



# NDM Sample Reporting Annual Review

DESC 8<sup>th</sup> November 2007

**Datarecorders <73,200 kWh**

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

## Difference – Required : Actual Sample : Nov 2006

At 1<sup>st</sup> November 2006 & 2007 – Not validated counts. Spring 07 reflects final validated counts and % Fall Out from Nov 06

LDZ	Target Recorder Sample Size	ACTUAL Recorder Sample Size			Expected Spring 08 (07 Fall Out %)	Difference: Nov 07	
		1 <sup>st</sup> Nov 2006	Validated Spring 07	1 <sup>st</sup> Nov 2007		Target	Nov 06
SC	245	280	228 (19%)	284	231	+39	+4
NO	240	261	208 (20%)	279	222	+39	+18
NW / WN	250	267	196 (27%)	275	202	+25	+8
NE	250	287	208 (28%)	315	228	+65	+28
EM	255	279	200 (28%)	291	209	+36	+12
WM	250	266	187 (30%)	289	203	+39	+23
WS	255	270	217 (20%)	287	231	+32	+17
EA	250	280	223 (20%)	300	239	+50	+20
NT	250	269	228 (15%)	281	238	+31	+12
SE	245	272	202 (26%)	275	204	+30	+3
SO	250	267	220 (18%)	282	232	+32	+15
SW	250	268	204 (24%)	282	215	+32	+14
<b>TOTAL</b>	<b>2,990</b>	<b>3,266</b>	<b>2,521 (23%)</b>	<b>3,440</b>	<b>2,654</b>	<b>450</b>	<b>174</b>

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

*Proportion of the sample by sub band by LDZ compared to proportion of market by sub band for each LDZ*

LDZ	Band % Difference From Market (01/11/07) MWh			
	0-10	10-20	20-30	30-73.2
SC	-5%	-1%	-1%	7%
NO	-4%	-3%	4%	3%
NW/WN	-3%	-1%	-1%	4%
NE	-2%	-1%	3%	0%
EM	-4%	2%	-2%	4%
WM	-3%	-2%	-1%	7%
WS	-2%	-4%	-2%	8%
EA	-4%	0%	-1%	5%
NT	-6%	1%	-0%	4%
SE	-2%	-2%	1%	3%
SO	-5%	2%	0%	3%
SW	-4%	-3%	1%	7%
TOTAL	-4%	-1%	0%	4%

- Less recorders in sample in lower band compared to market

- More recorders in sample in upper band compared to market

- AQ Review has resulted in a reduction in Aqs highlighted in the shift to smaller bands

- Recent Collection terminations have occurred in lower bands

**Following Autumn collection:**

- Replacements will focus on move from 30 to 73.2 to 1 to 20 MWh to reflect current market

- Balance: Maintaining robust sample & being reflective of market

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

## Domestic / I&C Split: Sample & Market (Market Sector Flag)

- The balance is further maintained by using a sample of commercial sites with a consumption 0-73.2 MWh
- Allows analysis of impact of non-domestic site inclusion in the modelling
- Site selection is based on site-visits not MSF
- Modelling undertaken by comparison to market using MSF
  - Nov 07: 12.7 million sites have flag (8.4 million no flag)
- Sample maintains a higher proportion of non-domestics (to allow modelling) due to potential fall out
  - 95% DOM and 5% I&C - Sample : 97% DOM and 3% I&C – Market
- Selection of supply points used in modelling aligned to market at that time
  - Spring 2007: 2% of total validated sample population per LDZ has been used (as per MSF)

# NDM Sample: Data Recorders (0-73.2MWh) Domestic – I&C Split: Sample & Market (MSF)

LDZ	Recorder Sample Size				Market Population (MSF Flag: 12,587,353 Meter Points)						
	DOM		I&C		DOM (%of MSF)		I&C (% of MSF)		EMPTY (% of Market)		Total
SC	271	95%	13	5%	974,027	97%	26,433	3%	701,007	41%	1,701,467
NO	269	96%	10	4%	708,231	98%	15,958	2%	417,006	37%	1,141,195
NW / WN	264	96%	11	4%	1,611,355	97%	50,583	3%	1,190,186	42%	2,852,124
NE	303	96%	12	4%	799,761	97%	24,362	3%	483,297	37%	1,307,420
EM	273	94%	18	6%	1,279,520	97%	35,318	3%	836,954	39%	2,151,792
WM	274	95%	15	5%	1,097,034	97%	33,219	3%	779,233	41%	1,909,486
WS	274	95%	13	5%	571,156	98%	13,593	2%	205,322	26%	790,071
EA	283	94%	17	6%	937,634	97%	29,757	3%	735,866	43%	1,703,257
NT	262	93%	19	7%	1,177,191	96%	54,243	4%	991,024	45%	2,222,458
SE	263	96%	12	4%	1,340,559	97%	43,962	3%	1,027,231	43%	2,411,752
SO	269	95%	13	5%	895,609	97%	28,296	3%	599,021	39%	1,522,926
SW	265	94%	17	6%	814,816	97%	24,736	3%	514,272	38%	1,353,824
<b>TOTAL</b>	<b>3,270</b>	<b>95%</b>	<b>170</b>	<b>5%</b>	<b>12,206,893</b>	<b>97%</b>	<b>380,460</b>	<b>3%</b>	<b>8,480,419</b>	<b>40%</b>	<b>21,067,772</b>

