



Independent Assurance Statement

Statement No.:
C544118-2021-GHG-TWN-DNV-Rev.1

Issued date:
9 November, 2022

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This is to verify initiate reporting of Greenhouse Gas Inventory Management Report (2021) of

Gamania Digital Entertainment Co., Ltd. and its Affiliated Enterprise

Scope of Verification

DNV Business Assurance (DNV) has been commissioned by GAMANIA DIGITAL ENTERTAINMENT CO., LTD. ('GAMANIA' or 'the Organization') to perform a verification of the greenhouse gas statements of Greenhouse Gas Inventory Management Report (2021) (hereafter the "Inventory Report") in Taiwan, ROC with respect to the sites listed in Appendix A.

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 B.

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 14065:2013, ISO14064-3:2006

Verification Statement

It is DNV's opinion that the Inventory Report (2021), which was published on 15 July, 2022, 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 (2021) were verified with reasonable level of assurance.
- For the other indirect GHG emissions, the involved information was verified and tested using agreed-upon procedures, AUP, defined in Inventory Report.

Also, the GHG information as stated in Appendix B and C have been verified during the process.

HsianTin Tim Kuo
GHG Verifier

Place and date:
Taipei, 9 November, 2022

For the issuing office:
DNV Business Assurance Co., Ltd.
29Fl., No. 293, Sec. 2, Wenhua Rd.,
Banqiao District, New Taipei City
220, Taiwan

Management Representative

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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Supplement to Statement

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 from 1st January, 2021 to 31st December, 2021, it is DNV's opinion that the results in quantification of GHG emissions are real, transparent and measurable.

Organizational Boundary of Verification

Financial Management Control Operational Management Control Equity Share

GHGs Verified

CO₂ CH₄ N₂O HFCs PFCs SF₆ NF₃

The Quantification of GHG emissions and removals in Direct and Indirect Emission Source:

Category	Direct and indirect GHG emissions categorization*	Emissions and removals verified, Kg CO ₂ -e
1	Direct emissions and removals**	24,276.327
2	Indirect GHG emissions from imported energy	5,777,431.283
3	Indirect GHG emissions from transportation	399,909.766
4	Indirect GHG emissions from products used by the Organization	2,118,895.200
5	Indirect GHG emissions associated with the use of products from the Organization	NA
<i>Total greenhouse gas emissions and removals</i>		8,320,512.576

*: Unless other indicated, the Indirect Emissions was calculated based on 2020 electricity emission factor of 0.502 kg CO₂-e/kwh, which was announced by Bureau of Energy, Ministry of Economic Affairs. The Global Warming Potential (GWP) defined in IPCC AR6 (2022) has been choose as the main source and correctly referred by the Organization.

** : the details subcategory of each category could be referred in the Report.

Verification Opinion

unmodified
 modified
 adverse

APPENDIX B

The Reporting Boundary of GAMANIA DIGITAL ENTERTAINMENT CO., LTD. Greenhouse Gas Inventory Management Report (2021)

