

Demand Estimation Sub Committee

January 23rd 2006

NDM Report Publication

- 2005 report will be loaded during February onto the xoserve website
- DESC nominees will be notified once the information is loaded to enable test access
- 2006 draft publication will be issued on the xoserve website
 - Emails will be issued once 2006 publication is available
 - Formal written notification will be issued to names on the 2005 mailing list

Model Smoothing

- Model Smoothing analysis assesses benefits from smoothing and methodology to be applied
- Major changes have taken place for 2005/6 gas year
- DESC is asked to approve a move to biennial assessment of model smoothing starting from September 2007 to enable a full year of data to be collected post seasonal normal changes prior to analysis

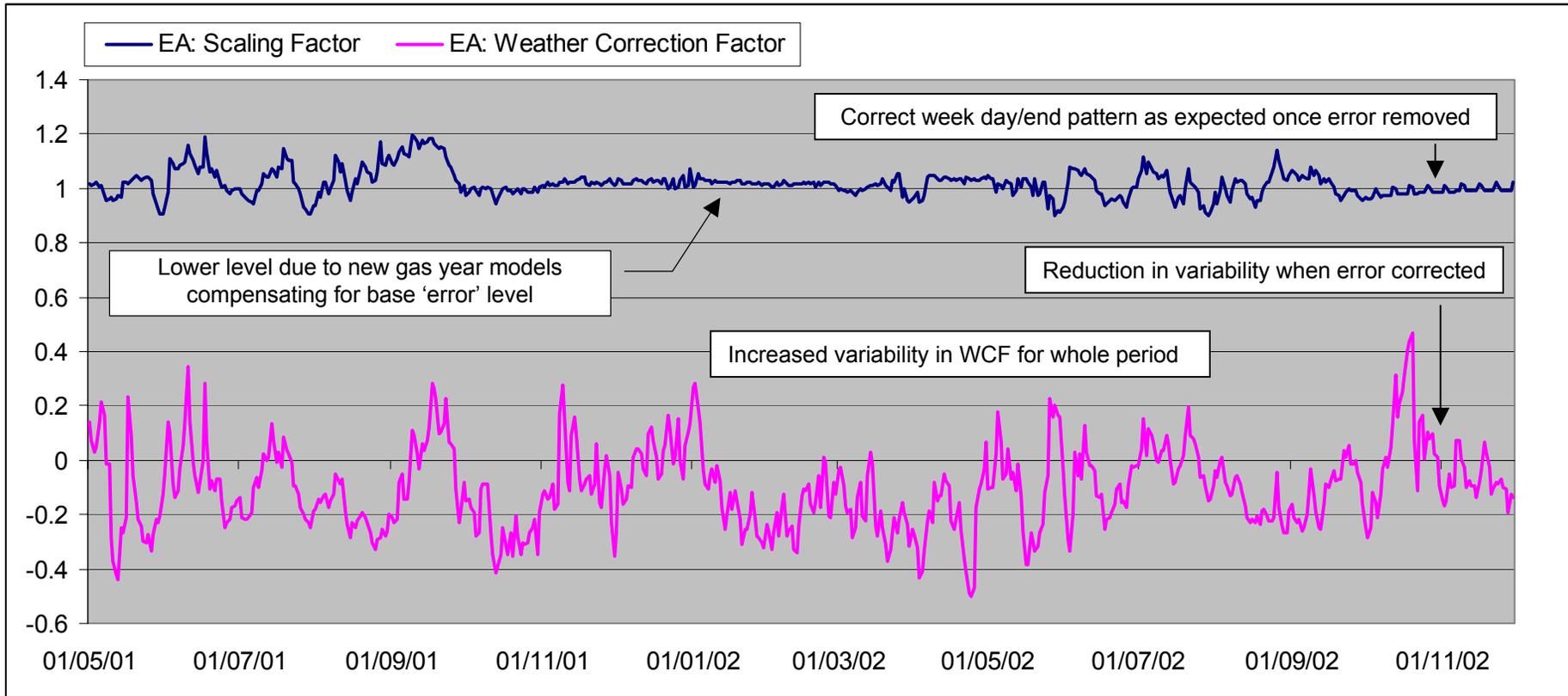
Whitwell Data

Background

- Whitwell error due to reversal of an orifice plate
- Covered 25th July 2001 to 21st October 2002



