Impact of Draft GHGP "Land Sector and Removals Guidance" on biomethane producers and consumers

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GOs, GoOs, RGGOs, Green Gas Certificates
= Renewable Gas Certificates for consumer disclosure of gas use

What is the GHGP?

- Established in 1998 by the World Resource Institute (WRI) and the World Business Council For Sustainable Development (WBCSD)
- Defines an organisation's GHG emissions as falling into three scopes:
  - Scope 1 – GHG emitted from your own equipment e.g. gas boilers and vehicles
  - Scope 2 – GHG emitted during the production of electricity you have consumed
  - Scope 3 – GHG emitted during the production of goods and services you buy, and goods and services you sell e.g. flights taken by staff, or inputs to manufacturing processes
- Where activities do not fall "in scope" they can be reported "off scope"
- Voluntary standard tied to other standards and schemes

Links to reporting requirements and target setting

- **Government requirements** for organisations to report GHG emissions may state that GHG numbers should be reported according to the GHGP framework e.g. UK SECR
- **Disclosure schemes** e.g. CDP and GRI, may follow the GHGP framework or be heavily influenced by it
- **Target setting schemes** e.g. RE100, SBTi, may follow the GHGP framework or be heavily influenced by it
- Targets, disclosure and compliance on Scope 1 emissions are often linked to what the GHGP “rules” are on how they should be reported. You could choose to meet targets with “off scope” reporting, but would not be recognised by many stakeholders.

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Disclaimer!

- GGCS cannot tell you what is "allowed" or "not allowed"
- WRI/WBCSD set the standards and guidance
- Interpreted by disclosure and target setting organisations and governments
- Interpreted by internal and external stakeholders at each organisation e.g. sustainability consultants and advisors
- This presentation gives you the view of the GGCS as a biomethane registry which has been deeply involved in discussions around biomethane reporting since 2015

Dual reporting and inventory reporting

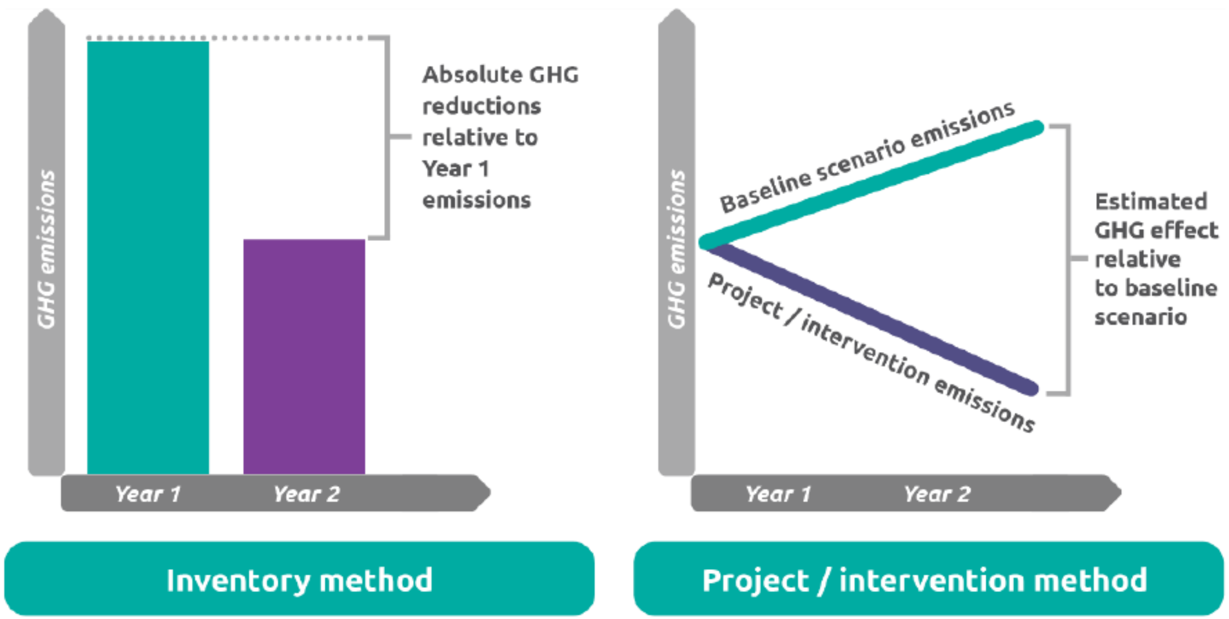
- GHGP includes concept of “dual reporting” being:
  - A “location-based” emission which is kWh consumed * grid factor for the location of consumption e.g. 10,000 kWh * 215gCO_2e/kWh
  - A “market-based” emission which accounts for any “contractual instruments” e.g. Guarantees of Origin, for renewable energy that you have purchased. E.g. you buy GoO for all your consumption and your Scope 1 emissions become close to zero

