

Terms of reference (ToRs) for the procurement of services below the EU threshold



DETERMINING COMPANY-LEVEL CARBON BUDGETS FOR THE MANDATORY ALLOCATION PHASE AND DEVELOPMENT OF CARBON BUDGET AND MITIGATION PLAN REGULATIONS	Project number/ cost centre: 20.9087.6-001.00
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0. List of abbreviations

CBs	Company-Level Carbon Budgets
DFFE	Department of Forestry, Fisheries, and the Environment
DPME	Department of Planning, Monitoring and Evaluation
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
GTCC	General Terms and Conditions of Contract (GTCC) for supplying services and work 2022
MCA	Multi Criteria Analysis
MPA	Mitigation Potential Analysis
MPs	Mitigation Plans
MtCO _{2e}	Million Tonnes of Carbon Dioxide Equivalence
NCV	Net Calorific Value
NCV UoM	Net Calorific Value Unit of Measurement
NDA	Non-disclosure Agreements
NDC	Nationally Determined Contribution
PAMs	Policies and Measures
PPD	Peak, Plateau and Decline
PPP	Pollution Prevention Plan
SAM	Social Accounting Matrix
SEIA	Socio-Economic impact Assessment
SEIAS	Socio-Economic Impact Assessment System
SETs	Sectoral Emission Targets
ToRs	Terms of Reference
UNFCCC	United Nations Framework Convention on Climate Change

1. Context

This work is commissioned by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. It forms part of the ongoing collaboration with the Department of Forestry, Fisheries, and the Environment (DFFE) in the areas of climate change, sustainable development and a just transition to a climate-resilient and low carbon economy and society.

As a signatory of the Paris Agreement of the UNFCCC, South Africa submitted its first NDC in 2015, committing to a Peal Plateau Decline (PPD) emissions trajectory. It is estimated that the national emissions will peak between 2020 and 2025 at lower limit of 398 MtCO₂e/year and upper limits of 583 MtCO₂e/year and 614 MtCO₂e/year for 2020 and 2025 respectively. Thereafter, South Africa's Greenhouse Gas (GHG) emissions will plateau for up to a decade within a lower limit of 398 MtCO₂e/year and upper limit of 614 MtCO₂e/year. From 2036 onwards, emissions will decline in absolute terms within a lower limit of 212 MtCO₂e/year and upper limit of 428 MtCO₂e/year by 2050.

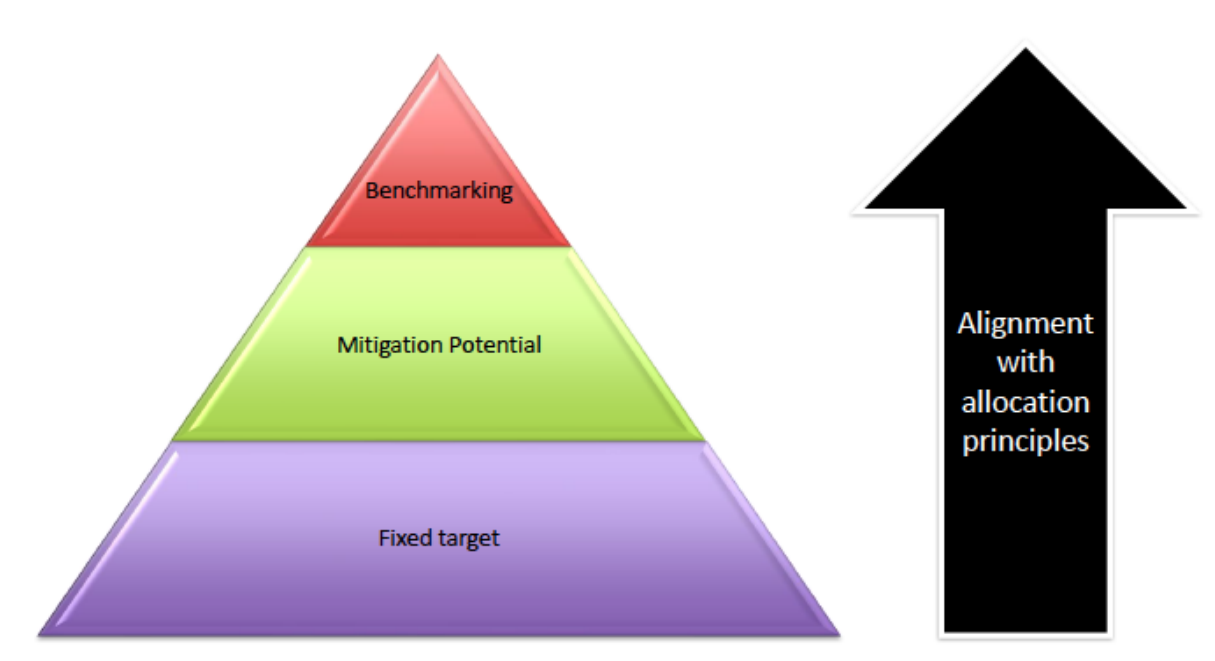
In order to ensure that South Africa meets its stated emissions reduction commitments, while remaining cognisant of economic and social development considerations, the DFFE has leveraged a comprehensive mitigation system to achieve tangible impacts. The mitigation system comprises of three distinct but interrelated policies and measures. These are:

- Carbon Tax: Implemented in 2019 and administered by the National Treasury.
- Carbon Budgets: Phase I ('Voluntary Phase') was implemented between 2016 and 2020, with a gazetted Transition Period running from January 2021 to December 2022 to ensure a smooth transition to the mandatory allocation phase. The first mandatory allocation phase (Phase II) will commence on 1 January 2023.
- SETs: SETs frameworks were finalised in the 2021/22 financial year. These emissions reduction targets are applied at a national level, with responsibilities devolved to regional and local government level, and are determined through the quantification of applicable Policies and Measures (PAMs).

For additional information on the mitigation system please see the Annexure in section 8.

This Terms of Reference (ToR) addresses the Carbon Budget mitigation mechanism specifically. The DFFE has developed a tiered methodological approach to the allocation of Carbon Budgets (CB) (see Figure 1 below). The approach is structured to leverage existing data and identified mitigation potential, and provides 3 methodology options, each of differing stringency.

