



# **Collection of Daily Gas Consumption Data for EUC Modelling**

Demand Estimation Sub Committee  
Technical Workgroup

27/04/2022

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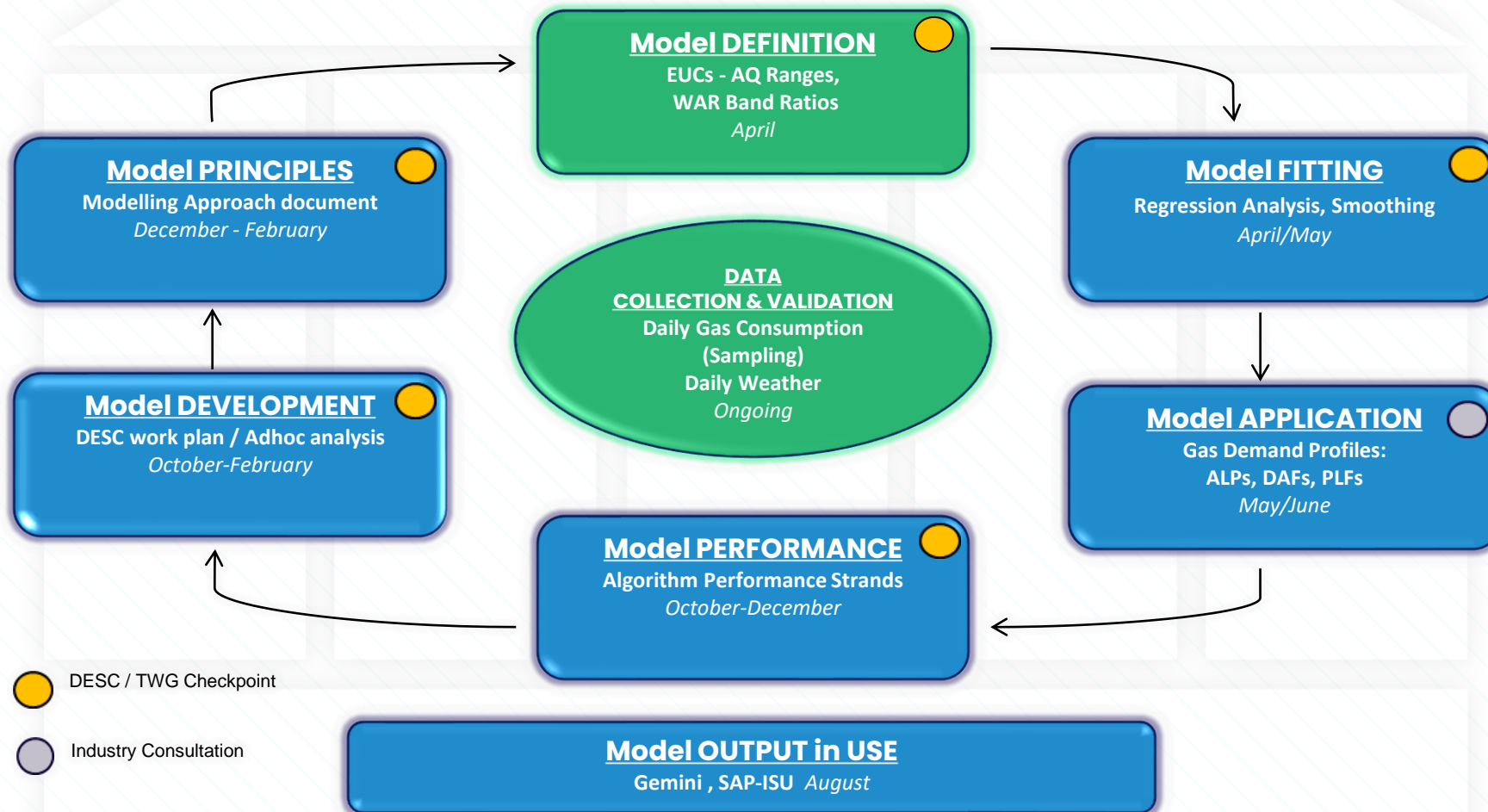


## Section 1

Background, Timetable and Objectives of Meeting

# Demand Estimation: Background

- An overview of the Demand Estimation process and output can be found [here](#)
- This presentation relates to the “Data Collection & Validation” and “Model Definition” phases of the Demand Model cycle



