

Code Modification Forum Agenda

Wednesday, 13 December 2023

Virtual Meeting

Time: 10:30

<u>No.</u>	<u>Item</u>	<u>Duration (minutes)</u>	<u>Time</u>
1.	<i>Review of Minutes from last meeting</i>	5	10:30 - 10:35
2.	<i>Review of Action Items from last meeting</i>	5	10:35 - 10:40
3.	<i>GNI Scheduled Maintenance Update</i> - <i>Operational Maintenance</i> - <i>IT Maintenance/updates</i>	5	10:40 - 10:45
4	<i>GNI Update on proposed anonymised Shipper system imbalance positions reports</i>	5	10:45-10:50
5	<i>GNI Presentation on operational arrangements at the Mitchelstown CGI</i>	30	10:50 – 11:20
6.	<i>NGEM Exercises -GNI Presentation Update</i>	10	11:20- 11:30
7.	<i>Code Modification Proposal A114 – Amendment to Code of Operations to classify Gas Points with a design MHQ of 100,000kWh as LDMs</i>	10	11:30- 11:40
8.	<i>Code Modification Proposal A112 – Amendment to Code of Operations to the existing Supplier of Last Result clauses to update new options on Capacity Products and revised arrangements around Supplier of Last Resort invoicing -Update</i>	5	11:40-11.45
9.	<i>Gas Quality – Proposed Changes Update- UK</i>	10	11:45 - 11:55
10.	<i>Code Modification Proposal A113 – Amendment to Code of Operations to amend gas quality requirements at Entry Points</i>	5	11:55 - 12:00
11	<i>Gas Quality- Proposed Changes Update-Renewable Natural Gas</i>	5	12.00 - 12:05
12.	<i>Code Modification Proposal A111- Amendment to Code of Operations to increase oxygen limit for biomethane entry points on the transmission network</i>	10	12:05 - 12:15
13	<i>Status of Code Modification Proposals</i>	5	12:15-12:20
14.	<i>Biomethane for Shrinkage update</i>	10	12:20- 12:30
15.	<i>GNI Meter Data Cleansing Policy Document</i>	5	12:30- 12:35
16.	<i>Gas and Electricity Interaction</i>	5	12:35 – 12:40
17.	<i>AOB items /End-of Year review/ Date of Next meeting</i>	10	12:40- 12:50

Microsoft Teams meeting

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Meeting ID: 345 880 786 190

Passcode: VRVXNJ

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Gas
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Ireland

Code Modification Forum

Minutes of Hybrid Meeting– 13 December
2023

1 Introduction

The Transporter opened the meeting and referred to a seventeen-item [Agenda](#) and the accompanying [Slide Deck](#).

2 Standing Items

2.1 Approval of minutes of previous meeting

The [Minutes](#) of the CMF meeting of 18 October 2023 were issued on 13 November 2023. These minutes were approved.

2.2 Review of action items

Action Items C572, C575, C579, C580 and C581 will remain open, while Action Items C576, C577, C578 are completed. Please refer to Slide 5 for more detail. Further Actions items C582 – C587 were undertaken by the Transporter, more detail of which can be found in Section 8.

2.3 GNI Scheduled Maintenance Update

The Transporter referred to Slide 6 which detailed that it does not plan to undertake any maintenance activities during the Gas Year 2023/24 which will interfere with gas flows. The Transporter also detailed on Slide 6 that they are planning significant capital works for Brighthouse Bay compressor station over the summer details of which will be furnished to the forum as soon as the work schedule is finalized. All maintenance activities on GNI infrastructure /equipment at the Bellanaboy entry point will be coordinated with planned maintenance shutdowns by the Corrib Operator.

2.4 Gas Quality Update

Michael Crowley, Asset Policy & Performance Manager at the Transporter, presented an update on UK Gas Quality developments, referring to Slides 32 to 34 and reported on Slides 35 and 36 on a projected EU Wobbe Classification System which may come into effect c. Apr-25 if passed. A representative from the Electricity industry asked how the changes in European gas are likely going impact the UK given their now Third Country status and therefore Ireland. Mr. Crowley said he cannot answer that question directly, however he noted that recently the United

Kingdom HSE refused to sanction an increase in the upper Wobbe Index due to safety concerns. Mr. Crowley noted it would be interesting to see how the UK will respond to changes in European Gas quality. Another Electricity Industry representative suggested that it would be useful to create a table summarizing the different changes in gas quality across Europe and the UK, the Transporter agreed to take an Action Item to create this table.

The Electricity Industry representative also queried whether the Transporter could confirm whether this would be a primary standard or a secondary standard as there may be a need for a Safety Case. Mr Crowley stated that the GNI position was that the Code of Operations takes precedent over a European Technical Standard and they did not anticipate changing the Gas Quality Specification in the Code of Operations. Presently, the Transporter is planning on just reporting this deviation in their response to SEM. If members of the Code Modification Forum believe that there should be a move towards a higher Wobbe index, the Transporter would then look at a potential Safety Case. The Regulator requested a meeting with Mr. Crowley to discuss of the potential regulatory impacts of this EU proposal. The Transporter agreed to take an Action Item on this.

3 Biomethane Update

3.1 Operational Arrangements at the Mitchelstown CGI

Declan O'Sullivan, Programme Delivery Manager at the Transporter, gave a detailed presentation of the proposed business arrangements at Mitchelstown CGI, referring to Slides 8 to 26. An Industry representative queried when the legal packs from this project will be available as he would be interested in seeing the contractual timelines. Mr. O'Sullivan indicated that the recovery model should be available around the 3rd week of January and that the contract is being developed in parallel to this. As the recovery model is being pushed into the contract, he indicated that the contract should be available in February/March. The industry representative also expressed an interest in seeing the financial security element of the recovery model.

The Regulator requested a detailed plan from the Transporter focusing on timelines regarding how they plan on first engaging with the Regulator on this topic and in turn the Code Modification forum. The Transporter agreed to take an Action Item from this but did also express that it was awaiting final sign off on PC5 from the Regulator and that this is impacting delivery as some of the modelling regarding how the Transporter is to recover from the CGI is dependent on the commentary from the Future Role of Gas paper. A Shipper Representative queried how the Transporter is going to ensure that there is sufficient gas demand for this project. Mr. O'Sullivan detailed that the intention is to inject into the Cork to Dublin Transmission pipeline and that analysis shows that there is sufficient demand on this pipeline for the project. The Shipper representative also queried whether the Transporter was going to be Allocation Agent at this site and that he believed that a Shipper cannot be the Allocation Agent unless they were the exclusive Shipper at that site. The Transporter agreed to take an Action Item to clarify these questions at the next Code Modification Forum. A Representative from the Electricity industry asked would the Transporter be able to maintain capacity during at Phase 1, while Phase 2 is being built. Mr. O'Sullivan confirmed that Phase 1 will not be interrupted by the construction of Phase 2.

3.2 Biomethane for Shrinkage Update

Suzanne Linehan, Business Analyst at the Transporter, gave an update on the Biomethane for Shrinkage proposal, referring to Slides 45 to 46. The Regulator queried when the Transporter was planning to consult on this to which it was confirmed that it would be Q1 of 2024.