Figure 1: Tiered approach to carbon budget allocation methodologies



The methodological tiers are defined as follows:

- Bottom Tier - Fixed Target: Budgets are sector-wide fixed reductions
- Middle Tier - Mitigation Potential: Budget is underpinned by the mitigation potential assessed in the mitigation model
- Highest Tier - Benchmarking: Budget is/are benchmark intensity/intensities, determined at a company level but underpinned by performance data at facility level

Ultimately it is required that all sectors utilise product-level benchmarks in the calculation of their CBs. However, it is also acknowledged that, for the Phase II commitment period, a flexible approach is required to allow time for companies to adapt and also to allow for the significant variability in processes, data collection, emissions estimations and benchmarking stringency that is evident between various economic sectors.

With the allocation methodology and technical support in place, the legal basis for the allocation of CBs and the implementation of MPs needs to be established. The introduction of the Climate Change Bill calls for the development of one set of regulations that integrates provisions for regulating CBs and Mitigation Plans (MP) (MPs are currently regulated under the provisions of the Air Quality Act, and therefore not necessarily aligned with CBs).

This ToRs incorporates four related but distinct scopes of work. These include:

1.1. Determination of intensity benchmarks for outstanding priority sector companies and update of proposed sector benchmark intensity and CBs

The GIZ in supporting DFFE recently commissioned and completed work to determine the suitability of product-level benchmarking as a CB allocation methodology, and to determine indicative CB's across sectors. The diversity of economic activity and GHG emissions profiles

necessitated that sectors were prioritised for analysis according to activity and contribution to the national inventory. Two subsets of sectors were proposed and analysis of the first group (priority sectors) was completed in March 2022. Priority sectors and second priority sectors are specified in Table 1 below.

The DFFE, with the assistance of third-parties, has completed foundational work in establishing preferred/ possible methodological application for each priority sector, and where appropriate, product-level benchmarks. This work will be available to the appointed service provider following the signing of appropriate Non-Disclosure Agreements (NDAs) between all parties. The material includes quantitative and qualitative information (sector reports detailing suggested benchmarks and implementation issues, and benchmark values). Where product-level benchmarks are not possible, fallback methodologies have been recommended.

Following the first phase, approximately 36 companies across various sectors did not submit data for consideration or submitted after the project end date. While most critical priority sector companies were included, follow-up is required in order to incorporate outstanding company data and complete priority sector analysis. The GIZ in supporting DFFE is seeking third-party assistance to incorporate outstanding company data and finalise priority sector analysis

Table 1: Priority sectors and Second Priority Sectors

Priority Sectors	Second Priority Sectors
Electricity Production	Lead Production
Crude Oil Production/ Refining	Zinc Production
Petroleum Refining	Charcoal and Biochar production
CTL/GTL	Lime production
Iron and Steel Production	Ceramics production
Ferro Alloys Production	Brick production
Primary Aluminium Production	Domestic aviation
Chemical Production	Food and Beverage Production (excluding sugar production)
Pulp and Paper Production	Mining
Hydrogen Production	
Cement Production	
Glass Production	
Sugar Production	

1.2. Determination of recommended CB allocation methodologies, benchmark intensities and budget allocation for second priority sectors

Second priority sectors have not yet been subjected to analysis. The GIZ in supporting DFFE is seeking third-party assistance to initiate and complete data collection and analysis for the second priority grouping of sectors, according to a defined methodology (see 4.1 below).

1.3. Allocation of Carbon Budgets

Following the development of CB regulations and the completion of priority and second priority sector analysis, the GIZ in supporting DFFE is seeking third party assistance to allocate emission allowances to companies within prescribed/listed sectors/activities.

1.4. Development of Carbon Budget and Mitigation Plan Regulations

GIZ in supporting DFFE is seeking third party assistance to develop regulations governing the process for allocation, administration, compliance and enforcement of carbon budget and mitigation performance. This will involve the preparation of the draft CB/MP regulations and the workshopping of these with key and relevant stakeholders. CB/MP regulations are then to be refined taking into account stakeholder inputs. A Socio-Economic Impact Assessment (SEIA) is also to be conducted in line with the Department of Planning, Monitoring and Evaluation (DPME) guidelines.

The overall project objectives can be summarised as follows:

- Complete priority sector data analysis, benchmark and indicative CB determination;
- Initiate and complete second priority sector analysis, recommend relevant sector CB allocation methodologies, develop sector benchmark intensities and propose sector CBs;
- Allocation of CB's to companies; and
- Develop regulations governing the process for allocation, administration, compliance and enforcement of carbon budget and mitigation performance. This will be accompanied by a regulations implementation guideline;

2. Tasks to be performed by the contractor

2.1. Project inception Report

The appointed service provider, within two (2) weeks of signing of contract is expected to participate in the project inception meeting as scheduled by Project Steering Committee (PSC). This project will be managed by GIZ and DFFE with technical support and contractual administration by GIZ and legal support relating to the NDA, guidance provided by DFFE. The PSC will consist of but not be limited to the GIZ, DFFE and the executing service provider. In this meeting, the service provider must present on high-level project methodology, schedule and implementation timelines for both scopes of work.

The appointed service provider is then expected to develop an Inception Report and submit this document to the PSC within two weeks of the inception meeting. The report should

document the agreements, decisions, and timelines. In addition, the report must contain an Analytical Framework, to be reviewed and approved by the PSC. The Analytical Framework should include (but not be limited to) the following content:

- Scopes of work and goal definition
- Data requirements and data acquisition plan. DFFE will support in this regard.
- Stakeholder Engagement Plan for the workshopping and review of CB/MP Regulations
- Proposed approach for the review of priority sector allocation methodologies, the inclusion of outstanding company data and update of proposed benchmarks and CB's for priority sectors
- Proposed approach for the recommendation of second priority CB allocation methodologies by sector and the development of appropriate benchmarks and CB's. Note that approach guidance is provided by DFFE in order to align with priority sector work already completed (see 4.2 below and Annex A). It is also important to note that where product-level benchmarks are not possible, alternatives must be considered. These may be heat-intensity benchmarks, facility-level benchmarks, Mitigation Potential Analysis (MPA)- based approach or fixed-allocation.
- Allocation of CBs to companies within prescribed/listed sectors/activities

2.2. Determination of benchmarks and budget allocation for outstanding priority sector companies, update of sector benchmark intensities and proposed CBs

2.2.1. Priority Sector data analysis and collection

The service provider will be required to evaluate the data submitted by priority sector companies subsequent to the completion of the first priority sector analysis scope of work (March 2022). These data are held by the department and will be provided following the signing of appropriate NDAs between all concerned parties. For those identified priority sector companies that have not yet submitted data, the service provider will be required to follow-up on data collection questionnaires already sent. The DFFE will provide guidance and assist with facilitation where required.

