

BSI Greenhouse Gas Emissions Verification Report

QISDA VIETNAM CO., LTD

Verification Dates	IL: 18/02/2022 (offsite) VL: 28/02/2022 IR: 24/03/2022
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Greenhouse Gas Emissions Verification Report

1 Introduction.

This report has been compiled by **QISDA VIETNAM CO., LTD** and relates to the Greenhouse gas verification activity detailed below:

- The verification was based upon the Client's GHG Management System & Inventory Report.
- Referenced below: GHG report and GHG inventory
- Level of Assurance: Reasonable

This report forms part of BSI's partnership approach in the Verification of organization's GHG Management System.

The Verification was based on random samplings and therefore nonconformities may exist which have not been identified. Due to the nature of this Verification, not all areas of the Verification have been verified.

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2 Objective of the visit

The objective of the visit was to conduct a verification of quantification and reporting of greenhouse gas emissions and removals

3 Verification criteria

The verification was to confirm to be conformity with:

- ISO 14064-1
- ISO 14064-3
- WBCSD protocol and other specifications of the intended users

The recording system also, the implementation of security program was assessed by the audit team by means of on-site inspection and examination of documents on a random sample basis. Nonconformities, potential for improvement are described in the "findings in this visit" section.

4 Verification scope

The GHG emission from the organization boundary at the verification period for manufacturing of:

- Manufacturing of Monitors, Tablets, Printed Circuit Board Assembly (PCBA),
- Precision Plastic Moulds used in Electronic Products, Plastic Injection Molding Products and Metal Stamping for Electronic Products.

Related facts:

- Materiality threshold: **5%** of the total amount of carbon footprint

- Signification threshold: **3%** of the total amount of GHG emissions
- Exclusion threshold: Total of 1% of the total amount of GHG emissions, total exclusion not exceed 5%

Initial review

5 Initial review

5.1 Conclusion

During the document review, findings were identified as follow:

Non conformity (NCs) 00

Misstatement (Missta) 00

The result of this document review has no influence whatsoever on the conduct of any subsequent assessment, nor upon the resulting recommendations.

Progress has been established towards Initial verification and Verification plans, that include details:

Initial verification 1.0 Man-day(s)

Verification Plans 2.0 Man-day(s)

5.2 BSI verification team and relevant info in desk review

Name	Position
Phan Tuan Hung	Lead verifier
Do Thanh Ha	Verifier

5.3 The principal staff involved on behalf of the organization

Name	Position
Mr. Huang Tsung Te	Facility representative
Ms. Nguyen Thi Nga Mr. Phan Van Ha	GHG team

6 Strategic review commentary

6.1 Information for review

The information will be kept up to date as necessary and being evaluated during the review, risk verification and planning stages.

The information upon which this review is based has been derived from submitted documentation as following:

- Source list and relative calculation records
- Document - GHG Report
- GHG Inventory Y2021 (from 2021-01-01 to 2021-12-31)

- ISO 14064-1: 2018

6.2 Products and operation:

All installations owned by organization are covered in the verification, and the main energy-based emissions are:

- Use of electricity

The others include:

- Combustion of diesel / petroleum
- Fugitive emissions from refrigerant equipment, waste water, CO2 fire extinguisher

6.3 Information system:

The energy data (DO, electricity), fire extinguisher data is collected from bills & readings of meters and fed into the spreadsheet by operator.

The emission data from waste water treatment is collected from monitoring BOD value of septic tank.

6.4 Baseline year selection

The following period have been selected as baseline year due to the initial year for GHG inventory.

From **2021-01-01** to **2021-12-31**

6.5 Period for verification

The period of the carbon footprint verification covers year **2021**

From **2021-01-01** to **2021-12-31**

6.6 Organizational boundaries

The organization has consolidated its facility-level GHG emissions by control approach.

- Company name: **QISDA VIETNAM CO., LTD**
- Address: Lot CN-12, Dong Van IV Industrial Park, Nhat Tan Commune, Dai Cuong Commune, Kim Bang District, Ha Nam Province, Vietnam
- Workshop: VIO Factory, MNT Factory, WH including manufacturing area, warehouse, office area.
- Other areas: waste water treatment plant, dormitory, canteen, waste warehouse, air conditioner system, Garage

6.7 Operational boundaries

The organization has established and documented its operational boundaries.