4 Code Modification Proposals

4.1 A111 – Amendment to Code of Operations to increase oxygen limit for biomethane entry points on transmission network.

In conjunction with his presentation on UK Gas Quality developments, Michael Crowley, Asset Policy & Performance Manager at the Transporter, also presented an update on Code Modification Proposal A111, referring to Slide 25 and Slides 40 to 43. The Transporter detailed that they had a meeting with large energy users where it was agreed to propose extending timelines of gas quality Code Modification A111 until the 07 June 2023. A Representative from the Electricity Industry agreed that extending the timelines is far more practical approach. The Regulator requested that Slide 25 detailing A111 be converted into a timeline and shared with the Code Modification Forum so that all interested parties know what the expected plan is. The Transporter agreed to take note of an Action Item from this and requested input from the EAI.

An Industry Representative believed that there should be a clear end date for when deliberation on this Code Modification should end. The Industry representative also suggested that the timeline should include a tracker to see how many OEM studies are completed vs the June deadline. A representative from the Electricity Industry stated that the current levels of engagement on the topic between the Transporter and the EAI should remain. He also stated that he cannot confirm whether there will not be a need for additional equipment arising from the final OEM studies which could impact the June deadline. The Regulator requested that any impacted party that believes that they will need further equipment that could impact the June deadline should flag this as early as possible to the Forum. Another Electricity representative noted that there is a competitive disadvantage of noting publicly that your OEMs believe that you might need additional modifications. The Transporter proposed that that for the time being the current review period was extended to the 07 June 2023. The Transporter also suggested that the allocated placeholder agenda item in the CMF for Gas and Electricity Interaction can be used by representatives from the Electricity industry to present on this topic.

An Industry representative believed that this Code Modification should be viewed through the prism that renewables are coming quickly and the quicker that the forum can work through this modification the better it is for all interested parties. However he acknowledged that all the OEM studies will take a period of time.

4.2 A112 – Amendment to Code of Operations to the existing Supplier of Last Resort clauses to update new options on Capacity Products and revised arrangements around Supplier of Last Resort invoicing.

Mr. Douglas O'Brien, Gas Point Register Manager at the Transporter, provided a presentation on the Code Modification Proposal A112, referring to Slides 30 to 31. He reported that the discussions with BGE, the current Supplier of Last Resort, were progressing with, at this stage, few outstanding issues.

4.3 A113 – Amendment to Code of Operations to amend gas quality requirements at Entry Points.

Michael Crowley, Asset Policy & Performance Manager at the Transporter also presented an update on Code Modification Proposal A113, referring to Slides 37 and 38. As with A111 the Transporter detailed that it had meetings with large energy users where it was agreed to propose the extension of the review period of Code Modification A113 to the 07 June 2023.

4.4 A114 – Amendment to Code of Operations to classify Gas Points with a design MHQ of 100,000 kWh as LDMs.

Kieran Quill, Senior Market Analyst at the Transporter, gave an overview of Code Modification Proposal A114, referring to Slides 28 and 29. Mr. Quill proposed that the industry review for this Code Modification would remain open until the 31 January 2023 with a report on submissions presented to the next CMF meeting in February.

4.5 Status of Open Code Modification Proposals

Number	Proposal	Proposer	Status
A099	CNG Supply Point Capacity Setting	GNI	In abeyance
A111	Proposed increase on oxygen limit for biomethane entry points on the transmission network	GNI	Under Review
A112	Amendment to Supplier of Last Resort provisions	GNI	Under Review
A113	Amendment of Gas Quality Standards at Entry Points	GNI	Under Review
A114	Re-classify Gas Points with a design MHQ of 100,000kWh as LDM	GNI	Under Review

5 Other Agenda Items

5.1 Gas and Electricity Generation

There was no presentation made at this agenda item.

5.2 Update on Security of Supply (SOS) / NGEM Update

Aidan Bugler, Network Operations Emergency Response Manager at the Transporter, provided a review of Gas Emergency Planning for 2023. The presentation focused on Emergency Exercise Backbone that took place in 2023 which considered an operational failure on the Interconnectors which was in part prompted by the destruction of the Nord Stream pipeline and answered queries around the Exercise findings. A representative from the Electricity industry queried that if both interconnectors were disabled could the Gas system continue to operate based on flows from Corrib. He also queried was there a consideration for a potential reverse flow from the North South pipeline. Mr. Bugler detailed that Corrib flows alone will not be able to fuel power stations and that the Transporter is currently in discussion with EirGrid on how much notice could be given to power stations about switching fuel. In the event of interconnector/s disruption. Regarding the North South pipeline, Mr. Bugler stated that the Transporter can flow from NI to ROI, however the capacity of the pipeline is quite small, and analysis shows that because of the pressure drop it won't be able to fuel power stations. However, Mr. Bugler did note that it might help fuel the domestic sector. It was noted that the timescale for repair would depend on a number of factors such as weather and could be in the region of six months. Repair work might be required in UK territorial waters and GNI was looking into the approval process and the question of emergency storage stock was very relevant.

A Shipper Representative asked Mr. Bugler if the Transporter is looking at the Code of Operations to identify gaps and uncertainty around arrangements if both interconnectors were lost. The Shipper representative was especially concerned around credit and detailed that he had raised a concern about this before which was never addressed by the Transporter. Mr. Bugler detailed that the Transporter has been discussing this issue internally and acknowledged that the emergency section of the Code of Operations is out of date. The Transporter agreed to take an Action Item in this matter and will provide an update at the next Code Modification Forum. The Transporter also noted that the Department has a role to play in compensation arrangements under the EU network codes and that they will raise this issue again in their next meeting with them.

5.3 Shipper Imbalance Report

The Transporter has agreed to extend the deadline for Shippers to express interest in availing of a report detailing anonymized Shipper imbalanced positions to the 19 January 2023. There must be a minimum of 10 Shippers signed up for this report to be created and currently only 6

Shippers have expressed interest. More detail on this report can be found on Slide 7 and Shippers can sign up [here](#).

5.4 End of Year Report

Stephen O’Riordan, Wholesale Market Manager at the Transporter, presented an overview on the Code Modification End of Year report, referring to Slides 49 to 52. It was agreed that submissions on the Report would take from all stakeholders up to COB on 19 January and, depending on the response, the Transporter, in consultation with the CRU, may organize an ad-hoc meeting to discuss on 24th January .

6 Any Other Business

None

7 Next Meeting


While the proposed meeting schedule for 2024 was contained in the draft End-of Year Report and was the subject of a review it was agreed that the next meeting is a virtual meeting scheduled to take place via Teams on the 14 February 2023.