- Contractual Instruments must meet “Quality Criteria”
  - Defined for electricity-related contractual instruments, but applied to gas
  - Must convey the GHG emission from production
  - Must be the single instrument that represents the energy unit
  - Can be tracked and retired/cancelled securely
  - Issued and retired/cancelled as close as possible to the time of energy production
  - Be sourced from the same market as the consumption takes place in

- Inventory reporting
  - Scopes must count an inventory of GHG emitted
  - No counting of counterfactuals e.g. if I use manure as a feedstock, I am reducing methane emissions because the counterfactual is that manure is in an open lagoon. Manure use creates a GHG credit under RED II, but this will not be valid for GHGP accounting
  - this is called project/intervention reporting – must be done off scope
  - No counting of offsets in Scope

Inventory vs project/counterfactual reporting

1 **Figure 13.1** **Comparison of inventory and project/intervention accounting methods**



Market based emission reporting are somewhat of a grey area within the inventory method.

History of Scope 1 reporting

- Scope 1 reporting is defined in the "GHG Protocol Corporate **Standard**"
- There is no specific **guidance** document on Scope 1 reporting
- From 2015 to 2019 the Scope 2 guidance contained an annex stating:
  - *"Companies shall report emissions from the purchase and use of [gas] the same as for electricity: according to a location-based and market-based method, if the contractual instruments used meet the Scope 2 Quality Criteria as appropriate for gas transactions."*
- GGCS commissioned Ecofys (now Guidehouse) to interpret this annex and their view was:
  - Direct Scope 1 CO_2 emissions linked to the use of biomethane are zero
  - Direct emissions from other GHGs (CH_4 and NO_2) still need to be reported as part of a Scope 1 account
  - Upstream emissions of green gas production and transport are reported as part of Scope 3 emissions and this data needs to be included on the contractual instrument
  - Biogenic emissions need to be reported, but separately from the scopes in a memo item (aka Off scope)

What changed?

- In November 2019 Scope 2 guidance annex was removed with WRI saying:
  - *"The Scope 2 Guidance addresses Scope 2 accounting only. It is not intended to amend Scope 1 accounting as defined in the GHG Protocol Corporate Standard. Forthcoming GHG Protocol guidance on bioenergy will provide guidance on the use of bioenergy certificates."*

Land Sector and Removals Guidance (aka Bioenergy Guidance)

- Announcement in Jan 2020 that WRI would be creating guidance on reporting of GHG emissions along the whole bioenergy value chain – biomass growth, harvest, processing and consumption – also including non-biological carbon removals
- Three technical working groups and an advisory committee with an initial 9 month timeline for creating a draft to be circulated early in 2021
- Very diverse topics – from forestry, to waste, to AD – there are several areas that will affect biomethane reporting e.g. definitions of waste, carbon storage, negative emissions from manure.

