

Incremental Entry Capacity Release Methodology Statement v8.0

It has come to our attention that Appendix 2 of the Incremental Entry Capacity Release methodology statement (IECR) contains a slight error. This Appendix provides an example of the NPV test that is required to be satisfied in order to initiate the process for release of incremental entry capacity. As some Users use the example to inform their bidding strategies for obtaining incremental capacity National Grid considers it important that Users are aware of this error.

The example contains sample data from a LTSEC auction showing possible bid quantities at each price step level for each calendar quarter. This data is used to generate an incremental capacity release quantity and, for each quarter, a release quantity and clearing price.

In the final table incorrect clearing prices have been stated for three quarters. The error is illustrated in the following table.

Supply			Demand																	
Available (GWh)	Price Label	Price (p/kWh/day)	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	...	Q32
150	P ₅	0.06	100	100	120	120	110	100	100	100	100	100	100	100	100	100	100	100	...	100
140	P ₄	0.05	100	100	120	120	110	100	100	100	100	100	120	100	100	100	100	100	...	100
130	P ₃	0.04	100	100	130	130	120	100	130	130	100	100	130	125	100	100	110	110	...	100
120	P ₂	0.03	100	100	135	135	120	100	135	131	110	100	132	125	100	100	120	120	...	100
110	P ₁	0.02	100	100	140	135	130	100	140	140	120	100	134	125	100	100	120	120	...	100
100	P ₀	0.01	100	100	145	140	131	100	140	140	120	100	135	130	100	100	120	120	...	100

130	incremental capacity first signalled
	provisional allocations that count towards the NPV test
	incorrect allocations from IECR v8.0

This table shows that where the same quantity of incremental entry capacity is requested at more than one price level the clearing price is the *lowest* price. This is the price that the User will pay if the capacity is released and allocated. The same price feeds through into the NPV test. Due to a lower clearing price being used in these three quarters the overall NPV of the revenue is reduced.

For convenience, a revised Appendix 2 is attached.

Revised Appendix 2 to the IECR v8.0

Appendix 2: Example of the NPV test

This example is provided as an indication of how the methodology to release incremental entry capacity is applied. It should not be taken as being indicative of actual step prices, project values, or the ease with which release of capacity may be triggered.

Assume:

1. for simplicity there are only 5 price steps
2. the obligated volume is 100GWh/d
3. Q1 is April 2012

National Grid publishes the following Price Schedule to apply in a QSEC auction.

Available (GWh)	Price Label	Price (p/kWh/d)	Project value (£m)
150	P5	0.06	20
140	P4	0.05	16
130	P3	0.04	12
120	P2	0.03	8
110	P1	0.02	4
100	P0	0.01	0

Assume the following bids are obtained through the auction:

Supply			Demand																	
Available (GWh)	Price Label	Price (p/kWh/day)	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	...	Q32
150	P ₅	0.06	100	100	120	120	110	100	100	100	100	100	100	100	100	100	100	100	...	100
140	P ₄	0.05	100	100	120	120	110	100	100	100	100	100	120	100	100	100	100	100	...	100
130	P ₃	0.04	100	100	130	130	120	100	130	130	100	100	130	125	100	100	110	110	...	100
120	P ₂	0.03	100	100	135	135	120	100	135	131	110	100	132	125	100	100	120	120	...	100
110	P ₁	0.02	100	100	140	135	130	100	140	140	120	100	134	125	100	100	120	120	...	100
100	P ₀	0.01	100	100	145	140	131	100	140	140	120	100	135	130	100	100	120	120	...	100

Q3 is the first quarter where aggregate capacity bids are placed at the relevant step price. Therefore, there is a signal to release 130GWh per day from Q3. Although 145 GWh per day was bid these were not at the relevant step price. The clearing price for Q3 and Q4 would be P3, P1 for Q5, P3 for Q7 and Q8 and so on. This means that there is a signal for 30GWh per day of incremental obligated entry capacity. The NPV test is applied as below.

It is possible that there could be a second signal (not shown in the example) for release of a greater incremental quantity from a later quarter. National Grid will apply the NPV test against both signals, and if successful, will release entry capacity consistent with both sets of bids.

			Oct-12	Jan-13	Apr-13	Jul-13	Oct-13	Jan-14	Apr-14	Jul-14	Oct-14	Jan-15	Apr-15	Jul-15	Oct-15	Jan-16	Apr-16	Jul-16		Jul-20
			Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16		Q32
Incremental Capacity to release	GWh	(a)	0	0	30	30	30	0	30	30	20	0	30	30	0	0	20	20		0
Clearing Price	p/kWh/d	(b)	0.01	0.01	0.04	0.04	0.02	0.01	0.04	0.04	0.01	0.01	0.04	0.01	0.01	0.01	0.01	0.01		0.01
Days per quarter	day	(c)	92	90	91	92	92	90	91	92	92	90	91	92	92	91	91	92		91
Incremental Revenue	£m	$\frac{(a)*(b)*(c)}{100}$	0.00	0.00	1.09	1.10	0.55	0.00	1.09	1.10	0.18	0.00	1.09	0.28	0.00	0.00	0.18	0.18		0.00
NPV Test	£m	50% Project Value	6																	
NPV of Revenue	£m	2.01%	6.0																	

As the NPV of the revenues (£6.0m) = 50% * Project Value (£6m), the NPV test is passed and 30GWh/d would be released from Q3 as incremental obligated entry capacity.