Scope 1
<ul style="list-style-type: none"> - <i>Use of Diesel oil from back-up power generator which is used for emergency operation, fire pump from VIO Factory, MNT Factory, WH, canteen, dormitory, transformer area, Use of LPG from canteen activity</i>

<ul style="list-style-type: none"> - <i>Use of petroleum for grass cutting machine</i> - <i>Fugitive emissions: CO2 from Carbon dioxide fire extinguishers, HFC from centrifugal Chiller and fridge (VIO Factory, MNT Factory, WH canteen), CH4 from Septic tank.</i> - <i>Use gasoline and diesel oil for transpost car company (company-owned vehicles)</i>
<p>Scope 2</p>
<ul style="list-style-type: none"> - <i>Use of electricity from manufacturing of product, office activities, dormitory, canteen, centrifugal Chiller, waste water treatment plant.</i>
<p>Scope 3</p>
<p>Exclusion scope 3 that including:</p> <ul style="list-style-type: none"> - <i>Transportation of solid waste, hazardous waste, material, product, employee which is handled by contractor</i> - <i>Treatment of solid waste, hazardous waste.</i> - <i>The amount of emissions was small and does not include the calculation results</i>
<p>Scope 4</p>
<ul style="list-style-type: none"> - <i>Emissions of product manufacturing equipment and service use and emissions of the life cycle phase; workers commuting to work, including emissions of non-energy materials) Phát thải của thiết bị sản xuất sản phẩm và việc sử dụng dịch vụ và phát thải của giai đoạn chu kỳ sinh mệnh; công nhân đi lại nơi làm việc, bao gồm phát thải của nguyên vật liệu phi năng lượng)</i> - <i>The amount of emissions was small and does not include the calculation results</i>
<p>Scope 5</p>
<ul style="list-style-type: none"> - <i>Greenhouse gas emissions from: authorized shops, manufacturing contractors and other representative stores; emission sources or equipment outside the boundary set up the point of generation of greenhouse gas emissions, the source from hazardous wastes generated by the equipment; Phát thải khí nhà kính từ: các cửa hàng được ủy quyền hoạt động, nhà thầu chế tạo và các cửa hàng đại diện khác; nguồn phát thải hoặc thiết bị ngoài danh giới thiết lập điểm phát sinh phát thải khí nhà kính, nguồn phát thải từ CTNH mà các thiết bị sinh ra;</i> - <i>The amount of emissions was small and does not include the calculation results</i>
<p>Scope 6</p>
<ul style="list-style-type: none"> - <i>Greenhouse gas emissions from: Photosynthesis of trees and lawns in the company/ Phát thải khí nhà kính từ: Quang hợp của cây xanh và thảm cỏ trong công ty</i> - <i>The amount of emissions was small and does not include the calculation results</i>

6.8 Selection of the quantification methodologies

- GHG emission factor method;
- Mass balance approach;
- Direct monitoring method.

6.9 Uncertainty

Assessment of uncertainty in the activity data and emission factor for GHG emissions was completed by using quantitative method.

6.10 Risk Assessment of verification

The risk assessment is broken down into the separate components of Inherent, Controls and Detection Risk, and these can be analysed to guide the verification approach (i.e. substantive (data information systems) and controls-based procedures (management control environment)).

The components listed above should be used as a guide for verification procedures necessary to bring verification risk to an acceptable level. (i.e. the extent to which the verification is based on testing of controls or the substantive testing of data). If verification procedures do not reduce verification risk to an acceptable level, then either more verification procedures are necessary, or the participant’s emission data cannot be verified, and an opinion should be issued to reflect this.

6.11 The finding catalogues

The details of risk assessment are shown as below:

Material issues	Situation / Control actions / Justifications	Risk (H/M/L)
Operational Boundary	Determine the scope 1, scope 2, scope 3, scope 4, scope 5 and scope 6 inexactly and over the client’s boundary	L
Policies and other management procedures	Definition and determining of policies and procedures not clearly	L
The status of energy management	The energy management is not full but can monitor the data	M
The data collection system	The data collection system is not compatible with the information management system.	M
The management and collection of activity data	It is difficult to cross check the activity data for verification	M
The method and emission factor for calculation	The method and emission factor for calculation did not refer or adjust to Vietnam status.	L
Qualification and emission factors	Qualification and emission factors are followed the mother company guidelines, client is not clearly to present.	L
The management of measurement and calibration	Measurement data, monitoring frequency, calibration status	L

6.12 Sampling plan

Number of data*	Number of data sampling
1-10	50%
11-100	10%+5
101-1000	5%+15
Over 1000	1%+70

Note (*):

- a) Number of Data indicates the amount of data in each data tier separately.
- b) For limited assurance, the number of data sampling may reduce to 50%.

