

Green Gas Certification Registry

Innovation Project Reference Number 2019-020

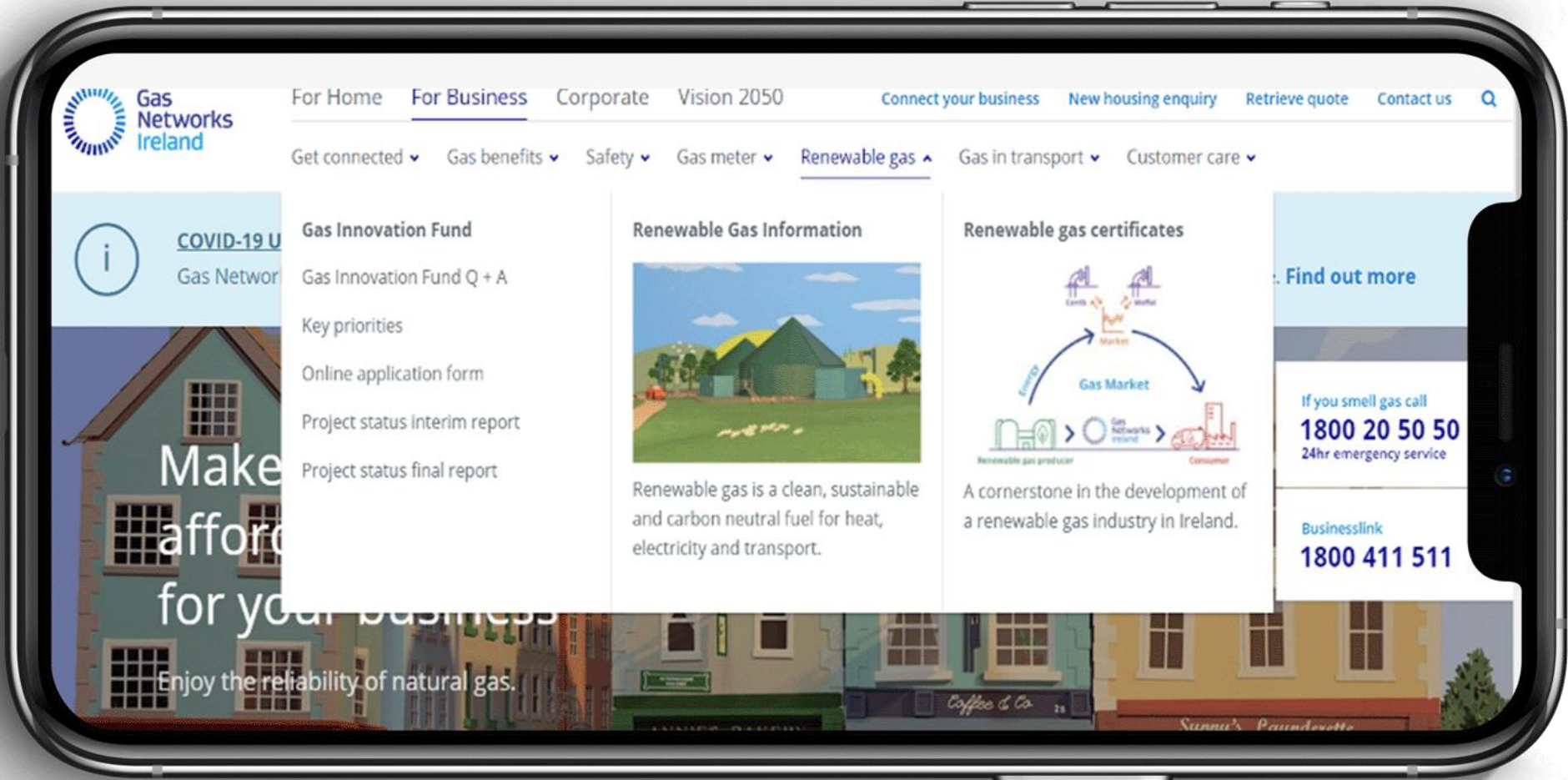
- Exec Summary
- Background
- Legal, Regulatory and Project Developments.
- Next Steps
- Conclusions

