

# CMP324/5 Workgroup 4 slides

February 2020



# The Zoning Tool

## Assumptions

- **Same nodal (Year Round background) prices across all scenarios**
- **We've not split the Year Round £/kW between Shared and Not Shared**
  - Significant amount of effort required for this step
  - Can be done once options are further filtered
- **RIO2 inputs not included as not available**
  - RIO1 figures for expansion constant/factors used instead
  - Updating these for RIO2 will affect the nodal prices and so will affect all scenarios (and all tariffs)

## Options in the tool

1. **RPI Zones (£+/- £2.25)**
2. **ETYS Zones**
3. **DNO Zones**
4. **Current Gen (27) Zones**

# The Zoning Tool – How to Use

- 1. On the “Nodal\_Zone\_Mapping” sheet, select the scenario to model (drop down in cell E7)**
  - This sheet maps all the nodes to the zones in the various scenarios as well as documenting the Peak and Year Round prices for the node
  - Cat A Gen = Peak background; Cat B Gen = Year Round background
- 2. On the “Tariff” tab, right click on cell B10 and refresh. The indicative Peak and Year Round tariffs will be shown in columns P & Q.**
- 3. Summary analysis of the nodal prices in each zone is shown on the “ZonalRange” tab. Right click and refresh to update the scenario.**
  - Only includes nodes which have Cat B generation (i.e. CatBGen (from column B of Node\_Zone\_Mapping tab) >0).
  - All prices based on Year Round background.
  - Above points can be reconfigured by changing the pivot tables.
- 4. The other tabs show (very) indicative maps for each of the scenarios.**

# DNO Zones

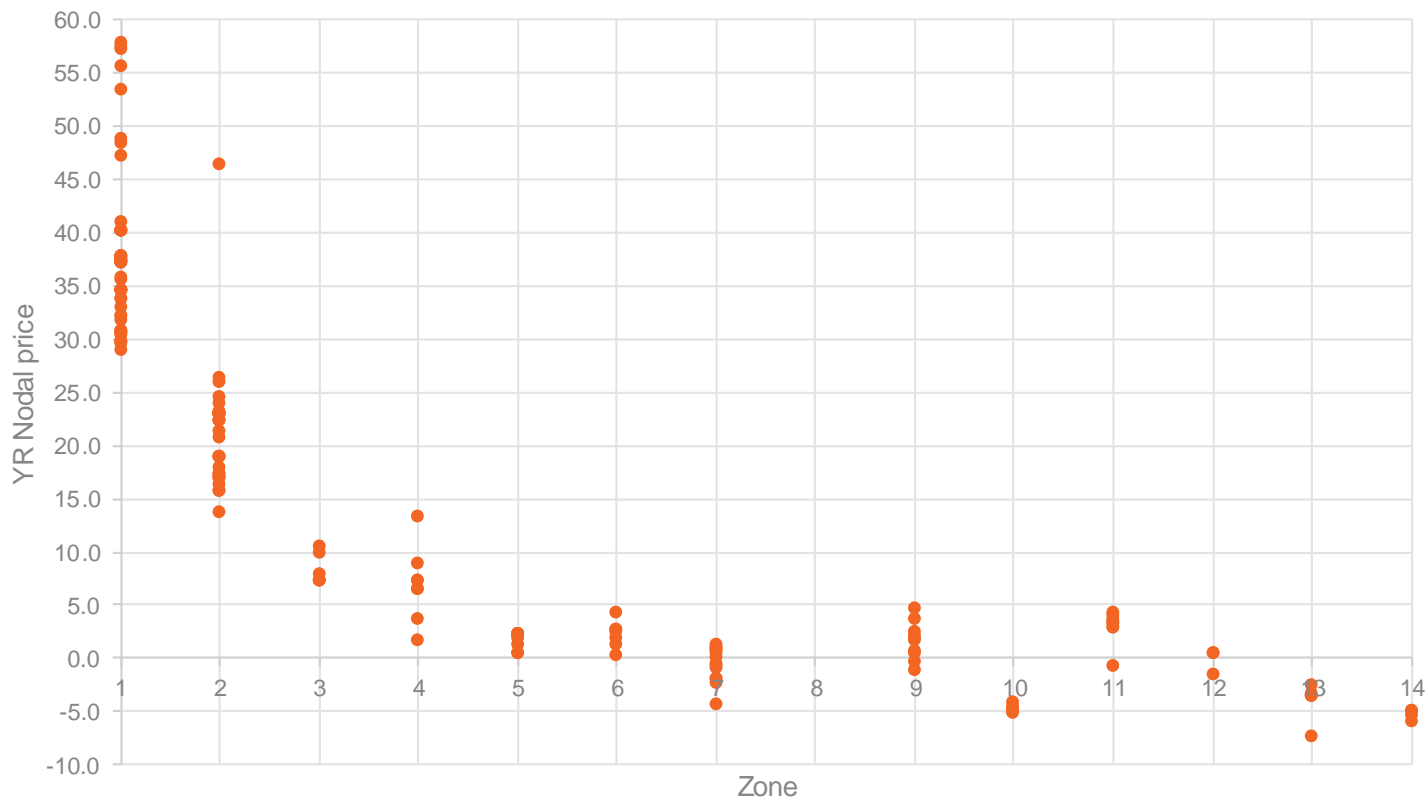
Zone	DNO Name	Count of Nodes with YR Gen	Min (£/MWkm)	Mean Average (£/MWkm)	Max (£/MWkm)	Range (Max – Min)
1	SHEPD	53	£29.06	£37.75	£57.96	£28.90
2	SPD	35	£13.66	£21.41	£46.35	£32.69
3	North East	6	£7.23	£8.33	£10.60	£3.37
4	ENW	8	£1.66	£6.90	£13.24	£11.58
5	Yorkshire	10	£0.51	£1.76	£2.35	£1.84
6	SPMan	7	£0.30	£2.18	£4.31	£4.01
7	East Mids	14	-£4.31	-£0.55	£1.26	£5.57
8	West Mids	0	N/A	N/A	N/A	N/A
9	East Anglia	10	-£1.22	£1.58	£4.75	£5.97
10	South Wales	7	-£5.10	-£4.78	-£4.14	£0.96
11	South East	9	-£0.72	£3.03	£4.36	£5.08
12	London	3	-£1.49	-£0.14	£0.53	£2.02
13	SEPD	7	-£7.30	-£3.91	-£2.53	£4.77
14	South West	4	-£6.05	-£5.31	-£4.90	£1.15

