Cadent
Your Gas Network

Exit Capacity Planning Guidance 2023

Outcomes Report

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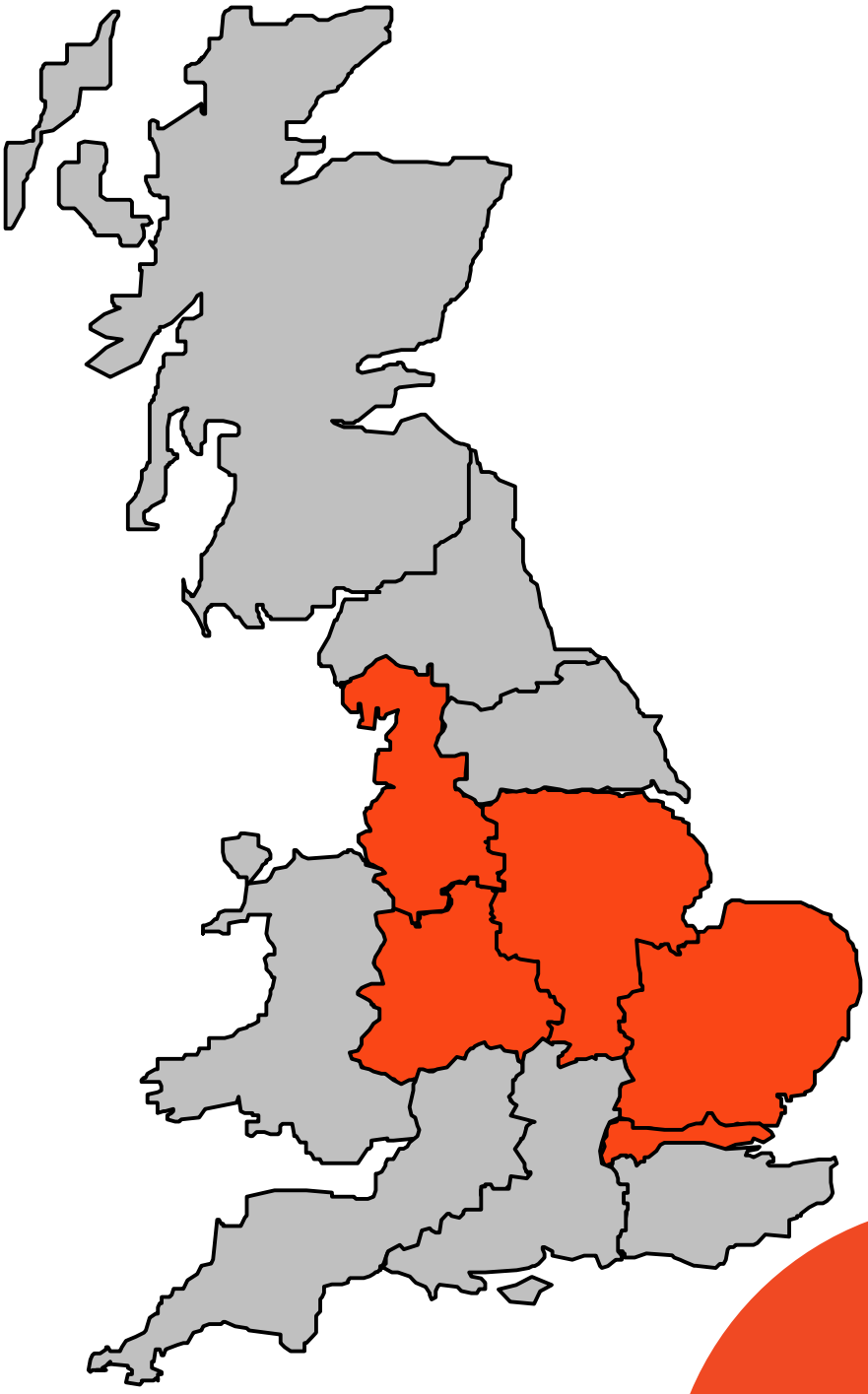
October 2023



Contents

Executive Summary

Overview

To meet our license obligations, the NGT Exit Capacity that we book needs to be sufficient to ensure we are able to meet demand on a peak 1:20 winter day. Every Gas Year (1st October to 30th September), we are required to book exit capacity from the National Transmission System for each of our 49 offtakes.

As per the Exit Capacity Planning Guidance document (ECPG), which forms part of a new licence condition introduced under RIIO2 (**Standard Special Condition A57: Exit Capacity Planning**), Cadent are now obliged to report on the outcome of the annual bookings process.

