



Filton Weather Station Update

DESC: 8th October 2018

- Key industry processes require various types of gas demand estimation at NDM Supply Points. These processes include:
 - Determining Supply Point Capacity
 - Daily Nominations and Allocations i.e. NDM Supply Meter Point Demand Formula
 - Determining Annual Quantities (AQs)
- To achieve this estimation, each NDM Supply Point belongs to an End User Category (EUC)
- EUCs are used to categorise NDM Supply Points in an LDZ and are defined by reference to variables which are maintained in the Supply Point Register
- Each EUC requires an associated Demand Model which represents its gas usage characteristics e.g. weather sensitivity, consumption profile etc
- Demand Models are mathematical models which provides an estimate of gas demand for each EUC by reference to variables determined by DESC

Overview: Demand Estimation

- For each Gas Year, DESC will develop or revise the definitions of the EUCs for the LDZ and the Demand Models for each EUC. The CDSP will then implement these decisions
- The annual process for determining the EUCs and Demand Models for the following gas year begins with the production of a document called the “Spring Approach”
- The Spring Approach provides an overview of the proposed EUC definitions and how the modelling shall be performed, including a reference to the sample data required in order to produce the relevant demand models
- DESC approved the latest version of the Spring Approach after its meeting in February, which included the possibility of deriving additional EUCs in Bands 1 and 2
- Section H of UNC and the NDM Demand Estimation Methodology document provides more detail of the Demand Estimation process