2.2.2. Priority Sector CB allocation using the selected methodological approach

The service provider will evaluate the additional/outstanding company data submissions and assess whether they fundamentally change the initial assessment of the recommended sector methodology. In addition, the service provider will update the recommended sector benchmark value and proposed CB accordingly.

2.3. Determination of recommended CB allocation methodologies, product benchmark intensities and budget allocation for second priority sectors

2.3.1. Second priority sector data requests and stakeholder engagement

The appointed service provider will be required to submit initial data requests. Data requests will adhere to the approved Data Requirements and Data Acquisition Plan, specified in the

Analytical Framework. The data requests take the form of individual company-level data templates, sent directly to company contacts, and sector-level data templates which will be completed by all sector participants, facilitated by the relevant industry body. Guidance regarding required content of the questionnaires (sector and company) is provided in Appendix A accompanying this ToR document, GIZ and DFFE will provide guidance and assist with facilitation where required. The service provider will also be responsible for chairing sector-level engagements, which will be coordinated through GIZ, DFFE and relevant industry representative bodies. It is anticipated that stakeholder engagements will run at least partially concurrent to the benchmark and CB assessment task. All stakeholder engagements will be virtual.

2.3.2. Second priority sector CB allocation using the proposed methodological approach

Based on company data submitted for second priority sectors, the service provider is responsible for assessing of the applicability of product-level benchmarking as a CB allocation methodology and, based on the outcomes of the assessment, provide a recommendation of appropriate methodology(-ies) to be used at a sector level (see tiered methodological approach, Figure 1 above). The assessment of applicability should address (but not be limited to) the following topics:

- **Applicability of product-based benchmarks:** The service provider will be required to evaluate the applicability of product-level benchmarks as a method of carbon budget allocation across sectors. This will include an assessment of the heterogeneity of companies within their respective sectors, the nature of their respective processes, production profiles and data quality and availability.
- **Emissions Intensities:** The service provider will assess the range of suitable product-based intensities per sector. Furthermore, in the absence of appropriate product-based intensities, the use of alternatives (for example, heat-based, or facility-level intensities) should be investigated.
- **Benchmark Stringency:** The service provider should assess the most appropriate level of benchmark stringency within each sector (average, best performer, adjusted, etc.). In addition, the most appropriate level at which benchmarks could potentially be allocated (for example, per emissions source or facility-wide benchmarking) should be assessed.
- **Company Comparability:** The service provider will assess the degree to which constituent companies in each sector are comparable. This will require a comparison of processes, emissions profiles and products. In sectors consisting of only one or two companies, the possibility of international benchmarking may need to be considered. Explicit consideration should also be given to mitigation potential within the sector.
- **Adjustments and Corrections:** The service provider will assess the need for adjustments and the application of correction factors to ensure comparability between sector companies and within sectors. Furthermore, the issue of carbon leakage should be investigated. The appropriateness of a carbon leakage factor to minimise impact in exposed sectors should be evaluated
- **Carbon Budget Allocation:** Based on the assessment done, the service provide will then allocate carbon budgets to companies within the sectors defined, and taking into account the principles in listed in Appendix B.

2.4. CB Allocation: Tasks

2.4.1. Sectoral Data Collection

The service provider will, with the assistance and guidance of DFFE, be responsible for the collection of sectoral data. Data requests will adhere to the approved Data Requirements and Data Acquisition Plan, specified in the Analytical Framework. The DFFE has engaged in an extensive data gathering exercise in support of CB methodology development and the determination of product-level benchmarks. DFFE has recommended methodologies for each sector and suggested product-level benchmarks (where available). Pending the finalisation of the necessary NDA's, this data will be shared with the successful service provider.

2.4.2. CB Allocation Methodology Adequacy Assessment

The service provider will be required to provide a comprehensive review of the proposed allocation methodology by sector. The review will focus on the sector reports held by the DFFE and will include assessments of the following:

- Appropriateness of the methodology for the specific sector
- Obstacles to implementation
- Recommendations on the readiness and applicability of benchmarking in the first commitment period (2023-2027) and possibly in the second commitment period (2028-2032).

2.4.3. CB Allocation

Finally, the service provider will be responsible for the allocation of CBs to companies, using the reviewed and approved methodological approach detailed in the Analytical Framework, and the specific data gathered in 4.3.1. CBs are to be in the format of tCO₂e target per company, further disaggregated by GHG (that is to say, those defined in the draft Carbon Budget Reporting Regulations). CBs will be yearly targets for each year of the first five-year allocation period (Jan 2023-Dec 2027). Detail is also to be provided around product level benchmark values used and source data.

2.5. CB Regulations: Tasks

2.5.1. Preparation of Draft CB/MP Regulations

The service provider will be required to prepare Draft CB/MP Regulations which will need to anticipate and incorporate all key considerations to facilitate smooth implementation. Topics for inclusion are (but are not limited to):

- Definitions (key terms, roles)
- Purpose of Regulations
- Listed GHGs and Activities
- Quantitative thresholds of GHG emissions for each listed activity
- Persons to whom the Carbon Budgets are Allocated

- Transfer of Greenhouse Gas Emitting Activity (specifics on ownership of GHG activities and the transfer of ownership)
- Methodology to Allocate Carbon Budgets (scale, applicability of benchmarking, carbon budget application process, data to be used in budget allocation, carbon budget calculation and issuance)
- Requirements for mitigation plans to achieve carbon budgets
- Submission and approval of mitigation plans
- Annual progress reporting
- Verification of general information and general matters

2.5.2. Workshopping of CB/MP Regulations

The service provider will be responsible for initiating Stakeholder Engagements in accordance with the approved Stakeholder Engagement Plan.

2.5.3. Refinement of CB/MP Regulations

The outcomes of the Stakeholder Engagement process will be captured by the service provider and used to refine the Regulations, in conjunction with DFFE inputs. Documented CB/MP Regulations are a key output of this task.

2.5.4. Socio-Economic Impact Assessment

In South Africa, Cabinet decided on the need for a consistent assessment of the socio-economic impact of policy initiatives, legislation and regulations in February 2007. The approval followed a study commissioned by the Presidency and the National Treasury in response to concerns about the failure in some cases to understand the full costs of regulations and especially the impact on the economy. From 1 October 2015 onwards, Cabinet Memoranda seeking approval for draft policies, Bills or regulations must include an impact assessment that has been signed off by the SEIAS Unit of the DPME. The Carbon Budget Regulations are no different and must also be subjected to a SEIA. The service provider is expected to prepare a draft SEIA that shall be submitted to DPME for approval.

