidelines *published* by the *AER* for the purpose of reporting *Distribution Network Service Provider's* Total Factor Productivity data to the *AER*, and which is required to be in force at all times by the *AER* under clause 6.2.8(a1).

Transmission Regulatory Disclosure Data Reports

The report prepared by a *Transmission Network Service Provider*, and required to be submitted to the *AER* under clause 6A.17.3(a).

Transmission Regulatory Disclosure Data Report Guidelines

The guidelines *published* by the *AER* for the purpose of reporting *Transmission Network Service Provider's* Total Factor Productivity data to the *AER*, and which is required to be in force at all times by the *AER* under clause 6A.17.4(a).

Schedule 4 Savings and Transitional Amendments to the National Electricity Rules (Chapter 11)

(Clause 6)

[1] After rule 11.[xx], insert:

Part [XX] Use of Total Factor Productivity for the Determination of Prices and Revenues

11.[xx] Rules consequential on the making of the National Electricity Amendment (Use of Total Factor Productivity for the Determination of Prices and Revenues) Rule [Year]

11.[xx].1 Definitions

For the purposes of this rule 11.[xx]:

Amending Rule means the National Electricity Amendment (Use of Total Factor Productivity for the Determination of Prices and Revenues) Rule [Year].

Regulatory Disclosure Data Report Distribution Working Group means the working group established by the *AER* and constituted in accordance with clauses 11.[xx].2(b) and (c).

Regulatory Disclosure Data Report Transmission Working Group means the working group established by the *AER* and constituted in accordance with clauses 11.[xx].3(b) and (c).

11.[xx].2 Distribution Regulatory Disclosure Data Report Working Group and the initial Distribution Regulatory Disclosure Data Report Guidelines and Templates

- (a) Not later than [Date], the *AER* must establish a Distribution Regulatory Disclosure Data Report Working Group.
- (b) Members of the Distribution Regulatory Disclosure Data Report Working Group must consist of:
 - (1) an employee of the *AER*, to act as chairperson;
 - (2) other persons appointed at the sole discretion of the *AER*, acting reasonably, comprising of:
 - (i) persons representing *Distribution Network Service Providers*; and
 - (ii) at least 1 person representing the interests of end use customers of electricity
- (c) Not later than [Date], the Distribution Regulatory Disclosure Data Report Working Group:
 - (1) must develop the initial *Distribution Regulatory Disclosure Data Guidelines* that determine the manner and form in which

Regulatory Disclosure Data Reports are required to be submitted to the *AER*; and

- (2) if considered necessary by the working group, must develop the initial *Distribution Regulatory Disclosure Data Report* templates.
- (d) In its development of the initial *Distribution Regulatory Disclosure Data Guidelines* and, if considered necessary, the initial *Distribution Regulatory Disclosure Data Report* templates under paragraph (c), the Regulatory Disclosure Data Report Distribution Working Group:
 - (1) must have regard to matters set out in clause 6.2.8(a2); and
 - (2) must have regard to the principles of Total Factor Productivity for *Distribution Network Service Providers* set out in clause 6.6A.1(a).

11.[xx].3 Transmission Regulatory Disclosure Data Report Working Group and the initial Transmission Regulatory Disclosure Data Report Guidelines and Templates

- (a) Not later than [Date], the *AER* must establish a Transmission Regulatory Disclosure Data Report Working Group.
- (b) Members of the Transmission Regulatory Disclosure Data Report Working Group must consist of:
 - (1) an employee of the *AER*, to act as chairperson;
 - (2) other persons appointed at the sole discretion of the *AER*, acting reasonably, comprising of:
 - (i) persons representing *Transmission Network Service Providers*; and
 - (ii) at least 1 person representing the interests of end use customers of electricity.
- (c) Not later than [Date], the Transmission Regulatory Disclosure Data Report Working Group:
 - (1) must develop the initial *Transmission Regulatory Disclosure Data Guidelines* that determine the manner and form in which *Transmission Regulatory Disclosure Data Reports* are required to be submitted to the *AER*; and
 - (2) if considered necessary by the working group, must develop the initial *Transmission Regulatory Disclosure Data Report* templates.
- (d) In its development of the initial *Transmission Regulatory Disclosure Data Guidelines* and, if considered necessary, the initial *Transmission Regulatory Disclosure Data Report* templates under paragraph (c), the Transmission Regulatory Disclosure Data Report Working Group:

- (1) must have regard to the principles of Total Factor Productivity set out in clause 6A.8A.1(a); and
- (2) must have regard to matters set out in clause 6A.17.3(b).

11.[xx].4 Administration, conduct and decisions of working groups

- (a) The *AER* may establish a joint Distribution Regulatory Disclosure Data Report Working Group and Transmission Regulatory Disclosure Data Report Working Group. If the *AER* establishes such a joint working group, it must consist of:
 - (1) persons representing *Distribution Network Service Providers*;
 - (2) persons representing *Transmission Network Service Providers*; and
 - (3) at least 2 persons representing the interests of end use customers of electricity.
- (a) At any time, the *AER*, acting reasonably, may remove any member of a relevant working group.
- (b) A decision of a relevant working group on any matter may be made by the majority of the members of that working group. Where the members of the relevant working group are equally divided on any matter, the chairperson has the casting vote.
- (c) The relevant working groups must meet to carry out its functions set out in clause 11.[xx].2(c) and 11.[xx].3(c) respectively, and is to regulate and conduct its meetings in accordance with the *Rules*.
- (d) A person may resign from a relevant working group by giving notice in writing to that effect to the *AER*.

11.[xx].5 Publication of the Distribution and Transmission Regulatory Disclosure Data Guidelines

- (a) Within 2 *business days* of the decision of a relevant working group in agreeing to the relevant initial guidelines and, if considered necessary and agreeing to the relevant initial templates, the *AER* must *publish* those initial guidelines and templates.
- (b) If the relevant working group failed to agree upon the relevant initial guidelines by the relevant dates referred to in clauses 11.[xx].3(c) and 11.[xx].4(c), then the *AER*:
 - (1) must, acting reasonably in considering any development of the initial guidelines by the relevant working group, within 10 *business days* from the relevant dates referred to in clauses 11.[xx].3(c) and 11.[xx].4(c), determine the initial *Distribution Regulatory Disclosure Data Guidelines* and the *Transmission Regulatory Disclosure Data Guidelines* (as the case may be); and

- (2) by no later than 2 *business days* after the determination date referred to in subparagraph (1), must *publish* that guideline or those guidelines.
-