Demand Monitors



- Whitwell Correction:

- Orifice Plate Reversal – 25/07/01 to 17/07/02
- Meter Tube Diameter – 17/07/02 to 21/10/02

- Errors are identified through Scaling Factor or Weather Correction Factor

Spring Modelling

- DESC is asked to approve 2006 spring modelling as described in the paper issued to DESC in December 2005
 - Modelling on same basis as 2005
 - Smoothing as agreed in September 2005
 - 2005 base models will be re-run using new CWV definition for WS as agreed by DESC

NDM Sample Reporting

NDM Sample Targets: Data Recorders (0-73.2MWh)

- Difference between Required & Actual Sample

LDZ	REQUIRED Recorder Sample Size	ACTUAL Recorder Sample Size		Difference: Required to Jan 2006
		Dec 2004	Jan 2006	
SC	245	244	269	+24
NO	240	243	262	+22
NW / WN	250	240	260	+10
NE	250	253	289	+39
EM	255	244	274	+19
WM	250	244	264	+14
WS	255	241	266	+11
EA	250	242	274	+24
NT	250	249	280	+30
SE	245	240	272	+27
SO	250	243	264	+14
SW	250	244	271	+21
TOTAL	2,990	2,927	3,245	+255

December 2004 values are validated counts – Jan 06 are not validated

NDM Sample Population: Data Recorders (0 - 73.2 MWh) - Current Population By Band Compared to Market Total

LDZ	INSTALLED Sample Distribution (01/01/06)				
	0-10 MWh	10-20 MWh	20-30 MWh	30-73.2 MWh	Total
SC	15.7%	35.4%	29.5%	19.3%	100%
NO	12.6%	37.5%	31.6%	18.2%	100%
NW/WN	16.3%	40.6%	27.1%	15.9%	100%
NE	13.7%	42.2%	31.5%	12.6%	100%
EM	13.4%	43.1%	30.8%	12.6%	100%
WM	17.3%	38.6%	29.0%	16.5%	100%
WS	14.5%	39.5%	33.5%	12.5%	100%
EA	18.6%	39.1%	31.6%	10.7%	100%
NT	17.2%	37.9%	26.8%	18.0%	100%
SE	18.3%	38.1%	28.6%	15.1%	100%
SO	15.3%	48.8%	24.2%	11.7%	100%
SW	18.2%	44.7%	26.1%	11.1%	100%
TOTAL	15.9%	40.6%	29.2%	14.5%	100%

Total Supply Point Distribution (16/01/06)				
0-10 MWh	10-20 MWh	20-30 MWh	30-73.2 MWh	Total
16.8%	38.2%	28.8%	16.2%	100%
13.1%	40.7%	32.5%	13.7%	100%
17.0%	39.8%	28.9%	14.3%	100%
17.0%	39.8%	28.4%	14.8%	100%
15.2%	40.7%	30.8%	13.3%	100%
16.9%	41.3%	28.7%	13.0%	100%
14.8%	40.9%	31.3%	13.0%	100%
16.3%	43.5%	27.7%	12.5%	100%
22.6%	37.6%	24.6%	15.2%	100%
20.0%	40.5%	25.2%	14.6%	100%
17.8%	44.2%	26.2%	11.8%	100%
21.0%	46.7%	23.0%	9.4%	100%
17.4%	41.2%	28.0%	13.5%	100%

NDM Sample Population: Data Recorders (0 - 73.2 MWh)

– Current Population By Band Compared to Market

LDZ	Band – % Difference From Market (01/12/05)				
	0–10 MWh	10–20 MWh	20–30 MWh	30–73.2 MWh	Total
SC	-1.1%	-2.8%	+0.7%	+3.1%	-
NO	-0.5%	-3.2%	-0.9%	+4.5%	-
NW/WN	-0.7%	+0.8%	-1.8%	+1.6%	-
NE	-3.3%	+2.4%	+3.1%	-2.2%	-
EM	-1.8%	+2.4%	0.0%	-0.7%	-
WM	+0.4%	-2.7%	+0.3%	+3.5%	-
WS	-0.3%	-1.4%	+2.2%	-0.5%	-
EA	+2.3%	-4.4%	+3.9%	-1.8%	-
NT	-5.4%	+0.3%	+2.2%	+2.8%	-
SE	-1.7%	-2.4%	+3.4%	+0.5%	-
SO	-2.5%	+4.6%	-2.0%	-0.1%	-
SW	-2.8%	-2.0%	+3.1%	+1.7%	-
TOTAL	-1.5	-0.6	+1.2	+1	