This year:

- The Cadent Peak Day demand forecast has shown a 7.47% decrease over the previous year
- The average change from year 1 to year 6 of the forecast indicates a 0.99% increase, suggesting a slow recovery from the effects of the high energy costs
- Assured pressures were discussed with National Gas Transmission (NGT) and some changes were agreed
- No major changes have been made to booking patterns from last year
- Capacity bookings are higher than our approved Peak Day forecasts due to User Commitment Cadent obligations, resulting in a surplus in all networks. Cadent continues to be compliant with the obligations as set out in the ECPG

Analysis

Demand Forecast

Context

Cadent endeavours to book in line with the approved Peak Day demand forecast, thereby ensuring we remain compliant with the 1:20 licence obligation and not put it at risk.

Cadent have used the 2023 5-year Central Forecast provided by National Grid ESO as we do every year.

Under Cadent's Gas Transporter Licence **Standard Special Condition A11** Cadent has an obligation to demonstrate its ability to meet our 1:20 Peak Day Demand, this approach pursues full compliance with regards to that obligation.

Every year we receive from NG-ESO a forecast based on four different scenarios, as well as a central forecast which is their view of a more accurate representation of where NGT expect demand to be over the next 5 years for Cadent.

The four Future Energy Scenarios are;

- Leading the Way (high levels of societal change and fast decarbonisation)
- Consumer Transformation (high levels of societal change and medium decarbonisation)
- System Transformation (low societal change and medium decarbonisation)
- Falling Short (low societal change and slow decarbonisation)

For the fifth year, NG-ESO have provided a "Central Forecast" which they believe is an accurate forecast for the level of expected demand in each distribution network. This forecast shows sustained growth consistent with the Falling Short Scenario discussed above. As a result of the recommendations above by NG-ESO, and following formal governance process within Cadent, the Cadent Board approved the use of the Central Forecast.

As a result, the overall trend on each network, as received from NG-ESO, is as follows:

- **East Anglia**
  Peak forecasts are slightly below the observed peak demand of the 1st March 2018, down 1.7% for Gas Year (GY) 2023/24. The reason for the decrease since 2022 forecast is predominantly due to the domestic demand reductions as a result of high gas prices. The peak demand forecast increases 1.3% from 2023 to 2027.

- **East Midlands**
  Peak forecasts are slightly below the observed peak demand of the 1st March 2018, 2.3% below for GY 2023/24. The reason for the decrease since 2022 forecast is predominantly due to the domestic demand reductions as a result of high gas prices. The peak demand forecast only increases by 0.7% from 2023 to 2027.

- **North London**
  Peak forecasts are below the observed peak demand of the 1st March 2018, 4.7% below for GY 2023/24. The reason for the decrease since 2022 forecast is predominantly due to the domestic demand reductions as a result of high gas prices. The peak demand forecast increases by 1% from 2023 to 2027.

- **North West**
  Peak forecasts are slightly above the highest recent observed peak demand of the 1st March 2018, 0.1% above for GY 2023/24. The reason for the decrease since 2022 forecast is predominantly due to the domestic demand reductions as a result of high gas prices. The peak demand forecast increases by 1.2% from 2023 to 2027.

- **West Midlands**
  Peak forecasts are below the observed peak demand of the 1st March 2018, 5.1% below for GY 2023/24. The reason for the decrease since 2022 forecast is predominantly due to the domestic demand reductions as a result of high gas prices. The peak demand forecast increases 0.8% from 2023 to 2027.

See Tables 1, 2 & 3 for details of the LDZ demand forecast, and Table 4 for the Topology breakdown.

Table 1 – This year -v- last year (mcm/d)

LDZ	2022/23 Peak Day Forecast (mcm/d)	2023/24 Peak Day Forecast (mcm/d)	Change from 2022/23 Peak day forecast (mcm/d)	% Change from 2022/23 Peak day forecast
EA	31.697	29.438	-2.259	-7.13%
EM	40.307	37.110	-3.197	-7.93%
NL	37.778	34.843	-2.935	-7.77%
NW	46.683	43.166	-3.517	-7.53%
WM	33.953	31.643	-2.310	-6.80%
Total	**190.418**	**176.199**	**-14.219**	**-7.47%**

Table 2 – This year down the Demand Curve (mcm/d)

