

# VERIFICATION OPINION OF GREENHOUSE GAS STATEMENT

Opinion No.: 00032-2023-GHG-RGC

Date of issue: 30 October 2023

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This is to verify initiate reporting of Greenhouse Gas Emissions Inventory Report (2022) of

## Yunnan Yongshun Aluminium Co., Ltd.

#### Scope of Verification

DNV Business Assurance (DNV) has been commissioned by Yunnan Yongshun Aluminium Co., Ltd. (hereafter the "Company") to perform a verification of the GHG Emissions Inventory Report (2022) (hereafter the "Inventory Report") in China, the scope of the verification is set to the reporting boundary covered by this Inventory Report, as detailed in Appendix A&B of this opinion.

#### **Verification Criteria and GHG Programme**

The verification was performed on the basis of ISO 14064-1, as well as those given to provide for consistent GHG emission identification, calculation, monitoring and reporting.

The implementation process of the verification, is in accordance with the requirements of standards of ISO 14066:2011, ISO 14065:2010 and ISO 14064-3:2019 etc.

#### **Verification Opinion**

It is DNV's opinion that the Inventory Report (2022), which was published on 18 October 2023, 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 GHG emissions (Category 1) and Indirect GHG emissions from imported energy (Category 2), the reliability of the information within the Inventory Report (2022) were verified with reasonable level of assurance.
- For the other Indirect GHG emissions (Category 3-4), the involved information was verified and tested using agreed-upon procedures (AUP).

In addition, the information listed in attached Appendix A&B&C were also verified during the process.

DNV Business Assurance China

Li, Chen GHG Verifier

C. K. Wong

Management Representative

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#### **Supplement to Statement**

#### **Process and Methodology**

The reviews of the Inventory Report 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 to 31 December 2022, it is DNV's opinion that the Inventory Report results in quantification of GHG emissions that are real, transparent and measurable.

### **Organizational Boundary of Verification**

☐ Financial Management Control ☐ Operational Management Control ☐ Equity Share

#### **GHGs Verified**

SCO2 SCH4 SN20 SHFCs SPFCs SF6 SNF3

GHG Inventory Categories	Amount (tCO₂e)	
Category 1 - Direct GHG emissions <sup>1</sup>	7814.390	
Category 2 - Indirect GHG emissions from imported energy <sup>2</sup>	2609.691	
GHG emissions of Category 1 & 2	10424.081	
Category 3 - Indirect GHG emissions from transportation	2751.533	
Category 4 - Indirect GHG emissions from products used by the Company	3352086.165	
Total Emissions <sup>3</sup>	3365261.779	

- 1. Direct GHG emissions See Annex C
- 2. The electricity consumption related indirect emissions from imported energy were calculated by the factor of 0.5271 ton  $CO_2$ -e/MWh (South power grid) which was required by " 2011 and 2012 average  $CO_2$  emission factors of China's regional power grids". Green electricity is deducted from the calculation of indirect emissions from purchased electricity in this report, and a market-based approach is used to quantify indirect emissions from electricity in accordance with  $1SO_14064-1:2018$  Appendix E.
- 3. The Global Warming Potential (GWP) defined in IPCC AR6 has been chosen and referred by the Organization.

Verification Opinion				
$\boxtimes$	Verified without Qualification			
	Unable to Verify			



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### **APPENDIX A**

The GHG statement proposed by the reporting entity for this Inventory Report includes the following addresses:

No.	Facility	Address	Total emissions tCO₂e
1	Yunnan Yongshun Aluminium	Yangjie Industrial Park,	3365261.779
	Co., Ltd.	Jianshui, Yunnan Province,	
		China	





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#### **APPENDIX B**

The reporting boundary of the Inventory Report (2022) is identified by organization as:

Category		Reporting Boundary*		
1.	Category 1 - Direct GHG emissions	Fuel usage from mobile and stationery combustion, septic tanks, CO <sub>2</sub> fire extinguishers, refrigerant fugitive, etc. of these facilities owned or controlled by the reporting entity within its organizational boundary		
2.	Category 2 - Indirect GHG emissions from imported energy <sup>2</sup>	Indirect emissions by imported electricity		
3.	Category 3 - Indirect GHG emissions from transportation	Upstream transportation of raw material and subsidiary material.		
4.	Category 4 - Indirect GHG emissions from products used by the Company	Manufacturing and processing of raw materials		

<sup>\*</sup>The scope of other indirect emissions (excl. imported energy with designated/limited source) is determined by the reporting entity based on predetermined criteria for assessing significant indirect emissions and considering the intended use of its GHG inventory.





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#### **APPENDIX C**

For direct GHG emissions and removals, the quantified results for each GHGs are as follows, in  $tCO_2e$  units.

CO <sub>2</sub>	CH4	N2O	HFCs	PFCs	SF6	NF3	Sum
7802.042	7.025	4.200	1.122	0.00	0.00	0.00	7814.390
99.842%	0.090%	0.054%	0.014%	0.00%	0.00%	0.00%	100.00%

