	General information about EMG-GHG program for public	Form code: F 8-04
		Issue No: 01
		Issue date: .30/04/2025
		Revision No:.00
		Revision date: --
		Page 1 of 14

The standard method ISO/IEC 17029:2019, Clause 8 lists the following elements as content of programs:

- 1) scope of validation/verification.
- 2) specific competence criteria for the validation/verification team and body.
- 3) process for validation/verification.
- 4) evidence gathering activities of validation/verification.
- 5) reporting of validation/verification.

1) Scope of validation/verification activities

- The program is used to check the accuracy, relevance, completeness, consistency and transparency of GHG (emission, reduction or removal) statements/reports. The program is aimed to be used in the sectors and industries that are specified in [Table 1](#) and [Table 2](#).
- The program requires that VVB shall check the accuracy, relevance, completeness, consistency and transparency of the client documented information about the organizational boundaries and reporting boundaries. This information shall be recorded by the clients (who ask for validation/verification activities) based on international standards and publications such as ISO 14064-1: 2018, ISO 14064-2:2019, GHG protocol, 2006 IPCC Guidelines for National Greenhouse Gas Inventories (2019 Refinement).
- The VVB shall refer to the standard method, the guidelines, and any other necessary documents to check that the organizational and reporting boundaries are reported correctly by the client.
- **Contents of claim submitted to validation/verification activities:**
 - The claim submitted to verification should include at least all the mandatory information specified in GHG report according to ISO 14064-1 (2018). The claim submitted to validation should include all least the mandatory information specified in GHG report according to ISO 14064-2 (2019) .



	General information about EMG-GHG program for public	Form code: F 8-04	
		Issue No: 01	
		Issue date: .30/04/2025	
		Revision No:.00	
		Revision date: --	
		Page 2 of 14	

Table 1: organizational level sectors.


series	Organization level sector (IAF MD 14)	Included activities
1	Waste handling and disposal	Waste handling and disposal
		Animal waste management
		Landfill and composting facilities
		Water & wastewater treatment
		Solid wastes
		Organic wastes
2	Metals Production (Iron and Steel)	Production of pig iron or steel including continuous casting
3	Mining and Mineral Production	Production of cement clinker and production of lime or calcinations of dolomite or magnetite
4	General Manufacturing (physical or chemical transformation of materials or substances into new products)	Manufacturing: electric and electronic equipment's, Industrial machinery
		Paints
		Manufacturing: food process
		Civil engineer: Construction
		Wood Product Facilities
		Manufacturing, Installation, Operation and Disposal of Refrigeration & Air-conditioning Equipment
		Plastic and rubber
		Textile and leather products
		Non-metallic
		Basic metal products
5	Pulp, Paper and Print	
6	Aluminum Production	Primary aluminum
7	Transport	Aviation
		Other Transportation
8	Chemical Production	Production of ammonia
		Production of adipic acid
		Production of nitric acid
9	Oil and Gas Exploration, Extraction, Production and Refining, and pipeline distribution, including Petrochemicals	Natural gas storage and LNG operations
		Fugitive emissions (e.g. leaks from equipment and piping components)
		Transportation and distribution

	General information about EMG-GHG program for public	Form code: F 8-04
		Issue No: 01
		Issue date: .30/04/2025
		Revision No:.00
		Revision date: --
		Page 3 of 14

10	Carbon Capture Storage	Capture and transport of GHG by pipelines for geological storage
		Geological storage of GHG in a storage site
11	General	Building Services/Facility Management
		Education
		Hospital
		Others
12	Agriculture, Forestry and Other Land Use (AFOLU)	
13	Power generation and electric power transition	Renewable energy
		Purchased electricity and steam
		Transmission of electricity

Table 2: project level sectors.