8 Open CMF Actions

ID	Action	Responsibility	Date Raised	Status
C572	Transporter to monitor the ongoing basis the adequacy of the initial 25% Tolerance for RNG Entry Points	Transporter	27/03/2019	Ongoing
C575	Transporter to furnish required data to CRU in connection with tariff review in relation to Supply Point Capacity Settings	Transporter/ CRU	25/03/2020	Ongoing
C576	Transporter to give a high-level overview of the intended operational/business arrangements for the proposed Mitchelstown CGI	Transporter	18/10/2023	Completed (as of the 13 th of December)
C577	Transporter to provide a more detailed plan around A111, mainly focusing on timelines ahead of the December CMF	Transporter	18/10/2023	Completed (as of the 13 th of December)
C578	Transporter to have continued discussions with large energy users on A111 before the December CMF	Transporter	18/10/2023	Completed (conversations had with large energy users on the 22 nd of November)
C579	Transporter to build on steps outlined in Biomethane for Shrinkage slide presented in July and August CMFs	Transporter	18/10/2023	Further work Required
C580	Transporter is also to discuss proposed workshop with relevant partners on Biomethane for Shrinkage followed by potential	Transporter	18/10/2023	Further work Required

	anonymized consultation process. The consultation process will be subject to internal GNI approval.			
C581	Transporter to circulate draft Process document on A109 for industry review	Transporter	18/10/2023	Under CRU review
C582	Transporter to create a table summarizing the different changes in Gas quality across Europe and the UK	Transporter	13/12/2023	Commenced (Update at next CMF)
C583	Transporter to sit down with the Regulator to discuss some of the regulatory impacts coming from gas quality changes	Transporter	13/12/2023	Commenced (Update at next CMF)
C584	Transporter to provide an update focusing on timelines regarding how they plan on first engaging with the Regulator on the Mitchelstown CGI and in turn the Code Modification Forum	Transporter	13/12/2023	Commenced (Update at next CMF)
C585	Transporter to clarify questions around the Allocation Agent at the Mitchelstown CGI	Transporter	13/12/2023	Commenced (Update at next CMF)
C586	EAI to give timelines on OEM process	EAI	13/12/2023	To be confirmed and propose to update at the next CMF
C587	Transporter to commence review of the Emergency Section of the code of Operations and provide an update at the next CMF	Transporter	13/12/2023	Commenced (Update at next CMF)

9 Calendar of meeting for 2024 (prospective)

	CMF Dates	Location
Next CMF Meeting 	14 February	Virtual
	17 April (subject to change)	Hybrid (Dublin)
	12 June (subject to change)	Hybrid (Dublin)
	22 August	Virtual
	16 October	Hybrid (Cork)
	4 December	Virtual

10 Attendees

Name	Organization
Conor Murphy	GNI
Kieran Quill	GNI
Ryan O’Connell	GNI
Stephen O’Riordan	GNI
Aine Spillane	GNI
Lind McKernan	GNI
Aidan Bugler	GNI
Stephen O’Hare	GNI
David Horan	Augunish
Tom Nolan	Nolan
Claire Walsh	Centrica
Kim Kennington	Manx
Paul Crowley	GNI
Brian McGlinchey	Vermilion
Keith Deacon	Axpo
Sam Clutterbuck	Ceres
Micheal Murphy	Ormond
Stephen English	GMO
Mark Phelean	Electric Ireland
Therese Lannon Crean	SSE
Martin Regan	Marex
William Carr	ESB
Cian Fitzgearld	Energia
Paul Murphy	ESB
Paul Hoey	Electric Ireland
Micheal Crowley	GNI
Kat Mucha	Centrica
Suzanne Linehan	GNI
Emerson O’Callaghan	CRU

Sean Mac an Bhaird

CRU

Code Modification Forum



Gas
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Wednesday, 13 December 2023 – Teams

Agenda

1. Review of minutes from last meeting
2. Review of open actions
3. GNI Scheduled Maintenance Update
4. Gas Update on proposed anonymised Shipper system imbalance positions reports
5. GNI Presentation on operational arrangements at the Mitchelstown CGI
6. NGEM Exercises - GNI Presentation Update
7. Code Modification Proposal A114 - Amendment to Code of Operations to classify Gas Points with a design MHQ of 100,000 kWh as LDMS
8. Code Modification Proposal A112 - Amendment to Code of Operations to the existing Supplier of Last Resort Clauses, to update new options on Capacity Products and revise arrangements around Supplier of Last Resort invoicing
9. Gas Quality – Proposed Changes Update - UK/EU
10. Code Modification Proposal A113 - Amendment to Code of Operations to amend gas quality requirement at Entry Points
11. Gas Quality - Proposed Changes Update- Renewable Natural Gas
12. Code Modification Proposal A111 - Amendment to Code of Operations to increase oxygen limit for biomethane entry points on TX system
13. Status of Code Modification Proposals
14. Biomethane for Shrinkage update
15. GNI Meter Data Cleansing Policy Document
16. Gas and Electricity Interaction
17. AOB items/ End-of Year Review/ Next meeting

1. Review of minutes from last meeting

Minutes of CMF meeting of [18 October 2023](#) were issued on 13 November.

2. Review of open actions

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C581	Transporter to circulate draft Process document on A109 for industry review	Transporter	18/10/2023	Under CRU review

3. 2022/2023 Maintenance Days

- GNI does not plan to undertake any maintenance activities during the gas year 2023/24 which will interfere with gas flows.
- Significant capital works are planned for Brighthouse Bay compressor station during the summer which will be communicated to the market closer to the time as planning is completed.
- All maintenance activities on GNI infrastructure/equipment relation to the Bellanaboy entry point will be co-ordinated with planned maintenance shutdowns by the Corrib operator.

4. Shipper Imbalance Report

- Proposal brought forward to the CMF on the 18/10/2023 offering a report detailing anonymized Shipper imbalanced positions.
- In order to gain access to this report Shippers had to;
 - Opt in to be included in the report
 - Agree to share balancing data with GNI
- The format of the report will ensure that data is anonymized and that Shipper positions in the report are scrambled at the start of every month.
- There had to be a minimum of 10 Shippers signed up for this report to be set up, currently only 6 Shippers have expressed interest.
- GNI are extending the deadline for Shippers to sign up for the report to COB on the 19/01/2023.
- Shippers can sign up for the report [here](#).

5. GNI Presentation on operational arrangements at the Mitchelstown CGI



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Our Focus is Evolving our Network and Delivering Cleaner Energy for Ireland

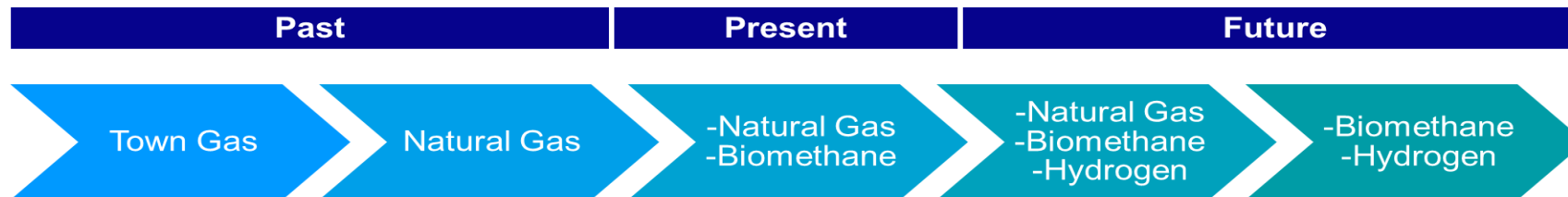


Decarbonisation of the gas network and increased integration with electricity is necessary to achieve net zero by 2050

Using the gas network and renewable gases to reduce emissions will also enhance energy security and diversity

Gas Networks Ireland is working to decarbonise Ireland's gas network & consequently key sectors

The gas network remains integral of Ireland's energy mix providing flexibility and security