# Demand Estimation: Timetable - 2022

## High Level View of Demand Estimation Timetable 2022 - Key Checkpoints

PHASE	MILESTONE	CHECKPOINT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
1. MODEL PRINCIPLES	Modelling Approach 2022 Approved	DESC Meeting			02-Mar									
2. DATA COLLECTION & VALIDATION	Daily Gas Consumption Data validated	Internal				14-Apr								
3. MODEL DEFINITION	Agree Data Aggregations / WAR Band Limits	TWG Meeting				27-Apr								
4. MODEL FITTING	Gas Demand EUC Modelling review	TWG Meeting					24-May							
5. MODEL APPLICATION	Publication of Draft Gas Demand Profiles	Website						10-Jun						
	Gas Demand Profiles Approved for wider industry	DESC Meeting							07-Jul					
	Final Approval of Gas Demand Profiles	DESC Meeting							21-Jul					
6. MODEL OUTPUT IN USE	SAP-ISU and Gemini updated	Internal							14-Aug					
7. MODEL DEVELOPMENT	Adhoc Work-plan approved	DESC Meeting						21-Jul				05-Oct		
8. MODEL PERFORMANCE	NDM Algorithm Performance - Strands 1 to 3 Review	DESC Meeting												13-Dec

# Objective of Meeting

The objective of the “Model Definition” phase is to agree how the sample points available for modelling (post validation) should be deployed in the next phase - “Model Fitting”

Objective of today’s meeting is for TWG to:

- Review the number of sample points available for this year’s Analysis Period of 1<sup>st</sup> March 2021 to 31<sup>st</sup> March 2022
- Based on data available confirm the EUC definitions which require demand models
- Agree the most appropriate data sets to be used to represent the demand models, using LDZ aggregations where necessary
- Agree the Winter Annual Ratio (WAR) Thresholds for EUC Bands 3 and above



## Section 2

Summary of Validated Daily Gas Consumption

# Demand Estimation: Daily Gas Consumption Data

- The requirement to develop Demand Models and End User Categories relies upon certain key inputs, these are daily gas consumption data and daily weather data
- At this meeting, the focus is on the daily gas consumption data which this year covers the period 1<sup>st</sup> March 2021 to 31<sup>st</sup> March 2022. It has been necessary to extend the analysis period to 13 months this year to ensure a full Easter holiday period is included (as defined by the modelling system)
- The daily gas consumption data has been provided from the following sources:
  - Xoserve-managed sample data sets
  - Transporter-managed sample data sets
  - Third party provided sample data sets
  - Class 3 Data for EUC 01BPD (Domestic Prepayment consumers)
- Validation is applied to the daily gas consumption data in order to minimise data errors and therefore enhance the accuracy of the subsequent EUC gas demand models
- The validation is set out in the Modelling Approach document [here](#) (Appendix 2)



# Demand Estimation: Xoserve Managed Sample

- **Reminder:**  
At December's DESC meeting we updated you to advise that Spring 2022 would be the last time the Xoserve managed sample will be used to support Demand Estimation demand modelling
- Historically, Xoserve have maintained their own sample for EUC Bands 1 and 2 using a 3rd party provider for around 4,000 sites. This sample has been a key input to the Demand Estimation process for around 20 years
- Over recent years, the introduction of SMART meters has meant this number has dwindled to 1,900 sites (and is expected to continue to reduce further). This is due to the AMR device not being compatible with SMART meters.
- The introduction of MOD654S has sufficiently 'topped up' the data for Bands 1 and 2 and is now the main contributor to the sample, hence the decision was made to not renew the contract with our service provider from April 2022

# Demand Estimation: Target Numbers and Stratification

- DESC agreed at its meeting on 10th December 2018 to apply a stratification method to Band 1 Domestic and Band 2 Non-Domestic sites. The following sub bands were agreed:
  - Band 1: 0-10, 10-20, 20-30 and 30-73.2 MWh
  - Band 2: 73.2-140, 140-210 and 210-293 MWh
- Where the validated sample points for a particular EUC band are well in excess of the ideal target numbers, DESC agreed that a process should be created to select the required number of sample points needed to be representative of the population (which means in these cases not using all of the sample points available).
- Xoserve and Network managed samples will be prioritised ahead of third party data. Any additional sites obtained from third party provided data will be randomly selected to avoid any shipper bias in the demand profiles created.

# Population Size - April 2022 NDM

- The table below highlights the current population size for each LDZ and EUC combination
- These values are used to calculate the Target Sample Size