2.5.5. Draft CB/MP Regulations Implementation Guidelines

The service provider will be responsible for the drafting the CB/MP Implementation Guidelines, to assist the implementation of the CB/MP regulations by DFFE, following final review.

Certain milestones for each of the scopes are to be achieved during the contract term. These are highlighted in Table 2 below.

Table 2: Project Milestones

Numbered Item	Task	Deliverable	Timing of Delivery
2.1	Project Inception	<ul style="list-style-type: none"> (i) Inception Meeting; and (ii) Inception Report (iii) Draft Stakeholder Engagement Plan submitted for review and approval (i) Data Acquisition Plan submitted 	<ul style="list-style-type: none"> (i) Two (2) weeks after signing of the contract (ii) Three (3) weeks after inception meeting (iii) One and a half months (1.5 months) after inception meeting (i) One and a half months (1.5 months) weeks after inception meeting
2.2.1 and 2.2.2	Priority sector CB allocation using selected methodological approach	<ul style="list-style-type: none"> (ii) Complete dataset received by service provider (iii) Updated priority sector benchmarks and proposed sector CB allocations 	<ul style="list-style-type: none"> (ii) Four months (4) after finalisation of the NDAs
2.3.1	Second priority sector data requests and stakeholder engagements	<ul style="list-style-type: none"> (i) Data requests submitted (ii) Complete dataset received by service provider (iii) Completed Stakeholder Consultations with Report, including comments and response database 	<ul style="list-style-type: none"> (i) One and a half (1.5) months after inception meeting (ii) Four (4) months after finalisation of the NDAs (iii) Seven (7) months after finalisation of the NDAs
2.3.2	Second Priority CB allocation using selected methodological approach	<ul style="list-style-type: none"> (i) Bi-weekly progress update e-meetings (detailing summary stakeholder engagement, assessment and CB implementation progress) (ii) Sector Methodology Report detailing sector-by-sector 	<ul style="list-style-type: none"> (i) Bi-weekly, following commencement of assessment task (ii) Ten (10) months after finalisation of the NDAs

		<p>results of assessment topics highlighted in 5.4 above.</p> <p>(iii) Implementation Reports by Sector detailing:</p> <ul style="list-style-type: none"> a. Methodological Tier selected b. Rationale for methodological selection c. Sector implementation status d. Lessons Learnt and Recommendations for Pilot (Step 4 in 2.1) 	(iii) Ten (10) months after finalisation of the NDAs
2.4.3	CB Allocation	(i) Completed company-level CB allocations to all companies within prescribed/listed sectors/activities, as per breakdown	(i) Twelve (12) months after finalisation of the NDAs
2.5.1	Preparation of draft CB/MP Regulations	<p>(i) Draft Regulations document prepared for internal review</p> <p>(ii) Incorporation of GIZ, DFFE review and comments</p>	<p>(i) Ten months (10) after inception meeting</p> <p>(ii) Thirteen months (13) after inception</p>
2.5.2	Workshopping of CB/MP Regulations	(i) Stakeholder Consultation Report, including comments and response database	(i) Thirteen (14) months after inception meeting
2.5.3	Refinement of CB/MP Regulations	(i) Stakeholder Consultation Report, including comments and response database	(i) Fifteen (15) months after inception meeting

2.5.4	Socio-Economic Impact Assessment	(i) SEIAS draft report Final SEIAS report after addressing DPME comments	(i) Sixteen (16) months after inception meeting
2.5.5	Draft CB/MP Regulations Implementation Guidelines	(i) SEIAS draft report Final SEIAS report after addressing DPME comments	(i) Sixteen (16) months after inception meeting

Period of assignment: From 15 November 2022 until 30 October 2024.

3. Concept

In the bid, the bidder is required to show how the objectives defined in Chapter 2 are to be achieved, if applicable under consideration of further specific method-related requirements (technical-methodological concept). In addition, the bidder must describe the project management system for service provision.

Technical-methodological concept

Strategy: The bidder is required to consider the tasks to be performed with reference to the objectives of the services put out to tender (see Chapter 1). Following this, the bidder presents and justifies the strategy with which it intends to provide the services for which it is responsible (see Chapter 2).

The bidder is required to present the actors relevant for the services for which it is responsible and describe the cooperation with them.

The bidder is required to present and explain its approach to steering the measures with the project partners and its contribution to the results-based monitoring system.

The bidder is required to describe the key processes for the services for which it is responsible and create a schedule that describes how the services according to Chapter 2 are to be provided. In particular, the bidder is required to describe the necessary work steps and, if applicable, take account of the milestones and contributions of other actors in accordance with Chapter 2.

The bidder is required to describe its contribution to knowledge management for the partner and GIZ and promote scaling-up effects (learning and innovation).

Other specific requirements

The service provider must ensure that the proposed team includes relevant experts across all sectors highlighted for evaluation in Appendix A. This team will be required to successfully coordinate, implement and achieve the above set out objectives in Section 1 and deliverables in Section 2.

Project management of the contractor

This project will be managed by GIZ and DFFE with technical support and contractual administration by GIZ and legal support relating to the NDA, guidance provided by DFFE. A Project Steering Committee will be established which will be responsible for providing technical guidance to the project.

The bidder is required to explain its approach for coordination with the GIZ project, the relevant DFFE Chief Directorate and industry stakeholders.

In addition to the reports required by GIZ in accordance with GTCC 2022, the contractor submits the following reports:

- Inception report;
- Brief bi-monthly reports on the implementation status of the project (max 5 pages), with bi-weekly project summary emails; and
- Overall project Final report.

The bidder is required to draw up a **personnel assignment plan** with explanatory notes that lists all the experts proposed in the bid; the plan includes information on assignment dates (duration and expert days) and locations of the individual members of the team complete with the allocation of work steps as set out in the schedule.

