

Appendix 9 - Additional Information Concerning Maximum Willingness to Supply

A Bid is a price in \$/MWh for a block of a Product or for a block of a Combination. In addition to submitting its Bids, a Bidder must provide a maximum willingness to supply for each month and each Segment, even if this maximum willingness to supply is zero. In specifying a maximum willingness to supply, the Bidder specifies a maximum on the number of blocks that the Bidder is willing to supply for a given month and Segment. The evaluation of Bids will in all cases respect that maximum willingness to supply and would never select a package of Bids that would exceed a Bidder's maximum willingness to supply.

This document explains further the concept of the maximum willingness to supply by using illustrative Bids. We consider the Bids placed on on-peak blocks by Company A. Company A submitted Bids for each Product on-peak and for each Combination on-peak for the Products and Combinations in the year from June 2010 to May 2011. Company A did not submit Bids for off-peak Products or Combinations, or for Products and Combinations involving months after May 2011, and correspondingly submitted a maximum willingness to supply of zero for each month and each Segment in the June 2011 to May 2012 period. (For simplicity, we will omit the term "on-peak" and the year specification for the remainder of this document). The Bids are presented in Table 1 below.

Please note that this Table 1 does **NOT** follow the format of the Bid Form exactly. The table below has been truncated and is specifically designed for the purposes of this example.

The table below has each month as a column. The Bids on individual Products (i.e., the Bids for each specific month on-peak) are placed in the first rows of Table 1, followed next by the Bids on Combinations. In the rows with Bids on Combinations, grey shading of a cell indicates that a particular month is not part of the Combination (while if the cell is white, the month is part of the Combination). Consider column D, which corresponds to the month of July. July is a component month for the Jul/Aug combination; the cells in rows 14 to 23 that correspond to the Jul/Aug combination are white. July is not a component of the Q4 combination, so that the cells in the July column in the rows for this combination are shaded grey. July is a component of Jun-May yearly combination; accordingly, the cells in column D corresponding to July are white in the rows for this combination.

Table 1. Illustrative Bids

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1			Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May
2	Blocks bid on single products													
3	1		50.00	50.10	50.20	50.30	50.40	50.50	50.60	50.70	50.80	50.90	60.00	60.10
4	2		50.01	50.11	50.21	50.31	50.41	50.51	50.61	50.71	50.80	50.91	60.01	60.11
5	3		50.02	50.12	50.22	50.32	50.42	50.52	50.62	50.72	50.80	50.92	60.02	60.12
6	4		50.03	50.13	50.23	50.33	50.43	50.53		50.73	50.80	50.93	60.03	
7	5		50.04	50.14	50.24	50.34	50.44	50.54		50.74	50.80	50.94	60.04	
8	6		50.05	50.15	50.25	50.34	50.45			50.75	50.80	50.95	60.05	
9	7		50.06	50.16	50.26	50.34	50.46			50.76	50.80	50.96	60.06	
10	8			50.17	50.27					50.77	50.80			
11	9			50.18	50.28					50.78	50.80			
12	10			50.19	50.29									
13	Blocks Bid on combinations													
14	1	Ju/Aug		49.00										
15	2			49.01										
16	3			49.02										
17	4			49.03										
18	5			49.04										
19	6			49.04										
20	7			49.04										
21	8			49.05										
22	9			49.05										
23	10			49.06										
24	1	Q4						49.10						
25	2							49.11						
26	3							49.12						
27	4							49.13						
28	5							49.14						
29	6							49.15						
30	7							49.16						
31	8							49.17						
32	1	Jan/Feb								49.20				
33	2									49.21				
34	3									49.22				
35	1	Mar/Apr										49.30		
36	2											49.31		
37	3											49.32		
38	1	Jun-May						49.50						
39	2							49.51						
40	3							49.52						
41	4							49.53						
42	5							49.54						
43	Maximum willingness to supply		32	25	25	10	18	18	18	2	2	5	5	3
44														
45	Most blocks that could be won given number of Bids placed		12	25	25	12	20	18	16	17	17	15	15	8
46	TARGETS		32	44	40	27	20	25	29	26	24	21	16	18
47			Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May

Company A is placing Bids on every Product, as well as on every Combination, and specifies a maximum willingness to supply for each month and Segment. This maximum willingness to supply appears in row 43. The maximum willingness to supply provided by Company A is consistent with the RFP Rules. For each month and Segment, there is a maximum willingness to supply (i.e., it is not left blank) and the maximum willingness to supply does not exceed the Target number of blocks for that particular month and Segment.