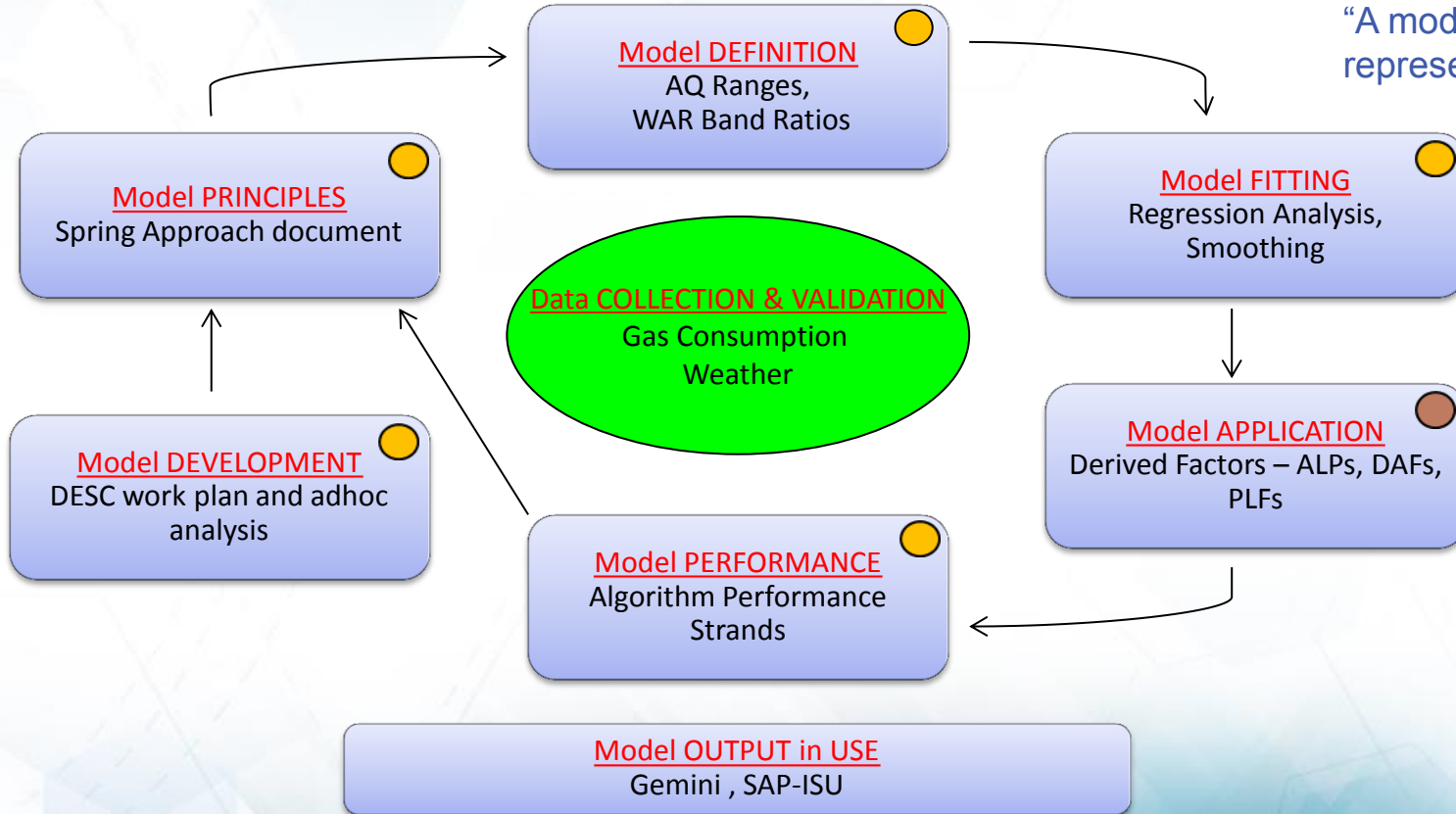
Overview: Demand Modelling Framework

- DESC's obligation of producing a set of End User Categories and Demand Models for the next gas year has to be delivered within certain timescales:
 - The sample data collected for analysis must include the most recent Winter period (December to March), meaning the sample data collation and validation cannot start until early April
 - The Final EUCs and Demand Models must be approved and submitted to the Authority and loaded to CDSP's systems by 15th August
 - In between April and August is when the sample data validation results are reviewed, WAR Band ratios are set, single year models are developed and reviewed, model smoothing is applied, draft Derived Factors are produced and reviewed, followed by an industry consultation commencing early June
- The above explains why it is necessary to agree modelling principles and methodologies in February each year, as there is not time in the Spring/Summer to make fundamental modelling decisions and gain agreement from all DESC members

Overview: EUC & Demand Model Lifecycle

The purpose of the **EUC Demand Model** is to represent the behaviour and reactions of the **EUC Population**

“A model is a simplified representation of reality”



● DESC / TWG Checkpoint

● Industry Consultation

Overview: Demand Estimation Timetable - 2018

High Level View of Demand Estimation Timetable 2018 - Key Checkpoints

PHASE	JAN'18	FEB'18	MAR'18	APR'18	MAY'18	JUN'18	JUL'18	AUG'18	SEP'18	OCT'18	NOV'18	DEC'18
1. MODEL PRINCIPLES												
Spring Approach 2018 Approved (DESC)		13th Feb										
2. Data COLLECTION & VALIDATION												
Sample data validated (CDSP)				13th Apr								
3. MODEL DEFINITION												
Agree Data Aggregations / WAR Band Limits (TWG)				24th Apr								
4. MODEL FITTING												
Small & Large NDM Single Year modelling review (TWG)					15th May							
5. MODEL APPLICATION												
Publication of Draft Derived Factors (CDSP)						1st June						
Derived Factors Approved for wider industry (TWG/DESC)							9th July					
Final Approval of Derived Factors (DESC)							24th July					
6. MODEL OUTPUT IN USE												
SAP-ISU and Gemini updated (CDSP)								15th Aug				
7. MODEL DEVELOPMENT												
Adhoc Work-plan approved (DESC)							24th July			8th Oct		
8. MODEL PERFORMANCE												
Strands 1 to 4 reviewed (DESC)												10th Dec

Objective

- To provide DESC with latest information relating to Filton Weather Station closure

- The Met Office advised earlier this year that Filton Weather Station was at risk of closure due to the site being used for a housing development. During August'18 it was confirmed that closure was expected late September'18
- The Composite Weather Variable (CWV) for LDZ SW uses weather data from Filton. Until the parameters within the CWV calculation are re-optimised it is necessary to 'mimic Filton' weather station
- The industry document to refer to in these instances is the Weather Station Substitution Methodology (WSSM)
- Analysis was shared with DESC on 5th September 2018 following the guidelines in WSSM, as a result DESC agreed to use Yeovilton weather station + 'Filton bias adjustments' until September 2020

Update (as at 28th September 2018)

- Filton weather station remains open, however Met Office have advised that closure is imminent and at this stage is likely to happen without warning
- WWU approved the work necessary for its Weather Service Provider (WSP) to update their systems, in order to apply the bias adjustments to the weather data for SW LDZ, prior to sending to Xoserve
- It is expected that the WSP will start to use Yeovilton with the bias adjustments applied from w/c 1st October 2018

- The Weather Station Substitution Methodology (WSSM) has been a very useful reference in supporting DESC through the management of the Filton weather station closure
- The new arrangements should be in place very soon, once fully implemented we shall provide a communication to DESC and publish the table of bias adjustments for future reference