Series	Project level sector (IAF MD 14)	Included activities
1	Waste handling and disposal	Waste handling and disposal
		Animal waste management
		Landfill and composting facilities
		Water & wastewater treatment
		Solid wastes
		Organic wastes
2	Manufacturing industries	Cement sector
		Aluminum
		Iron and steel
		Refinery
3	Construction	Construction
3	Metals Production	Metal Production
4	Transport	Aviation
		Other Transportation

	General information about EMG-GHG program for public	Form code: F 8-04
		Issue No: 01
		Issue date: .30/04/2025
		Revision No:.00
		Revision date: --
		Page 4 of 14

7	Chemical Production	Chemical Process Industries
8	Mining and Mineral Production	Mining and Mineral Process excluding oil, gas industry, coal mine and methane recovery and use
		Oil and gas industry, coal mine and methane recovery and use
		Fugitive emissions (e.g. leaks from production and consumption
		Transportation and distribution
10	Carbon Capture Storage	Capture and transport of GHG by pipelines for geological storage
		Geological storage of GHG in a storage site
11	Agriculture	
13	Energy Industries (renewable/non-renewable sources)	Thermal energy generation from fossil fuels and biomass including thermal electricity from solar
	Energy Distribution	Energy generation from renewable energy sources
	Energy demand	Electricity distribution

- The program allows different types of engagements according to ISO 14064-3: 2019, between VVB and the client such as:
 - 1- Mixed engagement
 - 2- Validation engagement
 - 3- Verification engagement
 - 4- Agree upon procedure (AUP)
- The program allows two levels of assurance which are limited and reasonable level of assurance. The difference between limited and reasonable levels of assurance are discussed in [Table 3](#).



	General information about EMG-GHG program for public	Form code: F 8-04
		Issue No: 01
		Issue date: .30/04/2025
		Revision No: .00
		Revision date: --
		Page 5 of 14

Table 3. Differences between limited and reasonable level of assurance.

Limited Assurance	Reasonable Assurance
<p>Audit emission sources that cover 80-90% of the total GHG emissions.</p> <p>Negative form of conclusion is provided. “Found no evidence that suggests GHG emissions statement is not materially correct and not a fair representation...”</p> <ul style="list-style-type: none"> • Less evidence required and smaller sample size used for testing data. • Select emissions sources sampled based on a cut of the data (not 100% of each source). • Underlying assumption that the data control system is reliable. 	<p>Audit emission sources that cover 90-95% of the total GHG emissions.</p> <p>Positive form of conclusion is provided. “GHG emissions statement is materially correct and a fair representation ...”</p> <ul style="list-style-type: none"> • More evidence required and pursued in more depth. • Larger sample size used to audit the selected emissions sources. • Assesses the design, existence, and effectiveness of data control system.

- The VVB shall perform validation/verification activities according to the agreed level of assurance in accordance with ISO 14064-3:2019.
- **Objectives of conformity assessment are:**
 - ✓ for verification activities: the objectives are reaching a conclusion about the accuracy of the GHG data (or statement) concerning waste management activities and conformity the statement with the criteria.
 - ✓ For validation activities: the objectives are assessment of the likelihood that implementation of the GHG related activities will result in the achievement of GHG outcomes as stated by the client.
- **The claim can be provided in the form of** a report, a statement, a declaration, a project plan, or consolidated data.


	General information about EMG-GHG program for public	Form code: F 8-04
		Issue No: 01
		Issue date: .30/04/2025
		Revision No:.00
		Revision date: --
		Page 6 of 14

Geographical application of the program

- The program will be used at national level (in Egypt) and international level.
- The different VVB in Egypt and all over the world can use the program for carrying out validation and/or verification activities after considering the requirements in the document F8.0-05.
- The VVB can be accepted by EMG to use the program in all or some of sectors that VVB applied for. This depends on the competency of the VVB.