6.13 Commentary (to be furthered confirmed at Initial verification)

Ref.	Details	Area
1		
2	-	

6.14 Non conformity (NC) identified in this verification

Ref.	Area	Description	Clause(s)
1			
2			

6.15 Initial visit plan (Prepared in accordance with ISO 14065:2007)

According to this desk review, the Initial verification shall be carried out in 1.0 man-day(s) and the verification plan is made as follow:

Date	Time	Verifier	Area	Clause
18/02/2022	08:00	PTH	Opening meeting	
	08:30	PTH	Obtain and review the key information from the operator to: <ul style="list-style-type: none"> • Determine the nature, scale and complexity of the verification activities • Ensure the team have the appropriate competencies • Ensure the verification durations are appropriate 	ISO 14064-1: 4.1 – 4.6/ 5.1-5.3/ 6.1- 6.4/ 7.1-7.3/ 8.1-8.3/ 9.1-9.3/10 WBCSD protocol

			<ul style="list-style-type: none"> • Provide input into the risk analysis • Confirm criteria • Confirm level of assurance • Confirm materiality. 	
	12:00	PTH	Lunch	
	13:00	PTH	<p>Ensure the GHG report is complete and the boundaries are appropriate by</p> <ul style="list-style-type: none"> • Verifying the boundaries • Verifying the completeness of reporting within the boundaries and any missing sources • Verifying the control activities for ensuring completeness of reporting • Verifying the selection of the base year and recalculation process 	<p>ISO 14064-1: 4.1 – 4.6/ 5.1-5.3/ 6.1- 6.4/ 7.1-7.3/ 8.1-8.3/ 9.1-9.3/10</p> <p>WBCSD protocol</p>
	16:00	PTH	Assessor review and report preparation	
	17:00	PTH	Closing meeting	

Initial verification

7 Initial verification

7.1 Conclusion

As a result of BSI carbon footprint verification procedures, the following conclusions may be drawn:

- a) The outstanding issues have been identified as **Non conformity** table;
- b) The commentary issues have been identified as **Misstatement/ Improvement** table;
- c) No opinion can be issued until the Verification plans.

Data quality was considered acceptable in meeting the principles as set out in ISO14064-1: 2018.

During the verification, the following finding(s) were identified and those shall be confirmed at Action Correction plan

Non conformity (NCs)	00
Improvement	01

The company needs to check the corrective requirement of observation, and the decision will be checked at Verification activity.

Part of GHG inventory data and information management system have been verified per ISO 14064-1 requirements and we are pleased to announce the erification will be carried out per schedule.

This is subject to the submission of a satisfactory plan for investigating the identified NCs and implementing effective corrective actions.

No opinion can be issued until the Verification Activity

7.2 Verification Team

Name	Position
Phan Tuan Hung	Lead verifier
Do Thanh Ha	Verifier

7.3 Assessment Participants (on behalf of organization)

Name	Position
Mr. Huang Tsung Te	Facility representative
Ms. Nguyen Thi Nga Mr. Phan Van Ha	GHG team

7.4 Initial Initial Verification Plan (Prepared in accordance with ISO 14064-3)

The detail plan please refer to the Initial verification plan mentioned above.

7.5 Inventory Summary

Inventory report states the emissions as the following feagues in table below and to be re-confirmed in Verification plans.

Period	Scope	Volume GHG emissions (tonnes CO ₂ e)	Occupation (%)
Year 2021 From 01/01/2021 to 31/12/2021	Scope 1	38,95	1.05%
	Scope 2	3658,48	98.95%
	Scope 3	-	-
	Scope 4	-	-
	Scope 5	-	-
	Scope 6	-	-
	Total		3697,43

Note: Scope **3,4,5,6** of emission for only qualitative discussion, but not included at this verification activity.