Details about Backstopping

The bidder is required to describe its backstopping concept. The following services are part of the standard backstopping package, which (like ancillary personnel costs) must be factored into the fee schedules of the staff listed in the bid in accordance with section 5.4 of the GTCC 2022:

- Service-delivery control
- Managing adaptations to changing conditions, including expert change/replacement.
- Ensuring the flow of information between GIZ staff and DFFE.
- Process-oriented technical-conceptual steering of the consultancy inputs
- Securing the administrative conclusion of the project
- Ensuring compliance with reporting requirements
- Providing specialist support for the on-site team by staff at company headquarters
- Sharing the lessons learned by the contractor and leveraging the value of lessons learned on site

The Service Provider/s must guarantee the presence of a senior technical person in charge throughout the duration of the contract. If the senior person has to leave the project, a period of at least a month is required, in which the senior person must work parallel with the next person (senior consultant with similar expertise and equal years of experience) appointed to be able to transfer skills and knowledge. The newly appointed senior consultant must provide a detailed CV which must be approved by GIZ before work is undertaken by the new resource.

4. Personnel concept

The bidder is required to provide personnel who are suited to filling the positions described, on the basis of their CVs, the range of tasks involved and the required qualifications.

The below specified qualifications represent the requirements to reach the maximum number of points. Special emphasis will be on the experience in benchmarking processes.

The service provider is to present a team that can deliver on the scope outlined above. The experts listed below are therefore to be seen as a recommendation in terms of the composition of the team. However, if the service feels that less or more experts are required to conduct the work, the service provider is free to present a different approach. In that case, however, the maximum number of days as indicated in Section 7 shall not be exceeded. Also, the bidder must provide a clear overview on how the sectors appended in Appendix A will be covered by the proposed team of experts.

Team leader

Tasks of the team leader:

- Overall responsibility for the advisory packages of the contractor (quality and deadlines).
- Coordinating and ensuring communication with GIZ, partners and others involved in the project.
- Provide leadership in the development, implementation and evaluation of project outputs with strong focus on the liquid and gaseous fuel production and refining, including non-coal mining and processing, as required by these terms of reference.
- Personnel management, in particular identifying the need for short-term assignments within the available budget, as well as planning and steering assignments and supporting local and international short-term experts.
- Support the continuous stakeholder engagement and management processes throughout the project duration.
- Regular reporting in accordance with deadlines.

Qualifications of the team leader

- Education/training (2.1.1): University qualification, post-graduate (Masters) qualification in the field of engineering, environmental management or equivalent with a focus on industrial processes, energy and/or greenhouse mitigation.
- Language (2.1.2): Good business language skills in English.
- General professional experience (2.1.3): Ten (10) years of professional experience in the industrial sector processes, with strong focus on crude oil production and refining, petroleum productions and refining, Hydrogen and natural gas production, as well as non-coal and coal mining processes and handling. This should be coupled with Five (5) years of experience working with climate change legislation or related energy sector policies.
- Specific professional experience (2.1.4): Ten (10) years in experience in working with large and complex sets of data, energy modelling, resource efficiency programme, benchmarking and climate change mitigation sectors broadly.
- Leadership/management experience (2.1.5): Ten (10) years of management/leadership experience as a project team leader of a multi-disciplinary team of experts or manager in a company.
- Regional experience (2.1.6): Five (5) years of experience in similar projects in South Africa, with three (3) years of working experience in stakeholder engagement and management for both governmental and non-government (Business, Civil Society/community-based organisation, etc.) stakeholders.
- Development Cooperation (DC) experience (2.1.7): Two (2) years of experience in Development Cooperation projects.

- Other (2.1.8): Five (5) years of experience in business administration function and/or three (3) relevant projects in business re-engineering processes, business case development processes for new large-scale business venture.

Expert 1: Energy Sector Expert

Tasks of expert 1

- Support the coordination of communication with GIZ, partners and others involved in the project
- Provide support in the development, implementation and evaluation of project outputs, with strong focus on the energy related aspects, as required by these terms of reference
- Provide support to the continuous stakeholder engagement and management processes throughout the project duration.
- Regular reporting in accordance with deadlines

Qualifications of expert 1

- Education/training (2.2.1): University qualification, post-graduate qualification in the field of engineering, environmental management or equivalent.
- Language (2.2.2): Good business language skills in English.
- General professional experience (2.2.3): Five (5) years of professional experience in the energy sector. This should be coupled with Five (5) years of experience working with climate change legislation or related energy sector policies.
- Specific professional experience (2.2.4): Five (5) years experience in working with large and complex sets of data, energy sector processes, energy sector benchmarking and climate change mitigation sectors broadly. This should include specific experience with the power sector.
- Leadership/management experience (2.2.5): Five (5) years of leadership experience as a project team leader of a multi-disciplinary team of experts.
- Regional experience (2.2.6): Three (3) years' experience in stakeholder engagement and management for both governmental and non-government (Business, Civil Society/community-based organisation, etc.) stakeholders in the energy sector in South Africa.
- Development Cooperation (DC) experience (2.2.7): N/A
- Other (2.2.8): Five (5) years of working experience on Socio-economic aspects of similar projects to what is set out in these terms of references

Expert 2: Chemical Production Sector Expert

Tasks of expert 2

- Support the coordination of communication with GIZ, partners and others involved in the project.
- Provide support in the development, implementation and evaluation of project outputs, with strong focus on the chemical production sector related aspects, as required by these terms of reference.
- Provide support to the continuous stakeholder engagement and management processes throughout the project duration.
- Regular reporting in accordance with deadlines.

Qualifications of expert 2

- Education/training (2.3.1): University qualification, post-graduate qualification in the field of Chemical engineering or equivalent.
- Language (2.3.2): Good business language skills in English.

- General professional experience (2.3.3): Ten (10) years of professional experience in the Chemical production sector processes. This should be coupled with Five (5) years of experience working with industrial sector legislation and/or related climate change policies.
- Specific professional experience (2.3.4): Five (5) years of experience in working with large and complex sets of data, Chemical production processes, i.e. ammonia, nitric acid, titanium dioxide, carbide, carbon black, chrome production, as well as benchmarking experience.
- Leadership/management experience (2.3.5): N/A
- Regional experience (2.3.6): Three (3) years of working experience in stakeholder engagement and management for both governmental and non-government (Business, Civil Society/community-based organisation, etc.) stakeholders in the South Africa's Chemical production sector.
- Development Cooperation (DC) experience (2.3.7): N/A
- Other (2.3.8): Five (5) years of working experience on Socio-economic aspects of similar projects to what is set out in these terms of references OR Five years working experience in allocating carbon budgets and understand allocation principles, either in a research environment of business environment

Expert 3: Metal and Non-Metals Sector Expert

Tasks of expert 3

- Support the coordination of communication with GIZ, partners and others involved in the project.
- Provide support in the development, implementation and evaluation of project outputs, with strong focus on the metals and non-metals productions and related aspects, as required by these terms of reference.
- Provide support to the continuous stakeholder engagement and management processes throughout the project duration.
- Regular reporting in accordance with deadlines.