Recognition of validation/verification program by NAB (EGAC)

- EMG will take the necessary steps to recognition of validation/verification program, for use by validation/verification bodies that fulfil ISO/IEC 17029 requirements, through:
 - National Accreditation Body (EGAC).
- However, we are planning that program can be recognized by:
 - program owners and operators.
 - government and regulatory authorities.
 - other interested parties, such as consumer groups, industry associations, non-government interest groups.
 - validation/verification bodies.
- **The recognition of the validation/verification program is to ensure that:**
 - a) the validation/verification falls within the scope of ISO/IEC 17029.
 - b) the program specific requirements placed on validation/verification bodies by the program owner do not contradict, or exclude, any of the requirements included in ISO/IEC 17029.
 - c) if a program places specific requirements on the recognition of validation/verification bodies (e.g. by accreditation bodies or by peer assessment groups), they do not contradict or exclude any of the


	General information about EMG-GHG program for public	Form code: F 8-04
		Issue No: 01
		Issue date: .30/04/2025
		Revision No: .00
		Revision date: --
		Page 7 of 14

requirements in relevant International Standards (e.g. ISO/IEC 17011 for accreditation bodies or ISO/IEC 17040 for peer assessment).

d) for accreditation, program specific requirements do not contradict or exclude any of the requirements of the applicable mandatory documents of accreditation organizations, including acceptance of the program requirements from regional or international accreditation cooperations, if applicable.

A mechanism to provide for feedback from the organization that is recognizing the program on the operation of the program.

- 1- EMG select the national accreditation body (EGAC) to carry out recognition requirements for EMG-GHG program.
- 2- EMG team is responsible to cooperate with EGAC team to carry out their duties in perfect way.
- 3- All the NCs or comments received from EGAC team will be solved and the reply on these NCs and comments will be sent to EGAC team in the specified times. EMG will not announce any information about EGAC recognition until obtaining final acceptance from EGAC on our reply on NCs and comments.
- 4- If the EGAC, during carrying out accreditation according to ISO 17029 for VVBs using EMG-GHG program, find any notes or comments or NCs on the program content, EGAC has the complete authority to inform us officially to take actions to solve these NCs and to take the comments or notes in our considerations.


	General information about EMG-GHG program for public	Form code: F 8-04
		Issue No: 01
		Issue date: .30/04/2025
		Revision No:.00
		Revision date: --
		Page 8 of 14

- 5- EMG is responsible for keeping the recognized validation/verification bodies, accreditation bodies and peer assessment groups informed of any relevant information and developments relating to the program, including in particular any proposed change in requirements.
- 6- EMG is prepared to pay for the costs of the recognition of its program by EGAC.
- 7- EMG is committed to comply with the recognition procedure used by EGAC.

Responsibilities for program owner

The recognition process should ensure the owner of the validation/verification program:

- a) **EMG has a legal entity,** and it has Tax card Number:701-630-906 and Commercial register Number:25940.
- b) **EMG has the authority to establish and manage the program.** EMG has qualified validators/verifiers and established technical committee from experts in different industries and they are working beside EMG to prepare the program.
- c) **EMG has the authority to cooperate with NAB (EGAC).** EGAC will be the organization that is recognizing the program.
- d) **EMG has a mechanism to provide for feedback from EGAC** (the organization that is recognizing the program) on the operation of the program. This mechanism is in the pages 24 and 25 of this documents.
- e) **EMG is able to demonstrate that there is a need in the market for the program** (e.g. demonstrating added value, involvement of relevant interested parties such as those representing the end-users of validated/ verified claims, government initiatives or regulatory needs);

	General information about EMG-GHG program for public	Form code: F 8-04
		Issue No: 01
		Issue date: .30/04/2025
		Revision No:.00
		Revision date: --
		Page 9 of 14

EMG has received different request for the program and positive feedback concerning the program contents. Moreover, different experts from different industries participated in preparing the program.

f) EMG is committed to accept results from validation/verification bodies that:

- 1) are accredited by any signatory of a multilateral arrangements for the relevant scope which follows the requirements laid down in the program; or
- 2) are part of a recognized peer assessment group operating in accordance with ISO/IEC 17040.

g) EMG confirms that the program is proven where:

- 1) **The purpose of the program is** to provide the framework and conditions upon which EMG company and other VVBs can provide validation/verification Services to their customers in the scopes that are specified in Table 1 and Table 2 in this document which includes but not limited to waste handling and disposal and general manufacturing (on organization level); and waste handling and disposal and manufacturing industries (on project level).


