



Independent Verification Opinion

Verification Opinion No.:
C681030-2023-AG-TWN-DNV

Issued Place:
Taipei

Issued Date:
04 June, 2024

This is to verify initiate reporting of Greenhouse Gas Inventory Management Report (2023) of

Auroral Sinter Metals Co.,Ltd.

Scope of Verification

DNV Business Assurance (DNV) has been commissioned by Auroral Sinter Metals Co.,Ltd. ('the Organization') to perform a verification of the greenhouse gas statements of Greenhouse Gas Inventory Management Report (2023) (hereafter the "Inventory Report") in Taiwan, R.O.C. with respect to the area: No. 1199, Jianfeng Rd., Toufen City, Miaoli County 351016, Taiwan (R.O.C.)

The Reporting Boundary for the verification including direct GHG emissions and removals, indirect GHG emissions from imported energy, indirect GHG emissions from transportation, indirect GHG emissions from products used by the Organization and indirect GHG emissions associated with the use of products from the Organization. The further descriptions for the Reporting Boundary listed in Appendix A.

Verification Criteria and GHG Programme

The verification was performed on the basis of ISO 14064-1:2018 as well as criteria given to provide for consistent GHG emission identification, calculation, monitoring and reporting. The verification was conducted in accordance with ISO 14066:2011, ISO 14065:2020, ISO14064-3:2019

Verification Opinion

It is DNV's opinion that the Inventory Report (2023), which was published on 27 May 2024 is free from material discrepancies in accordance with the verification criteria identified as stated above. The opinion is decided based on the following approaches,

- For the Direct (Category 1) and Indirect GHG emissions from imported energy (Category 2), the reliability of the information within the Inventory Report (2023) were verified with reasonable level of assurance.
- For the other indirect GHG emissions, the involved information was verified and tested using limited assurance, defined in Inventory Report.

Also, the GHG information as stated in Appendix B has been verified during the process.

Elsie Huang
GHG Verifier

Place and date:
Taipei, 04 June, 2024

For the issuing office:

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Banqiao District, New Taipei City
220, Taiwan

Management Representative



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Supplement to Verification Opinion

Process and Methodology

The reviews of the Inventory Report and relevant documents, and the subsequent follow-up interviews have provided DNV with sufficient evidence to determine the fulfilment of stated criteria.

Quantification of Greenhouse Gas Emission

The Inventory Report covering the period 1 January, 2023 to 31 December, 2023, it is DNV's opinion that GHG emissions and removals identified within the Reporting Boundary has been included in the Inventory Report as claimed in accordance with the verification criteria identified as stated above, and results in quantification of GHG emissions that are real, transparent and measurable.

Organizational Boundary of Verification

Financial Control Operational Control Equity Share

GHGs Verified

CO₂ CH₄ N₂O HFCs PFCs SF₆ NF₃

The Quantification of GHG emissions:

Category		Emission (ton CO ₂ e)
Category 1	Direct GHG emissions and removals	206.7451
1.1	Stationary combustion emissions	161.8642
1.2	Mobile emissions	30.3647
1.3	Industry process	-
1.4	Fugitive emissions	14.5162
Category 2	Indirect GHG emissions from imported energy	2,529.6120
2.1	Indirect emissions from imported electricity	2,529.6120
Category 3	Indirect GHG emissions from transportation	70.2018
3.1	Emissions from upstream transport and distribution for goods	9.5564
3.3	Emissions from employee commuting	60.4497
3.6	Emissions from waste transportation (from organization to disposal facility)	0.1957
Category 4	Indirect GHG emissions from products used by an organization	1,939.0979
4.1	Purchased goods and services (including purchased energy)	1,934.7779
4.3	Emissions from the disposal of solid and liquid waste	4.3200
Total		4,745.6568

(The Imported Energy Indirect Emissions was calculated based on 2023 electricity emission factor of 0.494 kg CO₂-e/kwh, which was announced by Energy Administration, Ministry of Economic Affairs. The Global Warming Potential (GWP) defined in IPCC AR6 (2021) has been chosen and correctly referred by the Organization.)

Verification Opinion

unmodified modified adverse

Lack of fulfilment of conditions as set out in the Certification Agreement may render this Certificate invalid. This Verification Opinion is based on the information made available to us and the engagement conditions detailed above. Hence, DNV cannot guarantee the accuracy or correctness of the information. DNV cannot be held liable by any party relying or acting upon this Verification Opinion.

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DNV ZNATW-OP-F50, Rev.12, 2024-4

Appendix to Verification Opinion No. C681030-2023-AG-TWN-DNV

APPENDIX A

The organization boundary of report:

Plant	Address	Category 1 (Ton CO ₂ e)	Category 2 (Ton CO ₂ e)	Category 3 (Ton CO ₂ e)	Category 4 (Ton CO ₂ e)
Toufen Plant	No. 1199, Jianfeng Rd., Toufen City, Miaoli County 351016, Taiwan (R.O.C.)	206.7451	2,529.6120	70.2018	1,939.0979

APPENDIX B

The Reporting Boundary of Auroral Sinter Metals Co.,Ltd. Greenhouse Gas Inventory Management Report (2023)

Indirect emissions verification procedures:

Category	Subcategory	Verification Procedures
Category 2	2.1 Imported electricity	-Bill and invoice from suppliers (TPC)
Category 3	3.1 Upstream transportation and distribution	-Iron powder purchase weight -Distance of transportation from supplier
	3.3 Employee commuting	-Types of transportation -Commuting distance
	3.6 Waste transportation (from organization to disposal facility)	- Weights of solid and liquid wastes from contractors contract and bills - Distance of transportation from sites to treatment sites
Category 4	4.1 Purchased goods	- Iron powder purchase weight
	4.1 Purchase Fuel and Energy Emission (Indirect emissions not include in Cat.1 & Cat.2)	-Bill and invoice from suppliers
	4.3 Waste treatment	-Weights of solid and liquid wastes from contractors contract and bills
Category 5*	Indirect GHG emissions associated with the use of products from the organization	Not Significant Emissions
Category 6*	Indirect GHG emissions from other sources	Not Significant Emissions

NOTE: Category 5 & Category 6 were evaluated as Not Significant Emissions base on Auroral Sinter Metals Co.,Ltd.'s significant emission identification process reported in GHG inventory report.

APPENDIX C

For direct emissions and removals, quantified separately for each GHG as below:

GHG Type	CO ₂	CH ₄	N ₂ O	HFCs	PFCs	SF ₆	NF ₃	Total
Emissions (ton CO ₂ e)	29.5396	175.2639	0.8010	1.1406	0	0	0	206.7451
Proportion (%)	14.29	84.77	0.39	0.55	0	0	0	100