NDM Sample Population: Data Recorders (0 - 73.2 MWh) – 2004 Population By Band Compared to Market Total

LDZ	Band – % Difference From Market (01/12/04)				
	0–10 MWh	10–20 MWh	20–30 MWh	30–73.2 MWh	Total
SC	-2.0%	-0.1%	-2.4%	4.4%	-
NO	0.8%	-0.9%	-1.0%	1.0%	-
NW/WN	1.1%	-2.9%	-0.1%	1.9%	-
NE	-3.4%	6.6%	-2.8%	-0.3%	-
EM	0.5%	1.0%	-0.1%	-1.5%	-
WM	0.7%	0.1%	-2.0%	1.2%	-
WS	0.9%	-2.4%	-0.2%	1.7%	-
EA	1.3%	-1.7%	0.2%	0.2%	-
NT	-2.8%	0.8%	1.4%	0.9%	-
SE	-0.7%	2.7%	-1.9%	-0.1%	-
SO	0.6%	1.3%	-0.8%	-1.1%	-
SW	1.8%	-1.5%	-1.6%	1.4%	-
TOTAL	-0.4%	0.6%	-0.7%	0.5%	-

NDM Sample Targets: Data Recorders (0-73.2MWh)

- Observations

- Excess of installed Data Recorders in all LDZ's
- Replacement program undertaken Summer 2005 to increase sample numbers - ongoing to maintain sample and align to market population
- Where termination occurs, bands where sample count is below population receive commissions
- Count for 2005 will reduce following validation – counts are expected to be similar to 2004
- 200 terminations occurred during 2005:
 - High proportion of the losses each year are from Shippers undertaking meter replacement and removing and disposing of the loggers.
 - Issue will be raised at Shipper Operation Forums

NDM Sample Targets:Data Loggers (>73.2 MWh)

- Current Sample Size Requirements

Consumption Range (MWh pa) & Band		LDZ												Total	
		SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO		SW
73.2 To 293	2	55	55	85	55	75	80	10	30	85	160	100	35	55	870
293 to 732	3	110	95	150	80	130	80	20	75	120	185	165	85	100	1395
732 to 2,196	4	425	270	450	340	445	335	50	175	445	480	520	360	260	4560
2,196 to 5,860	5	420	235	445	250	340	415	55	130	275	515	355	280	240	3960
5,860 to 14,650	6	125	85	195	105	150	185	20	65	110	180	105	85	90	1505
14,650 to 29,300	7	40	25	55	45	75	75	10	25	40	30	20	35	40	510
29,300 to 58,600	8	15	20	25	25	35	45	5	10	15	5	10	10	10	235
58,600+	9	ALL SUPPLY POINTS													
Total		1190	785	1405	900	1250	1215	170	510	1090	1555	1275	890	795	13030

NDM Sample Targets:Data Loggers (>73.2 MWh)

- Current Sample Size at 1st December 2005

Consumption Range (MWh pa) & Band		LDZ													Total
		SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	
73.2 To 293	2	72	69	126	58	94	116	7	30	97	171	105	46	65	1056
293 to 732	3	116	93	156	98	148	93	17	80	134	191	188	105	100	1519
732 to 2,196	4	418	265	463	317	418	323	59	181	429	477	507	358	272	4487
2,196 to 5,860	5	391	211	391	234	313	372	50	117	247	461	312	251	206	3556
5,860 to 14,650	6	114	77	167	93	138	168	22	58	105	149	84	84	94	1353
14,650 to 29,300	7	30	22	37	40	54	58	4	19	30	23	18	31	28	394
29,300 to 58,600	8	14	12	10	13	23	29	2	8	7	7	7	4	4	140
58,600+	9	ALL SUPPLY POINTS													
Total		1155	749	1350	853	1188	1159	161	493	1049	1479	1221	879	769	12505

