PC_2010_08: Changes to Market Procedure for Supplementary Reserve Capacity

Comments from Synergy

Typo: clause 2.3.1 market rule reference **[MR4.24.12(h)(i)]** should be **[MR4.24.13(h)(i)]**

Calculation comments:
The calculation part of this procedure is a little difficult to work through. Reference for Availability Price and Activation Price are given in step 1.6.5, and used in step 2.4.6, but Notional Availability Price and Notional Activation Price are used in step 2.3.1.

It is uncertain what purpose the Maximum Contract Value provides except that it is listed in MR 4.24.6 (g). It could be argued that the only value applicable for Maximum Contract Value, in the procedure, is the NEM VoLL[1] value, being the payment to DSM, unless the number of expected hours is very low, <5 hours. The Maximum Contract Value can be set on the generator cost, but this would not be the Maximum given DSM can receive up to $12,500 per MWh (see examples below) and so would be paid at a higher rate than a generator. If the Maximum Contract Value was published on the basis of a generator given DSM higher rate then this would create a problem for MR 4.24.7 (j).

The Maximum Availability Percentage is stated as being required to be included in the advertisement under 2.4.5 but is not included as a requirement in the Market Rules. The calculation of the Maximum Availability Percentage is split between steps 2.3.1 d) and 2.4.6 making it difficult to determine its value. Also uncertain if this value is used apart from reducing the Availability Price, no indication is given that it is used to add to the Activation Price.

It may be helpful to include examples for all these calculations to remove the possibility of confusion.

Charge comments:
It is uncertain how the Notional Activation Price becomes double the Alternative Maximum STEM Price. This appears to be arbitrary and unnecessary.

The key question is why double given the expected cost of production is unlikely to be this high (i.e. unlikely to exceed the cost of liquids which is represented by the Alternative Maximum STEM Price). If this is intended to be an upper value negotiated with the capacity provider then by stating a value in the procedure, at such a high value, could establish this as the price that SRC providers would expect i.e. it establishes unreasonably market expectations.

For DSM the use of the NEM VoLL price has little relevance to the WEM. Again, by stating this price in this procedure potentially creates a market price locking in $12,500 per MWh. An option to consider is leaving this price blank and determining it in the year SRC may be required. The issue with taking a NEM price for DSM but creating a different price basis for generators is that no clear and consistent value basis for SRC has been determined. Also the relation between generator and DSM prices will vary given the expected hours of dispatch. Refer to the following example which shows the procedure could potentially result in range of relative (or strange)

[1] Synergy is not supporting the NEM VoLL as argued later on in the comments.

pricing outcomes. This could prove to be a point of contention for both generators and DSM capacity providers

Example:

If expected dispatch of SRC is likely to be 50 hours then

(i) payment to a generator could be:

Capacity cost: $144,000
Number of service days: 84
Capacity cost: $144.000*84/121 = $99,966.94 per MW
Activation Price at say Alternative Maximum STEM Price of $500:
$500*50*2 = $50,000 per MW

Total payment is: $99,966.94 + $50,000 = **$149,966.94 per MW or $3,000 per MWh**

(ii) payment to a DSM provider could be:

if a DSM is similarly dispatch for 50 hours at VoLL **($12,500 per MWh**)
Total payment is: 50*$12,500 = **$625,000 per MW**

Strange outcome: In providing the same service DSM gets paid considerably more than a generator. DSM should therefore be paid less maybe < $3,000 per MWh in this example.

The above example is re-presented below using a range of operating hours. The NEM VoLL price fits somewhere between 5-10 hours of operation would; most other hour ranges the value is far too high in comparison to generators.

Dispatch or Expected Hours	100	75	50	40	20	10	5
Availability Payment	$ 99,967	$ 99,967	$ 99,967	$ 99,967	$ 99,967	$ 99,967	$ 99,967
Activation Payment	$ 100,000	$ 75,000	$ 50,000	$ 40,000	$ 20,000	$ 10,000	$ 5,000
Total Generator Payment	**$ 199,967**	**$ 174,967**	**$ 149,967**	**$ 139,967**	**$ 119,967**	**$ 109,967**	**$ 104,967**
$/MWh Payment	**$ 2,000**	**$ 2,333**	**$ 2,999**	**$ 3,499**	**$ 5,998**	**$ 10,997**	**$ 20,993**
DSM Activation Payment	**$ 1,250,000**	**$ 937,500**	**$ 625,000**	**$ 500,000**	**$ 250,000**	**$ 125,000**	**$ 62,500**
DSM/Gen Payment	625%	536%	417%	357%	208%	114%	60%

The table calculation does not include any reduction in Availability Payment due to the Maximum Availability Percentage (MAP). The impact of the MAP should reduce the total payment to generators providing SRC and so the distortion between generators and DSM would expected to be greater than above.

If the MAP reduced the Availability Payment and increased the Activation Payment then the above comment would not apply, but again the issue is raised questioning the double Alternative Maximum STEM Price payment for dispatch given the Activation Payment may now, because of the MAP, be greater than double per MWh.