Note: Commission of an additional I&C site can change percentage ratios by +/- 1%

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

## Conclusions

- Excess of installed data recorders in all LDZ's
- Ongoing replacements to maintain sample numbers
  - Replacements also used to align to current market population
- Smaller validated sample counts in Spring 07 analysis have been addressed
  - 2008 validated counts expected to be higher than 2007
- 257 terminations occurred between Nov 06 and Nov 07
  - Reduction from previous years (300 in 2005, 450 in 2006)
  - ALL Terminations are replaced with new sites
- Issue: 150 terminations / data losses as a result of meter exchange's resulting in loss of equipment or data
- Autumn collection (01/04 to 30/09) successfully completed 1<sup>st</sup> November
  - Collection Rate: 99.7% of sites (13 unable to collect)

**Dataloggers >73,200 kWh**



# NDM Sample: Datalogger Supply Points (>73.2 MWh) Active Current Sample Size at 01/10/07

*Active Sites : Inactive Sites (not included in counts) where no consumption or reads in 2 months*

Band	LDZ													Total	
	SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW		
2	64	69	124	57	110	103	7	37	105	167	119	58	76	1,096	384
3	143	92	163	112	147	99	19	83	142	172	205	127	96	1,600	129
4	396	261	402	284	394	317	48	176	391	469	557	343	265	4,303	205
5	340	178	345	216	279	338	47	98	215	401	268	228	173	3,126	120
6	99	72	142	81	110	128	19	50	85	117	84	74	76	1,137	17
7	25	19	32	34	46	49	4	18	23	15	9	24	22	320	19
8	9	12	9	8	15	25	2	8	4	3	4	7	6	112	3
9	3	1	2		4	3		1	1	4	1			20	2
Total	1,079	704	1,219	792	1,105	1,062	146	471	966	1,348	1,247	861	714	11,714	
	71	38	75	51	81	73	10	15	95	142	111	60	57		879

- 11,714 Active Sites
- 879 Inactive Sites where no consumption or read has been received in last two months
  - Instances investigated to determine faulty equipment or site closure
  - Would primarily improve Bands 2 to 5 and not bands with 'deficit' issues (6 to 8)

*NOTE: Counts per band are as per Sites & Meters AQ and NOT final validated AQs*

# NDM Sample: Datalogger Supply Points (>73.2 MWh) Comparison: ACTIVE Current Sample – Required Sample

Band		LDZ													Deficit
		SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	
73.2 To 293	2	9	14	39	2	35	23	-3	7	20	7	19	23	21	-3
293 to 732	3	33	-3	13	32	17	19	-1	8	22	-13	40	42	-4	-21
732 to 2,196	4	-29	-9	-48	-56	-51	-18	-2	1	-54	-11	37	-17	5	-295
2,196 to 5,860	5	-80	-57	-100	-34	-61	-77	-8	-32	-60	-114	-87	-52	-67	-829
5,860 to 14,650	6	-17	-11	-44	-23	-38	-49	-1	-11	-25	-40	-10	-11	-14	-294
14,650 to 29,300	7	-9	-5	-13	-11	-18	-17	-3	-3	-8	-11	-11	-11	-10	-130
29,300 to 58,600	8	-5	-4	-16	-2	-10	-7	-1	-2	-4	-2	-6	-1	-2	-62
Deficit		-140	-89	-221	-126	-178	-168	-19	-48	-151	-191	-114	-92	-97	-1,634

- Active Sample is 1,634 Supply Points below sample requirements (Bands 4 to 8)
- Number of sites changing to 'inactive' has resulted in some increase in deficit

# NDM Sample: Datalogger Supply Points (>73.2 MWh) Comparison: October 07 Sample & April 07 Sample

Band		LDZ													Gross
		SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	
73.2 To 293	2	-14	0	4	-9	10	-3	-1	-3	-1	-28	-4	6	1	-42
293 to 732	3	34	0	19	15	7	-4	3	7	2	-8	13	19	0	107
732 to 2,196	4	-4	8	-17	-9	-13	-9	-1	-1	-12	40	65	-12	8	43
2,196 to 5,860	5	-29	-25	-33	-9	-18	-17	-7	-11	-3	15	-10	3	-19	-163
5,860 to 14,650	6	5	-2	-16	-9	-3	-5	0	1	-19	-1	-4	1	-4	-56
14,650 to 29,300	7	-12	-5	-4	-2	-9	-2	-2	1	0	-3	-2	-7	-7	-54
29,300 to 58,600	8	3	2	-4	-1	-7	-1	0	-1	-2	1	-1	1	0	-10
Gross		-17	-22	-51	-24	-33	-41	-8	-7	-35	16	57	11	-21	-175