NDM Sample Targets:Data Loggers (>73.2 MWh) Difference (Required & Actual)

Consumption Range (MWh pa) & Band		LDZ													Total
		SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	
73.2 To 293	2	+17	+14	+41	+3	+19	+36	-3	0	+12	+11	+5	+11	+10	+176
293 to 732	3	+6	-2	+6	+18	+18	+13	-3	+5	+14	+6	+23	+20	0	+124
732 to 2,196	4	-7	-5	+13	-23	-27	-12	+9	+6	-16	-3	-13	-2	+12	-68
2,196 to 5,860	5	-29	-24	-54	-16	-27	-43	-5	-13	-28	-54	-43	-29	-34	-399
5,860 to 14,650	6	-11	-8	-28	-12	-12	-17	+2	-7	-5	-31	-21	-1	+4	-147
14,650 to 29,300	7	-10	-3	-18	-5	-21	-17	-6	-6	-10	-7	-2	-4	-12	-121
29,300 to 58,600	8	-1	-8	-15	-12	-12	-16	-3	-2	-8	+2	-3	-6	-6	-90
58,600+	9	ALL SUPPLY POINTS													
Total		-35	-36	-55	-47	-62	-56	-9	-17	-41	-76	-54	-11	-26	-525

NDM Sample Targets: Data Loggers (> 73.2MWh)

- Sample Count Observations

- NDM Datalogger Sample figures have fallen
- xoserve have 'removed'
 - No Read received in 1 month
 - Meter Point Status is not Live
 - Supply Point does not exist
- Reflective of a more accurate sample
- Ongoing investigations of 'removed' Supply Points
 - Terminated but no notification
 - Receiving reads but Supply Point data incorrect (Status, MPRN)
 - 300+ Supply Points
- Network installation programme's are being initiated
- Collating new potential Supply Points report to aid installation programmes

NDM Sample Population: Data Loggers (>73.2 MWh)

- Population By Band as % of Total Market Population

Consumption Band (MWh)		ALL Market Population	Validated Sample Numbers			% Market Population		
			Autumn04	Spring05	Autumn05	Autumn04	Spring05	Autumn05
02	73.2-293	322,027	1,156	1,206	1,194	0.4%	0.4%	0.4%
03	293-732	54,521	1,123	1,281	1,294	2.1%	2.3%	2.4%
04	732-2196	24,944	3,948	4,162	4,066	15.8%	16.7%	16.3%
05	2196-5860	6,996	3,715	3,399	3,361	53.1%	48.6%	48.0%
06	5860-14650	2,090	1,419	1,299	1,272	67.9%	62.2%	60.9%
07	14650-29300	618	474	411	420	76.7%	66.5%	68.0%
08	29300-58600	294	247	224	219	84.0%	76.2%	74.5%
09	58600+	57 (NDM)	170	160	164	-	-	-
TOTAL		411,707	12,252	12,142	11,990	2.98%	2.95%	2.91%