Population Size - April 2022 NDM - Class 3 and 4 only																
EUC Band	AQ Range (mWh)	Customer Type	LDZ													Total
			SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	
01	up to 73.2	Dom Non Pre Pay	1,907,896	1,198,853	2,634,077	1,367,040	2,340,194	1,985,433	244,337	819,030	1,919,532	2,105,440	2,445,874	1,732,521	1,574,105	22,274,332
		I&C Non Pre Pay	35,795	22,391	56,511	30,536	45,253	39,604	6,188	17,698	36,550	55,889	50,420	35,470	33,742	466,047
		Dom PrePay	202,510	96,997	255,588	106,568	170,556	170,503	24,604	79,172	125,641	233,995	212,047	83,990	93,950	1,856,121
		I&C PrePay	190	126	374	219	256	273	27	147	193	505	408	126	130	2,974
02	73.2 to 293	Dom Non Pre Pay	5,233	2,690	6,522	3,985	5,371	4,876	381	1,332	5,023	9,863	8,814	4,134	3,308	61,532
		I&C Non Pre Pay	11,801	7,117	16,432	9,027	13,822	12,628	1,720	4,600	11,391	16,899	15,196	11,545	9,597	141,775
		Dom PrePay	117	101	217	115	139	189	8	49	117	235	160	71	62	1,580
		I&C PrePay	9	6	12	5	4	7	0	0	5	10	16	6	5	85
03	293 to 732	All	4,368	2,406	5,013	2,627	4,077	3,879	438	1,256	3,388	5,710	4,368	3,309	2,633	43,472
04	732 to 2,196	All	1,951	908	1,932	1,053	1,640	1,676	228	588	1,418	2,719	1,697	1,394	1,029	18,233
05	2,196 to 5,860	All	482	210	501	274	398	438	47	132	313	744	345	271	224	4,379
06	5,860 to 14,650	All	134	74	161	107	190	144	23	52	117	173	86	99	95	1,455
07	14,650 to 29,300	All	56	27	78	44	88	48	14	20	43	46	37	28	37	566
08	29,300 to 58,600	All	15	15	35	11	55	27	4	13	28	21	17	13	20	274
09	Over 58,600	All	0	2	6	0	1	4	0	4	1	2	1	0	2	23
Total			2,170,557	1,331,923	2,977,459	1,521,611	2,582,044	2,219,729	278,019	924,093	2,103,760	2,432,251	2,739,486	1,872,977	1,718,939	24,872,848
Total Excl 09B			2,170,557	1,331,921	2,977,453	1,521,611	2,582,043	2,219,725	278,019	924,089	2,103,759	2,432,249	2,739,485	1,872,977	1,718,937	24,872,825

# Target Sample Size - April 2022 NDM

- The Target Sample Size is shown below for each LDZ / EUC:

Target Sample Size - April 2022 NDM - Class 3 and 4 only																	
EUC Band	AQ Range (mWh)	Customer Type	LDZ													Total	
			SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW		
01	up to 73.2	Dom Non Pre Pay	385	385	385	385	385	385	384	385	385	385	385	385	385	385	5,004
		I&C Non Pre Pay	381	379	382	380	382	381	362	377	381	382	382	381	381	381	4,931
		Dom PrePay	384	383	384	384	384	384	379	383	384	384	384	384	383	383	4,983
		I&C PrePay	127	95	190	140	154	160	25	107	129	219	198	95	97	1,736	
02	73.2 to 293	Dom Non Pre Pay	359	337	364	351	359	357	192	299	358	371	369	352	345	4,413	
		I&C Non Pre Pay	373	365	376	369	375	374	315	355	372	376	376	373	370	4,769	
		Dom PrePay	90	80	139	89	102	127	8	44	90	146	113	60	54	1,142	
		I&C PrePay	9	6	12	5	4	7	0	0	5	10	15	6	5	84	
03	293 to 732	All	354	332	358	336	352	350	205	295	346	361	354	345	336	4,324	
04	732 to 2,196	All	322	271	321	282	312	313	143	233	303	337	314	302	280	3,733	
05	2,196 to 5,860	All	214	136	218	160	196	205	42	98	173	254	182	159	142	2,179	
06	5,860 to 14,650	All	100	62	114	84	127	105	22	46	90	120	70	79	76	1,095	
07	14,650 to 29,300	All	49	25	65	40	72	43	14	19	39	41	34	26	34	501	
08	29,300 to 58,600	All	14	14	32	11	48	25	4	13	26	20	16	13	19	255	
09	Over 58,600	All	0	2	6	0	1	4	0	4	1	2	1	0	2	23	
		Total	1,152	928	1,265	1,007	1,214	1,179	438	752	1,073	1,291	1,099	990	948	13,336	
		Total Excl 09B	1,152	926	1,259	1,007	1,213	1,175	438	748	1,072	1,289	1,098	990	946	13,313	

# Active Target - April 2022 NDM

- The table below shows the number of sites that passed validation for each EUC / LDZ
- Green highlights where we have exceeded the number of sites set out in the target numbers, red shows where we have fell short
- Any EUC / LDZ combinations that have exceeded the target will be capped