Executive Summary

- This project took the outputs from the 2018 Green Gas Certification 'Blueprint'
 - intention was to meet the certification requirements for a new and emerging green gas industry in ROI.
- As the industry was in its infancy, the proposal was to implement a fit-for-purpose, efficient and low-cost solution
 - meet the needs of the industry & be developed and expanded in the future as and when the industry developed.
- Interim solution resulted in GNI establishing a 'Pilot' Registry, on a voluntary basis to issue Guarantees of Origin (GO's) for each MWh of biomethane injected into the GNI grid.
 - The Registry accounts for injected biomethane either through the Mass Balancing or Book & Claim accounting approaches:
 - this has allowed for biomethane to be applied to the biofuels, ETS or heating sectors in ROI.
- The establishment of the Registry has been fundamental to facilitate producers in realising the full value of their biomethane
 - allows end-users demonstrate their transition to renewable fuels and allows ROI to comply with EU renewable energy directives.
- GNI has a comprehensive information page published on our website covering all aspects for the Registry.

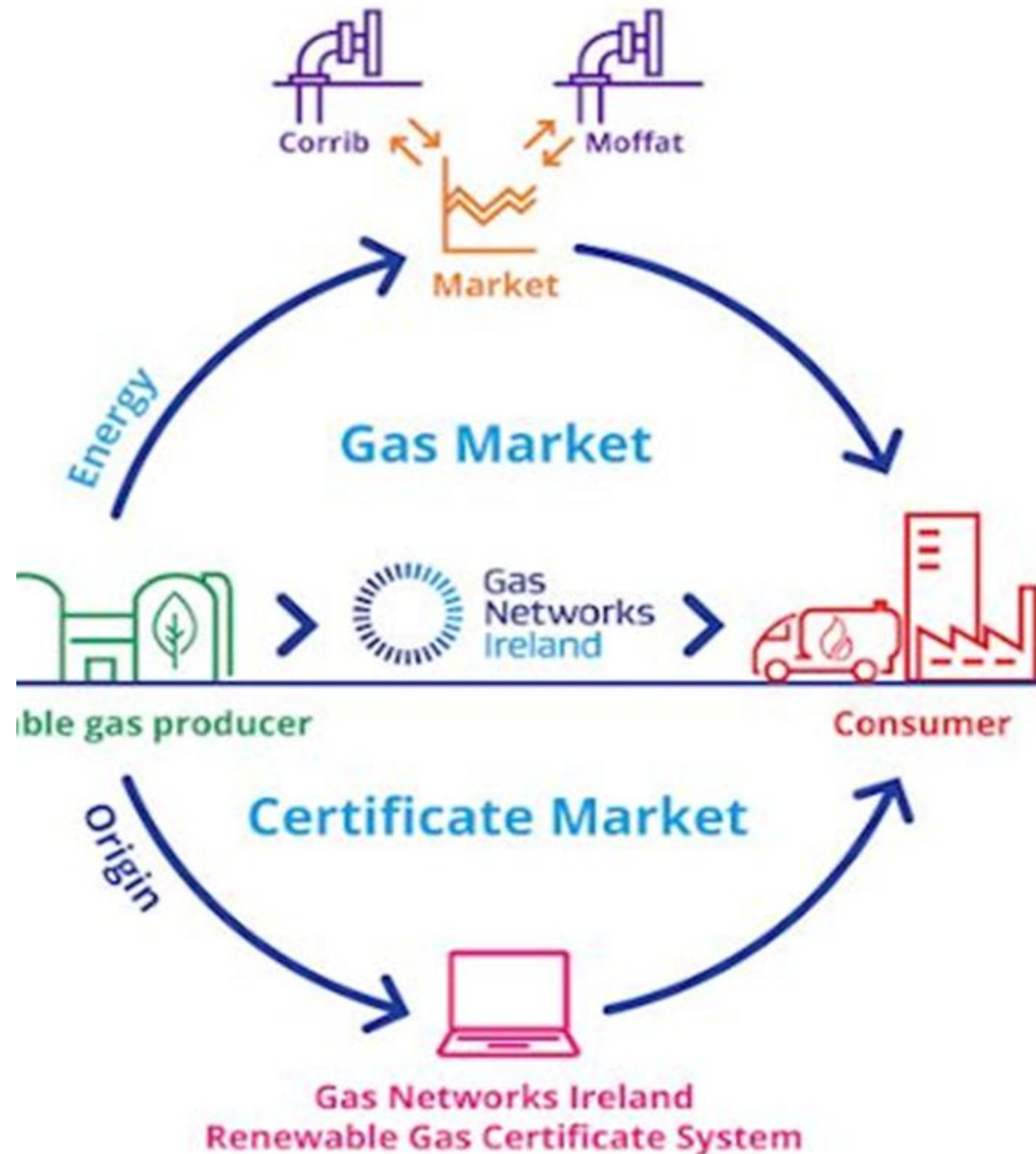
Background and Context

Gas Networks Ireland renewable gas registry webpage