7.6 Summary of findings

Follow-up of previous findings as below

Ref	Details	Action(s)	Result(s)
1			
2			

7.7 Commentary (to be furthered confirmed at Initial verification)

Following observations raised from this assessment should be considered as the opportunities for further improvement:

Ref.	Details	Area
1	Cần mô tả chi tiết scope gián tiếp và giải thích loại trừ cho scope 4,5 và 6 Need detailed description of 6 scopes and explanation of exclusions for scopes 4.5 and 6	Team GHG

7.8 Non conformity (NCs) identified in this verification

Ref.	Area	Description	Clause(s)

7.9 Recommendations

At this stage, the main recommendation is obviously to address the outstanding issues recorded in the table NCs. Progress has been established towards verification plans.

The verification plans is currently expected to take **2.0** days verification.

Verification Activity

8 Verification plans

8.1 Conclusion

As a result of verification procedures, we are pleased to announce that BSI will recommend issuing an Opinion statement as below:

- a) The Greenhouse Gas Emissions for period

From	01/01/2021	to	31/12/2021
	equivalent to tonnes of CO2		3697.43

- b) No material misstatements in the selected base year Greenhouse Gas Emissions calculation for the company were revealed.
- c) Data quality was considered acceptable in meeting the principles as set out in ISO 14064-1:2018.

8.2 Verification team

Name	Position
Phan Tuan Hung	Lead verifier

8.3 Assessment participants (on behalf of organization)

Name	Position
Mr. Huang Tsung Te	Facility representative
Ms. Nguyen Thi Nga Mr. Phan Van Ha	GHG team

8.4 Verification plan (Prepared in accordance with ISO 14064-3)

The verification plans shall be carried out in **02** man-day(s) and the verification plan is made as follow:

Date	Time	Verifier	Area	Clause
28/02/2022	8:00	PTH, DTH	Opening meeting	
	8:30	PTH, DTH	Site tour the factory Confirm change of GHG management system.	
	10:30	PTH, DTH	Confirmation of organizational & operational boundary. Assessment on GHG inventory design Verify Quantification Methodology and GHG Emission Factors, calculations. Verification of GHG Activity Data in 2021, for ex: electricity, DO, LPG, etc.	ISO 14064-1: 4.1 – 4.6/ 5.1-5.3/ 6.1- 6.4/ 7.1-7.3/ 8.1-8.3/ 9.1-9.3/10 WBCSD protocol

	12:00	PTH, DTH	Lunch	
	13:00	PTH, DTH	Confirmation of organizational & operational boundary. Assessment on GHG inventory design Verify Quantification Methodology and GHG Emission Factors, calculations. Verification of GHG Activity Data in 2021, for ex: electricity, DO, LPG, etc.	ISO 14064-1: 4.1 – 4.6/ 5.1-5.3/ 6.1- 6.4/ 7.1-7.3/ 8.1-8.3/ 9.1-9.3/10 WBCSD protocol
	15.00	PTH, DTH	Verification of GHG Activity Data in 2021, for ex: electricity, DO, LPG, etc. Verification of GHG report content	ISO 14064-1: 4.1 – 4.6/ 5.1-5.3/ 6.1- 6.4/ 7.1-7.3/ 8.1-8.3/ 9.1-9.3/10 WBCSD protocol
	16:00	PTH, DTH	Assessor review and report preparation	
	17:00	PTH, DTH	Closing meeting	

8.5 Inventory summary

Inventory report states the emissions as the following feagues in table below and to be re-confirmed in Independent review.

Period	Scope	Volume GHG emissions (tonnes CO₂e)	Occupation (%)
Year 2021 From 01/01/2021 to 31/12/2021	Scope 1	38,95	1.05%
	Scope 2	3658,48	98.95%
	Scope 3	-	-
	Scope 4	-	-
	Scope 5	-	-
	Scope 6	-	-
	Total		3697,43

Note: Scope **3,4,5,6** of emission for only qualitative discussion, but not included at this verification activity.

8.6 Summary of findings

A correction plan for the findings of site visit was submitted to BSI for review and had been accepted. The baseline risk assessment, materiality assessment and strategic review documents were updated during the verification to take into account of sufficient evidence provided by the client.

