Australian Energy Market Commission

Schedule of reliability settings

12 February 2015

Purpose of this schedule

The National Electricity Rules (NER) require the Australian Energy Market Commission (AEMC) to calculate the market price cap (MPC) and the cumulative price threshold (CPT) to apply on and from 1 July each year. The AEMC is to complete the calculation by 28 February each year and to publish its calculations on its website as part of a schedule of reliability settings. This schedule is published in accordance with these requirements.

MPC and CPT for the 2015-16 financial year

Applying the requirements under the NER, the AEMC has calculated the MPC and CPT values to apply for the 2015-16 financial year. The current values for 2014-15, and the adjusted values for 2015-16, are shown as follows:

	From 1 July 2014 to 30 June 2015	**From 1 July 2015 to 30 June 2016**
MPC	$13,500 / MWh	$13,800 / MWh
CPT	$201,900	$207,000

Details of the calculations are set out in this schedule.

Requirements under the National Electricity Rules

The requirements for the AEMC to undertake the calculations of the MPC and CPT are set out under clauses 3.9.4(c) and 3.14.1(d) of the NER, respectively. Clauses 3.9.4(d) and (e), and 3.14.1(e) and (f) also set out the specific formulae that must be used by the AEMC.

Calculation of the MPC

The method and formula with which the MPC is to be indexed is set out under clauses 3.9.4(d) and (e) of the NER. The AEMC's calculation, in accordance with these provisions, is outlined below.

In accordance with information published by the ABS, the Reliability Settings Index values are:[1]

	year c (2014)	year b (2010)
Q_1	105.4	95.2
Q_2	105.9	95.8
Q_3	106.4	96.5
Q_4	106.6	96.9
sum	424.3	384.4

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[1] Full details of the ABS data are set out in Attachment 1.

The following formula is used to calculate the MPC:

$$MPC^x = BV^{MPC} \times \frac{(Q_1^c + Q_2^c + Q_3^c + Q_4^c)}{(Q_1^b + Q_2^b + Q_3^b + Q_4^b)}$$

Where:

MPC is the market price cap in dollars per MWh

x is the financial year for which the MPC is being calculated, which in this case is the 2015-16 financial year

BV^{MPC} is $12,500/MWh

Q_1 to Q_4 are the values of the Reliability Settings Index[2] for each of the four quarters of years c and b (as the case may be) as at five months before the start of year x

c is the calendar year commencing 18 months before the start of year x, which in this case is calendar year 2014

b is the calendar year 2010

Clause 3.9.4(e)(1) of the NER also requires the calculated MPC value to be rounded to the nearest $100/MWh.

Applying these values and requirements, the MPC for 2015-16 is:[3]

$$MPC^{2015-16} = \$12,500/MWh \times \frac{424.3}{384.4}$$

$$= \$13,797.48/MWh \text{ (rounded to two decimal points)}$$

$$= \$13,800/MWh \text{ (rounded to the nearest \$100/MWh)}$$

Calculation of the CPT

The method and formula with which the CPT is to be indexed is set out under clauses 3.14.1(e) and (f) of the NER. AEMC's calculation in accordance with these provisions is outlined below.

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[2] In accordance with clause 3.9.4(d) of the NER, the Reliability Settings Index is the All groups, Australia Consumer Price Index (CPI) found at Index Numbers, All groups, Australia, in Tables 1 and 2 of the CPI, Australia, published by the Australian Bureau of Statistics (ABS) for the relevant quarter, except where that index ceases to be published or is substantially changed, in which case the Reliability Settings Index will be such other index as is determined by the AEMC as suitable.

[3] Clause 3.9.4(e)(2) of the NER requires that if the MPC calculated under this clause for year x is less than the MPC for the preceding year (year x – 1), then the MPC for year x will be the value of the MPC for year x – 1. In this case, as the calculated value of $13,800/MWh is greater than MPC[2014-15] (i.e. $13,500/MWh), MPC[2015-16] is $13,800/MWh.

In accordance with information published by the ABS, the Reliability Settings Index values are:[4]

	year c (2014)	year b (2010)
Q_1	105.4	95.2
Q_2	105.9	95.8
Q_3	106.4	96.5
Q_4	106.6	96.9
sum	424.3	384.4

The following formula is used to calculate the CPT:

$$CPT^x = BV^{CPT} \times \frac{(Q_1^c + Q_2^c + Q_3^c + Q_4^c)}{(Q_1^b + Q_2^b + Q_3^b + Q_4^b)}$$

Where:

CPT is the cumulative price threshold in dollars

x is the financial year for which the CPT is being calculated, which in this case is the 2015-16 financial year

BV^{CPT} is $187,500

Q_1 to Q_4 are the values of the Reliability Settings Index[5] for each of the four quarters of years c and b (as the case may be) as at five months before the start of year x, which are the same as those for the MPC calculation above

c is the calendar year commencing 18 months before the start of year x, which in this case is calendar year 2014

b is the calendar year 2010

Clause 3.14.1(f)(1) of the NER also requires the calculated CPT value to be rounded to the nearest $100.