Zone	Gen PS £/kW	Gen YR £/kW (shared and not-shared)
1	3.39	34.59
2	3.42	20.39
3	3.89	8.05
4	2.55	5.92
5	4.45	2.12
6	3.21	1.90
7	3.42	-0.22
8	1.98	-2.69
9	-1.98	2.58
10	7.13	-4.71
11	-4.28	3.43
12	-2.36	0.01
13	-2.21	-3.03
14	0.49	-5.16

As no generation in this zone, average of all nodal prices used

# DNO Zones

Zone	DNO Name
1	SHEPD
2	SPD
3	North East
4	ENW
5	Yorkshire
6	SPMan
7	East Mids
8	West Mids
9	East Anglia
10	South Wales
11	South East
12	London
13	SEPD
14	South West



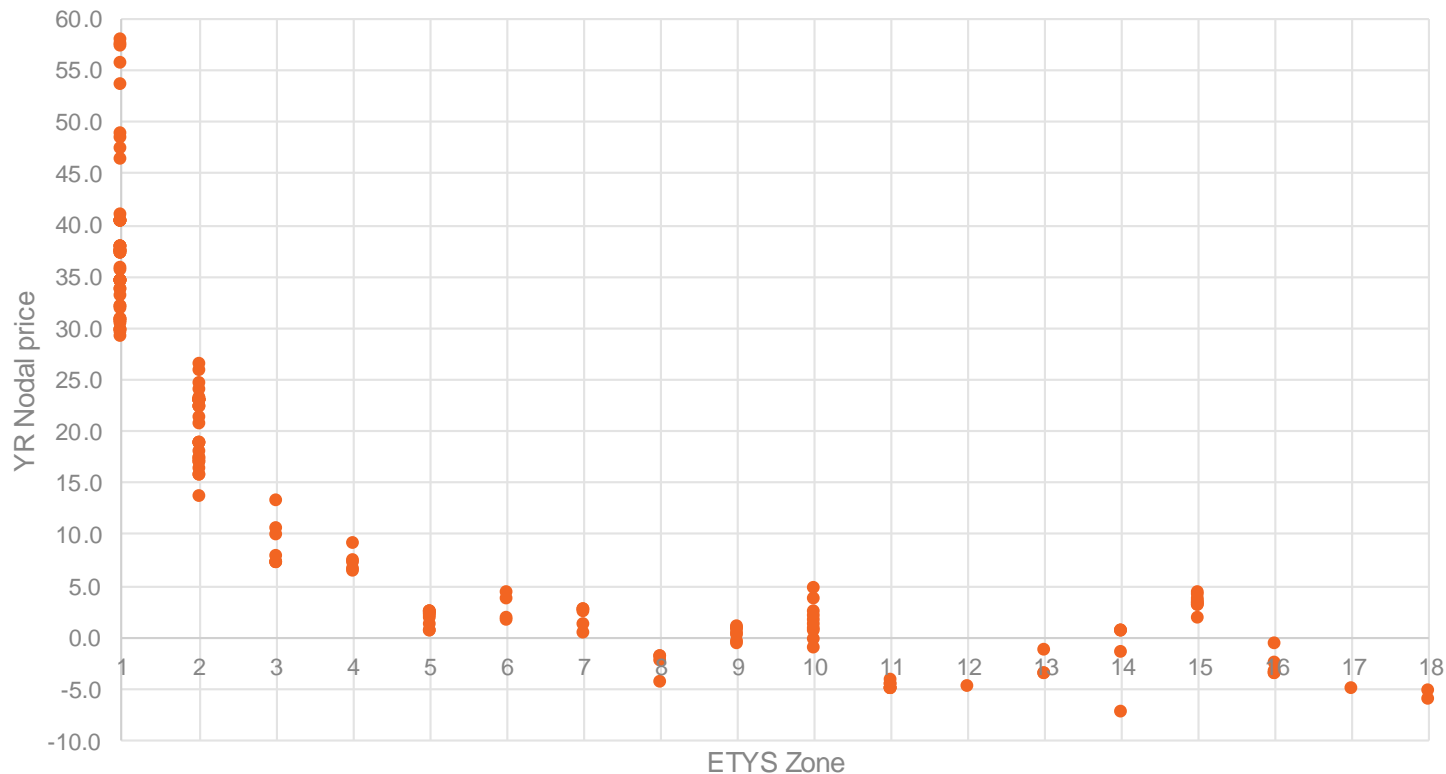
# ETYS Zones

Zone	ETYS Zone	Count of Nodes with YR Gen	Min (£/MWkm)	Mean Average (£/MWkm)	Max (£/MWkm)	Range (Max – Min)
1	T	54	£29.06	£37.91	£57.96	£28.90
2	S	34	£13.66	£20.68	£26.37	£12.71
3	Q	7	£7.23	£9.03	£13.24	£6.01
4	R	5	£6.46	£7.31	£8.97	£2.51
5	P	10	£0.51	£1.76	£2.35	£1.84
6	N	4	£1.66	£2.88	£4.31	£2.65
7	M	5	£0.30	£1.83	£2.64	£2.34
8	L	4	-£4.31	-£2.64	-£1.95	£2.36
9	K	7	-£0.71	£0.25	£0.97	£1.68
10	J	10	-£0.99	£1.58	£4.75	£5.74
11	H	7	-£5.10	-£4.78	-£4.14	£0.96
12	G	1	-£4.90	-£4.90	-£4.90	£0.00
13	D	3	-£3.58	-£2.76	-£1.22	£2.36
14	A	5	-£7.30	-£1.44	£0.53	£7.83
15	C	9	£1.81	£3.31	£4.36	£2.55
16	B	5	-£3.59	-£2.75	-£0.72	£2.87
17	E	1	-£4.99	-£4.99	-£4.99	£0.00
18	F	2	-£6.05	-£5.67	-£5.29	£0.76

Zone	Gen PS £/kW	Gen YR £/kW (shared and not-shared)
1	3.39	34.69
2	3.42	20.24
3	3.86	8.59
4	2.51	7.33
5	4.45	2.12
6	2.61	2.42
7	3.30	1.89
8	3.51	-2.14
9	3.78	0.30
10	0.14	2.21
11	7.13	-4.71
12	2.48	-4.90
13	-0.71	-3.46
14	-1.74	0.01
15	-4.04	3.52
16	-4.11	-2.34
17	-0.60	-4.99
18	-0.77	-5.99