- Comparison to April 07 – last reported figures (DESC) and start of analysis period
- Installations occurring but issues with ‘inactive’ sites resulting in reduction of 175 active loggers

# NDM Sample: Datalogger Supply Points (>73.2 MWh) NET Terminations & Commissions Per Network Per Band

1<sup>ST</sup> April 2007 – 1<sup>ST</sup> October 2007 (Current Analysis Period) : Terminations NOT reflective of reduction in ACTIVE Sample

	Band 2	Band 3	Band 4	Band 5	Band 6	Band 7	Band 8	TOTAL
SC	-14	-1	21	3				9
NO	-5	-4	-2	-2	-1	-1		-15
NW/WN	-13	-5	-9	-13	-2			-42
NE	-8	-1	-2	-2				-13
EM	-2		-8	-4	-2			-16
WM	-18	-2	-14	5				-29
WS	-1			-5	-1			-7
EA	-9	-2	-9	-6	-3		-1	-30
NT	-26	-9	-5	1	-2			-41
SE	-12	9	67	10				74
SO	12	3	14	15	-1			43
SW	-6	-4	-2	-1	-1		-1	-15
<b>TOTAL</b>	<b>-102</b>	<b>-16</b>	<b>51</b>	<b>1</b>	<b>-13</b>	<b>-1</b>	<b>-2</b>	<b>-82</b>

- Band 2 & 3 reductions but still above requirements
- Bands 4 & 5 are being actively targeted – Site identification issues with Bands 6, 7 and 8
- 350 Commissions + 432 Terminations (approx. 75% 'inactive'): Net impact -82 loggers

# NDM Sample: Dataloggers Supply Points (>73.2 MWh) Percentage of Market Population Sampled (ACTIVE Sample)

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	N/A													
293 to 732	3	3%	3%	3%	3%	3%	2%	3%	5%	4%	3%	4%	3%	3%	3%
732 to 2,196	4	17%	23%	15%	20%	19%	14%	20%	27%	22%	14%	26%	19%	21%	19%
2,196 to 5,860	5	50%	52%	48%	56%	46%	54%	62%	56%	49%	42%	52%	50%	52%	50%
5,860 to 14,650	6	61%	64%	63%	66%	55%	66%	68%	70%	65%	51%	68%	62%	67%	62%
14,650 to 29,300	7	64%	86%	68%	79%	65%	71%	50%	95%	61%	37%	47%	73%	58%	66%
29,300 to 58,600	8	56%	80%	45%	73%	48%	76%	100%	80%	40%	30%	57%	64%	67%	61%

- Bands continue to represent a high percentage of the market population
- Issues with ability to identify and gain approval of installation at remaining sites in bands 6, 7 and 8

# NDM Sample: Datalogger Supply Points (>73.2 MWh) Comparison Validated Sample Spring 2007 – Spring 2006

Consumption Range (MWh pa) & Band		LDZ											
		SC	NO	NW / WN	NE	EM	WM	WS	EA	NT	SE	SO	SW
73.2 To 293	2	-12	16	3	-3	2	4	-4	-7	-7	18	-14	-5
293 to 732	3	5	-15	6	2	-9	2	8	-12	-8	-18	18	-2
732 to 2,196	4	-56	-21	-47	-15	-39	-45	-15	-9	-32	-47	-8	-12
2,196 to 5,860	5	-1	0	-19	-11	-5	-29	4	-10	-5	-6	-7	-6
5,860 to 14,650	6	1	-1	-15	3	-10	-10	-5	-2	-4	-4	-3	-4
14,650 to 29,300	7	3	3	2	-6	1	-5	-1	-4	-2	1	2	2
29,300 to 58,600	8	2	-2	-2	3	4	3	1	-1	1	-1	1	-2

- Final validated Datalogger counts were lower than previous years, overall -524
- But 2007 analysis saw the highest level of validation fallout (13% 2007, 10% 2006, 9% 2005)
- Validation comparable to 2002, possible anomaly?

# NDM Sample Targets: Observations & Impacts

- High level of terminations primarily due to site closures (84%)
- High volume of sites becoming inactive – fluctuating sample numbers
  - When terminate and seek replacement?
- High level of validation fall out in Spring 2007 (anomaly?)
- xoserve are aware of new installation programmes taking place
  - Scotia - Started July 07, addressing all shortfalls and installing new equipment
  - National Grid Gas - Installation of new equipment to address 'missing data' issues
- Sample count is still viewed as sufficient for analysis for most bands (7 & 8 issue)
- BUT continuation in fall of sample numbers may result in modelling issues
- xoserve monitor & inform Transporters of sample
- Continue to report on sample at each DESC meeting