Active Target - April 2022																
EUC Band	AQ Range (mWh)	Customer Type	LDZ													Total
			SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	
01	up to 73.2	Dom Non Pre Pay	755	826	981	673	640	525	299	419	535	492	1,087	522	452	8,206
		I&C Non Pre Pay	725	446	680	427	407	400	54	213	423	446	609	314	462	5,606
		Dom PrePay	73	301	585	310	292	266	130	126	126	149	18	148	276	2,800
		I&C PrePay	0	1	0	0	1	0	0	0	0	1	0	1	0	4
02	73.2 to 293	Dom Non Pre Pay	16	7	16	17	14	20	1	3	13	26	28	13	14	188
		I&C Non Pre Pay	1,069	388	847	453	722	761	70	210	491	675	661	515	490	7,352
		Dom PrePay	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		I&C PrePay	0	0	0	0	0	1	0	0	0	0	0	0	0	1
03	293 to 732	All	773	207	338	200	299	273	44	96	300	337	351	272	234	3,724
04	732 to 2,196	All	574	181	264	257	210	254	38	100	235	278	378	269	179	3,217
05	2,196 to 5,860	All	216	94	111	104	85	108	16	28	75	122	119	100	59	1,237
06	5,860 to 14,650	All	79	40	53	48	55	38	2	18	32	32	30	46	31	504
07	14,650 to 29,300	All	28	25	25	26	36	24	1	6	9	7	16	9	6	218
08	29,300 to 58,600	All	17	15	22	13	21	13	2	7	12	8	11	4	11	156
09	Over 58,600	All	5	23	33	27	31	27	7	14	13	4	0	0	13	197
Total			4,330	2,554	3,955	2,555	2,813	2,710	664	1,240	2,264	2,577	3,308	2,213	2,227	33,410
Total Excl 09B			4,325	2,531	3,922	2,528	2,782	2,683	657	1,226	2,251	2,573	3,308	2,213	2,214	33,213

# Post Stratification - April 2022 NDM

- This table shows the final numbers that will be passed to the modelling process following stratification and capping:

Sample Numbers after Stratification and Reduction - April 2022																
EUC Band	AQ Range (mWh)	Customer Type	LDZ													Total
			SC	NO	NW	NE	EM	WM	WN	WS	EA	NT	SE	SO	SW	
01	up to 73.2	Dom Non Pre Pay	385	385	385	385	385	385	298	385	385	385	385	385	385	4,918
		I&C Non Pre Pay	381	379	382	380	382	381	54	213	381	382	382	314	381	4,392
		Dom PrePay	73	301	384	310	292	266	130	126	126	149	18	148	276	2,599
		I&C PrePay	0	1	0	0	1	0	0	0	0	1	0	1	0	4
02	73.2 to 293	Dom Non Pre Pay	16	7	16	17	14	20	1	3	12	26	28	13	14	187
		I&C Non Pre Pay	373	360	376	369	375	374	70	210	372	376	376	373	370	4,374
		Dom PrePay	0	0	0	0	0	0	0	0	0	0	0	0	0	0
		I&C PrePay	0	0	0	0	0	1	0	0	0	0	0	0	0	1
03	293 to 732	All	354	207	338	200	299	273	44	96	300	337	351	272	234	3,305
04	732 to 2,196	All	322	181	264	257	210	254	38	100	235	278	314	269	179	2,901
05	2,196 to 5,860	All	216	94	111	104	85	108	16	28	75	122	119	100	59	1,237
06	5,860 to 14,650	All	79	40	53	48	55	38	2	18	32	32	30	46	31	504
07	14,650 to 29,300	All	28	25	25	26	36	24	1	6	9	7	16	9	6	218
08	29,300 to 58,600	All	17	15	22	13	21	13	2	7	12	8	11	4	11	156
09	Over 58,600	All	5	23	33	27	31	27	7	14	13	4	0	0	13	197
Total			2,249	2,018	2,389	2,136	2,186	2,164	663	1,206	1,952	2,107	2,030	1,934	1,959	24,993
Total Excl 09B			2,244	1,995	2,356	2,109	2,155	2,137	656	1,192	1,939	2,103	2,030	1,934	1,946	24,796

# Validation Rules Summary

The tables below show the current rules used in the sample validation.

Small NDM: 0 to 2,196 MWh p.a.

Source	EUC Bands	Missing Days		Consecutive Zeros		Spike Ratios	
		Summer	Winter	Summer	Winter	Summer	Winter
Xoserve Managed Sample (and any third-party data)	01 and 02	15 or more	15 or more	N/A	33 or more	15:01	08:01
Network Managed Sample (and any third-party data)	02, 03 and 04	33 or more	28 or more	N/A	20 or more	10:01	05:01

Large NDM: >2,196 MWh p.a.

