Demand Estimation Sub Committee

5.0 DESC Adhoc Workplan Update

13th December 2022

Overview

- **1. MODELLING APPROACH:**
  - End User Category (EUC)
  - Demand Models
  - Gas Demand Profiles

- **2. INPUT:**
  - Maintain Sample
  - Data Collection & Validation
  - Weather Stations / Data

- **3. MODELLING:**
  - Latest Analysis Period
  - Review Results
  - Model Smoothing

- **4. GAS DEMAND PROFILES:**
  - Annual Load Profile (ALP)
  - Daily Adjustment Factor (DAF)
  - Peak Load Factor (PLF)

- **5. INDUSTRY CONSULTATION:**
  - DESC Review
  - NDM Algorithms Booklet
  - Industry Review
  - Core Systems Updated

- **6. MODEL REVIEW:**
  - Adhoc Workplan
  - NDM Algorithm Performance

- **DEMAND ESTIMATION:**
  - Gemini: NDM Nominations / Allocation
  - UK Link: AQ and SOQ Calculation / Read Estimation

- An overview of the Demand Estimation process and output can be found here

- Annual modelling cycle of activities are represented in diagram opposite

- This presentation relates to the 'Model Review' phase the Demand Model cycle

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CDSP / DESC Obligations and Timetable: October 2022 to September 2023

Milestone	UNC H Ref	10/22	11/22	12/22	01/23	02/23	03/23	04/23	05/23	06/23	07/23	08/23	09/23
DESC Membership confirmed	1.12	✔											
NDM Sampling: Data Collection and Validation	1.6	✔						✔					
NDM Algorithm Performance for Gas Year 2021/22	1.8			✔								✔	
DESC Adhoc Workplan	1.7	✔		✔			✔						
DESC Modelling Approach – EUCs and Demand Models	1.7			✔			✔						
Single Year EUC Demand Modelling	1.7								✔				
Model Smoothing and Draft Gas Demand Profiles	1.7									✔			
Industry Consultation	1.8									✔	✔		
Gas Demand Profiles finalised and Core systems updated	1.9											✔	
Climate Change Methodology progressed (SN Review 2025)	1.4			✔			✔		✔		✔		

Objectives

- To provide an update on the following areas of the DESC Adhoc Workplan, agreed in July (link):

  - EUC Review:
    - Review of existing End User Category (EUC) definitions

  - Review of Validation Rules:
    - Review of existing cleansing and validation processes/ rules for managing submissions of daily gas consumption data

  - Review of DESC Material:
    - Review of existing meeting material (documents, presentations, charts, tables, statistics etc) shared with DESC and TWG during the year

EUC Review - Progress update

- Due to the Algorithm Performance review there is no further progress to report at present

- Progress so far was presented to DESC in October and is available here

- Any proposed changes requiring sign-off will be circulated prior to the 2nd March DESC meeting

Review of Validation Rules

- Due to the workload supporting Algorithm Performance and XRN5143 (Discharge of Cadent, WWU and NGN NDM sampling obligations by the CDSP), there are no updates to report with this item

- Further progress is expected at the March meeting. As a reminder, the following slides provide a recap on the focus areas

MOD754R Focus Areas

- Utilise Advanced Analytics to enhance our existing validation routines, to help identify suspicious demand patterns in assessing sample MPRs

  - Uncertainty Estimator: UIG Task Force validation suggestions (UIG TF 1328)

  - Individual MPR Regression: Use of computer processing capability to target individual MPRs patterns - regression test Monday to Thursday for each MPR for high level pattern

  - Winter Zero Consumption: Analysis of the number of zero consumption in the winter period, December to March) (i.e. targeting questionable patterns)

- See workgroup material [here](#)

Next Steps

- Continue the investigation and analysis proposed in MOD754R

- Consecutive Zero Consumption
    - Why is it only for consecutive zeroes?
    - Would a count work better to highlight erroneous data?
- Volume Spikes
    - Can we improve the way volume spikes are identified?
    - How do we classify a spike?
- Incorrect Market Sector Codes
    - How can we identify them?
- Missing Days
    - Why does it differ by site size when the infill method is the same?

- We will share ideas we have on this during the next few DESC meetings but we do welcome your feedback / ideas on this

- Expect to report at the March DESC meeting with any proposed changes / recommendations in place for Spring 2023

Review of DESC Material - Progress update

- Hopefully you will have noticed an improvement to the published data

- Please let us know if there is anything you would like to see or if there is anything we can do to improve our communications

- This item will be closed, however we will continue to work on improving the data presentation