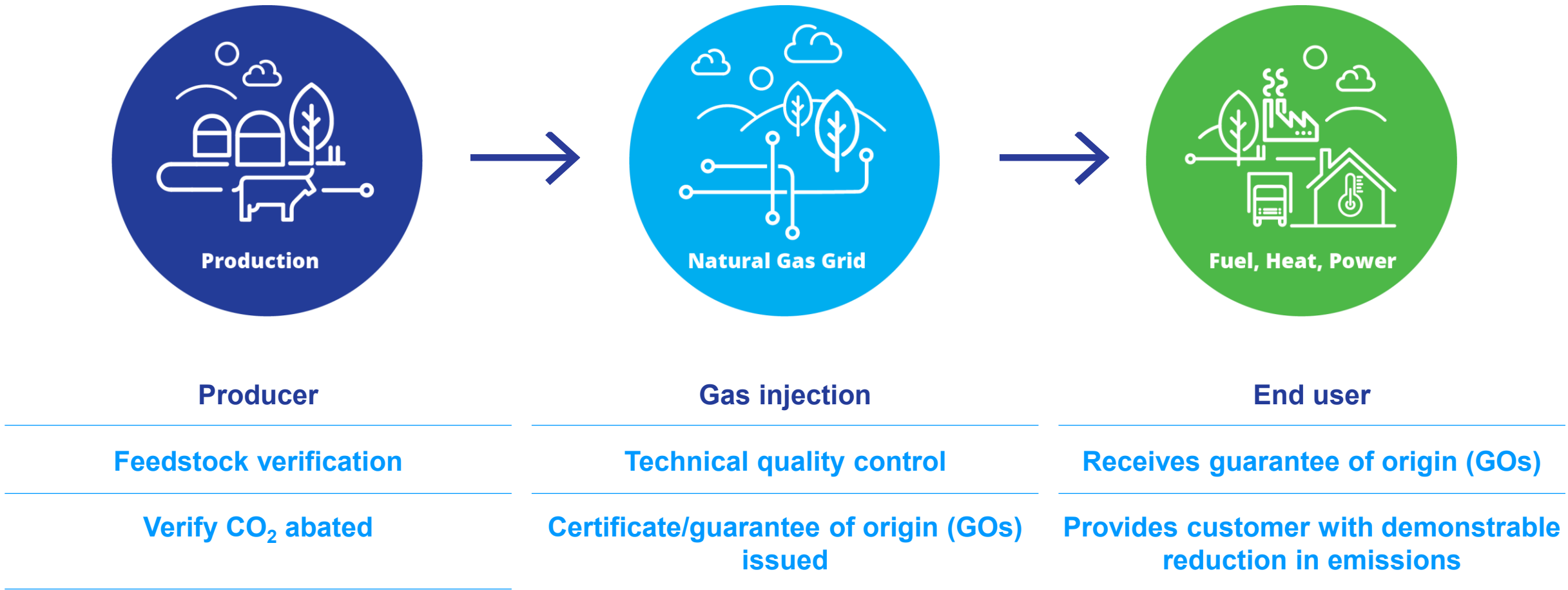


Project Background

- GNI registers RG volumes and issues certificates to Producers injecting into the grid
 - Title tracking the 'green' value of RG in the grid
- Each Certificate = guarantee that equiv. amount of RG injected into the GNI network
- Guarantee of Origin = energy mix declaration for end-consumers
- Proof of Origin = title tracking of RG for biofuels & ETS



Green Gas Certification - Steps



Gas registry – International sustainability and carbon certification



EU Voluntary
Schemes: ISCC
approved by EC to
verify compliance
with 'Renewable'
criteria in RED

ROI Biomethane Producers
audited by ISCC = receive a
Certificate of Sustainability,
valid for 12 months

- RED II requires each Member State to appoint an Issuing Body, to issue Guarantees Of Origin (GO') to Producers of renewable energy.
- On 12th July 2022, Statutory Instrument 350 of 2022 was signed by Eamonn Ryan, appointing GNI as the Issuing Body for GO's for Renewable Gas.
 - This was amended by Statutory Instrument 97 of 2025.
- The CRU were appointed as the 'Supervisory Authority' and commenced engaging with GNI in 2024.
 - In April 2025 the CRU published a consultation on the establishment of a supervisory framework to govern GNI in operating the Renewable Gas Registry.
 - The CRU decision is expected to be published in Q1 2026.
- GNI preparing to launch a new GO Registry in 2027
- NORA Renewable Transport Fuel Obligation Scheme relies on the GNI Registry to allocate renewable gas to forecourts.
- DECC Renewable Heat Obligation will rely on the GNI Registry to allocate renewable gas to fuel suppliers.

- Largest gas consumers in ROI fall within the scope of the EU Emissions Trading Schemes
 - Purchase allowances to match CO2 emissions = mechanism to incentivise decarbonisation.
- Rules allow for switching to 'renewables', treated as 'zero-emission' = allowances not required.
- GNI engaged extensively with the EPA to demonstrate how the Mass-Balance process implemented by the Registry meets the ETS requirements.
- Several parties are currently undertaking trials, supplying renewable gas to gas consumers who are part of the EU Emissions Trading Scheme (EU-ETS).
 - The aim is to claim the consumption of a 'zero-rated' fuel and avoid the obligation to procure EUA's.
- The GNI Registry is now recognised by the Environmental Protection Agency for confirming the mass-balancing of renewable gas from the production plant to the off-take meter, successfully supplying renewable gas to the ETS consumer.
- Registry has enabled application of Renewable Gas to the ETS sector in ROI.