Source	EUC Bands	Missing Days		Consecutive Zeros		Spike Ratios	
		Annual	Winter	Annual	Winter	Annual	Winter
Network Managed Sample (and any third-party data)	05,06,07 and 08	44 or more	20 or more	N/A	20 or more	08:01	N/A

Due to sample numbers increasing we are planning to review these this year, more details will be shared at the July DESC Meeting

# Demand Estimation: Validation Audit Trail

**TABLE A.1 - VALIDATION SUMMARY OF DAILY GAS CONSUMPTION DATA**

Analysis Period	01/03/21 to 31/03/22
<b>START: MPRs with at least 330 'Daily Gas Consumption Data' records present within the analysis period</b>	<b>58,508</b>
REMOVED: Exceeds Missing Read Tolerance	15,019
REMOVED: Missing Correction Factor	244
REMOVED: Exceeds Consecutive Zero Consumption Tolerance	5,142
REMOVED: AQ Ratio Failures	2,543
REMOVED: Winter vs Summer Consumpition Ratio Tolerance (Band 09B sites)	31
REMOVED: Winter Annual Ratio (WAR) Outside of Tolerance	239
REMOVED: Twin Stream Site	11
REMOVED: Exlcuded MPRN (i.e. HyDeploy or FlexGen site)	15
REMOVED: Excessive Number of Records Infilled	871
REMOVED: Multiple Data Providers	182
REMOVED: Exceeds Missing Read Tolerance Post Validation	6,415
REMOVED: Other (i.e. Scottish Independent LDZs; No LDZ on IS-U)	335
REMOVED: TOTAL	25,098
<b>PASSED VALIDATION (Pre Stratification)</b>	<b>33,410</b>
REMOVED: MPRs not required following Stratification	8,417
<b>PASSED VALIDATION (Post Stratification)</b>	<b>24,993</b>



# Demand Estimation: Summary of Validated Data

Validated sample counts – numbers provided are supply points

Notes:

During the validation process it was apparent again that the Market Sector Code (MSC) held on UK Link is not always reliable

Accuracy of the EUC demand models and also now EUC assignment will be impacted by these inaccuracies

A number of data issues with 3rd party data continued, prior to submission please ensure the data is quality checked as customer's know their data / systems better than us

A document highlighting common errors can be found [here](#).

EUC Bands: Range Source data	2021/22 data	2020/21 data
<b>Band 1:</b> 0 to 73.2 MWh pa Xoserve-managed, Third party provided and Class 3 (Domestic Pre-Payment only)	4,918 Domestic 4,392 Non-Domestic 2,599 Domestic Pre-Payment 4 Non-Domestic Pre-Payment	4,894 Domestic 3,127 Non-Domestic 3 Domestic Pre-Payment 0 Non-Domestic Pre-Payment
<b>Band 2:</b> 73.2 to 293 MWh pa Xoserve-managed, Transporter-managed and Third party provided	188 Domestic 4,374 Non-Domestic 0 Domestic Pre-Payment 1 Non-Domestic Pre-Payment	140 Domestic 4,100 Non-Domestic 0 Domestic Pre-Payment 1 Non-Domestic Pre-Payment
<b>Bands 3 to 4:</b> 293 to 2,196 MWh pa Transporter-managed and Third party provided	6,206	5,575
<b>Bands 5 to 9:</b> > 2,196 MWh pa Transporter-managed and Third party provided	2,312	2,580



## Section 3

### Review Approach to Small NDM Modelling

Sample Numbers & Proposed Aggregations for EUC Consumptions

Bands: 1 to 4 AQ Range: <2,196 MWh pa

# Total NDM Population Counts: AQ & Supply Point

- Small NDM is the main component of the overall NDM:
  - Band 1 (0-73.2 MWh pa) constitutes nearly 3/4 of overall NDM (on an AQ basis)
  - Bands 1 to 2 (0-293 MWh pa) constitutes nearly 4/5 of overall NDM
  - Bands 1 to 4 (0-2196 MWh pa) constitutes nearly 9/10 of overall NDM
- Large NDM is very much a minority component of overall NDM

EUC Bands: Range	% of Total NDM	
	Total AQ	Total SP Count
<b>Band 1:</b> 0 to 73.2 MWh pa	73.03%	98.90%
<b>Bands 1 to 2:</b> 0 to 293 MWh pa	79.16%	99.72%
<b>Bands 1 to 4:</b> 0 to 2,196 MWh pa	88.36%	99.97%
<b>Bands 5 to 9:</b> >2,196 MWh pa	11.64%	0.03%

# Proposed EUC Bands / Consumption Ranges for Small NDM (<2,196 MWh pa)

EUC consumption ranges not prescribed in Uniform Network Code

Band 1: 0 – 73.2 MWh pa

- Prepayment Domestic
- Non Prepayment Domestic
- Prepayment I&C
- Non Prepayment I&C