Yr 1	EA	EM	NL	NW	WM
Pk	29.438	37.110	34.843	43.166	31.643
D13	25.184	31.564	29.939	36.452	26.777
D46	18.526	24.076	21.882	27.444	19.532
D150	12.072	16.472	14.442	19.123	12.823
D300	4.606	6.954	5.484	8.555	4.854

Table 3 – Future years (mcm/d)

	EA	EM	NL	NW	WM
Yr 2	30.849	38.749	36.491	45.099	33.103
Yr 3	30.849	38.718	36.451	45.187	33.081
Yr 4	30.455	38.178	35.965	44.562	32.613
Yr 5	29.815	37.364	35.189	43.679	31.899
Yr 6	29.815	37.364	35.189	43.679	31.899

Table 4 – Forecast by Topology (mcm/d)

EA - 2023/24	Topology	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure					

EM - 2023/24	Topology	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure					

NL - 2023/24	Topology	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure						

NW - 2023/24	Topology	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure						

WM - 2023/24	Topology	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure						

Our approach meets the 1:20 peak day obligation with a combination of Enduring, and Annual capacity products for years 1, 2 & 3, and addresses the risk that daily capacity products may not be available in the event of an NGT constraint being called. In this circumstance, the level of enduring capacity plus our annual capacity bookings would enable us to meet the Peak Day requirement in all of our Networks. For years 4, 5 & 6 Enduring capacity is booked as required.

Cadent takes a holistic approach to both capacity planning and asset investment and one feeds into the other to ensure that we have the most efficient overall operational approach and asset investment strategy for our networks.

We are compliant with **Standard Special Licence Condition ("SSC") A57 (Exit Capacity Planning**) of the gas transporter licence and **Standard Special Condition A11**, and as outlined above have mitigated the associated risk of insufficient capacity for a peak day. We have also ensured that we have sufficient pressures in our networks at each extremity point.

As per previous reports, the introduction of SSC A57 means that Cadent now use a combination of annual and daily products to meet our 1 in 20 requirement. Under RIIO2 we use long term products only as these have been deemed more efficient than using daily products.

Increases in demand forecasts over previous years and due to localised demand. This has resulted in a need for some increases in assured pressures to meet the requirement for capacity at certain offtakes.

Storage Requirements

Modelling

CONSUS

Consus is a storage simulation tool that is used to determine the amount of storage required at a given demand level. Two data files are needed for each LDZ from the control room SCADA system. These are Hourly Demands and FE Data (Forecast Error). The remaining data comes from the demand forecast supplied by National Gas, (LDEM & Peak Day Forecast), and a file downloaded from the National Gas Data Item Explorer on their website (historic CWV) or via Xoserve's data files.

The files are loaded into the Consus application supplied by DNV and the tool is run. The report produced by the tool is saved for audit purposes and the results used to determine the storage level required for the coming winter.

For the coming winter requirement for each LDZ is as follows:

Table 5 – Storage Requirement (mcm/d)

LDZ	Storage Requirement
EA	4.180
EM	5.492
NL	4.355
NW	6.201
WM	4.398

All requirements are met through a combination of linepacking, (storage created within the pipeline by cycling the pressures between the upper and lower limits), NTS Exit (Flex) Capacity or other within network options, such as storage pipelines or a salt cavity.

Interaction

With Other Networks

Within Cadent

The EM and WM networks have transfer points at 3 locations. The EA and NL networks have transfer points at 7 locations. These are all managed through the bookings process.

Other Distribution Networks (DNs)

Cadent has transfers with SGN at four locations: one with EM and three with NL. At all four, gas is taken from SGN into the Cadent network. Following the application of the accepted demand forecast to the network models, the requirement was communicated to SGN on the standard template used in previous years.

Acknowledgement was received from SGN that the forms had been received and no further communication was received to suggest that there would be any issue with accommodating the requested flows.

National Gas and National Grid ESO

Cadent had 2 meetings with NG ESO to discuss the demand forecasts; the first to get an overview of what the forecasts were likely to be and the second to confirm that there were no questions / issues with the forecasts received

Subsequently, a meeting was held with NGT to discuss the assured pressures; where any changes were likely to be possible, and the reasons for rejections of requests. Where Pressure requests have not been met, Cadent continue to operate as efficiently as possible given the configuration allowed.

Lastly meetings were held with NGT on 3 occasions to discuss what Cadent's bookings were likely to be and whether these were likely to be acceptable to NGT.

Final Outcomes

Bookings

Summary

All requests for Annual Flat capacity were met for all three years. Increases in Flex were met for all three years.

