

**TÜV SÜD PSB PTE LTD**  
**TECHNICAL REQUIREMENTS**  
**FOR**  
**GREENHOUSE GAS**  
**VERIFICATION & VALIDATION**  
**SERVICES**



PSB Singapore

**1 INTRODUCTION**

- 1.1 The TÜV SÜD PSB Greenhouse Gas Verification and Validation Services (“the GHG V&V Services”) are operated by TÜV SÜD PSB Pte Ltd (“TÜV SÜD PSB”) to verify that Greenhouse Gas Program (GHG Program) satisfies the requirements of the relevant standards & GHG program criteria.
- 1.2 All applications and GHG V&V Services are subject to TÜV SÜD PSB General Terms and Conditions of Business.
- 1.3 Organisations interested to participate in the GHG V&V Services shall be given an application form / questionnaire to complete, and brochure and the Technical Requirements to follow. The TÜV SÜD PSB General Terms and Conditions of Business are available in TÜV SÜD PSB’s website.

**2 UNDERTAKINGS OF ORGANISATION**

- 2.1 The organisation shall furnish to TÜV SÜD PSB all relevant information and documentation relating to the GHG Program.

**3 APPLICATION**

- 3.1 An organisation may apply for the GHG V&V Services provided that the GHG Program has been effectively implemented in accordance with its GHG program criteria, standards and quality management framework.
- 3.2 Upon evaluation of the application form, the organisation will be given a quotation / contract for the fees for the GHG V&V Services. If the quotation / contract is accepted by the organisation, the organisation will have to submit to TÜV SÜD PSB a signed quotation / contract or an acceptance letter, a controlled copy of its documented information (as stated in the application form) and a cheque payment of the one-time verification fees.
- 3.3 TÜV SÜD PSB reserves the right to amend or not to process applications due to incomplete or insufficient data & information supplied and/or changes in the complexity level found during the course of GHG verification & validation.

**4 FEES**

- 4.1 The one-time verification fees must be paid together with the submission of the documented information, plan(s), and other related GHG documentation.
- 4.2 An annual administrative fee shall be payable by organisation that seeks co-registration with TÜV SÜD PSB’s partners and/or member bodies.
- 4.3 Where a change/re-verification & validation is necessary due to change of location, scope of verification & validation or complexity level, a verification & validation fee shall be payable by the organisation.
- 4.4 The determination of verification & validation time and any justification for increase or reduction of verification & validation time are conveyed to the organisation prior to the computation of the fees to be given to the organisation for their acceptance. Upon agreement, the final fees are accepted by the organisation.

**5 APPEAL AND COMPLAINTS**

- 5.1 TÜV SÜD PSB evaluates the documents submitted by the verifier. It decides whether statement is to be issued and handles disagreements/appeals concerning the statement. Complaints management procedures have been established for each verification & validation process.
- 5.2 Appeals and complaints shall be addressed directly to TÜV SÜD PSB. It maintains documented appeals and complaints management procedures. A description of these procedures is made available to the public.



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## 6 VERIFICATION & VALIDATION PROCESS

6.1 A verification & validation process comprises four main stages:

- 1) Pre-engagement assessment
- 2) Verification & Validation Planning
- 3) Conducting Verification & Validation
- 4) Verification & Validation Reporting

For each GHG Program, the service description, verification & validation activities and timelines shall be stated in the contract document.

At pre-engagement process, the GHG fundamentals & program criteria shall be established. This is followed by an initial desk review of GHG information provided by the client primarily to understand the GHG information system and its controls for sources of potential errors, omissions and misinterpretations. GHG information shall also be examined.

The verification & validation summary plan including sampling plan shall be developed based on initial information gathered. A kick-off meeting (off or on site) with the client will follow to introduce the review team, confirm GHG fundamentals & program criteria, discuss the verification & validation summary plan, and transfer of background information and confidentiality issues.