Qualifications of expert 3

- Education/training (2.4.1): University qualification, post-graduate qualification in the field of Mechanical engineering or equivalent.
- Language (2.4.2): Good business language skills in English.
- General professional experience (2.4.3): Five (5) years of professional experience in the metal and non-metals sector processes, i.e. aluminium production, ferro alloys production, iron and steel production. This should be coupled with Five (5) years of experience working with industrial sector legislation and/or related climate change policies.
- Specific professional experience (2.4.4): Five (5) years in experience in working with large and complex sets of data, metal and non-metal production processes and benchmarking experience.
- Leadership/management experience (2.4.5): N/A
- Regional experience (2.4.6): Three (3) years of working experience in stakeholder engagement and management for both governmental and non-government (Business, Civil Society/community-based organisation, etc.) stakeholders in the metals industry of South Africa.
- Development Cooperation (DC) experience (2.4.7): N/A
- Other (2.4.8): Five (5) years of working experience on Socio-economic aspects of similar projects to what is set out in these terms of references

Expert 4: Industrial Sector Expert

Tasks of expert 4

- Support the coordination of communication with GIZ, partners and others involved in the project.
- Provide support in the development, implementation and evaluation of project outputs, with strong focus on the construction related industries, i.e. Bricks production, ceramic production, lime production, glass production, etc., as required by these terms of reference.
- Provide support to the continuous stakeholder engagement and management processes throughout the project duration.
- Regular reporting in accordance with deadlines.

Qualifications of expert 4

- Education/training (2.5.1): University qualification, post-graduate qualification in the field of engineering or equivalent.
- Language (2.5.2): Good business language skills in English.
- General professional experience (2.5.3): Ten (10) years of professional experience in the industrial sector processes, with strong focus cement production, brick manufacturing production, and ceramics production.
- Specific professional experience (2.5.4): Five (5) years in experience in working with large and complex sets of data, industrial benchmarking experience in the cement production, brick manufacturing production, and ceramics production.
- Leadership/management experience (2.5.5): N/A
- Regional experience (2.5.6): Three (3) years of working experience in stakeholder engagement and management for both governmental and stakeholders in the said industrial sectors
- Development Cooperation (DC) experience (2.5.7): N/A
- Other (2.5.8): Five (5) years of working experience on Socio-economic aspects of similar projects to what is set out in these terms of references.

The Climate Support Programme (CSP) has a project-based intervention which aims to enhance capacities within the field of climate change and related topics in South Africa. As a means of implementation, it is required that the appointed service provider takes on board an additional capacity in the form of an intern, to capacitate and expose them to various tasks during project implementation. The training should range from meeting attendance and participation, data collection, support project management and conducting research activities. To measure the involvement of the intern, DFFE/GIZ will interview the intern and their mentors/supervisors to see what skills they were exposed to during project execution. The intervention targets individuals from a previously disadvantaged background who possess an undergraduate and/or postgraduate qualification or equivalent in a similar field as the project in question. The appointment period is always recommended to be linked with the project period in question.

Expert 5: Project intern

Qualifications of project intern

- Education/training (2.6.1): An undergraduate or post-graduate degree in environmental science, geography, chemical engineering, science, or economics.
- Language (2.6.2): Proficiency in the English language as a medium of communication.
- General professional experience (2.6.3): Basic computer and communication skills, reliable and available to participate full-time in the project or may be studying part-time.

- Specific professional experience (2.6.4): N/A
- Leadership/management experience (2.6.5): N/A
- Regional experience (2.6.6): N/A
- Development Cooperation (DC) experience (2.6.7): N/A
- Other (2.6.8): N/A

Soft skills of team members

In addition to their specialist qualifications, the following qualifications are required of team members:

- Team skills
- Initiative
- Communication skills
- Sociocultural competence
- Efficient, client-focused working methods
- Interdisciplinary thinking

5. Costing requirements

Assignment of personnel

All Experts: Assignment in country of assignment for 255 expert days
Intern: Assignment in country of assignment for 120 expert days

The service provider is expected to cost for the 375 expert days as indicated above. These should also include **travel days** and **stakeholder engagement meetings**.

Travel

The bidder is required to calculate the travel by the specified experts and the experts it has proposed based on the places of performance stipulated in Chapter 2 and list the expenses separately by daily allowance, accommodation expenses, flight costs and other travel expenses.

If restrictions are introduced to combat coronavirus/COVID-19 (restrictions on air travel and travel in general, entry restrictions, quarantine measures, etc.), GIZ and the contractor are obliged to make adjustments to their contractual services to reflect the changed circumstances on the basis of good faith; this may involve changes to the service delivery period, the services to be delivered and, if necessary, to the remuneration Workshops, meetings, and presentations.

The contractor must implement the following meetings in addition to the inception meeting:

- Monthly project progress meetings.
- Presentation of the preliminary and the final results to the PSC.

Workshops, training

The service provider implements the following workshops/study trips/training courses:

- Six (6) Bi-weekly trainings to DEFF officials.
- Twenty (20) stakeholder engagement sessions with different industry players.

6. Inputs of GIZ or other actors

DEFF is expected to make the following available:

- Dummy data sets from the greenhouse gas reporting programme, phase 1 pollution prevention plans, etc.
- Official project letters for the purposes of stakeholder consultations.

7. Requirements on the format of the bid

The structure of the bid must correspond to the structure of the ToRs. In particular, the detailed structure of the concept (Section 3) is to be organised in accordance with the positively weighted criteria in the assessment grid (not with zero). It must be legible (font size 11 or larger) and clearly formulated. The bid is drawn up in English (language).

The complete bid shall not exceed 10 pages (excluding CVs). The CVs of the personnel proposed in accordance with Section 4 of the ToRs must be submitted using the format specified in the terms and conditions for application. The CVs shall not exceed 4 pages. The CVs must clearly show the position and job the proposed person held in the reference project and for how long. The CVs should be submitted in English (language).

If one of the maximum page lengths is exceeded, the content appearing after the cut-off point will not be included in the assessment.

Please calculate your price bid based exactly on the aforementioned costing requirements. In the contract the contractor has no claim to fully exhaust the days/travel/workshops/ budgets. The number of days/travel/workshops and the budget amount shall be agreed in the contract as 'up to' amounts. The specifications for pricing are defined in the price schedule.

