

NDM Profile Model Methodology

Version 13

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Contents

1	Introduction	3
2	Background	4
3	Methodology	5
4	Profiles	6
5	Disclaimer	8

1 Introduction

This paper sets out the methodology used by Gas Networks Ireland (GNI) to prepare non-daily metered (NDM) consumption profiles.

2 Background

A supplier considering entering a particular sector of the NDM market is able to obtain three items of information from the Gas Point Registration Office (GPRO) in respect of individual customers that have authorised the release of such information:

- Annual Quantity (AQ)
- Supply Point Capacity (SPC)
- Two years of actual metered consumption

The Commission for Regulation of Utilities (CRU) requested that GNI should also be required to provide typical 'profiles' for various customer groups. Such profiles would describe the likely average monthly consumption within the customer group, given particular assumptions as to long run weather patterns.

GNI developed profiles for four NDM customer groups; one for Residential customers and three for Industrial and Commercial customers.

3 Methodology

The GNI NDM customer profiles provide the percentage of annual consumption used each month, for each category of customer.

- Gas point counts as of 01 August 2020 were extracted from the FAR (Forecasting, Allocation and Reconciliation) database.
 - The data extracted was for all active gas points. That is, gas points with a registered Shipper on that date.
- The gas points were broken down into four different categories based on:
 - Residential or Industrial and Commercial status,
 - Annual Quantity, and
 - Supply Point Capacity as related to the Fuel Variation Tariff (FVT)
- The A and B factors¹ that existed on 01 August 2020 were summed by category to give total category A and B factors.
 - These A and B factors were used with the daily normalised Degree Day data and day of week (DoW) factors for each day of the last full gas year (2018/19) to generate daily allocations for each category. The Daily Allocation Scaling Factor (DASF) was set to one for each day.
 - Allocation = (Factor A + (Factor B * WDD)) * DoW * DASF
 - It should be noted that the actual A and B Factors that existed on 01 August take into account all known information on that date. There may be a difference between the actual historical demand and that derived from the A and B factors.
- The total annual consumption (kWh) per category was estimated from the daily allocations. The annual consumption figures were divided by the number of gas points per category to give an average consumption (kWh) per gas point per category.

¹ See FAR Procedures in the Code of Operations

4 Profiles

Table 1 provides information related to each category; count of gas points, qualifying criteria and average annual consumption per gas point.

Table 1: Profile category information

Group	GPRNs	AQ Range, kWh	SPC Range, kWh	Average Consumption, kWh
RD	682,341	>= 0		11,591
IC1	15,760	< 73,000		25,876
IC2	9,312	>= 73,000	< 3750	183,232
IC3	1,932		>= 3750	1,328,313

Figure 1 provides the profile of each category over the course of a gas year. That is, the percentage of the annual consumption for each category in each month.

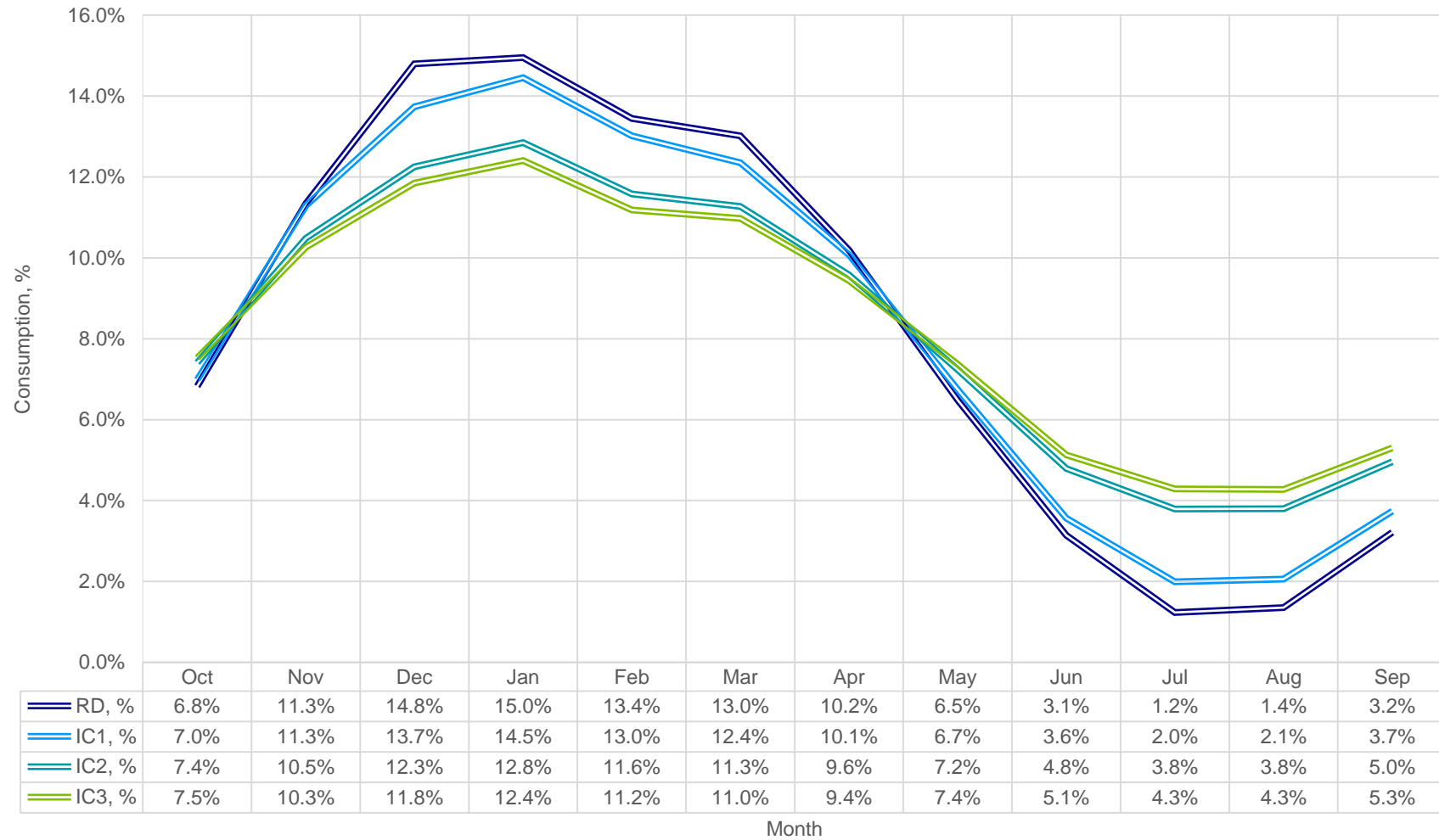


Figure 1: NDM allocation profile by category

5 Disclaimer

This graph and data (the “Information”) have been produced for the purpose of providing a general overview of the profile of annual gas allocations to NDM customers using data generated in accordance with the Forecasting, Allocation and Reconciliation Procedures (“FAR”).

It is the responsibility of individual suppliers to judge the appropriate quantity and timing of hedging purchases for their NDM gas customers.

The average consumption for customers for *newly connected* sites in each group may differ from that of the group as a whole. Suppliers therefore need to exercise judgement in cases where historic consumption data is not available.

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