2) Description of the requirements of the program:

The program requires the client or responsible party to prepare the necessary data, documents, and procedures about the GHG emissions, reduction or removal measurements and calculation.

Furthermore, the program requires that VVBs to follow up ISO 14064-3 and EMG -GHG program technical and managerial instructions for carrying out validation/verification activities.

In addition, it requires to follow up ISO 17029 (2019) for technical and managerial items.

Furthermore, applying the requirements international standard methods and guidelines such as ISO 14064-1, ISO 14064-2, ISO 14066, GHG protocol, IPCC (2006 and 2019) during validation/verification activities.

	General information about EMG-GHG program for public	Form code: F 8-04
		Issue No: 01
		Issue date: .30/04/2025
		Revision No:.00
		Revision date: --
		Page 10 of 14

3) An analysis of the appropriateness of the established requirements for fulfilling the

defined purpose of the scheme:


One of the main objectives of the program is to build up competent validation/verification team to carry out validation/verification activities. Therefore, EMG-GHG program procedures required specific training programs, skills and knowledge for personnel before start working as validator or verifier. The EMG technical procedures contained working instructions for carrying out validation and verification activities to ensure that the main objectives of the program such as fair presentation and impartiality confidentiality are achieved. Furthermore, all technical and managerial procedures were established to fulfil the requirements of EMG-GHG program and ISO 17029 (2019). EMG has received positive feedback from interested parties concerning the program content and technical excel sheets tools used for GHG calculations.

4) A description of the methods to be used for determining fulfilment of the requirements:

EMG -GHG program has prepared a checklist for executing audits on the VVBs using the program and the requirements of ISO 17029 (2019). These audits are performed once per year. Also, it is possible that EMG team can ask carrying out unplanned audits. In this case EMG sends a letter or email to VVB before audit at least one week. The continuous implementation of these forms guarantees the fulfilment of the program and the standard (ISO 17029).

5) The identification of applicable requirements from other relevant standards used for conformity assessment. (e.g., test result from ISO/IEC 17025, claims from ISO/IEC 17029, Management system certification from ISO/IEC 17021-1.):

The program was built based on the requirements of the following standards [(ISO 14064-3 for execution validation/verification activities), (ISO 17029 for technical and managerial requirements

	General information about EMG-GHG program for public	Form code: F 8-04
		Issue No: 01
		Issue date: .30/04/2025
		Revision No:.00
		Revision date: --
		Page 11 of 14

for validation/verification body), (GHG protocol for identifying and calculation emissions, reductions and removals) and (ISO 17035)].

6) A decision on the conformity assessment activity to be used (including the identification of the applicable conformity assessment standard);

The conformity assessment activity to be used is ISO 17029 (2019) beside using the ISO 14064 series, 14066 and GHG protocol for verification activities and CDM and IPCC (2006 & 2019) guidelines for project level validations/verifications process. in addition, EMG managerial and technical procedures for executing validation/verification activities and reaching a conclusion.


7) An analysis of the appropriateness of the selected conformity assessment activity.

The previous standards and guidelines include the all the technical and managerial guidelines to carry out validation/verification processes. The EMG managerial and technical procedures and forms contain in steps or in details how to execute validation/verification activities and reaching a conclusion.

h) EMG restricts the use of the program to validation/verification bodies where an

agreement has been entered into, ensuring at least that the validation/verification bodies will use the program as it is, without any limitations and without any additions.

