Australian Energy Market Commission

Schedule of reliability settings

16 February 2016

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 2016-17 financial year

Applying the requirements under the NER, the AEMC has calculated the MPC and CPT values to apply for the 2016-17 financial year. The current values for 2015-16, and the adjusted values for 2016-17, are shown as follows:

	From 1 July 2015 to 30 June 2016	From 1 July 2016 to 30 June 2017
MPC	$13,800 / MWh	$14,000
CPT	$207,000	$210,100

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 (2015)	year b (2010)
Q_1	106.8	95.2
Q_2	107.5	95.8
Q_3	108.0	96.5
Q_4	108.4	96.9
sum	430.7	384.4

[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 2016-17 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 2015

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 2016-17 is:[3]

$$\text{MPC}^{2016-17} = \$12{,}500/\text{MWh} \times \frac{430.7}{384.4}$$

$$= \$14{,}005.59/\text{MWh (rounded to two decimal points)}$$

$$= \$14{,}000/\text{MWh (rounded to the nearest } \$100/\text{MWh)}$$

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.

[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 \$14,000/MWh is greater than $MPC^{2015-16}$ (i.e. \$13,800/MWh), $MPC^{2016-17}$ is \$14,000/MWh.

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

	year c (2015)	year b (2010)
Q_1	106.8	95.2
Q_2	107.5	95.8
Q_3	108.0	96.5
Q_4	108.4	96.9
sum	430.7	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 2016-17 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 2015

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 2016-17 is:[6]

$$CPT^{2016-17} = \$187{,}500 \times \frac{430.7}{384.4}$$

$$= \$210{,}083.90 \text{ (rounded to two decimal points)}$$

$$= \$210{,}100 \text{ (rounded to the nearest } \$100)$$

[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 $210,100 is greater than $CPT^{2015-16}$ (i.e. $207,000), $CPT^{2016-17}$ is $210,100.

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

ALL GROUPS CPI, Index numbers(a)

Period	Sydney	Melbourne	Brisbane	Adelaide	Perth	Hobart	Darwin	Canberra	Weighted average of eight capital cities
2010									
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
September	96.3	96.3	96.9	96.2	96.9	96.8	97.2	96.3	96.5
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
2015									
March	107.3	106.4	106.7	106.3	107.1	105.0	108.3	105.2	106.8
June	108.3	107.1	107.4	106.8	107.7	105.1	108.3	105.6	107.5
September	108.6	107.6	108.1	107.1	108.1	105.7	108.7	105.8	108.0
December	108.9	108.3	108.5	107.3	108.6	106.6	109.0	106.0	108.4

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

Source: TABLES 1 and 2 CPI: All Groups, Index Numbers and Percentage Changes .xls
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- http://www.abs.gov.au/ausstats/meisubs.NSF/log?openagent&640101.xls&6401.0&Time%20Series%20Spreadsheet&E1274D6D73D7DF1CCA257F45000D8123&0&Dec%202015&27.01.2016&Latest
- http://www.abs.gov.au/AUSSTATS/abs@.nsf/DetailsPage/6401.0Dec%202015?OpenDocument