

VERIFICATION STATEMENT

Assessment of the Drax Biomass Carbon Calculator V2.0

Prepared for:

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Objectives

SGS Belgium has been assigned by Drax Power ltd to verify an updated version of the Drax Biomass Carbon Calculator developed by the association for the calculation of GHG emissions of a wood pellet supply chain.

The verification has been performed in accordance with ISO 14064-3 (Specification with guidance for the validation and verification of greenhouse gas assertions).

The updated version of the calculator assessed is: *Biomass Carbon Calculator V2.0.xlsm* (including attached user manual : *Biomass Carbon Calculator User Guide V2.0.pdf*)

GHG assertion to be verified

The assertion to verify is that the tool is conform to the verification criteria:

- the calculation tool is free from material misstatement;
- the calculation tool complies with annex VI of the Directive (EU) 2018/2001 of the European Parliament and of the council of 11 December 2018 on the promotion of the use of energy from renewable sources (RED recast)

Roles and responsibilities

Drax is responsible for the design and the maintenance of the Biomass Carbon Calculator. It is SGS' responsibility to express an independent GHG verification opinion on the calculation tool with regards to the criteria listed above.

Scope

i) organizational boundaries: not applicable (All relevant emission sources involved in the supply chain are considered, regardless which companies are in charge)

ii) physical infrastructure, activities, technologies and processes: forestry, wood harvesting, wood processing, milling, drying, pelletizing, wood pellet use for electricity and/or heat production, all transport steps of raw materials and pellets

iii) GHG sources, sinks and/or reservoirs:

- direct and indirect emissions associated with fossil fuel combustion for forestry / processing / handling of feedstock and product
- indirect emissions associated with use of electricity for transport / processing / handling of feedstock and product
- direct and indirect emissions associated with biomass combustion in processing units
- indirect emissions associated with use of additives in processing (if applicable)
- direct and indirect emissions associated with use of electricity and/or fossil fuels in relevant transport modes (road, rail, river, sea)
- direct emissions at end use (combustion of biomass)

NB:

- emissions from carbon stocks release and land use change are assumed to be zero and sourced from sustainable forestry.
- no carbon credit claimed for use of degraded land, carbon capture or electricity excess.
- no allocation to co-product is applicable

iv) types of GHGs:

carbon dioxide (CO2), methane (CH4) and nitrous oxide (N2O)

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v) time period:

The tool is not linked to any specific time period. It is intended to be used in conjunction with audit reports from SBP certification. Those reports normally cover a 12 months production period.

Level of assurance and materiality

The level of assurance for the verification process is reasonable. The level of materiality is 1%.

Intended use

The GHG tool is intended to be used to calculate GHG intensity of wood pellets (g CO2 / MJ pellets) in order to calculate GHG savings compared to the relevant fossil fuel comparator, while used for the production of electricity and/or heat.

Overview of the work performed

The verification work was performed as desktop review of the calculation tool. It included:

- Development of verification approach (verification plan and sampling plan)
 - Identification of the most critical parameters in terms of risk of error and contribution to the final result
 - Sample parameters/formula verification accordingly.
- Assessment of the GHG data and information including:
 - Analytical checks of formula using excel formula auditing tools
 - Tests of the tool using simple datasets and confirming validity of the output though comparison with results obtained by an independent calculation
 - o Checking emission factors / calculation factors back to the source
- Assessment against the criteria
 - o Completeness of the GHG emission sources as per RED recast
 - o Correct approach, scope and units as required for each component
 - o Correct default value / calculation factors, where appropriate.

Conclusion

Based on the work performed, SGS concludes with reasonable assurance that the Drax Biomass Carbon Calculator tool V2.0 is free from material misstatement and complies in all material respects with the applicable requirements annex VI of the Directive (EU) 2018/2001.

It is noted that emissions released from carbon stock in forests and from land use change (if any) are not covered by the calculation tool and assumed to be zero when wood pellets are sourced from sustainable forestry.

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