- **EMG restricts the use of the CAS to accredited CABs** with which an agreement has been entered into. Such an agreement guarantee at least that the CABs will use the CAS as it is without any limitations and without any additions, and that they will comply with EMG rules for applying the symbol/statement/mark, as applicable.
- **If the VVB aims to use the program before accreditation by EGAC according to ISO 17029,** the VVB shall follow the next steps:

	General information about EMG-GHG program for public	Form code: F 8-04
		Issue No: 01
		Issue date: .30/04/2025
		Revision No:.00
		Revision date: --
		Page 12 of 14

- 1) The VVB shall ask EMG officially, for each customer, attending one of EMG qualified team to participate as an observer in the validation/verification activities.
- 2) The observer shall attend all activities starting from kick off meeting till issuance of statement. The observer prepares a report to EMG about the consequence of the activities and the commitment of VVB with the program requirements.
- 3) If the observer notes any thing wrong, he/she shall write a report to EMG. Then, EMG general manger sends officially to the VVB to correct the mistake.
- 4) At the end of activities, the observer shall prepare final report about the activities with conclusion about the efficiency of the VVB team in executing the program requirements.
- 5) In addition, EMG will perform audits on the VVB activities every six months and will organize unplanned audits. In case of unplanned audits, EMG will inform the VVB with the audit one week prior to the audit date.

i) EMG is committed to keeping the recognized validation/verification bodies,


accreditation bodies and peer assessment groups informed of any relevant information and developments relating to the program, including in particular any proposed change in requirements.

j) EMG is prepared to pay for the costs of the recognition of its program by the organization that is recognizing the program (EGAC).


k) EMG is committed to comply with the recognition procedure applied by NAB (EGAC).

Governance and Management Commitment

- EMG carries out validation or verification processes consistent with the requirements of ISO 14065.

	General information about EMG-GHG program for public	Form code: F 8-04
		Issue No: 01
		Issue date: .30/04/2025
		Revision No:.00
		Revision date: --
		Page 13 of 14

- EMG prepared its validation/verification systems are sufficiently documented to ensure the consistent application of any specific validation or verification criteria, which they choose to offer.
- EMG establishes a development process for each new validation or verification criteria in which it wishes to operate. This development process provides outputs related to the following:
 1. Identification of key stakeholders, and their expectations and requirements as applicable to the outcome of validation or verification activities.
 2. Review and understanding of the applicable validation of verification criteria requirements, involving the criteria owner where necessary.
 3. Consideration of EMG strategic and business risks.
 4. Identification of the competence requirements for validators or verifiers, independent reviewers and support personnel, as relevant to each validation or verification criteria.
 5. Validation or verification criteria specific validation or verification requirements.
 6. Confirmation that the proposed validation or verification arrangements will meet the validation or verification criteria requirements; and
 7. Confirmation that the validation or verification criteria satisfy which (according to of IAF MD 6:2023) are:
 - i. ISO 14064-1 or ISO 14064-2; or
 - ii. Regulated GHG program which is publicly available and has been developed using a formal stakeholder engagement process; or

	General information about EMG-GHG program for public	Form code: F 8-04
		Issue No: 01
		Issue date: .30/04/2025
		Revision No:.00
		Revision date: --
		Page 14 of 14

- iii. Publicly available GHG program (e.g. World Resources Institute and World Business Council for Sustainable Development [WRI/WBCSD] GHG protocol) and has been developed using a formal stakeholder engagement process; or
- iv. Non-public industry or sector protocols; in this case, the validation or verification criteria additionally include either ISO 14064-1 or ISO 14064- 2 dependent on whether the protocol relates to organization or project GHG assertions.
- v. The resulting validation or verification statement clearly states whether the non-public industry or sector protocol conforms to ISO 14064-1 or ISO 14064-2 and if the protocol does not conform it states where the discrepancies are.
- The validated or verified GHG assertion may include a statement of emission per unit of product manufactured (generated or reduced) or similar. Where allowed by the program, and; if the client wishes to use statements taken from the GHG assertion and/or using the EMG mark or GHG program mark for communication purposes, these statements and mark clearly state where the statements came from, including: the date of the GHG assertion, whether the statements are based on historical data and any limitation associated with the statements based on the data and information presented in the GHG assertion specific to the product and appropriate mark.