Preliminary verification & validation based on emission data & supporting documentation will be performed to check data, evaluate rules & principles, check systems and QA/QC control. During the on-site visit, the GHG information system and controls and GHG data and information shall be examined to assess the organization's GHG assertion. The verification & validation activity shall focus on gathering physical, documentary, and testimonial evidence. The principles of the relevant GHG program, such as, completeness, consistency, accuracy, transparency, relevance and (as appropriate) conservativeness of GHG information shall be taken into account. After the on-site visit, the verifiers shall continue to process and analyse GHG information gathered to enable them to assess the results against the program criteria, standard or GHG program the organization subscribes to.

The verifier shall assess the GHG assertion by comparing the organization's GHG related performance against the agreed GHG fundamentals and principles of the GHG program criteria and standard. Based on the results, the verification & validation report shall be prepared. Clarifications and corrective action requests shall be issued to the client during the evaluation of GHG assertion until all issues are resolved.

An independent internal review shall be conducted to assess the work of the verification team from the initial contact with the client to the completion of the verification & validation process. The verification & validation report shall be reviewed and additional clarifications and corrective action requests maybe issued by the internal reviewer.

Following satisfactory completion of all stated site visits and data verification & validation, TÜV SÜD PSB shall prepare a verification & validation report containing Verification Opinion. **If there is insufficient evidence to support a conclusion, the TÜV SÜD PSB reserves the right to disclaim the issuance of an opinion.** TÜV SÜD PSB may at any time refuse to issue verification statement, or revoke, where, in our reasonable opinion, compliance with the specified rules and regulations, program criteria, or this agreement has not been met.

6.2 Special Verification & Validation

6.2.1 In cases where it is necessary for the TÜV SÜD PSB to conduct a short notice for a previously verified GHG assertion in response to complaints or facts discovered after the verification decision a special verification & validation will still require sufficient risk analysis and data sampling to be performed in order to give a verification opinion.

6.2.2 In special verification & validation, all of the four stages of verification & validation will be completed, as well as all of the deliverable to client / intended user, in order to meet the requirements outlined in verification & validation process.

6.2.3 The client / intended user be notified in advance of the conditions under which the special verification & validation is to be conducted. To ensure no last-minute objection from client, additional care will be taken in assigning of verification & validation team members.

## 7 VERIFIERS

7.1 TÜV SÜD PSB will notify the organisation of the appointment of verification team from TÜV SÜD PSB for the conduct of the verification & validation.



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## 8 PETITIONS TO DISPUTE VERIFICATION & VALIDATION DECISION

- 8.1 In the event that the client disputes an assertion made in the verification & validation decision, or where an agreement cannot be reached between the client and TÜV SÜD PSB before the verification & validation opinion is returned, a petition may be submitted to the intended user by the client for consideration.

## 9 FACTS DISCOVERED AFTER THE VERIFICATION & VALIDATION

- 9.1 It is the client obligation to communicate any facts to the TÜV SÜD PSB that can affect the validity of an issued opinion.
- 9.2 As part of TÜV SÜD PSB 's accredited GHG V&V services, TÜV SÜD PSB reserves the right to reassess the conclusions in the report and potentially reissue the report if any facts about the GHG assertions are brought to our attention after the issuance of verification & validation opinion.
- 9.3 Corrective action, including communicating the matter as soon as practicable to the responsible party, the client and the management team, will be taken if facts or new information that could materially affect the verification or validation opinion are discovered after the verification & validation.

## 10 PUBLICITY & PROMOTION

- 10.1 No marks (logo) will be issued for client's marketing and promotional activities.
- 10.2 Where an extract from TUV SUD PSB'S GHG Report /statement is to be used for communication purposes then this must be discussed and agreed in writing before the extract is used.
- 10.3 Client to ensure that any opinions or reports of factual findings made public by the client must communicated in their entirety.
- 10.4 In order to maintain the integrity of our service, client shall not make any misleading statements concerning their application or Verification Opinion to any third party and will use their best endeavours to ensure that no-one connected with them gives misleading information.

## 11 SITE VISITS BY AUTHORISED PARTY

- 11.1 Authorised parties of TÜV SÜD PSB reserve the right to visit any of the organisations under the TÜV SÜD PSB's GHG V&V Services for verification & validation purposes. The organization shall grant reasonable access to such authorised parties for such site visits.