Requests for increased Start of Day (SOD) and End of Day (EOD) pressures were met in some cases and not others. For offtakes where the request was denied, table 11 shows the associated costs of obtaining the capacity in another way.

Years 1-3

For the first three years of the booking period, the existing Enduring Bookings for flat capacity were supported by annual bookings where needed. Where the booked capacity differs from the forecast demand, this is due to the minimum change possible in Gemini of 100,000kWh. There are instances where Enduring levels of capacity are in excess of the Peak forecast. Cadent is currently unable to make the required Reductions due to User Commitment obligations being in place at the offtakes in question.

Due to industry changes affecting the regulatory framework, such as the removal of the capacity incentive and the introduction of the ECPG, some reductions to the Enduring Bookings were also made in year 1. The sites where reductions were made are listed in Table 6 below.

Table 6 – Sites with reductions to the Enduring booking

LDZ	Site	Comments
EM		
EM	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure	
NW		
NW		
NW		
WM		

Years 4-6

For years 4-6 of the booking period, any changes needed were made to the Enduring Bookings. These are shown in the tables 7 and 8 below.

Table 7 – Sites with increases to the Enduring booking for Year 4

LDZ	Site
EA	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure
EM	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure
NL	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure
NW	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure
WM	This information has been redacted due to its sensitivity in line with DESNZand the CPNI general principles of security around its wider disclosure

Table 8 – Sites with increases to the Enduring booking for Years 5 & 6

Increases to Enduring levels required to ensure long-term booking levels are in-line with Peak Day forecasts.

LDZ	Site
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure

Table 9 – Year 1 Flat and Flex

The following tables show the booked flat, flex and assured pressures for year 1 for each LDZ. Where the Flat amount is in orange italics, it is yet to be confirmed by NGG in Gemini.

EA - Year 1	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure									

EM - Year 1	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure									

NL - Year 1	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d

This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider

NW - Year 1	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure									

WM - Year 1	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure									

Table 10 – Flat and Flex for Years 2-6

Where the Flat amount is in orange italics, it is yet to be confirmed by NGG in Gemini at the time of publication.

EA - Year 2	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure									

EA - Year 3	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure									

EA - Year 4	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure									

EA - Years 5 + 6	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure									

EM - Year 2	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

EM - Year 3	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

EM - Year 4	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

EM - Years 5 + 6	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

NL - Year 2	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

NL - Year 3	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

NL - Year 4	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

NL - Years 5 + 6	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

NW - Year 2	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure									

NW - Year 3	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure									

NW - Year 4	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

NW - Years 5 + 6	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

WM - Year 2	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure									

WM - Year 3	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure									

WM - Year 4	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure									

WM - Years 5 + 6	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d	Flat mcm/d	Flex mcm/d
		This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure									

Table 11 – SOD and EOD Pressures

Network analysis has been carried out under all of the demand levels listed below to determine the minimum pressures required to maintain security of supply across the system. The resultant pressures are contained within each of the tables.

EA - 2023/24	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		SOD Pressures	EOD Pressures	SOD Pressures	EOD Pressures	SOD Pressures	EOD Pressures	SOD Pressures	EOD Pressures	SOD Pressures	EOD Pressures
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

EM - 2023/24	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		SOD Pressures	EOD Pressures	SOD Pressures	EOD Pressures	SOD Pressures	EOD Pressures	SOD Pressures	EOD Pressures	SOD Pressures	EOD Pressures
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

NL - 2023/24	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		SOD Pressures	EOD Pressures	SOD Pressures	EOD Pressures	SOD Pressures	EOD Pressures	SOD Pressures	EOD Pressures	SOD Pressures	EOD Pressures
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

NW - 2023/24	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		SOD	EOD	SOD	EOD	SOD	EOD	SOD	EOD	SOD	EOD
		Pressures	Pressures	Pressures	Pressures	Pressures	Pressures	Pressures	Pressures	Pressures	Pressures
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

WM - 2023/24	Topology	1:20 peak day		Day 13		Day 46		Day 150		Day 300	
		SOD	EOD	SOD	EOD	SOD	EOD	SOD	EOD	SOD	EOD
		Pressures	Pressures	Pressures	Pressures	Pressures	Pressures	Pressures	Pressures	Pressures	Pressures
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure										

Pressure Requests from NGT

Cost of meeting Requests

Requests from NGT for a Decrease

The reasons for rejecting the requests for reduced pressures are all linked to the physical capacity of the offtake, and the ability to meet Peak Day obligations and security of supply.