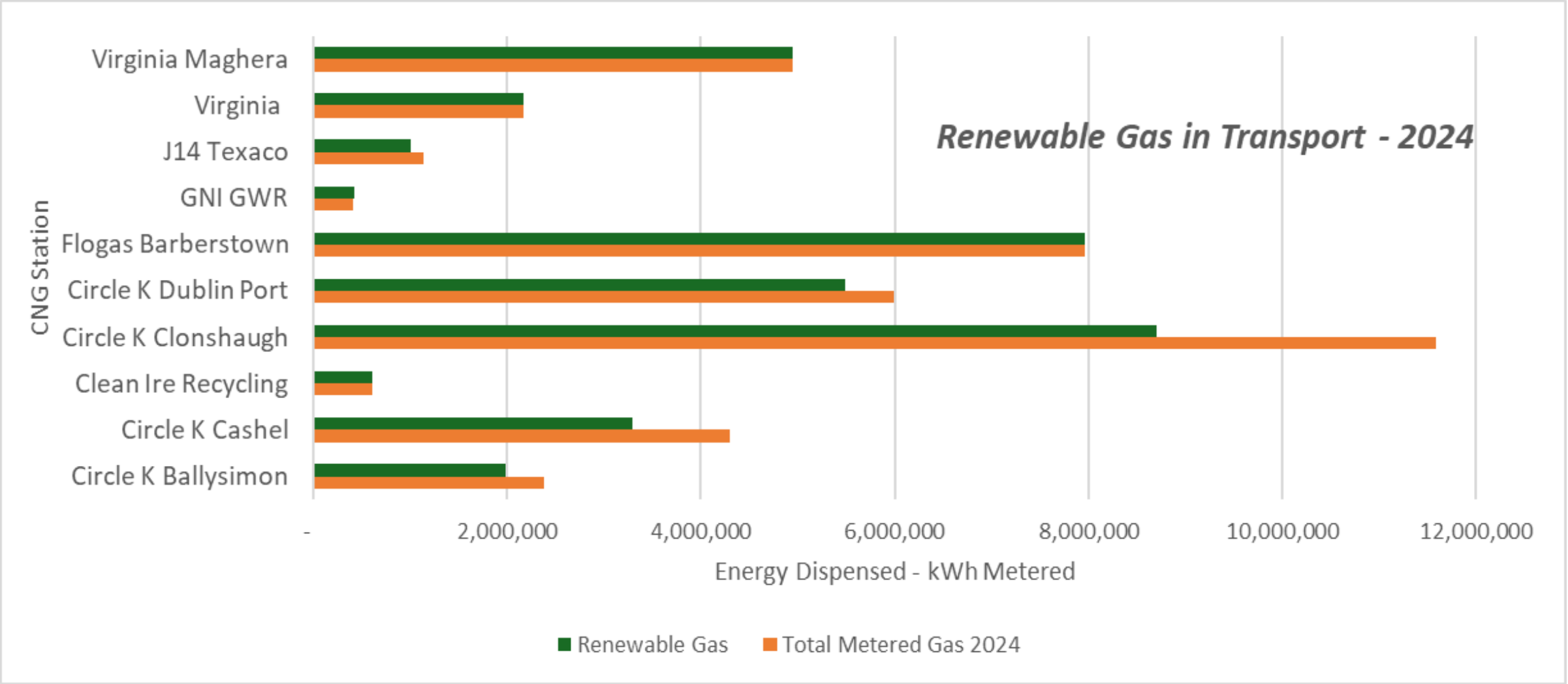
Guarantee of Origin v Proof of Origin

	Guarantee of Origin (GO)	Proof of Origin (PO)
RED II Article	Art. 19	Art. 25-31
Beneficiary	Energy Consumer	Operators obtaining supports or having to meet target obligations (e.g. Biofuel Obligation Scheme)
Purpose	Simple means of disclosing & identifying the energy source to end-consumers. Independent of sustainability requirements in RED II.	Proof of compliance with the sustainability criteria in RED II, including GHG reduction thresholds. EC Voluntary Certification Schemes
Trading Principle	Book & Claim	Mass-Balancing

EC MMR 3 Guidance Document : Biomass Issues in the ETS

'Article 19 of the RED II regulates Guarantees of Origin (GoO). GoO "means an electronic document which has the sole function of providing evidence to a final customer that a given share or quantity of energy was produced from renewable sources" (Article 2(12) of the RED II). GoO are exclusively used for the sake of information to final consumers of electricity, heating or cooling, or gases (biogas or hydrogen) on the source of supply. They are issued at the request of producers of renewable energy and are traded on the market, whereby they can provide an additional revenue stream to supplement other means of financial They can neither be used by Member States as proof for meeting their renewable targets, nor for demonstrating that sustainability or GHG savings criteria are met. GoO do not contain sufficient information to certify sustainability.'