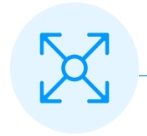
We Are Ready For Biomethane



2018 Connection Policy



2019 Modified code of operations



2020 Green Cert System



2020 First renewable gas entry point in Kildare



RFI issued to biomethane producers 2022



First direct connected plant contracted 2023



Biomethane Energy Report published 2023

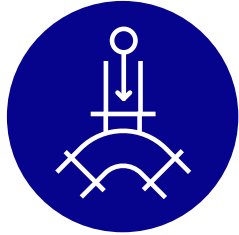


1st Green Certs imported into Ireland 2023



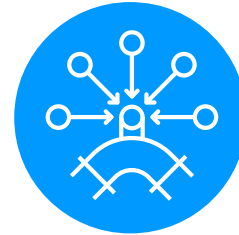
Standard design for direct connections 2024

Two Options for Connecting to Gas Network



Direct Grid Injection (DGI)

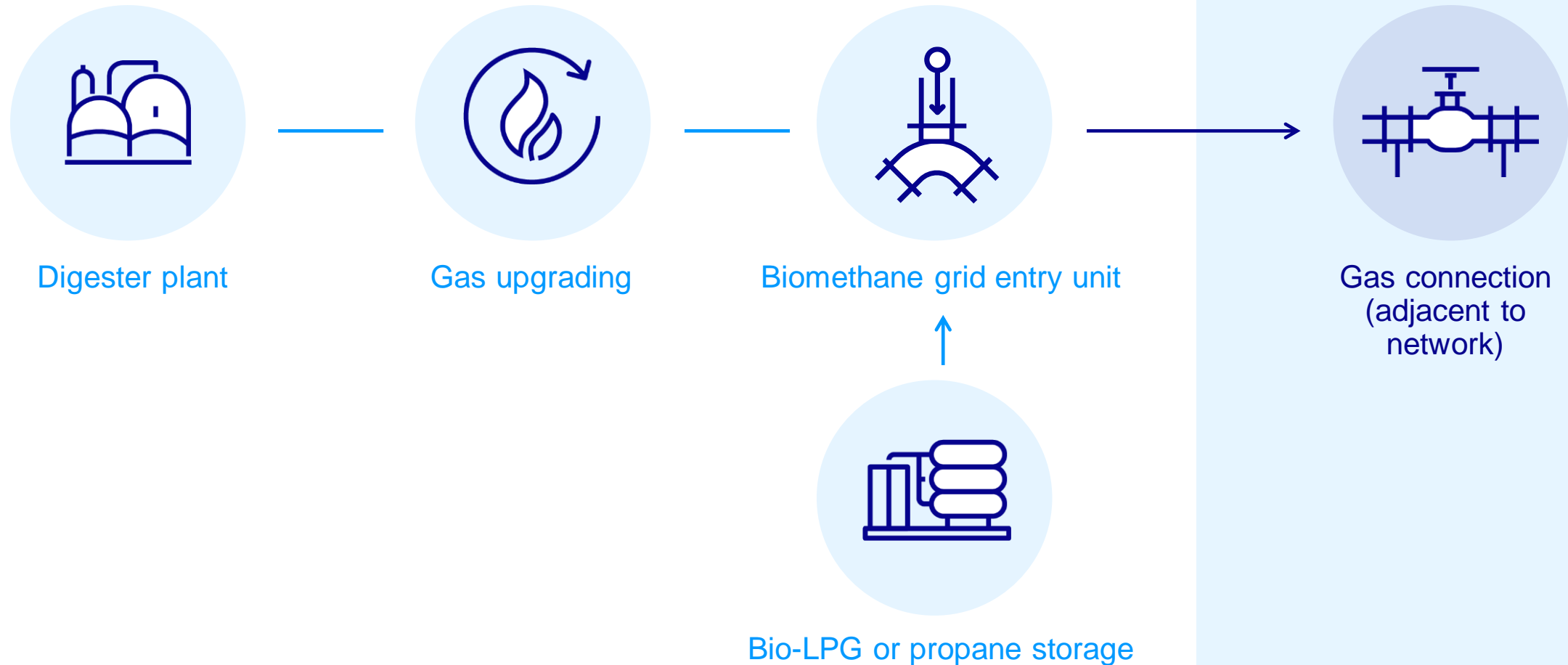
- In some instances, a biomethane AD facility might be close to the gas network
- Could be economically viable to construct a pipeline extension between the facility and the network - known as Direct Grid Injection
- Costs can vary significantly depending on distance from network, connecting pressure and if network reinforcements are required



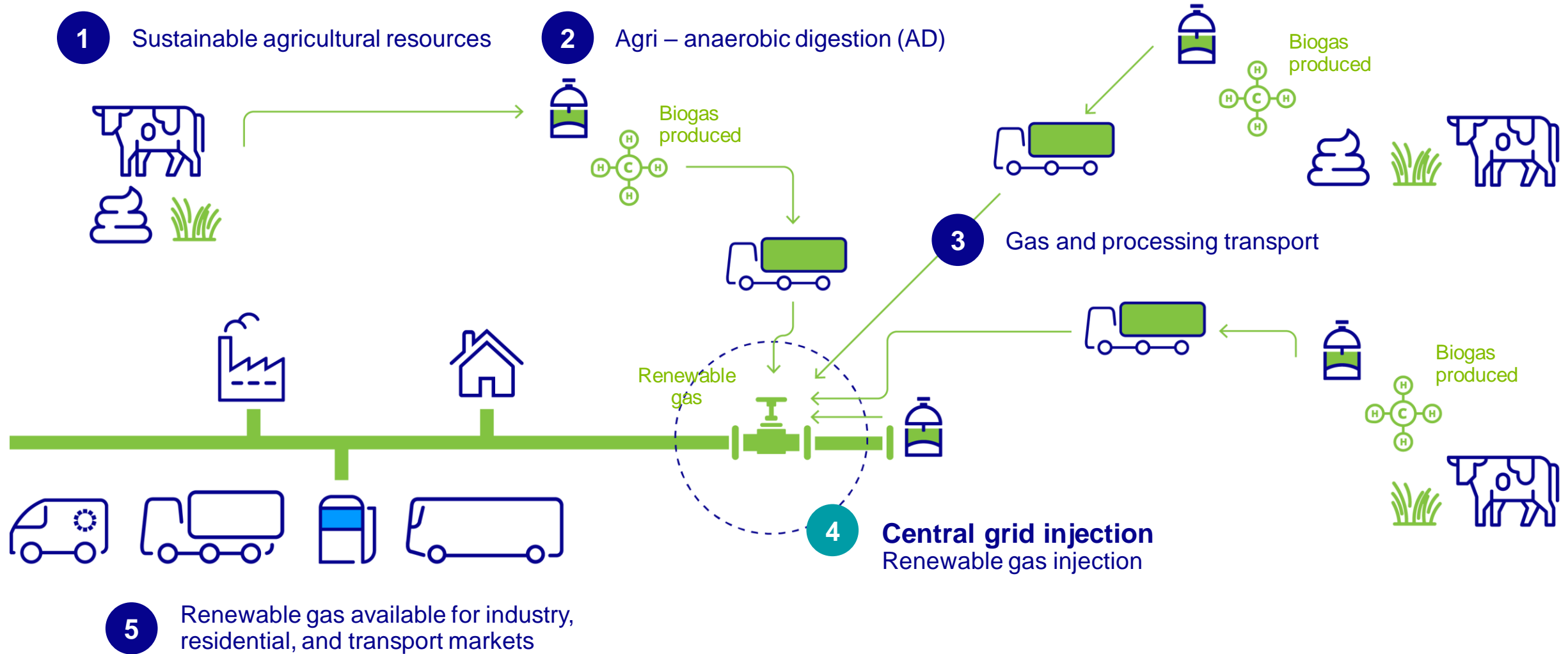
Central Grid Injection (CGI)