Table 12 below shows the requests that were rejected, and the indicative cost of investment associated with accepting the request.

Table 12 – Rejected requests for a decrease

LDZ	Offtake	Rejection Reason	Indicative Cost of Acceptance	
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure			

Requests from Cadent for an Increase

The reason for requesting an increase in pressure are all due to offtake capacity.

Table 13 below shows the requests that were rejected by NGT, and the costs for Cadent associated with this rejection. As a general rule the inlet pressures to the Offtake are higher than the SOD and EOD assured pressures and the therefore, where Pressure requests have not been met, Cadent continue to operate as efficiently as possible given the configuration allowed.

Table 13 – Rejected requests for an increase

LDZ	Offtake	Rejection Reason	Indicative Cost of Acceptance	
	This information has been redacted due to its sensitivity in line with DESNZ and the CPNI general principles of security around its wider disclosure			

No cost estimates were provided

Conclusion

Forecast -v- Bookings

All Networks have capacity levels in excess of that required to meet Peak Demand Forecasts. As stated previously, due to User Commitment obligations Cadent is unable to make the necessary Reductions to capacity booking levels that would bring them in-line with the Peak Day forecasts. As all steps have been taken to meet this obligation, Cadent considers itself to be in compliance with the requirements of **SSpC A57: Exit Capacity Planning** and the ECPG. Further discrepancies between the 2 as seen in WM Yr 2 and Yr 3 are due to inter-LDZ transfers.

The table below shows the Peak Day Forecast and our corresponding capacity bookings;

Table 14 – Peak Day Forecast -v- Booking (mcm/d)

EA	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Forecast	29.438	30.849	30.849	30.455	29.815	29.815
Booking	31.691	31.678	31.718	31.867	31.886	31.886

EM	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Forecast	37.110	38.749	38.718	38.178	37.364	37.364
Booking	40.898	41.173	41.223	41.084	41.099	41.099

NL	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Forecast	34.843	36.491	36.451	35.965	35.189	35.189
Booking	37.663	37.663	37.786	37.767	37.777	37.777

NW	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Forecast	43.166	45.099	45.187	44.562	43.679	43.679
Booking	44.922	45.559	48.913	45.242	45.209	45.209

WM	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Forecast	31.643	33.103	33.081	32.613	31.899	31.899
Booking	32.870	32.937	32.966	32.738	32.720	32.720

Cadent	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Yr 6
Forecast	176.199	184.292	184.286	181.774	177.945	177.945
Booking	188.045	189.010	192.606	188.699	188.690	188.690

User Commitment

The tables below show surplus bookings made due to existing User Commitment

Table 15 – Surplus booked capacity

	Year 1		Year 2	
	FALCON 2024 Plan Peak Flow (mcm/d)	FALCON 2024 Plan Peak Flow (GWh/d)	Scaled FALCON Flow (mcm/d)	Scaled FALCON Flow (GWh/d)
EA	2.378	25.830	0.959	10.415
EM	2.916	31.864	1.514	16.538
NL	3.638	39.635	2.028	22.097
NW	1.750	19.203	0.454	4.982
WM	2.127	23.208	0.774	8.446
Total	12.809	139.740	5.728	62.478

Year 3		Year 4	
Scaled FALCON Flow (mcm/d)	Scaled FALCON Flow (GWh/d)	Scaled FALCON Flow (mcm/d)	Scaled FALCON Flow (GWh/d)
0.999	10.863	1.541	16.758
1.595	17.439	2.008	21.955
2.189	23.850	2.646	28.820
3.720	40.819	0.673	7.389
0.826	9.007	1.052	11.475
9.330	101.978	7.921	86.397

Year 5		Year 6	
Scaled FALCON Flow (mcm/d)	Scaled FALCON Flow (GWh/d)	Scaled FALCON Flow (mcm/d)	Scaled FALCON Flow (GWh/d)
2.197	23.886	2.197	23.886
2.857	31.235	2.857	31.235
3.413	37.180	3.413	37.180
1.525	16.731	1.525	16.731
1.727	18.841	1.727	18.841
11.720	127.872	11.720	127.872

In external versions of this publication some of the information has been redacted for the protection of Critical National Infrastructure (CNI). Interested parties seeking to source an unredacted version of this publication can do so after entering into a Non- Disclosure Agreement with Cadent.

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