Applying these values and requirements, the CPT for 2015-16 is:[6]

$$CPT^{2015-16} = \$187,500 \times \frac{424.3}{384.4}$$

$$= \$206,962.15 \text{ (rounded to two decimal points)}$$

$$= \$207,000 \text{ (rounded to the nearest \$100)}$$

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[4] Full details of the ABS data are set out in Attachment 1.
[5] In accordance with clause 3.14.1(e) of the NER, the Reliability Settings Index is the All groups, Australia CPI found at Index Numbers, All groups, Australia, in Tables 1 and 2 of the CPI, Australia, published by the ABS for the relevant quarter, except where that index ceases to be published or is substantially changed, in which case the Reliability Settings Index will be such other index as is determined by the AEMC as suitable.
[6] Clause 3.14.1(f)(2) of the NER requires that if the CPT calculated under this clause for year x is less than the CPT for the preceding year (year x – 1), then the CPT for year x will be the value of the CPT for year x – 1. In this case, as the calculated value of $207,000 is greater than CPT[2014-15] (i.e. $201,900), CPT[2015-16] is $207,000.

Attachment 1 – CPI values published by the Australian Bureau of Statistics

1 ALL GROUPS CPI, Index numbers(a)

Period	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Weighted average of eight capital cities
2010-11	97.6	97.7	98.1	97.5	97.9	97.8	97.9	97.6	97.7
2011-12	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
2012-13	102.6	102.2	102.0	102.1	102.2	101.2	103.1	101.9	102.3
2013-14	105.2	105.0	104.9	104.7	105.3	103.7	106.9	104.2	105.0
2010									
December	96.7	96.9	97.4	96.5	97.0	96.9	97.1	96.7	96.9
2011									
March	98.2	98.5	98.6	98.1	98.1	98.2	98.2	98.1	98.3
June	99.2	99.2	99.6	99.0	99.4	99.1	99.2	99.2	99.2
September	99.9	99.8	99.9	100.0	99.6	99.9	99.9	99.8	99.8
December	99.8	99.9	99.7	100.0	99.8	100.0	99.5	100.1	99.8
2012									
March	99.9	99.9	99.9	99.9	100.0	100.3	99.9	99.7	99.9
June	100.5	100.4	100.5	100.2	100.5	99.9	100.7	100.3	100.4
September	102.2	101.6	101.6	101.7	101.6	100.6	102.0	101.4	101.8
December	102.3	102.0	101.9	102.1	101.9	101.0	102.0	101.8	102.0
2013									
March	102.7	102.4	102.0	102.1	102.4	101.3	103.7	101.9	102.4
June	103.1	102.6	102.5	102.3	103.0	101.7	104.6	102.5	102.8
September	104.3	104.0	103.8	103.7	104.2	102.6	105.5	103.1	104.0
December	105.0	104.8	104.6	104.4	104.9	103.6	106.5	104.1	104.8
2014									
March	105.6	105.3	105.2	105.1	105.6	104.1	107.4	104.6	105.4
June	106.0	105.9	105.8	105.5	106.4	104.5	108.1	104.8	105.9
September	106.6	106.1	106.5	105.9	106.9	104.6	108.3	105.2	106.4
December	106.8	106.3	106.7	106.2	107.0	104.7	108.5	105.3	106.6

(a) Unless otherwise specified, reference period of each index: 2011-12 = 100.0.

http://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/6401.0Main%20Features6Dec%202014?opendocument&tabname=Summary&prodno=6401.0&issue=Dec%202014&num=&vie

Note: The above table, as published on the ABS's website, for the most recent All Groups CPI, does not include values for the quarterly indices for 2010. In lieu of this, the Commission has included the supplementary table below which it has prepared based on disaggregated ABS information for the quarterly All Groups CPI for 2010 (sourced from http://www.abs.gov.au/ausstats/meisubs.NSF/log?openagent&640101.xls&6401.0&Time%20Series%20Spreadsheet&6372B7A2CB8BBEE4CA257DDA000B4E79&0&Dec%202014&28.01.2015&Latest).

Period (2010)	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Avg
March	95.2	95.2	95.2	94.6	95.6	95.4	95.4	95.3	95.2
June	95.6	95.8	95.9	95.3	96.5	95.8	96.2	95.6	95.8
Sept	96.3	96.3	96.9	96.2	96.9	96.8	97.2	96.3	96.5
Dec	96.7	96.9	97.4	96.5	97.0	96.9	97.1	96.7	96.9