respect › commitment › teamwork

Technical Work Group

LDZ Aggregations

17th November 2015

Background

- April 2015 TWG highlighted instance where sample numbers were lower than preferred minimum number of 30
  - EUC 3 - 4 WAR 4 for NO had a sample size of 18
  - Available aggregations would have paired LDZs that individually had strong sample sizes
- Request to revisit existing aggregations
- Work plan agreed July 2015 including:
  - TWG proposed that list of data aggregations for modelling should be reviewed in advance of Spring analysis to see what might be preferred/substituted

September 2015 TWG

- At the September TWG we presented slides:
  - showing current aggregations in the modelling system
  - there was no scope for new aggregations without replacing existing aggregations
  - Mod 428 (de-aggregation of supply points) will have an impact on sample numbers

- TWG agreed to reconsider data aggregations after reassessment of sample numbers

Review of Sample Points

- AMR and Logger data for the gas year 2014/15 was collated and validated as per the existing rules.
- Sample number counts were then prepared in the same way as they are each Spring.
- The following slides shows all the updated sample numbers in Autumn 2015 compared to those collected in Spring 2015.

Sample Numbers consumption bands

Band	Spring 2015	Autumn 2015	Difference	Sample level
1	2,984	2,910	-74	Individual, NW / WN
2	1,272	1,669	397	Individual, NW / WN
3	1,169	1,555	386	Individual, NW / WN & WS / SW
4	2,273	2,521	248	Individual, NW / WN
5	1,496	1,508	12	Individual, NW / WN
6	706	714	8	Individual, NW / WN
7 + 8	538	559	21	Individual, NW / WN & WS / SW & SE / SO
Total	10,438	11,436	998	

- Sample numbers are higher especially in the lower bands.
- Exception is band 1 which is slightly down but still more than sufficient for individual LDZ analysis

Key Points

- The reassessment showed that the number of sample points has gone up overall for bands 1-8 by 998.
- Sample numbers are higher especially in the lower bands. Individual LDZ analysis is possible in all the consumption bands with only a few ldzs needing combining
- The key reason is the de aggregation of supply points where contributing supply points when separated are boosting the lower bands
- This has also influenced the Band 3 and 4 WAR band numbers which triggered this investigation (see next slide)

Small NDM Modelling Results
WAR Band Analysis: 293 to 2196 MWh pa

	WAR Banding											
	0.00 – 0.449			0.449 – 0.551			0.551 – 0.659			0.659 – 1.00		
	Spring 2015	Autumn 2015	Diff	Spring 2015	Autumn 2015	Diff	Spring 2015	Autumn 2015	Diff	Spring 2015	Autumn 2015	Diff
SC	84	86	2	128	161	33	131	158	27	45	31	-14
NO	38	37	-1	62	87	25	57	70	13	18	38	20
NW / WN	81	89	8	105	128	23	95	137	42	91	75	-16
NE	60	61	1	73	101	28	66	87	21	41	39	-2
EM	61	74	13	88	112	24	98	110	12	64	81	17
WM	62	72	10	83	94	11	90	107	17	87	88	1
WS / SW	41	54	13	72	77	5	61	76	15	58	58	0
EA	45	56	11	100	129	29	128	166	38	67	63	-4
NT	91	110	19	118	137	19	107	137	30	70	70	0
SE	70	99	29	119	161	42	123	138	15	80	72	-8
SO	51	68	17	83	103	20	75	106	31	75	73	-2

- NO WB4 Sample numbers are now sufficient as 18 has increased to 38
- Note: the WAR band ranges have not been reassessed in this comparison and do not reflect the 20%:30%:30%:20% target proportions (they are 19.8%:31.6%:31.7%:16.9%)

Recommendation

- Xoserve recommends that no changes are made to the existing aggregations for the Spring 2016 analysis.
- The existing concern with low number in the Band 3&4 WAR bands has been alleviated with the increase of sample numbers due to de-aggregation of supply points.
- The following two slides provide a reminder of the existing aggregations

Historic Aggregations

- Pre-existing aggregations

Used each year			
Individual LDZ	NW / WN	WS / SW	National (all 13 LDZs)
SC / NO / NW / WN	NE / EM / WM	SC / NO / NW / WN / NE / EM / WM	
WS / EA / NT / SE / SO / SW			
Used 2014 and were a tested aggregation in 2015			
EA / NT / SE	WS / SO / SW	NO / NW / WN	
Existing aggregation but not used recently			
SC / NO / NE		NW / EM / WM / WN	

- Aggregations should be geographically sensible groups
- Should work with other groupings to define a rule for all 13 LDZs for an EUC

New aggregations from Spring 2014

- Spring 2014 new combinations

Used / tested in 2014 and 2015			
EA / NT	SE / SO	EM / WM	NO / NE
Added in Spring 2014 but never used			
SC / NO	NE / NW / WN	EA / NT / SE/ SO	

- Aggregations should be geographically sensible groups
- Should work with other groupings to define a rule for all 13 LDZs for an EUC