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Draft Guidance released to TWG members

- October 2021 – Draft guidance was circulated to TWG members for comment. Contained 22 chapters and 2 annexes. Document was confidential but key details shared by GGCS/ERGaR from November 2021 onwards.
- Annex B – Biomethane and Biogas
  - Reflects the WRI's view (developed with limited TWG input)
  - Highlights that emissions must be counted on "inventory-based" approach not counterfactual e.g. no GHG credits for using manure (this is not up for debate!)
  - Section on "Pipeline delivered fuels" using a "common carrier pipeline"
  - Gas may be mix of fossil and biogenic and this should be reflected in a location-based report
  - Emissions must be reported "independently of any purchase of certificates"
  - May report purchases of certificates "separately from the scopes" i.e. "off scope"
- GGCS interpretation – you must report a location-based GHG emissions for your use of gas and no market-based emission is valid in Scope 1. "Single" reporting not "dual" reporting

Responding to the draft

- TWG members had 6 weeks to provide written responses and ERGaR and others made the following contributions:
  - Restricting market-based reporting of biomethane was in direct contradiction to approach in Scope 2 where dual reporting was fully embedded in the GHGP and detailed guidance provided
  - Renewable and non-renewable mix in same way in electricity and gas networks
  - Restricting use of GoO/contractual instruments would contradict direction of travel in EU where gas GoO have been established in RED II, as well as contractual instruments being used to mass balance biomethane for transport obligations
  - GoO market was making a valuable contribution to biomethane production and encouraging further production
  - Off scope reporting of GoO was not as valuable to consumers and would undermine the market

TWG call on market based reporting – April 2022

- Market-based reporting is also relevant to Scope 3 e.g. sourcing low carbon crops for food production and Scope 1 can include liquid fuels. This is not just about biomethane
- WRI aware of criticisms of market-based reporting e.g. power GoO lack additionality, low prices, lack of temporal matching, etc
- Feedback given by TWG members – largely along the same lines as feedback given to written draft
- WRI indicated they are about to start a process to review market-based reporting across all three scopes, including use of power/electricity GoO

Timeline Review

Activities	2020				2021				2022				2023	
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2
Convene stakeholder groups														
Technical Working Group and Advisory Committee discussions and development of first draft														
TWG and Advisory Committee review of first draft (6 weeks)														
Revision through TWG and AC														
Review by Review Group (2 months)														
Pilot Testing (4 months)														
Revise guidance, incorporating feedback from pilot testing and review														
Finalize and publish standard/guidance														

GREENHOUSE GAS PROTOCOL

Land Sector and Removals Guidance

Part 1: Accounting and Reporting Requirements and Guidance

Supplement to the GHG Protocol Corporate Standard and Scope 3 Standard

DRAFT FOR PILOT TESTING AND REVIEW (SEPTEMBER 2022)

WORLD RESOURCES INSTITUTE

wbcsd

Two questions

1) How to calculate the GHG intensity of biomethane production under these rules (will not give the same GHG value as the NDRHI/GGSS/RTFO methodology
2) How to allocate that GHG intensity to a consumer taking gas from a shared pipeline via a GoO/RGGO (aka "market based reporting")

1) GHG intensity calculation

- *Includes all cradle-to-gate emissions…..from raw material extraction up to the point of (but excluding) combustion, including:*
  - *Land use change emissions (see chapter 7 and 17)*
  - *Land management net CO2 emissions (chapter 8 and 18)*
  - *Land management non-CO2 emissions (chapter 8 and 19), and emissions from processing, transportation, and all other upstream impacts*
- We need someone involved in the piloting process to start running some GHG calculations
- These are the scope 3 emissions of anyone using biomethane, either directly in which case they could report it as a saving in scope 1 or if using “indirectly” they would report “off scope”

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Waste

- Wastes are not allocated any GHG so biomethane from waste has lowest GHG intensity.
- Definition of waste
  - GHGP – waste = “output of a system that has no market value”
  - UK/EU = “any substance or object which the holder discards or intends or is required to discard”
- Wastes can have a market value in the UK with gate fees paid by biomethane producers or may have some residual market values
- Residues? Not defined by GHGP but under NDRHI/GGSS are also assigned zero GHG.
- See “16.5.2 Allocation for waste”