# ETYS Zones

Zone	ETYS Zone
1	T
2	S
3	Q
4	R
5	P
6	N
7	M
8	L
9	K
10	J
11	H
12	G
13	D
14	A
15	C
16	B
17	E
18	F



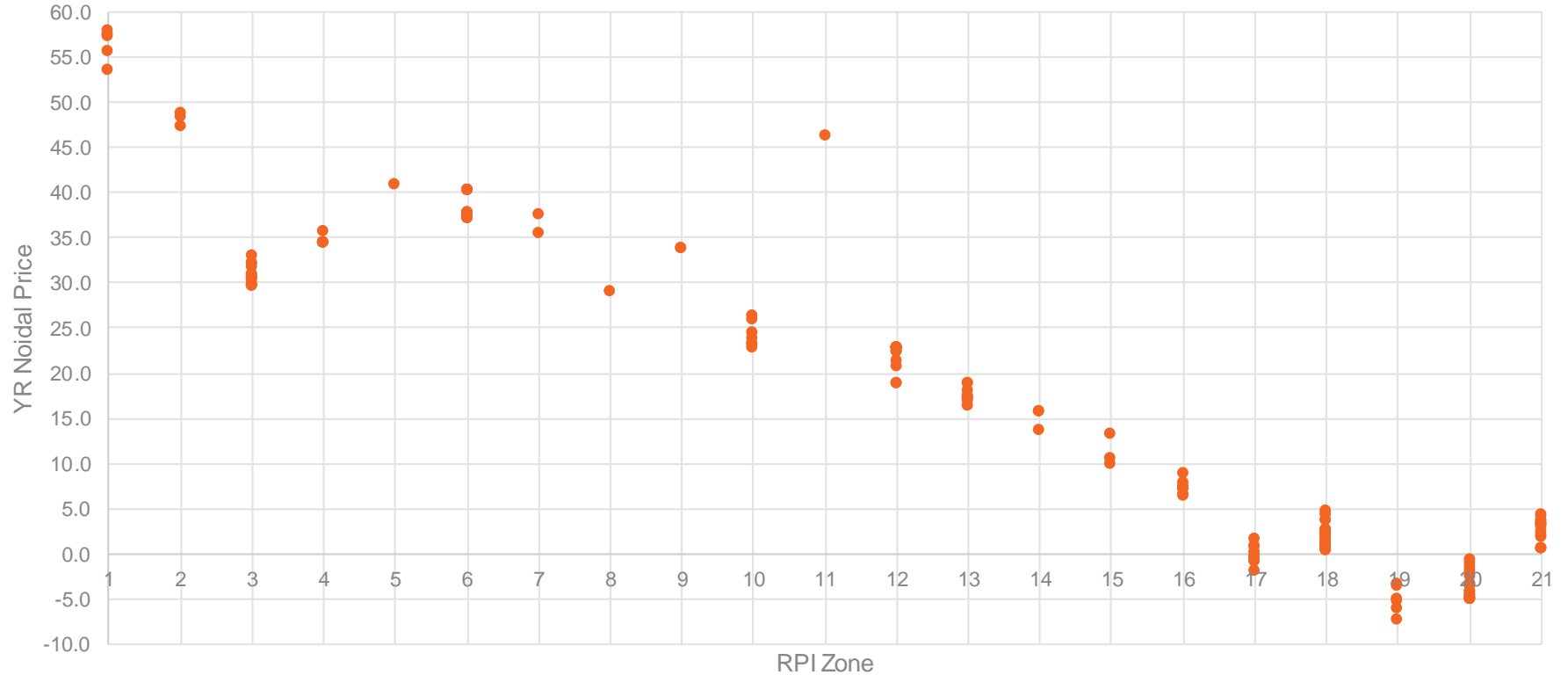
# RPI Zones (+/- £2.25)