CNG Market 2024: 90% Renewable Gas



- The current ‘Pilot’ Registry is based on MS Excel.
 - All processes are manually performed by GNI upon the submission of an instruction mandate (e.g. issue, transfer, cancel) by account holders.
 - Monthly account statements are prepared manually and are emailed to account holders.
- The ‘Pilot’ Registry has continued to be developed as the industry evolves.
 - In 2019, there was 1 Plant and 1 Company Account. Today there are 2 Plants, 3 sources of imports and 25 Company Accounts.
- Imports/Exports: while the Registry has an interim solution to cater for import/export of GO’s, it cannot connect to hubs (AiB and ERGaR) or other Registries to facilitate imports/exports (as required under RED II).
- In 2020, GNI investigated several software solutions available on the market and used to operate renewable energy registries in other countries.
 - Demonstrations and test versions of the systems were made available, and options were priced. The absence of statutory and regulatory engagement at the time resulted in a decision being made to continue with the MS Excel system.



**Renewable
Gas
Injections**

Gas
Transportation
Management
System

GNI Meters



**Certificates
issued to
Producer**

'Guarantees of
Origin'

1 MWh each



**Certificates
transferred**

A/C Holders
in the
Registry

Producer to
Gas Supplier



**Certificates
cancelled**

RG sold to
consumers

RTFO

EU ETS

RHO

VRF

Legal, Regulatory and Project Developments

Registry System – New Software Procurement

- A 'Request for Information' process was completed in Q4 2025
 - Opportunity for Software Vendors to demonstrate their system and express interest in providing a solution.
- Engaged with other Registry Operators – what lessons learned?
- Currently gathering system requirements
 - Awaiting CRU to publish Supervisory Framework decision paper.
 - Tender to be issued May/June 2026.
 - Implementation in Q4 2026.
 - Go-Live in Q1 2027.
- Fully automated system, like on-line banking, allowing account holders to complete transactions
- Interfaces from GTMS to the Registry and from the Registry to AiB and ERGaR hubs.
- Interfaces to/from the Union Database still unknown.
- PC5 IT Allowance to cover the cost of new software, provided as a service to GNI.

Milestones

2020

- 1st Injections from Nurney
- RG Registry Go-Live

2022

- Glenmore plant commence injections
- 1st Export of RG from ROI via Moffat VRF
- S.I. 350 appoints GNI as the Issuing Body for GO's for RG

2023

- 1st Import of RG from DK to count towards RTFO
- NORA update RTFO rules to recognize RG Registry for compliance
- DHL launch decarb project, placing order for 50 CNG trucks

2024

- Appointed to Board of ERGaR
- 1st Import of RG from GER to count towards RTFO

2025

- CRU publish consultation paper of establishment of Supervisory Framework
- Software procurement commences