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Carbon Capture

"Companies may account for and report scope 1 or scope 3 CO_2 removals only if the following requirements are met:

- *Ongoing storage monitoring: Companies **shall** account for and report removals only if there is ongoing storage monitoring of the relevant carbon pool(s), as specified through a monitoring plan, to demonstrate that the carbon remains stored or to detect losses of the stored carbon.*
- *Traceability: Companies **shall** account for and report removals only if the reporting company has traceability throughout the full CO_2 removals pathway, including to the sink (where CO_2 is transferred from the atmosphere to non-atmospheric pools), to the carbon pools where the carbon is stored, and to any intermediate processes if relevant.*
- *Primary data: Companies **shall** account for and report removals only if the net carbon stock changes are accounted for using empirical data specific to the sinks and pools where carbon is stored in the reporting company's operations or value chain."*

- Chapter 6: Removal Accounting

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Negative Credit for Manure

- *Biomethane can have positive climate impacts, primarily through the avoidance of methane emissions at the source (e.g., manure lagoons, landfills, etc.). The avoidance or displacement of emissions that would have otherwise occurred is classified as an avoided emission and is calculated using a project or intervention accounting method (quantified relative to a counterfactual baseline scenario), rather than an inventory accounting methods. (Annex B)*
- See chapter 11 for more details on project/intervention reporting

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2) Allocating GHG to a consumer

- No change from the draft seen back in Nov 2021
- Annex B – Biomethane
- *"Under the Corporate Standard, scope 1 emissions are direct emissions occurring from sources owned or controlled by the reporting company and are required to be* ***reported independent of any trades or purchases of certificates or credits.***
- *Biomethane certificates or credits* ***cannot be used to adjust scope 1 emissions resulting from the combustion of gas*** *(in company owned/controlled sources) delivered via a common carrier pipeline.*
- *Companies* ***may report purchases of certificates or credits separately from the scopes*** *in a GHG inventory report."*

You can account of the average biomethane share in the grid.

- *For natural gas that is sourced from a common pipeline, companies should* ***determine what percentage of the gas is of fossil or biogenic origin****.*
- *Given the inability to trace individual molecules through a common pipeline, companies should use grid-averages, where they exist, to determine the percentage of fossil and biogenic natural gas delivered into the pipeline.*
- *Companies* ***should report each portion separately (fossil and biogenic), following the requirements for accounting for and reporting fossil and biogenic emissions****.*

- BEIS emission factors do now include a recognition of the biogas fraction in the grid but to not give a %.
- DUKES report does give a total injected value but there is no clarity on its accuracy (does not match number of RGGOs issued).

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They think its all over….?

"Additional market-based accounting approaches have been proposed for a variety of other commodities, markets, and end-uses since the introduction of the Scope 2 Guidance. ***These proposals would seek to expand market-based accounting to scope 1 and/or scope 3****. At the same time, there has been* ***mixed feedback on the use of the market-based method in scope 2****, including some criticisms about its efficacy and appropriateness. The GHG Protocol is* ***undertaking a process to determine the need and scope for additional guidance*** *building on the existing set of corporate GHG accounting and reporting standards for scope 1, scope 2, and scope 3 emissions. As part of this process, the* ***GHG Protocol plans to holistically examine the appropriateness for market-based accounting across sectors, end-uses, and scopes.*** *This process would seek to* ***explore both whether market-based accounting is appropriate within scope 1*** *and/or scope 3 and also whether the accounting approach for scope 2 (e.g., dual reporting using location-based and market-based methods, market instrument quality criteria, etc.) would need to be applied, amended, or expanded if applied outside of scope 2.* ***The process to develop new guidance will begin in 2023. Based on the final outputs of this process, the contents of this annex may be amended."***

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The "process to determine the need and scope for additional guidance"

- https://ghgprotocol.org/blog/next-steps-process-update-existing-corporate-standards
- *WRI and WBCSD are presently focused on two key components in the planning of the process – the design of a global survey and establishing a global stakeholder process.*
- *The global survey will be designed to collect stakeholder input to establish the need, scope, and potential approaches to inform additional guidance or updates across the Corporate Standard, Scope 2 Guidance, Scope 3 Standard, and supporting documents. The survey will include an opportunity to submit proposals for suggested updates or additional guidance as well as for empirical research and analysis to inform any updates. We anticipate opening the survey in September/October and to solicit feedback over a two-month period.*

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Other topics to consider?