Band 2: 73.2 – 293 MWh pa

- Prepayment Domestic
- Non Prepayment Domestic
- Prepayment I&C
- Non Prepayment I&C

Band 3: 293 – 732 MWh pa

Band 4: 732 – 2,196 MWh pa



# Small NDM Consumption Bands: Review of EUC Band 1

EUC Bands: Range	Comments on 2021/22 data Proposed Modelling Runs	Final Modelling Runs for 2020/21
<b>Band 1 PPM Domestic:</b> 0 to 73.2 MWh pa	Individual LDZ analysis with SE combined with SO	Sample size issues - No model viable
<b>Band 1 Non PPM Domestic:</b> 0 to 73.2 MWh pa	Individual LDZ analysis for all LDZs	Individual LDZ analysis for all LDZs
<b>Band 1 PPM I&amp;C:</b> 0 to 73.2 MWh pa	Sample size issues - No model viable	Sample size issues - No model viable
<b>Band 1 Non PPM I&amp;C:</b> 0 to 73.2 MWh pa	Individual LDZ analysis for all LDZs	Individual LDZ analysis for all LDZs

Spreadsheet TW\_B\_SAMPLE\_POP\_SMALL\_270422.xlsx provides sample numbers per LDZ for Bands 1 to 4 and any recommendations for additional runs

# Pre-Payment EUC Demand Models

The previous EUC demand model for Pre-Payment EUCs uses consumption data that was provided to support UNC Modification 0451AV

This year, as per the agreement at DESC on 2<sup>nd</sup> March 2022 Class 3 data will be used for EUC 01BPD

Unfortunately, once again, we have not received sufficient Pre-Payment data from the Shippers impacted by MOD654S

Now that Class 3 data is being used, it is imperative that the data held in UK Link for Meter Mechanism and Payment Method is kept up to date

There are c. 2.1m supply points which are currently assigned this EUC

# Small NDM Consumption Bands: Review of Bands 2-4

EUC Bands: Range	Comments on 2021/22 data Proposed Modelling Runs	Final Modelling Runs for 2020/21
<b>Band 2 PPM Domestic:</b> 73.2 to 293 MWh pa	Sample size issues - No model viable	Sample size issues - No model viable
<b>Band 2 Non PPM Domestic:</b> 73.2 to 293 MWh pa	2 LDZ Group (SC/NO/NW/WN/NE/EM/WM & EA/NT/SE/WS/SO/SW)	2 LDZ Group (SC/NO/NW/WN/NE/EM/WM & EA/NT/SE/WS/SO/SW)
<b>Band 2 PPM I&amp;C:</b> 73.2 to 293 MWh pa	Sample size issues - No model viable	Sample size issues - No model viable
<b>Band 2 Non PPM I&amp;C:</b> 73.2 to 293 MWh pa	Individual LDZ analysis for all LDZs	Individual LDZ analysis for all LDZs
<b>Band 3:</b> 293 to 732 MWh pa	Individual LDZ analysis for all LDZs	Individual LDZ analysis for all LDZs
<b>Band 4:</b> 732 to 2,196 MWh pa	Individual LDZ analysis for all LDZs	Individual LDZ analysis for all LDZs

Spreadsheet TW\_B\_SAMPLE\_POP\_SMALL\_270422.xlsx provides sample numbers per LDZ for Bands 1 to 4 and any recommendations for additional runs



## Section 3 continued

### Review Approach to Small NDM Modelling

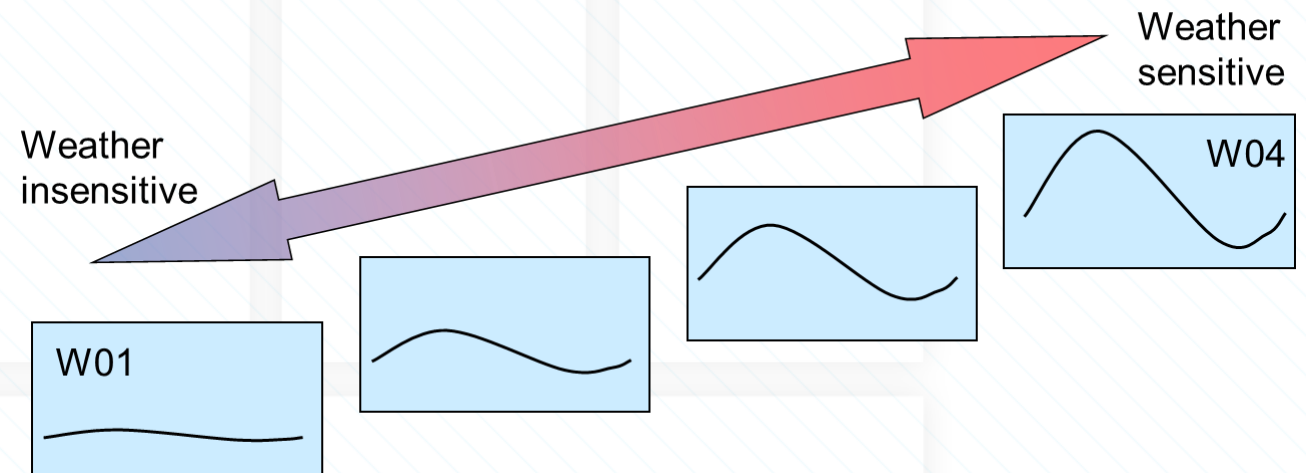
Sample Numbers, Proposed Aggregations & WAR Thresholds for EUC  
WAR Bands: 3 to 4 AQ Range: 293 to 2,196 MWh pa