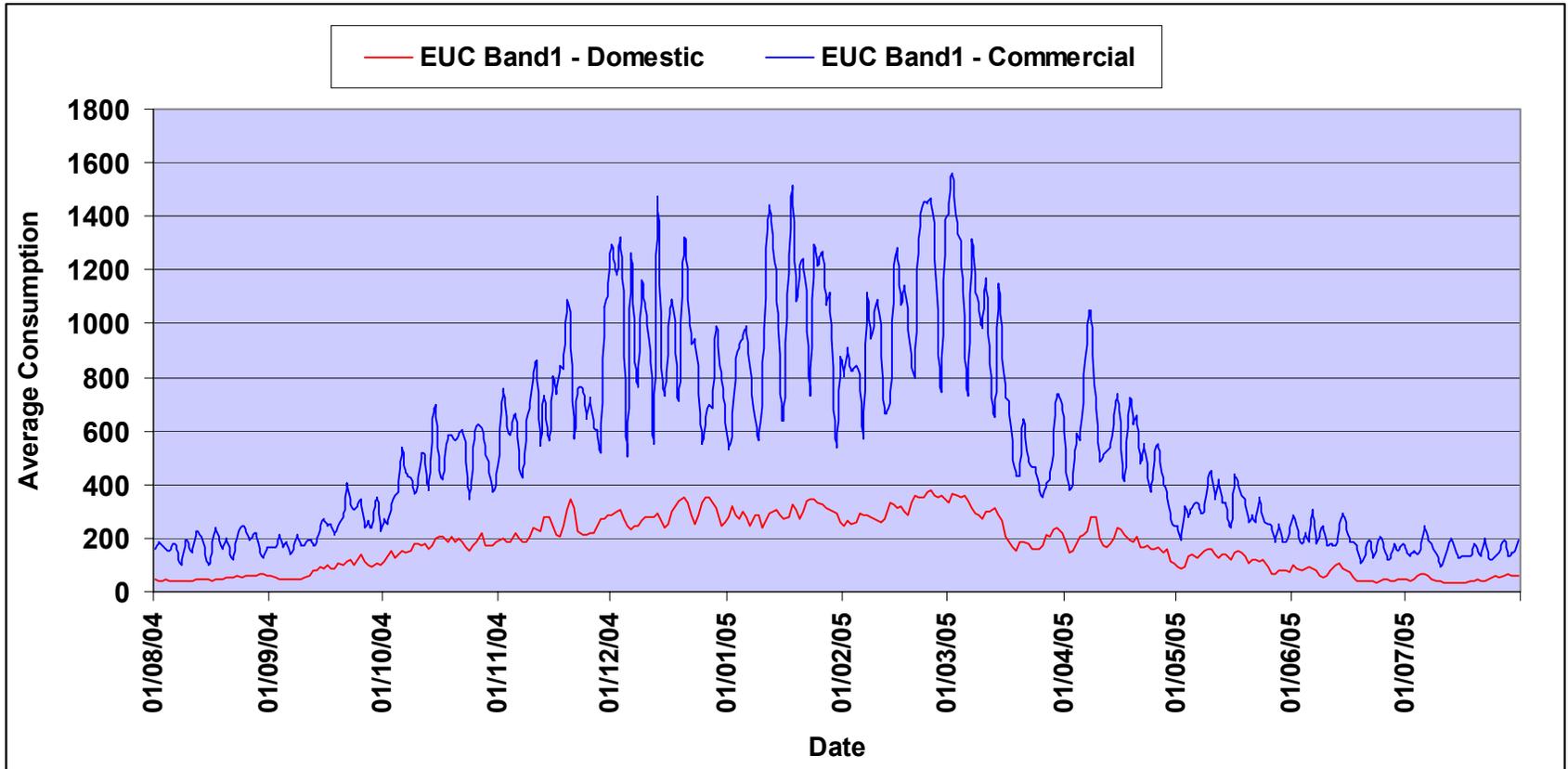
Note: Market Population as at 17/01/06

NDM Sample Targets: Data Loggers (> 73.2MWh)

- Population Comparison Observations

- Validated counts for Autumn 2005 are comparable with Autumn 04 and Spring 05
- Reduction of 262 Data Loggers is across all bands (result of terminations)
- Count in larger bandings (6,7,8) are similar to previous years
 - Levels of aggregation requirements remain similar to previous years
- Bands 6, 7 and 8 continue to reflect a high percentage of the actual population
- Satisfactory not to boost sample size further for these bands

Comparison of Consumption of Domestic & Commercial Data Recorders in Band 1 (<73 MWh)



- Data Recorder sample where AQ <73,200 and classified as Commercial or Domestic
- Profile is similar for Commercial and Domestic

Proposed Work Plan 2006/7

- June 2006
 - Consultation on EUC definitions and demand models
 - NDM algorithm performance for April 2005 to March 2006
- July 2006
 - Final consultation and response to any representations
- October/November 2006
 - Discussion of sample sizes
 - Annual end of gas year performance evaluation
 - WCF/SF strand
- December/January 2007
 - Annual end of gas year performance evaluation
 - RV Strand
 - NDM Sample strand
 - Discussion of approach to Spring 2007 modelling
 - NDM Sample reporting
- June 2007
 - Consultation on EUC definitions and demand models
 - NDM algorithm performance for April 2006 to March 2007