Although the maximum willingness to supply provided for each month is, in each case, allowed by the RFP Rules, these illustrative Bids explain the concept further by showing the consequences of setting the maximum willingness to supply at various levels compared to the number of blocks bid on various products and combinations. We consider the maximum willingness to supply of each month in turn.

- **June: maximum willingness to supply exceeds the number of blocks on which a Bid is placed.** The maximum willingness to supply is set at 32 blocks. The most blocks of June on-peak that Company A can win is 12 blocks. Looking at column C, which provides counts of the number of blocks for which a Bid is placed for each product and combination, this is the sum of: i) the 7 Bids placed on the individual month of June; and (ii) the 5 Bids placed on the Jun-May yearly combination. The evaluation will only consider twelve Bids from Company A in filling the Target for the month of June on-peak. The evaluation will consider all packages that contain 12 or fewer of the blocks for which a Bid is placed. The fact that Company A has provided a maximum willingness to supply of 32 blocks in no way means that the evaluation will consider that Company has submitted more Bids than the prices actually entered on the Bid Form.
- **July and August: maximum willingness to supply equals the most blocks that can be won across single products and combinations.** The maximum willingness to supply for each of these two months is set at 25 blocks. The most blocks of July on-peak that Company A can win is 25 (column D). This is the sum of: i) the 10 Bids placed on the individual month of July; ii) the 10 Bids placed on the Jul-Aug combination; and iii) the 5 Bids placed on the Jun-May yearly combination. The same is true for August (column E). Because Company A has entered as its maximum willingness to supply the most number of blocks that it could win for these two months, the evaluation will consider all packages that contain all these Bids (on the individual months, the Jul/Aug combination, and the Jun-May combinations) as well as all packages that include some but not all of these Bids.
- **September: maximum willingness to supply is less than the most blocks that can be won across single products and combinations.** The maximum willingness to supply is set at 10. The most blocks of September on-peak that Company A can win is 12 blocks (column F). This is the sum of: i) the 7 Bids placed on September; and (ii) the 5 Bids placed on the Jun-May yearly combination.

Because Company A has entered as its maximum willingness to supply a number (10) less than the most number of blocks that it could win for this month (12), the evaluation will only consider the packages that contain at most 10 of those 12 Bids. For example, the evaluation will consider all packages that include all of the Bids on the individual month of September as well as three or fewer Bids placed on the Jun-May combinations, but it will not consider packages that include all of the Bids in the individual month of September as well as four or more Bids placed on the Jun-May combinations. The evaluation would also, for example, consider packages that have the 5 Jun-May Combinations and 5 or fewer of the Bids on the individual month of September.

- **October, November, and December: further examples with maximum willingness to supply more than, equal to, and less than the most blocks that can be won.** The maximum willingness to supply for each of these three months is set at 18 blocks. The most blocks of October on-peak that Company A can win is 20 blocks (column G). This is the sum of: i) the 7 Bids placed on the individual month of October; ii) the 8 Bids placed on the Q4 combination; and iii) the 5 Bids placed on the Jun-May yearly combination. As was the case for September, because Company A has entered as its maximum willingness to supply a number (18) less than the most number of blocks that it could win for this month (20), the evaluation will only consider the packages that contain at most 18 of those 20 Bids. The most blocks of November on-peak that Company A can win is 18 blocks (column H). This is the sum of: i) the 5 Bids placed on the individual month; ii) the 8 Bids placed on the Q4 combination; and iii) the 5 Bids placed on the Jun-May yearly combination. As was the case for July and August, because Company A has entered as its maximum willingness to supply the most number of blocks that it could win for this month, the evaluation will consider all packages that contain all these Bids (on the individual month, the Q4 combination and the Jun-May combinations) as well as all packages that include some but not all of these Bids. The most blocks of December on-peak that Company A can win is 16 blocks (column I). This is the sum of: i) the 3 Bids placed on the individual month; ii) the 8 Bids placed on the Q4 combination; and iii) the 5 Bids placed on the Jun-May yearly combination. As was the case for June, the fact that Company A has entered a maximum willingness to supply that exceeds the most blocks that can be won does not affect the evaluation. The evaluation will consider all packages that contain 16 or fewer Bids placed on these blocks.
- **January and February: maximum willingness to supply is less than the number of Bids placed on blocks of the individual month and is less than the number of Bids placed on each combination.** The maximum willingness to supply for each of these two months is set at 2 blocks. For both of these months, the most blocks that Company A can win is 17 blocks (columns J and K). This is the sum of: i) the 9 Bids placed on each individual month; ii) the 3 Bids placed on the Jan/Feb combination; and iii) the 5 Bids placed on the Jun-May yearly combination. As was the