# Winter: Annual Ratio (WAR) Band EUCs

- Higher AQ Bands, where meter points are monthly read, have a standard EUC plus 4 differential EUCs based on ratio of winter consumption to total annual consumption
- Sites with adequate read history are allocated automatically to a WAR Band based on system calculation during AQ review
- The WAR value of a supply point is defined as the actual consumption in the months December to March divided by the new supply point AQ
- Since the numerator is actual demand and the denominator is weather corrected annual consumption, WAR values change from year to year
- The limits defining WAR band EUCs are those applicable to the most recent winter (in this case winter 2021/22)

- When setting WAR Thresholds, DESC's approach is to aim for a 20%:30%:30%:20% split of sample numbers on a national basis
- There are practical limitations due to the actual distribution of WAR values of individual sample supply points in the consumption band
- WAR Thresholds will again be defined at 3 decimal points to make it easier to get closer to the target % splits
- For practical reasons we can only proceed to the modelling stage with one WAR Threshold per EUC band



# Movement in WAR Thresholds in 2022

- WAR Thresholds are affected by December to March weather experience:

Winter 21/22 was generally WARMER than 2020/21, so thresholds would be expected to decrease this year

- This is caused by a smaller Winter consumption in proportion to the AQ which makes the WAR ratios shift down



# Small NDM WAR Bands: Review of Bands 3-4

EUC Bands: Range	Comments on 2021/22 data Proposed Modelling Runs	Final Modelling Runs for 2020/21
<b>Band 1:</b> 0 to 73.2 MWh pa	Not generally Monthly read – no WAR Bands	
<b>Band 2:</b> 73.2 to 293 MWh pa	Not generally Monthly read – no WAR Bands	
<b>Band 3 and Band 4 (combined):</b> 293 to 2196 MWh pa	Individual LDZ for most LDZs except WN being combined with NW	Individual LDZ for most LDZs except WN being combined with NW

Spreadsheet TW\_B\_SAMPLE\_POP\_SMALL\_270422.xlsx (Table B.11) for recommendation on aggregations and WAR Band thresholds



## Section 4

### Review Approach to Large NDM Modelling

Sample Numbers & Proposed Aggregations for EUC Consumptions

Bands: 5 to 9 AQ Range: >2,196 MWh pa

# Proposed EUC Bands / Consumption Ranges for Large NDM (>2,196 MWh pa)

- Band 5: 2,196 to 5,860 MWh
- Band 6: 5,860 to 14,650 MWh
- Band 7: 14,650 to 29,300 MWh
- Band 8: 29,300 to 58,600 MWh
- Band 9: >58,600 MWh  
(1 Contingency Band for sites which should be DM)

## Note:

- Underlying demand modelling can be done on basis of more broadly aggregated bands
- DESC agreed in Spring 2014, as part of the adhoc analysis of EUC Definitions, that the bands 14,650 to 29,300 (Band 7) and 29,300 to 58,600 (Band 8) could be merged for modelling purposes if necessary

EUC Bands: Range	% of Total NDM	
	Total AQ	Total SP Count
<b>Band 1:</b> 0 to 73.2 MWh pa	73.03%	98.90%
<b>Bands 1 to 2:</b> 0 to 293 MWh pa	79.16%	99.74%
<b>Bands 1 to 4:</b> 0 to 2,196 MWh pa	88.36%	99.97%
<b>Bands 5 to 9:</b> >2,196 MWh pa	11.64%	0.03%

- Large NDM remains very much a minority component of overall NDM
- Bands 5 to 9 (>2,196 MWh pa) constitutes approx. 1/10 of overall NDM (on an AQ basis)