- A biomethane plant might benefit from being located close to feedstock with good road access
- However, an extension to the network might not be economically viable
- The option of tankering biomethane by road to an injection point might offer a viable alternative - this is known as Central Grid Injection

Direction Injection Connection



Central Grid Injection (CGI) Connection



Graze Programme Overview

'Green, Renewable, Agricultural, Zero Emissions Gas'

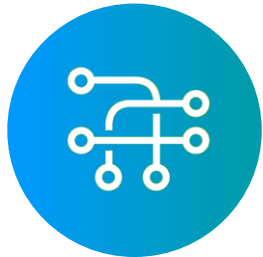


Rialtas
na hÉireann
Government
of Ireland

Tionscadal Éireann
Project Ireland
2040



x1 Central Grid
Injection (CGI)



CGI

Full-scale CGI facility
at Mitchelstown

x 6 cabs
x 36 trailers



Logistics

Transportation of the
renewable gas from
ADs to CGI

x 2 stations



Bio-CNG

Compressed gas
(Bio-CNG) stations

x [74 vehicle grants



Vehicles

Vehicle Fund to
support low
emission HGVs

Climate Action funding

€8.47 million

Mitchelstown Central Grid Injection (CGI) Overview



- Located near Mitchelstown in Co. Cork
- Owned and operated by GNI
- Adjacent to existing gas network AGI - easy connection to network
- Land and full planning secured
- Awarded DECC Climate Action Fund grant
- Designed to inject biomethane from multiple AD facilities & up to 8 trailers simultaneously
- Annual injection of ~700 GWh of biomethane – equivalent gas requirement ~64,000 homes
- **Planned commissioning date Q1 2025**

Mitchelstown CGI Overview

CGI Image



Letters of Intent (LOI)

Parties	County	Projected EAQ (GWh)	Planning Status
Producer 1	Tipperary	81.00	Producing Biogas
Producer 2	Laois	41.38	Producing Biogas
Producer 3	Cork	40.00	Producing Biogas
Producer 4	Tipperary	39.99	Planning granted
Producer 5	Tipperary	27.28	Planning granted
Producer 6	Kerry	29	Planning granted
Producer 7	Tipperary	39.99	Not in Planning
Producer 8	Laois	20.00	Not in Planning
Producer 9	Kilkenny	44.69	Not in Planning
Producer 10	Wexford	36	Not in Planning

- To date, 10 projects have signed documents regarding their intent to produce biomethane for injection at Mitchelstown. These are projects which don't currently meet the economic test due direct connection as they are either too far from existing network or are too small to meet the test regardless of proximity to the network.
- Signed LOIs total **400+GWh p.a.** of biomethane production - over half the full operational injection capacity of Mitchelstown (700 GWh p.a.)