Other Requirements

- Please submit your proposal (technical and price proposal) in separate files/folder to ZA_Quotation@giz.de no later than **31.10.2022**, all documents must be in PDF.
- Please do not mention any price for this measure on your cover letter/Technical proposal.
- Please submit your tax clearance certificate with the bidding documents.
- Please submit your price proposal in ZAR.
- Our General Terms of Conditions (attached) shall not be changed/amended should you be the winner of this tender. These General Terms and Conditions will form part of the contract should you be awarded this contract. By submitting

your proposal we will conclude that you have read and accepted these terms and conditions.

- Bidders are not allowed to communicate directly with any other person regarding this bid other than the procurement official/s. Failure to comply with this requirement may lead to your bid being disqualified.
- Bidders must strictly avoid conflicts with other assignments or their own interests. Bidders found to have a conflict of interest shall be disqualified. Without limitation on the generality of the above, Bidders, and any of their affiliates, shall be considered to have a conflict of interest with one or more parties in this EOI and tender process, if they:
 - a) are or have been associated in the past, with a firm or any of its affiliates which have been engaged by GIZ or the Interim Supply Chain Management Council to provide services for the preparation of the design, specifications, Terms of Reference, cost analysis/estimation, and other documents to be used for the procurement of the services in this selection process;
 - b) were involved in the preparation and/or design of the programme/project related to the services requested under this EOI and tender;
 - c) are serving or have been serving in the past three months in the structures of the Interim Supply Chain Management; or
 - d) are found to be in conflict for any other reason, as may be established by, or at the discretion of GIZ.
- In the event of any uncertainty in the interpretation of a potential conflict of interest, Bidders must disclose to GIZ, and seek GIZ's confirmation on whether or not such a conflict exists.
- Similarly, the Bidders must disclose in their proposal their knowledge of the following:
 - a) if the owners, part-owners, officers, directors, controlling shareholders, of the bidding entity or key personnel are family members of GIZ staff involved in the procurement functions and/or the Interim SCM Council or any Implementing partner receiving services under this EOI or tender; and
 - b) all other circumstances that could potentially lead to actual or perceived conflict of interest, collusion or unfair competition practices.
- **Failure to disclose such an information may result in the rejection of the proposal or proposals affected by the non-disclosure.**
- **Questions & Answers will be placed on the link provided.**

Bids sent via Dropbox and WeTransfer will not be accepted.

8. Annexes

Appendix A: Additional background context to the South African mitigation system:

The purpose of this addendum is to provide additional context to the purpose of the ToRs to better inform potential service providers of how this work will fit into the short- and long-term work of the Department.

The Climate Change Act (forthcoming) identifies key components of the national climate change mitigation system to include a carbon tax (administered by National Treasury), Carbon Budgets and Sectoral Emission Targets. These mechanisms will jointly contribute to the National climate objectives, targets and ambitions of the country, which is communicated within the Nationally Determined Contribution (NDC) and the South Africa's Low Emissions Development Strategy (SA-LEDS). The NDC includes a climate mitigation targets in the near and medium term and it will be updated at 5 year intervals. The current NDC, South Africa's First NDC, 2020/21 Update, includes a GHG emissions target for 2025 (398 to 510 MT CO₂e) and 2030 (350 to 420 Mt CO₂e). Furthermore, a long-term climate ambition has been stated in the country Low Emissions Development Strategy (LEDS) to achieve net zero emissions by 2050.

Carbon Budgets are a key policy mechanism under the Climate Change Act to drive greenhouse gas emissions from priority industrial sectors of the South African economy. Industrial-related greenhouse gas emission reductions are to take place within a scope and a timeframe that will be achievable with minimal negative social and economic impacts. It should be noted that due to the current limits to technologies, fuel substitutions and industry processes it is anticipated that carbon budgets will have to be complemented by the allocation of Sectoral Emission Targets (SETs) over the long term. The SETs mechanism is expected to drive the transformative change needed across the economy, including in the industrial sector by creating an enabling framework for making the necessary technology, alternative fuels and industrial processes available to achieve the long term climate change aspirations.

The Department of Forestry, Fisheries and the Environment (DFFE) have proposed a three-tiered methodological approach for the calculation and allocation of carbon budgets for the first mandatory allocation phase which runs for 5 years from January 2023. Each round of allocation will include 3 phases of Carbon Budgets over a 15-year period. However, annual review of proposed Carbon Budgets is proposed, in line with operational and production considerations.

The Department has defined the following methodological tiers:

- Bottom Tier -Fixed Target: Budgets are sector-wide fixed reductions
- Middle Tier - Mitigation Potential: Budget is underpinned by the GHG mitigation potential assessed in the DFFE mitigation model
- Highest Tier - Benchmarking: Budget is/are benchmark intensity/intensities, determined at a company level but underpinned by performance data at facility level

The Department will ultimately require that all sectors utilise intensity benchmarks in the determination of their carbon budgets for subsequent Carbon Budget allocation periods post-2027. However, it is also acknowledged that for the first mandatory implementation phase (commitment period), a flexible approach to allocation methodologies is required to allow for the significant variability in processes, data collection, emissions estimations, and benchmarking stringency between the various economic sectors

In the third quarter of 2021, the Department enlisted third party expertise to commence the process of evaluating high-priority sectors, determine suitable benchmark intensities where possible (typically product intensity, heat intensity or facility-level intensities), and finally to determine indicative Carbon Budgets per sector. Fallback approaches were also considered where obstacles to the implementation of intensity benchmarks were noted.

The work completed to date serves as the basis for further engagement with high-priority economic sectors, ultimately resulting in the setting of robust Carbon Budgets which satisfy national emissions reductions objectives while remaining sensitive to economic growth and development requirements. It also forms the foundation for the scopes of work detailed in this ToR, which will continue and expand upon the work completed to date.

Appendix B: Required Content for Inclusion in Sector and Company Questionnaires

Sector Questionnaire:

1) Sector Context

- Sector
- Benchmark/Products
- Sector Representatives
- Are there any other considerations you would like to mention around the applicability of a product-based benchmark in this context?