Fuel Mix Disclosure

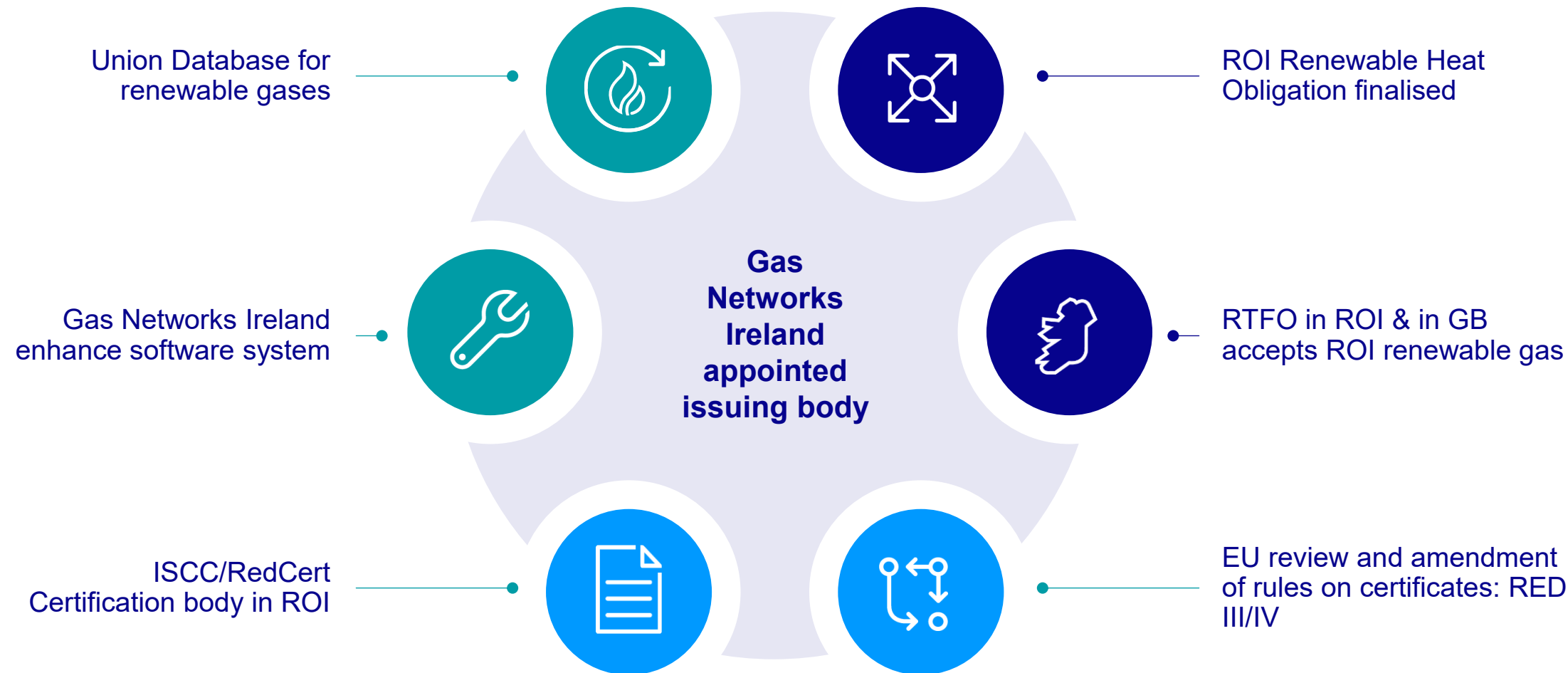
- The CRU consultation on the establishment of a supervisory framework describes the role of the GNI Registry issuing GO's and being used by fuel suppliers to validate the supply of renewable gas.
- CRU to launch a consultation process to implement the FMD for gas suppliers in ROI.
- Gas Suppliers will be required to rely on the GNI Registry and procure GO's.
- The GNI 'Pilot' Registry has provided a foundation for the FMD process.



- Gas Innovation Funding provided for the establishment of a RG Registry
- Resulted in:
 - GNI appointed as the Issuing Body for Renewable Gases in ROI.
 - Application of RG in the transport sector, decarbonising CNG market.
 - Acceptance of RG as a zero-emissions fuel in the ETS sector.
 - Development of a Renewable Heat Obligation policy.
 - Planned implementation of a FMD for gas suppliers.
 - Imports/Exports of RG in/out of ROI.
 - Currently 2 Biomethane plants in ROI injecting and another 7 contracted.
 - Approval of funding by the CRU for procurement of new software.

Next Steps

Gas registry – future developments



Conclusions

- Innovation Funding was critical to the establishment of the renewable gas register
- It provided the support that enabled the establishment of an national Issuing Body which is critical for the renewable gas industry but also gas customers who wish to decarbonise their gas usage.
- It has been instrumental in allowing the transport sector access renewable gas and assist in decarbonising what is often described as a “difficult to abate” sector.
- It has assisted in progressing recognition of renewable gas in the EU ETS sector.
- It has informed the development of the Renewable Heat Obligation policy.
- It has allowed industrial customers and suppliers validate renewable gas imports for the first time.
- It has assisted in providing and commercialising renewable gas and the establishment of the initial biomethane plants and the subsequent seven contracted producers.
- It has assisted in laying the groundwork for new IT systems which will be required as the industry scales up in future years.



Gas
Networks
Ireland

Thank you