REGOs (GoO for electricity)

- *"GHG Protocol is starting a process to determine the need and scope for additional guidance building on the existing set of corporate GHG accounting and reporting standards for scope 1, scope 2, and scope 3 emissions."* https://ghgprotocol.org/blog/ghg-protocol-assess-need-additional-guidance-building-existing-corporate-standards
- Expected details of how to engage in this process to be shared by WRI/WBCSD in 2022 Q3/Q4
- Possible outcomes:
  - Update to the Scope 2 quality criteria to make cross scope?
  - Some universal criteria with additional Scope specific criteria?
  - Off scope reporting of all contractual instruments?

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Market based reporting for electricity

- *"The GHG Protocol plans to holistically examine the appropriateness for market-based accounting* ***across*** *sectors, end-uses, and* ***scopes."***
- *"This process would seek to explore both whether market-based accounting is appropriate within scope 1 and/or scope 3 and also whether the* ***accounting approach for scope 2*** *(e.g., dual reporting using location-based and market-based methods, market instrument quality criteria, etc.)* ***would need to be*** *applied,* ***amended****, or expanded if applied outside of scope 2."*
- *"The process to develop new guidance will begin in 2023."*

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Accounting for GHG in digestate and manure

- We will hear from Megan shortly.
- GGCS is focused on GHG value of biomethane but GHG of other outputs will also need calculating
  - Digestate
  - CO_2

Next Steps

- https://ghgprotocol.org/land-sector-and-removals-guidance#supporting-documents
- Recommend reading through to try and absorb language and intent running through the GHGP and the proposed rules on bioenergy, land use, carbon removal etc

Pilot testing of draft Land Sector and Carbon Removal Guidance

- At least 90 organisations will be piloting the draft guidance during 2022 Q4 2023 Q1
  - AB InBev, Drax, Dow Inc, Church Commissioners of England, Rabobank, Shell, RSPB, Unilever.
- They will be assisted by approx. 50 “Supporting Partners” e.g. advisors and carbon auditors, who would typically be involved in a company’s GHG Reporting
  - South Pole Group, ACT Commodities, Carbon Trust
- Full list of participants is available here

Guidance Review Group

- There is a "Review Group"
- Launched with an intro webinar last week
- Deadline of November 30th to submit feedback
- Anybody can apply to be part of the review group https://ghgprotocol.org/blog/update-ghg-protocol-land-sector-and-removals-guidance

Develop final draft and publish

- **Possible** outcomes:
  - Draft guidance will be published unchanged, ruling out market based Scope 1 reporting
  - Draft is updated to include similar text from the old Scope 2 annex, allowing market-based reporting in Scope 1
  - Remove any reference to market-based reporting from guidance being allowed or not (delete annex B of the draft)

- **Likely** outcome?
  - Draft guidance will be published unchanged.

- Which will mean…
  - While the guidance is still a draft organisations can make their own decisions
    - use the precedent from previous practice
    - refer to target setting guidance e.g. CDP continue to include reference to market based reporting in their guidance
  - When draft goes live then continue to by RGGOs and report offscope
  - await the outcome/influence the outcome of the process to develop "*additional guidance building on the existing set of corporate GHG accounting and reporting standards for Scope 1, Scope 2, and Scope 3 emissions*"

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Recap

- GoOs can be used within a GHGP-based emission report – that is not in question
- Problem is “market-based Scope 1 emissions” vs “reporting off scope”
- Removal of annex and draft guidance has created uncertainty
- Opportunity to engage via Review Group
- Keep an eye out for how the cross scope review progresses