CGI Roles and Responsibilities



Producer

Produces biomethane
Compresses & loads into trailers
Responsible for gas quality



Haulier

Transports biomethane from AD site to the CGI by road
Decants gas at facility



CGI operator

Operates the CGI
Injects gas into network



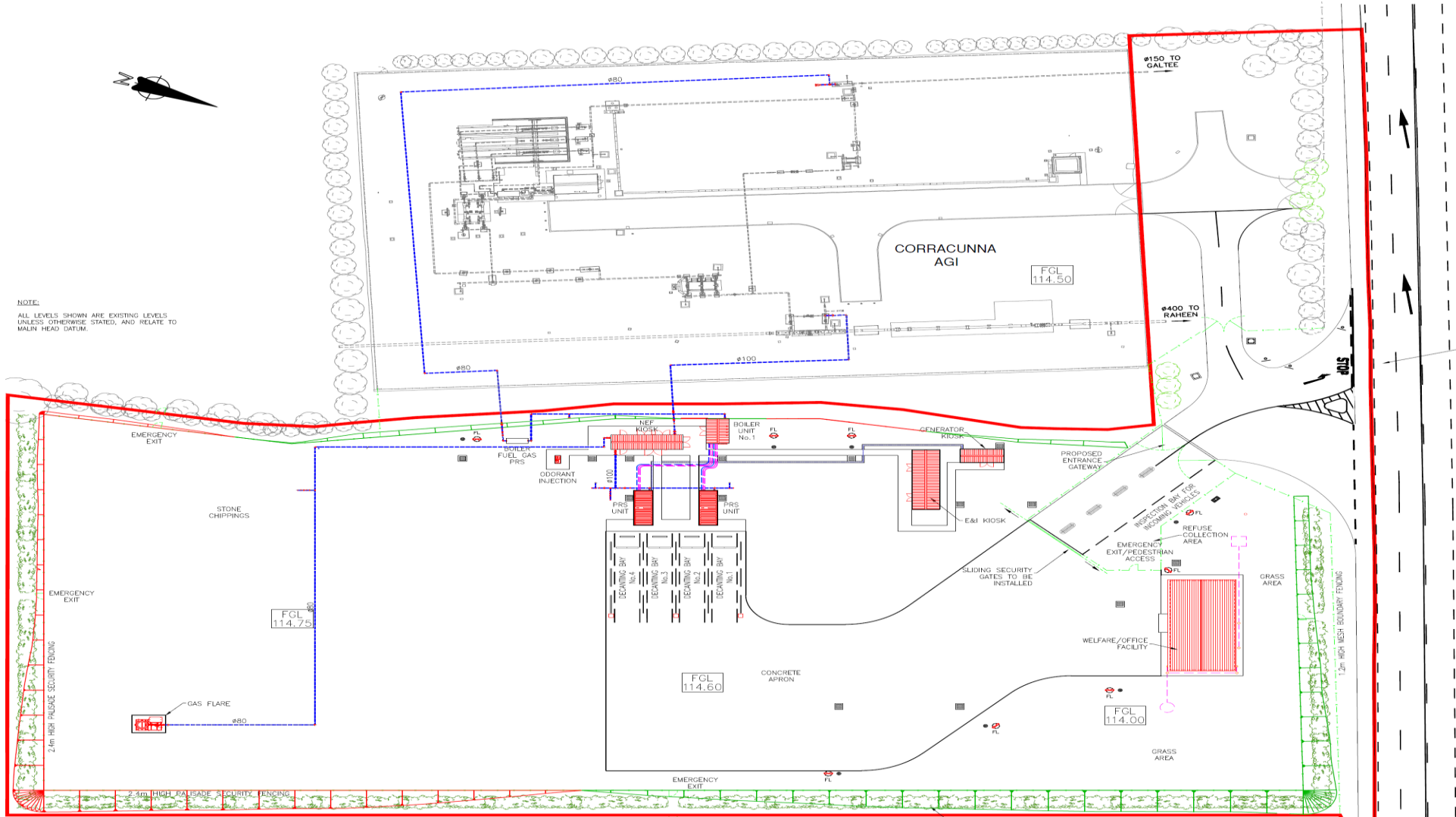
Shipper

Buys gas from producer and sells on
Books network capacity



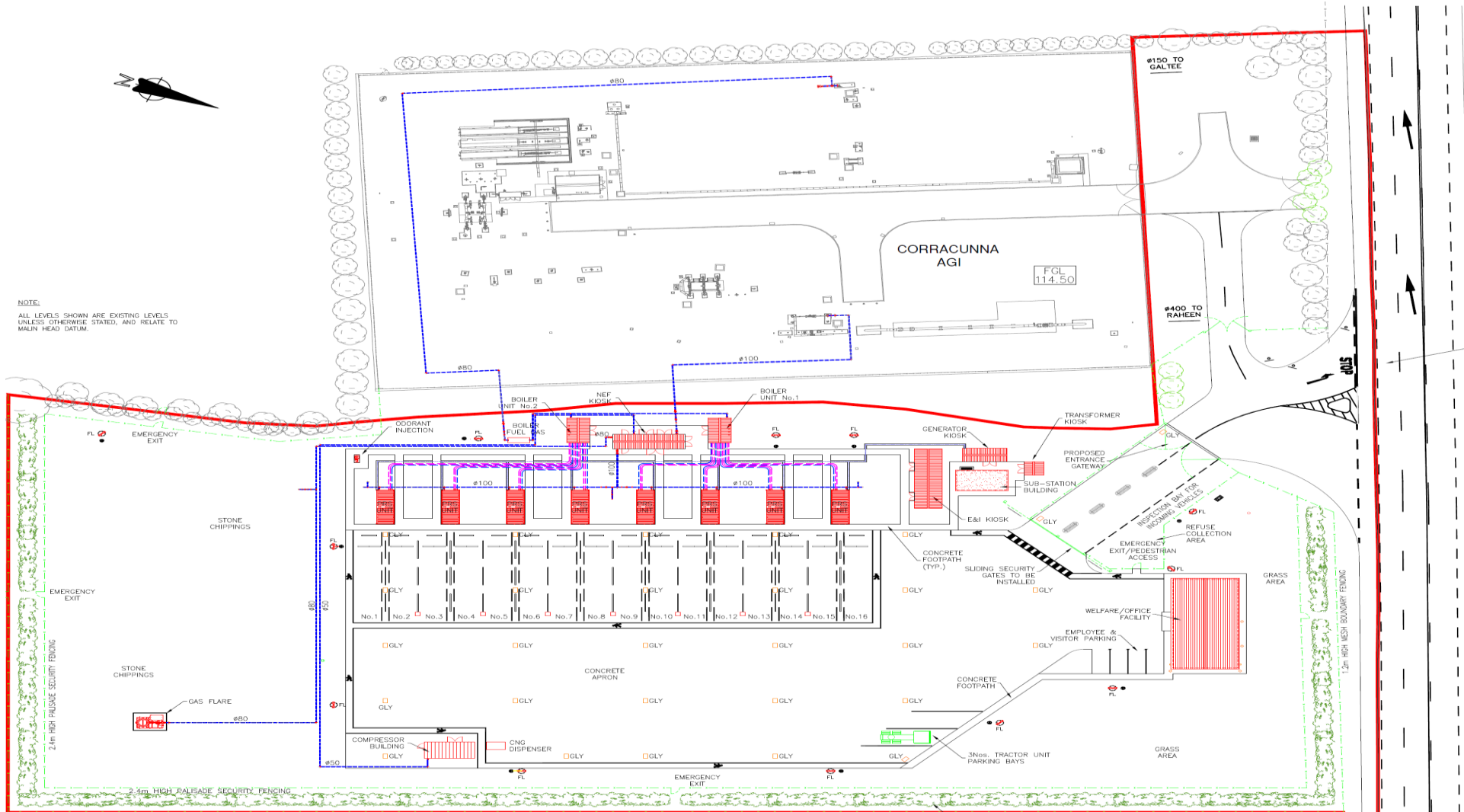
Mitchelstown CGI Build/Operational Phases

Phase One



Mitchelstown CGI Build/Operational Phases

Phase Two



Mitchelstown CGI – High Level Project Status

Key Deliverables	<ul style="list-style-type: none">• Build phase 1 of the CGI with an annual capability of 175 GWh• Develop customer contribution recovery models (short term and long-term models)• Assuming 70% on RAB and 30% customer contribution• Contract 175 GWh of customer biomethane• Approval for Gate 3 construction budget• Safety Case (and code modifications) acceptance to operate
Key Risks/Issues	<ul style="list-style-type: none">• Risk: If long lead items timelines slip, delivery date of Q1 2025 might not be met• Issue: Lack of Government policy support hindering development of an indigenous biomethane market
Progress	<ul style="list-style-type: none">• Design team received the Elster equipment design pack for BNEF and PRSs• Oxygen Code Modification – working with industry to progress• Construction costs – detailed estimates developed• Regulatory requirements being developed• Legal framework and provisions being progressed• Safety Case Functional Safety demonstration throughout project lifecycle• Gas Management System – scope and design being developed

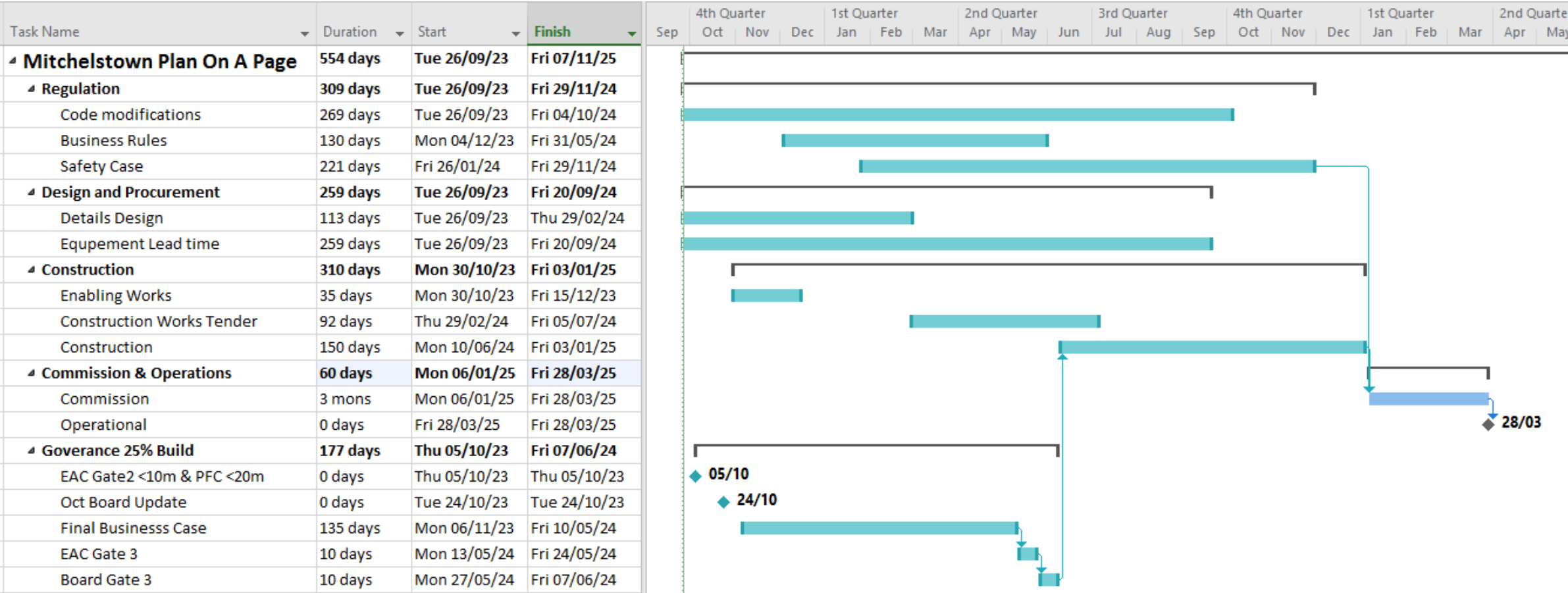
Site Investigations – Ground Water Readings