Follow-ups of previous findings as below

Ref	Details	Action(s)	Result(s)
1			
2			

8.7 Commentary

Following observations raised from this assessment should be considered as the opportunities for further improvement:

Ref.	Details	Area
1	N/A	
2	-	

8.8 Non conformity (NCs) identified in this verification

Ref.	Area	Description	Clause(s)
NC-01	Khu vực công cộng/ General area	Chưa tính toán lượng phát thải khí nhà kính từ Bơm cứu hỏa chạy bằng dầu DO trong năm 2021 GHG emissions from DO Oil Fire Pumps in 2021 have not been calculated.	6.3

This report and related documents are prepared for and only for BSI’s client and for no other purpose and is sent to the certification body, the members of the audit team and the audit representative of the organisation. All documents (such as this report) regarding the verification procedure are treated confidentially by the audit team and the certification body. This audit report remains the property of the certification body.

The audit report will be left to the organisation at the end of the audit - subject to approval by the certification body. The independent release process may cause modifications or additions. In these cases, a modified revision will be sent to the audited organisation.

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Refer to assessment summary table.

Requirement(s)		Process			NTC
		A	B	C	
3	Terms and definition			*	

3.1	Terms relating to greenhouse gases			*	
3.2	Terms relating to the GHG inventory process			*	
3.3	Terms relating to biogenic material and land use			*	
3.4	Terms relating to organizations, interested parties and verification			*	
4	Principles			*	
4.1	General			*	
4.2	Relevance Select the GHG sources			*	
4.3	Completeness			*	
4.4	Consistency			*	
4.5	Accuracy			*	
4.6	Transparency			*	
5	GHG inventory boundaries			*	
5.1	Organizational boundaries			*	
5.2	Reporting boundaries			*	
5.2.1	Establishing reporting boundaries			*	
5.2.2	Direct GHG emissions and removals			*	
5.2.3	Indirect GHG emissions			*	
5.2.4	GHG inventory categories			*	
6	Quantification of GHG emissions and removals			*	
6.1	Identification of GHG sources and sinks			*	
6.2	Selection of quantification approach			*	
6.2.1	General			*	
6.2.2	Data selection and collection used for quantification			*	
6.2.3	Selection or development of GHG quantification mode			*	
6.3	Calculation of GHG emissions and removals			*	01
6.4	Base-year GHG inventory			*	
6.4.1	Selection and establishment of base year			*	
6.4.2	Review of base-year GHG inventory			*	
7	Mitigation activities			*	
7.1	GHG emission reduction and removal enhancement initiatives			*	
7.2	GHG emission reduction or removal enhancement projects			*	
7.3	GHG emission reduction or removal enhancement targets			*	
8	GHG inventory quality management			*	
8.1	GHG information management			*	

8.2	Document retention and record keeping			*	
8.3	Assessing uncertainty			*	
9	GHG reporting			*	
9.1	General			*	
9.2	Planning the GHG report			*	
9.3	GHG report content			*	
9.3.1	Required information			*	
9.3.2	Recommended information			*	
9.3.3	Optional information and associated requirements			*	
10	Organization's role in verification activities			*	

Legend- Business Areas / Process Assessed

[A] Initial Review

[B] Initial plans

[C] Verification plans

Note Cover ISO 14064-1 and WBCSD GHG Protocol.

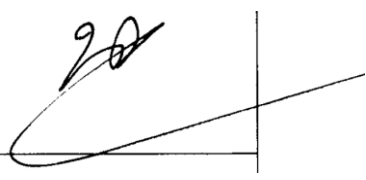
9 Verification details

Location reference	
Name and address	Company name: QISDA VIETNAM CO., LTD Address: Lot CN-12, Dong Van IV Industrial Park, Nhat Tan Commune, Dai Cuong Commune, Kim Bang District, Ha Nam Province, Vietnam
Contact Name	Ms. Nguyen Thi Nga
Telephone Number	0328 808 818
Fax Number	
e-mail Address	Nga.TN.Nguyen@Qisda.com
Assessment reference	
Visit type	
Assessment dates	28.02.2022
Assessment duration	2.0 day(s)
Customer Service Officer	
Telephone Number	
Fax Number	
e-mail Address	

10 Facility management representative acknowledge

A closing meeting has been performed at the end of the verification process in which the findings listed in the above table were explained and agreed by the facility management.

On behalf of Facility	
Facility representative	Mr. Huang Tsung Te
Signature	
Date:	28.02.2022

On behalf of BSI	
Lead assessor	Phan Tuan Hung
Signature	
Date:	28.02.2022