# Large NDM Consumption Bands: Review of Bands 5-9

EUC Bands: Range	Comments on 2021/22 data Proposed Modelling Runs	Final Modelling Runs for 2020/21
<b>Band 5:</b> 2,196 to 5,860 MWh pa	Individual LDZ for most LDZs except WN being combined with NW	Individual LDZ for most LDZs except WN being combined with NW
<b>Band 6:</b> 5,860 to 14,650 MWh pa	Individual LDZ analysis with WN combined with NW, and WS combined with SW	Individual LDZ analysis with WN combined with NW, and WS combined with SW
<b>Band 7 and Band 8 (combined):</b> 14,650 to 58,600 MWh pa	Individual LDZs with the following WS/SW, EA/NT, SE/SO and NW/WN combined	Individual LDZs with the following WS/SW, EA/NT, SE/SO and NW/WN combined
<b>Band 9:</b> >58,600 MWh pa	National	National

Spreadsheet TW\_C\_SAMPLE\_POP\_LARGE\_270422.xlsx provides sample numbers per LDZ for Bands 5 to 9 and any recommendations for additional runs



## Section 4 continued

### Review Approach to Large NDM Modelling

Sample Numbers, Proposed Aggregations & WAR Thresholds for EUC

WAR Bands: 5 to 8 AQ Range: 2,196 to 58,600 MWh

# Large NDM WAR Bands: Review of Bands 5-8

EUC Bands: Range	Comments on 2021/22 data Proposed Modelling Runs	Final Modelling Runs for 2020/21
<b>Band 5:</b> 2,196 to 5,860 MWh pa	5 LDZ group	5 LDZ group
<b>Band 6:</b> 5,860 to 14,650 MWh pa	3 LDZ group (SC/NO/NW/WN, NE/EM/WM & EA/NT/SE/WS/SO/SW)	3 LDZ group (SC/NO/NW/WN, NE/EM/WM & EA/NT/SE/WS/SO/SW)
<b>Band 7 and Band 8 (combined):</b> 14,650 to 58,600 MWh pa	2 LDZ group (SC/NO/NW/WN/NE/EM/WM & EA/NT/SE/WS/SO/SW)	2 LDZ group (SC/NO/NW/WN/NE/EM/WM & EA/NT/SE/WS/SO/SW)
<b>Band 9:</b> >58,600 MWh pa	N/A – No WAR Bands	

Spreadsheet TW\_C\_SAMPLE\_POP\_LARGE\_270422.xlsx provides sample numbers per LDZ for Bands 5 to 8 and any recommendations for additional runs



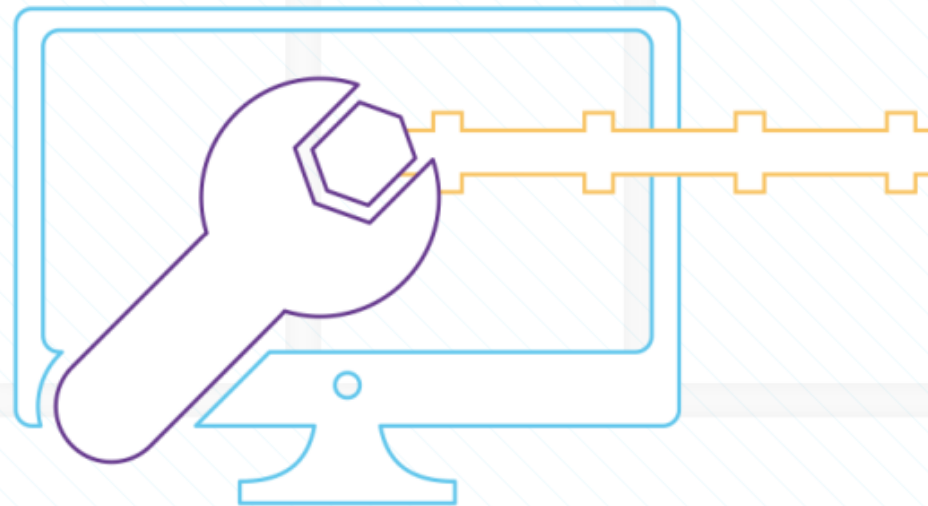


## Section 5

Meeting Summary – Review, Conclusions and Next Steps

# Meeting Summary

- Summary of decisions reached
- Recap on agreed actions, owners and timescales
- Any further questions about this stage ?



# Next Steps

April to June 2022

01) Demand Estimation Team to commence EUC demand modelling based on today's decisions

28/04 to 13/05

02) Demand Estimation Team to share EUC demand modelling results for TWG to review

w/c 16/05

03) TWG meeting where EUC demand modelling results will be presented and discussed

24/05

04) Demand Estimation Team to prepare draft profiles for Gas Year 2022/23

25/05 to 10/06