Enabling Works Preparation - Site Visit



Mitchelstown CGI Overview - High Level Schedule – Phase One



Code Modification Proposal A111 – Oxygen Upper Limit Increase

- GNI met with EAI members 22 November 2023 to discuss concerns
 - Prior to this, GNI had one-to-one meetings with four industry participants
- Members have started OEM engagement to assess possible impacts on equipment re. O2 and WI changes
 - Lot of change in UK, waiting period
 - Probably 4 – 6 months before OEMs issue reports
 - Members highlighted requirement to future proof reports by assessing for 1% impact
 - Is this necessary?
 - Reports should be clear as to impacts of 0.5%
- Need to start commissioning of Mitchelstown in Q1 2025
 - Need CRU acceptance of safety case beforehand which requires code modification agreement
- Actions from meeting:
 - GNI to share UNIPER report as appropriate
 - Is there any scope for end users to recover costs? EAI to look into electricity industry practices
 - Discuss/agree code modification and timelines off-line

Next Steps

- Oxygen Code Modification Proposal progression
- Design team review of Elster equipment drawings
- Progress Gas Management System design and scope
- Site enabling works commencement
- Develop Material Change Notice documents
- Complete Detailed Design
- Develop customer contribution recovery models (short term and long-term models)

6. Security of Supply (SoS) / NGEM Update



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7.Code Modification Proposal A114



Amendment to Code of Operations to classify Gas Points with a design MHQ of 100,000 kWh as LDMs

Code Modification Proposal A114 – Classifying Gas Points with a design MHQ of 100,000 kWh as LDMs

- The Proposal is to classify all Gas Points that have a design maximum hourly quantity of not less than 100,000 kWh classified as LDM pursuant to the Code of Operations irrespective of the Annual Quantity associated for such Gas Points.
- **Rationale for the Proposal**
 - Shippers (including Generation Units subject to Central Dispatch) will be able to view hourly data on GTMS and be able to book capacity as required, leading to better trading decisions and enabling them meeting obligations under Part D of the Code of Operations to submit accurate information with respect to Nominations
 - GNI system oversight and control is enhanced when receiving accurate nominations with a greatly reduced likelihood of experiencing unexpected substantial gas withdrawals.
- **Next Steps:** Proposed Industry Review open until the 31st of January.

8. Code Modification Proposal A112



Amendment to Code of Operations to the existing Supplier of Last Resort clauses to update new options on Capacity Products and revised arrangements around Supplier of Last Resort invoicing.

Code Modification A112 – Supplier of Last Resort

Four SoLR documents previously issued at Code Mod Forum:

- A draft SoLR Procedure;
- Code Modification SoLR Proposal A112;
- Supporting Memorandum of Explanation; and
- Proposed drafting for Code of Operations PART F (Administration).

The combined proposals outline how GNI and the SoLR will manage an event to take account of:

- New short-term capacity products in the DM/LDM market;
- Amended SoLR invoicing and Disbursement billing processes in the month of the SoLR event;
- Permit SoLR CoS/EUA at SoLR Affected DM & LDM Offtakes at the end of any month of the SoLR event; and
- Recent experience in NDM SoLR events.

Next Steps: GNI continues to engage with BGE on their SoLR comments around the Failed Supplier obligations, Entry arrangements, definitions, “SoLR affected Shippers” and GNI reporting.

9. GB /EU Gas Quality Update Code Modification Forum 13 December Update



Changes to Great Britain (GB) gas quality

- Submitted Code Modification to realign Irish gas quality specification with planned changes to Gas Safety Management Regulations (GSMR) in Great Britain (GB)
 - To reduce lower WOBBE Index (WI) limit to 46.5 MJ/m³, replace Incomplete Combustion Factor (ICF) and Soot Index with Relative Density (RD) limit < 0.7
- Code Modification Forum is awaiting impact assessment from power generators of both reduced lower WI limit and increased Oxygen (O₂) content
 - Power sector need their Original Equipment Manufacturers (OEMs) or suppliers to assess the impact on their gas turbine
 - Issue is getting a slot to schedule OEM analysis – as OEMs are also busy performing same analysis for GB power sector
 - Likely to be mid-2024 for OEM assessments to be completed

Impact on Industrial customers

- GNI has separately prepared a draft letter to inform industrial gas users of potential gas quality changes and in particular the potential for lower WI gas:
 - Outlines planned changes to the GSMR gas quality specification in GB
 - Highlights that there is a low probability of lower WOBBE index reaching Moffat
 - Advises customers to check with their OEM and equipment suppliers and distributors to see if there is any changes to the OEM guidance:
 - For the commissioning, operation and maintenance of their gas appliances; *or*
 - Whether the OEM would recommend any field adjustments to their gas appliances
- Current GNI proposal is to ask the gas shippers at the Code Modification Forum to issue letter to their Daily Metered (DM) and Large DM (LDM) customers

Other gas quality changes – on the horizon!

- European gas quality standard EN 16726 is being revised:
 - Will include a **very** wide WOBBE index range: 46.46 to 54.00 MJ/m³ at Entry
 - Will be a recommendation and can be superseded by National Regulation (the Code?)
 - And will also include requirement to implement a WI Exit classification system for all customers, based on their forecast WI variation or “bandwidth”:
 - If WI bandwidth < 3.7 MJ/m³ then class specified: No action required
 - If WI bandwidth > 3.7 MJ/m³ then Class Extended: system operator needs to consider potential mitigation measures – enhanced gas quality information, blending gas flows?
- Revision will come into effect c. Apr-25 at the earliest (assuming it is passed)
 - Will create a requirement to implement WOBBE classification system
 - Will probably require an industry communication around changes as well

European gas quality ...continued

- If revised EN 16726 is passed then recommended WOBBE range will be significantly wider than in current gas quality specification in the Code
 - Lower WOBBE limit will be very close to the limit proposed in current Code Modification i.e. 46.50 versus 46.44 MJ/m³ @ entry-points – very similar
 - However, there will be a significant gap at the Upper WOBBE limit: i.e. 54.00 versus 51.41 MJ/m³!
 - Also current total sulphur limit in the Code is substantially higher 50 versus 20 mg/m³
 - No Methane No. in the Code specification
- Longer term there is a question of whether there is a need to harmonise the gas quality specification in the Code towards the proposed EN 16726 values?
 - Whether Ireland needs to record an A-deviation in revised EN 16726

10. Code Modification Proposal A113



Amendment to Code of Operations to amend gas
quality requirements at Entry Points

Code Modification Proposal A113 - Amending gas quality requirements at Entry Points

- The Health and Safety Executive (HSE) in the UK has recently approved changes to the Great Britain (GB) gas quality specification in the Gas Safety Management Regulations (GSMR). The relevant changes approved by HSE include the reduction in the lower WOBBE limit to 46.5 MJ/m³ and the replacement of the Incomplete Combustion Factor and Soot Index with the relevant density limit of ≤ 0.7 . The replacement of ICF and SI with a RD limit has become effective in the UK as of 6 April 2023.
- GNI has reviewed the implications of the planned changes to the GSMR specification and concluded it would be best to realign the RoI gas quality specification in the Code with the new GSMR specification.
- The implementation of the lower WOBBE limit has been deferred until 6th April 2025 (to allow sufficient time for industry to prepare for the change).
- GNI published relevant [Supporting Documentation](#) on the 11th of August 2023.
- **Next Steps:** GNI had a meeting with the EAI and Power Generators where it was agreed to propose extending timelines of gas quality Code Modifications A111 and A113 until the 1st of June 2023.