case for September, Company A has entered as its maximum willingness to supply a number (2) less than the most number of blocks that it could win for each month. The difference here is that the maximum willingness to supply of 2 blocks is less than the number of blocks bid for each individual month (9). It is also less than the number of blocks bid for the Jan/Feb combination alone (3) and less than the number of blocks bid for the Jun-May yearly combination (5). The evaluation will only consider a maximum of 2 of these Bids (considering the Bids on individual months and the Bids on Combinations) when filling the Target for January, and similarly the evaluation will only consider a maximum of 2 of these Bids (considering the Bids on individual months and the Bids on Combinations) when filling the Target for February. For example, the evaluation could consider one Bid on an individual month and one Bid on a Combination; or 2 Bids from an individual month; or 2 Bids from a Combination. But no more than two Bids will be evaluated for January and no more than two Bids will be evaluated for February. This implies that at most 2 of Company A's Bids for each of these months (the ones with the lowest prices) will be considered, at most 2 of Company A's Jan/Feb combination Bids (the ones with the lowest prices) will be considered, or at most 2 of the Company's yearly Bids (the ones with the lowest prices) will be considered. In effect, the evaluation would have yielded the same result if Company A had only placed the lowest of its Bids on 2 blocks of each individual month, or 2 blocks of the Jan/Feb combination, or 2 blocks of the Jun-May combination. Company A has placed Bids that cannot possibly be part of the least-cost package.

- **March and April: maximum willingness to supply is smaller than the number of Bids placed on blocks of the individual month but is greater than or equal to the number of Bids placed on each combination.** The maximum willingness to supply for each of these two months is set at 5 blocks. For both of these months, the most blocks that Company A can win is 15 blocks. This is the sum of: i) the 7 Bids placed on each individual month of January and February; ii) the 3 Bids placed on the Jan/Feb combination; and iii) the 5 Bids placed on the Jun-May yearly combination. The evaluation will only consider the packages that contain at most 5 of those 15 Bids. For each of the two months of March and April, the maximum willingness to supply of 5 blocks is less than the number of blocks bid for the individual month (7). Because the evaluation will only consider 5 of these Bids, at most 5 of Company A's Bids for each of these months (the ones with the lowest prices) will be considered. Company A has placed Bids for individual months that cannot possibly be part of the least-cost package. However, the maximum willingness to supply of 5 blocks means that the evaluation will consider up to all three of the Jan/Feb combination Bids and the evaluation will consider (absent constraints that have arisen from other months) up to all five of the Jun-May yearly combination Bids. For example, the evaluation may consider one Bid from the individual months, all three of the Jan/Feb combination Bids, and one Bid from the June-May

yearly combination Bid. The Bids with the lowest prices will be evaluated and no more than 5 Bids will be evaluated.

- **May: maximum willingness to supply is equal to the number of Bids placed on blocks of the individual month but is less than the number of Bids placed on the yearly combination.** The maximum willingness to supply is set at 3 blocks. The most blocks of May on-peak that Company A can win is 8 blocks. This is the sum of: i) the 3 Bids placed on the individual month; and (ii) the 5 Bids placed on the Jun-May yearly combination. Because Company A has entered as its maximum willingness to supply a number (3) less than the most number of blocks that it could win for this month (8), the evaluation will only consider the packages that contain at most 3 of those 8 Bids. When the evaluation considers packages with all of the Bids placed on the blocks of the individual month, the evaluation will exclude all Bids on the Jun-May combinations so as not to exceed the maximum willingness to supply. The evaluation will consider only up to three or fewer Bids placed on the Jun-May combinations. At most three of Company A's yearly Bids (the ones with the lowest prices) will be considered. Company A has placed Bids for the yearly combinations that cannot possibly be part of the least-cost package.