2) Product-Based Benchmark Applicability

- What are the names and approximate production capacities of the companies in the sector?
- Provide a description of the main production processes / technologies and how they apply to the different companies.
- Would it be possible to derive a product-based benchmark for the relevant product? If not, please provide the main reasons and explain why one of the other tiered methodological approaches could be more appropriate (i.e., fixed target or mitigation potential analysis).
- To what extent is the product produced by different companies in the sector homogenous (i.e., interchangeable)? If different grades of product are produced, is there a common reference definition used for reporting purposes (e.g., adjusted to 100 percent purity). Is the GHG intensity of production significantly different to justify separate product benchmarks?
- If a GHG intensity cannot be calculated, indicate if a fall-back approach in the form of heat and fuel benchmark would be possible / better suitable.
- Are there any other considerations to be mentioned around the applicability of a product-based benchmark in this context?

3) GHG Emissions Intensity

- What are the main IPCC activity codes the sector reports under and are facilities likely to produce more than one (benchmarked) product?
- With the data provided, approximately what percentage of sector GHG emissions would be covered?
- Can it be specified whether the 2017 – 2019 period would be appropriate as baseline years for calculating the benchmark for the sector? If not, determine why not and what would be an appropriate baseline period. Additionally provide data for these years as well.
- Is there any significant electricity or heat exchange between facilities and where would it be delivered to / come from (i.e., to facilities within the benchmark boundary or outside)?
- Are there any waste gases captured and where are they utilised?
- Are there any data issues regarding the data supplied that should be highlighted?

4) Benchmark Stringency

- What would be the most appropriate stringency for setting the benchmark for the sector (i.e., average, best in class, adjusted etc.) and why?
- In the case of multiple product benchmarks within the sector, would it be optimal to advocate for the use of one type of stringency within the sector, or a differentiated approach whereby a different stringency may be applied to different product benchmarks.

5) Company Comparability

- In what ways are technologies / production processes applied by the various companies in the sector similar or do they differ significantly in certain respects?
- Overall, has the sector already been implementing (significant) mitigation measures in the past. Has this been across-the board or by certain companies specifically? Are there examples?

6) Adjustments and Corrections

- Using a product-based benchmark approach, would one expect this to result in significant over or under allocation of carbon space to certain companies in the sector?
- Is the sector significantly trade-exposed? If so, how is this measured / defined?
- Provide a brief description of the rate of technological progress / innovation within the sector. Does it concern continuous improvement, or step-change improvement, and are there any significant technological breakthroughs anticipated in the years to come?

7) Carbon Budget Allocation

- Would a historical activity level (HAL) or production level forecast be most appropriate as a basis to apply the benchmark to and calculate the carbon budget allocation? In case of a HAL, what would be the appropriate baselines years for the sector?
- The engagement aims to develop product-based benchmarks to allocate carbon budgets to companies, as mandated by the forthcoming National Carbon Budgets and Mitigation Plans Regulations. Are there any further recommendations or suggestions in this regard when it comes to the sector?
- Building on the previous question, what will be key factors towards successful implementation of the carbon budgeting system and what would be potential barriers / challenges (open-ended question)?

Company Questionnaire:

It is recommended that these data are captured in spreadsheet format.

Sector	Indicate the relevant sector. Note, if the company is active in more than one sector, relevant data for each sector must be captured separately.
Facility information	Report the number of facilities for which data is provided
Years	<p>Select the years for which data is provided. The preferred years for the data are 2017, 2018 and 2019.</p> <p>The option is available to report data for other years during 2016-2020, for example if companies do not have the relevant data for the preferred years or if any of the preferred years are not representative of normal operation such as a major shutdown.</p> <p>It must be specified why the data for the preferred years is not available and why data for alternative years is provided, if relevant.</p>
Production	Provide data on what the facility produces and how much it produced.

Product	<p>If a facility produces more than one product, provide information for the products separately in different sets of rows.</p> <p>Note: If information on fuel use is not available on a product-specific level please detail how the fuel use data is presented.</p>
IPCC Code	The relevant IPCC activity code for which data are entered must be specified.
Amount	Obtain the amount of product produced by the specified facility in the specified year.
Unit	Obtain the units used to report the production amount.
Primary fuel use	Provide data on the fuel used in the production of the product. If fuel use data is not available on a facility and product level, please elaborate how the fuel use data was reported.
Type	Select the relevant fuel used in the production of the product from the drop-down list.
Tier approach	<p>The IPCC Guidelines use a tiered-approach to describe different methods of calculating GHG emissions. Each tier has an associated increased level of detail and accuracy.</p> <p>Please Obtain which tier level best reflects the approach taken for the data submitted.</p>
Amount	Obtain in GJ the amount of fuel used to produce the product by the facility in the specified year.
Emission factor	Obtain the emission factor of the fuel used.
Net Calorific Value (NCV)	Obtain the net calorific value of the fuel used.
Net Calorific Value Unit of Measurement (NCV UoM)	Obtain the unit of measurement of the net calorific value.

GHG emissions (user entered)	If you have completed the previous columns for this fuel, you may leave this column empty. The emissions associated with the fuel combustion will be calculated based on the data provided.
Electricity use	Obtain the quantities of imported electricity and self-generated electricity consumed for the production of the specified product. Fuels used for self-generated electricity consumed for production of the product should be included in fuel use reported in the previous columns.
Electricity export	Obtain the quantity of electricity that is self-generated in the facility and exported for use in processes not related to the production of the benchmarked product inside or outside of the facility.
Heat production/ consumption	Obtain the quantity of heat produced outside of the facility and imported for use in the production of the benchmarked product. Obtain the quantity of heat (including recovered waste heat) that is produced in the facility and exported for use in processes not related to the production of the benchmarked product inside or outside of the facility. Heat that is both produced and consumed in the facility for the production of the product should not be reported.
Fuel Type	Obtain the fuel type used to produce the imported and exported heat, and whether this fuel use has already also been included in the fuel consumption reported in previous columns.
Emissions	Obtain the process and fugitive emissions emitted as part of the production process. If emissions are calculated using a carbon mass-balance approach combustion emissions cannot be distinguished from process emissions, the total emissions can be reported. Explanations must be provided.

Process emissions	Obtain the quantity of process emissions emitted as part of the production process. Process emissions are emissions resulting from the chemical transformation of raw materials.
Fugitive emissions	Obtain the quantity of fugitive emissions emitted as part of the production process. Fugitive emissions are leaks or irregular releases of gases.

Appendix C: List of Principles to Guide Assessment Criteria

- Feasibility
- Fairness
- Equality
- Robustness
- Effectiveness
- Flexibility
- Alignment with sectoral policy objectives
- Competitiveness