11. Gas Quality – Renewable Natural Gas



12. Code Modification Proposal A111



Amendment to Code of Operations to increase oxygen limit for biomethane entry points on transmission network

Code Modification Proposal A111- Increasing the oxygen limit for biomethane entry points on the transmission network



Issued and circulated on 15 June 2023

Documents issued with Code Modification Proposal

- Explanatory Memorandum
- Proposed Legal Text
- Penspen Report
- Report Analysis Summary

Update on review process

- Submissions/Queries furnished in advance of CMF Meeting of 16 August as per following slides 14 and 15
- Review extended to CMF Meeting on 18 October to allow GNI to respond to submissions and to engage in meetings as required
- GNI responded to the three submissions specified in Slides 14 and 15 and have had subsequent correspondence and a meetings with the Industry Representative.
- GNI has participated in a Workshop on gas quality changes hosted by EAI and has had individual meetings with Industry Stakeholders as required
- There has been no responses /submissions from any other stakeholders

Code Modification Proposal A111 Submissions

- Three submissions were received by COB on 11 August

1. Industry Representative

- Refers to Directive 2009/73/EC and requirement for member states to *"take concrete measures to assist the wider use of biogas, the producers of which should be granted non- discriminatory access to the gas system"*. Further refers to Transporters' requirement to grant non- discriminatory access to the network system to third parties under the provisions of its Licence .
- Refers to the situation that the Distribution Network has an upper oxygen limit of 1.0% mol in contrast to this Proposal which envisages an upper oxygen limit of 0.5% mol and requires explanation in view of the conclusion of the Penspen Report which states that *" The report does not identify any significant safety impacts /material change resulting from an upper oxygen increase to 1.0% mol"*.
- Considers that RNG produced at a facility having an oxygen limit of >0.5% mol but <1.0% could be injected into the Distribution Network (and possibly at some future date be reverse compressed onto the Transmission Network) in circumstances where it has been rejected for injection into the Transmission network
- Considers that the Proposal has been framed in a manner which will inhibit the development of the renewable gas sector in Ireland and seeks clarity and responses on a number of specified issues
- Considers that a single upper oxygen limit should apply to all RNG Entry points

Submissions – continued and Next Steps

2. Shipper Representative

Stated that its best estimate for completing an engineering study on gas turbines will take up to 6 months (resource constraint with similar studies being carried out and requests that this timescale be taken into account in review.

3. Electricity Association of Ireland

EAI broadly welcomes the changes but has concerns and requests that the proposed change is approved on a long timeline to afford its members prevent reducing design and working life of generator assets and to ensure that generators are compliant to both environmental regulations and equipment warranties. If approved this will be a whole system change and will require each gas plant to call upon OEM teams to assess the changes and implement equipment upgrades

Next Steps: GNI had a meeting with the EAI and Power Generators where it was agreed to propose extending timelines of gas quality Code Modifications A111 and A113 until the 1st of June 2023.

13. Status of Code Modification Proposals

Number	Proposal	Proposer	Status
A099	CNG Supply Point Capacity Setting	GNI	In abeyance
A111	Proposed increase on oxygen limit for biomethane entry points on the transmission network	GNI	Under Review
A112	Amendment to Supplier of Last Resort provisions	GNI	Under Review
A113	Amendment of Gas Quality Standards at Entry Points	GNI	Under Review
A114	Re-classify Gas Points with a design MHQ of 100,000kWh as LDM	GNI	Under Review

14. Biomethane/Shrinkage Code Mod Forum Update



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Suzanne Linehan

Renewable Gas for Shrinkage - Update

- Feedback from previous Code Mod (comments from the CRU and participants) taken on board
- Revising our plans to accommodate a consultation on the Shrinkage Contract
- Will revert to Code Mod with a new plan once the proposals have been approved internally within GNI
- Plan to publish draft heads of agreement for the contract and outline proposed timelines for the process.
- Considering a 3-week consultation period – of sufficient length?
- We will need to know developers' timelines in order to accommodate a reasonable response.

15. GNI Meter Data Cleansing Policy



16. Gas and Electricity Interaction



17. AOB / End-of Year Review/ Date of Next Meeting



- The introduction of a CMF [end of year report](#) was an improvement activity agreed in early 2023.
- The end of year report fulfils several existing requirements in one place and covers the following;
 - Lists of completed Code Modifications in the year and link to latest published version of the Code
 - List of Work-in-progress Code Modifications and status update
 - List of prospective Code modifications for the coming year
 - List of Code Mod Forum dates and locations for the coming year
- With respect to prospective Code Modifications for the coming year, we propose to finalise these (and the 2024 calendar) via an ad-hoc meeting on the 24th of January 2024.

1. Security of Supply:

- To facilitate Gas Supply Mitigation Provisions that may arise from the Department of Environment, Climate and Communications [Review of the Security of Energy Supply of Ireland's Electricity and Natural Gas Systems](#) – It is not expected that Proposals in this matter will issue until the second half of 2024.

2. Biomethane Developments

- To facilitate the procurement of biomethane by GNI for Shrinkage Gas – GNI are currently developing business / contractual arrangements around procuring biomethane for its Shrinkage Gas requirements. It would be expected that Proposals would issue in the second half of 2024.
- To facilitate the use of a Central Grid Injection (CGI) Point – GNI are presently developing the operational arrangements and business rules relating to its proposed CGI Point at Mitchelstown, County Cork. These arrangements/rules will be the basis of all subsequent CGI Points and a Proposal is envisaged to incorporate the specific arrangements/rules in the Code. It is expected to issue in the second half of 2024.

3. CNG for Transport

- To specify a SPC setting process for CNG offtakes and arising from the ongoing SPC review – A pre-existing A099 Proposal for CNG offtakes is in abeyance with this matter remaining in development. The first part of the review has resulted in Code Modification Proposal A110 to which the CRU issued an Instruction on 10 March 2023. The second and more difficult and complex part of the review will be revived in 2024 and a Proposal may issue in the second part of 2024.
- A Proposal resulting from the SPC setting review. There is an ongoing SPC (other than CNG offtakes) setting review. The first part of the review has resulted in Code Modification Proposal A110 to which the CRU issued an Instruction on 10 March. The second and more difficult and complex part of the review will be revived in 2024 and a Proposal may issue in the second part of 2024.

Next Meeting

- Next Meeting is virtual and scheduled for 14 February 2024 ?

Code Modification Forum Meetings in 2024 (prospective)



Next CMF Meeting →

CMF Dates	Location
14 February	Virtual
17 April (subject to change)	Hybrid (Dublin)
12 June (subject to change)	Hybrid (Dublin)
22 August	Virtual
16 October	Hybrid (Cork)
4 December	Virtual

**Thank you for your
participation**