Zone	Count of Nodes with YR Gen	Min (£/MWkm)	Mean Average (£/MWkm)	Max (£/MWkm)	Range (Max – Min)
1	5	£53.52	£56.41	£57.96	£4.44
2	3	£47.26	£48.15	£48.81	£1.55
3	14	£29.63	£30.86	£33.05	£3.42
4	8	£34.49	£34.65	£35.75	£1.26
5	1	£40.98	£40.98	£40.98	£0.00
6	17	£37.21	£38.49	£40.31	£3.10
7	2	£35.60	£36.55	£37.51	£1.91
8	1	£29.06	£29.06	£29.06	£0.00
9	2	£33.78	£33.78	£33.78	£0.00
10	7	£22.90	£24.28	£26.37	£3.47
11	1	£46.35	£46.35	£46.35	£0.00
12	15	£18.84	£21.99	£22.87	£4.03
13	9	£16.36	£17.55	£18.84	£2.48
14	3	£13.66	£15.07	£15.77	£2.11
15	3	£9.81	£11.21	£13.24	£3.43
16	9	£6.46	£7.35	£8.97	£2.51
17	9	-£1.95	-£0.14	£1.66	£3.61
18	26	£0.30	£1.95	£4.75	£4.45
19	6	-£7.30	-£5.11	-£3.48	£3.82
20	18	-£5.10	-£3.52	-£0.72	£4.38
21	14	£0.51	£2.55	£4.36	£3.85

Zone	Gen PS £/kW	Gen YR £/kW (shared and not-shared)
1	2.91	55.86
2	3.02	48.17
3	3.51	30.72
4	3.02	34.56
5	2.95	40.98
6	3.01	37.98
7	4.22	36.92
8	4.29	29.06
9	4.20	33.78
10	3.55	24.15
11	3.64	46.35
12	2.95	22.09
13	3.26	16.92
14	3.03	15.01
15	3.37	11.61
16	3.09	7.46
17	2.62	0.30
18	3.54	2.05
19	-0.72	-4.79
20	4.00	-3.38
21	-3.67	3.35



# RPI Zones (+/- £2.25)



# Current (27) Zones

Zone	Count of Nodes with YR Gen	Min (£/MWkm)	Mean Average (£/MWkm)	Max (£/MWkm)	Range (Max – Min)
1	29	£29.63	£41.54	£57.96	£28.33
2	2	£30.60	£30.60	£30.60	£0.00
3	8	£34.49	£34.65	£35.75	£1.26
4	1	£40.98	£40.98	£40.98	£0.00
5	6	£29.76	£30.92	£33.05	£3.29
6	2	£30.82	£30.82	£30.82	£0.00
7	5	£33.78	£37.40	£46.35	£12.57
8	2	£25.89	£27.48	£29.06	£3.17
9	1	£22.90	£22.90	£22.90	£0.00
10	16	£22.40	£23.21	£26.37	£3.97
11	13	£16.36	£18.29	£21.30	£4.94
12	4	£13.24	£14.61	£15.77	£2.53
13	6	£7.23	£8.33	£10.60	£3.37
14	5	£6.46	£7.31	£8.97	£2.51
15	8	£2.02	£2.69	£4.31	£2.29
16	13	-£0.71	£0.83	£2.40	£3.11
17	5	£0.69	£0.91	£1.26	£0.57
18	13	-£4.31	£0.15	£4.75	£9.06
19	2	£2.64	£2.64	£2.64	£0.00
20	1	-£4.58	-£4.58	-£4.58	£0.00
21	6	-£5.10	-£4.82	-£4.14	£0.96
22	1	-£4.90	-£4.90	-£4.90	£0.00
23	1	-£1.49	-£1.49	-£1.49	£0.00
24	12	£0.51	£2.61	£4.36	£3.85
25	4	-£7.30	-£3.77	-£0.72	£6.58
26	6	-£5.29	-£3.89	-£2.53	£2.76
27	1	-£6.05	-£6.05	-£6.05	£0.00

Zone	Gen PS £/kW	Gen YR £/kW (shared and not-shared)
1	3.01	37.92
2	3.36	30.60
3	3.02	34.56
4	2.95	40.98
5	4.35	31.79
6	4.47	30.82
7	4.20	38.41
8	4.26	26.23
9	2.89	22.90
10	3.32	23.48
11	3.26	17.19
12	2.85	14.15
13	3.89	8.05
14	2.51	7.33
15	4.17	2.45
16	3.64	1.09
17	2.04	0.89
18	1.74	1.12
19	3.91	2.64
20	9.17	-4.58
21	5.94	-4.78
22	2.48	-4.90
23	-3.97	-1.49
24	-3.74	3.41
25	-1.62	-2.32
26	-2.44	-3.63
27	-0.71	-6.05

# Current (27) Zones