Category	Reporting Boundary*			
	description	Sub-category	Emission Source	Applied Site(s)
Direct GHG emissions and removals	The business of GAMANIA and its Affiliated Enterprise is mainly in the multi-dimensional digital technology industry, and the operating resources are mainly the offices where human power is located. Its main direct sources of GHG emissions are the company's generator diesel emissions, official vehicle gasoline emissions, refrigerant emissions, rental cars burning unleaded gasoline to generate CO ₂ , N ₂ O, CH ₄ , office air conditioners and refrigerator refrigerant emissions HFCs. There is a septic tank for sewage treatment. In addition, the headquarters and the GamaGarden will purchased natural gas, which will generate CO ₂ , N ₂ O, and CH ₄ when used.	1.1 stationary combustion 1.1 固定式燃燒 排放源	diesel generator/NG used for cooking 發電機/廚具	Site 1, Site 6
		1.2 mobile combustion 1.2 移動式排放 源	Privately owned vehicle used for business purpose(car, motobike) 私車公用(汽車、機車)	Site 4, Site 5
		1.4 fugitive emissions 1.4 逸散性排放	Chiller/air conditioner/refrigerator/water dispenser 冰水機/冷氣/冰箱/飲水機	Site 1, Site 2 , Site 3, Site 4, Site 5, Site 6, Site 8, Site 9
			septic tank 化糞池	Site 4, Site 6
			Fire extinguisher 滅火器	Site 6
Indirect GHG emissions from imported energy	Long-term use of computers, lighting equipment, refrigerators, air conditioners and other equipment accounts for the largest proportion of total emissions due to indirect emissions from input energy, and is the largest source of greenhouse gas emissions, among which the most important corresponding emission items is the electricity consumed in office and public area, and the types of greenhouse gas emissions include CO ₂ generated by electricity.	2.1 imported energy 2.1 外購能源	Imported electricity 外購電力	All sites
Indirect GHG emissions from transportation	Among the indirect greenhouse gas emissions from transportation, the sources of activities or facilities projects include emissions from employee commuting and employee travelling, as well as the downstream goods transportation due to e-commerce shipments from JollyBuy. Among them, employee commuting accounts for the largest proportion of emissions, downstream transportation is the second, and employee travel is the last. Greenhouse gas emissions come from the consumption of gasoline or electricity to generate CO ₂ .	3.2downstream transport 3.2 下游運輸	downstream transport 下游運輸	Site 1 JollyBuy
		3.3 employee commuting 3.3 員工通勤	employee commuting 員工通勤	All sites
		3.5 business travel 3.5 商務旅行	business travel 商務旅行	Specific departments in Site 1 , Site 2, Site 3 Site 4, Site 5
Indirect GHG emissions	The main workplace of GAMANIA and its Affiliated Enterprise is in the office, so the	4.1products used by organization	Purchased electricity 外購電力	All sites

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from products used by the Organization	indirect greenhouse gas emissions from the use of products or services by the organization mainly include indirect emissions from purchasing electricity, energy including diesel, gasoline, and natural gas, and capital goods including computers, notebooks, screen and server, consumables and tap water. In addition, there are also emissions from office waste disposal, however for those offices other than GAMANIA Headquarters, the related emissions were not included in the quantification due to outsourcing of waste management. In addition, emissions from the use of photocopier services are also included in this category.	4.1 源自採購商品的排放	Purchased gasoline 公務車外購汽油	Site 4, Site 5
			Purchased neutral gas 外購天然氣	Site 1, Site 9
			Purchased diesel 發電機 外購柴油	Site 1, Site 6
			Consumables toilet paper 消耗品(衛生紙)	Site 1, Site 4, Site 5, Site 9
			Consumables tissue paper 消耗品(擦手紙)	Site 1, Site 2
			tap water 辦公室自來水使用	Site 1, Site 2, Site 3, Site 4, Site 5, Site 6, Site 9
	4.2 capital goods that are purchased and amortized by the organization. 4.2 資本商品的排放	capital goods including computers, notebooks, screen and server 企業資本財 (電腦、筆記型電腦、伺服器、螢幕)	Site 1, Site 2, Site 3, Site 4, Site 5, Site 6, Site 7, Site 9, Site 10	
	4.3 the disposal of solid and liquid waste 4.3 固體和液體廢棄物處理	the disposal of solid and liquid waste outsourcing. 固體廢棄物委外處理排放	Site 1	
	4.5 use of services 4.5 使用其他服務產生的排放	Copy machine rental 影印機	Site 1, Site 3, Site 4, Site 5, Site 6, Site 8	
Indirect GHG emissions associated with the use of products from the Organization	The main products and services provided by GAMANIA and its Affiliated Enterprise are online games and related e-commerce consulting services, media, etc. Due to lack of clear and credible quantification method for greenhouse gas emissions during the service process. The identification of significancy and quantification for the related indirect emission in the category were not included in the report.	NA	NA	NA

*: The scope of other indirect emissions (other than Imported Energy with specified/limited list of sources) was defined by GAMANIA's own pre-determined criteria for significance of indirect emissions, considering the intended use of the GHG inventory.

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