

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

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## Demonstration of a hydrogen electrolyser at H2.SA training and capacity development events.

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**Project number/  
cost centre:  
21.2230.7-003.00**

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## **0. List of abbreviations**

AG	Commissioning party
AN	Contractor
AVB/GTCC	General Terms and Conditions of Contract for supplying services and work 2022
FK	Expert
FKT	Expert days
KZFK	Short-term expert
ToRs	Terms of reference

## 1. Context

In the context of a rapidly decreasing global carbon budget and urgency to identify adequate solutions for decarbonizing the so-called heavy-to-abate sectors, the demand for green hydrogen (H<sub>2</sub>) and green hydrogen-based products (PtX), such as ammonia and synthetic fuels, is steadily increasing. Many off takers (e.g., Germany, the EU, Japan, etc.) are willing to pay a premium price and to sign long-term supply agreements to stimulate H<sub>2</sub>/PtX market development. Green hydrogen, however, also offers domestic use opportunities to countries like South Africa, which are characterised by favourable solar and wind energy conditions, sufficient mineral resources and existing hydrogen value chains and industries.

Given this potential, and within the framework of the German National Hydrogen Strategy, the South African-German Cooperation recently agreed on launching several initiatives in the field of green hydrogen and power-to-X (PtX) in South Africa. The programme 'H2.SA' has been initiated focusing on supporting South African stakeholders from the public and private sector as well as civil society in setting up favourable regulatory, institutional and technical framework conditions for a green hydrogen economy. In detail, four work streams (WS) have been defined:

- WS 1: Strategy Development and Regulatory Framework
- WS 2: Private Sector Engagement and Support
- WS 3: Training, Research and Innovation
- WS 4: Sustainability and Just Transition

Despite the promising conditions for the development of a green hydrogen (H<sub>2</sub>) economy in South Africa, certain challenges persist. A serious capacity and knowledge deficit exists in South Africa on green H<sub>2</sub> and PtX as it is a very new topic. Extensive capacity building and training efforts are required to support public and private sector stakeholders to build up the South African green H<sub>2</sub> economy. To address the capacity building and training requirements, the project will support a series of training, capacity building and information events aimed at all levels of stakeholders as well as targeted training sessions for decision-makers.

H2.SA wishes to appoint a service provider to demonstrate the production of hydrogen during H2.SA training events. The demonstration unit should be a portable, table-top version of a hydrogen electrolyser to explain the concept of hydrogen production and the demonstration should be conducted by suitably qualified experts that can explain the technical details of the process and the machine.

## 2. Tasks to be performed by the contractor

The contractor shall provide the following service:

1. Provide a working demonstration-size hydrogen electrolyser to be used at training and capacity-building events.
  2. Demonstrate the electrolyser at 20 H2.SA training workshops, capacity building, and information events.
  3. The duration of the demonstration will be guided by the type of event but may last between 1- 3 hours.
  4. All relevant equipment must be transported and available at the location of demonstration.
  5. Provide suitably qualified lecturers to explain and demonstrate the concept of hydrogen production and answer resulting questions.
  6. Share presentations and pictures of demonstrations with GIZ.
  7. Participate in planning meetings with GIZ to reflect on experience, lessons learned and areas for improvement.
- The contractor provides equipment and supplies (consumables) and assumes the associated operating and administrative costs.
  - The contractor manages costs and expenditures, accounting processes and invoicing in line with the requirements of GIZ.  
The contractor reports regularly to GIZ in accordance with the current AVB of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

Certain milestones, as laid out in the table below, are to be achieved during the contract term:

<b>Milestones/process steps/partial services</b>	<b>Deadline/place/person responsible</b>
Submission of inception report	2 weeks after signing of contract
10 demonstration completed	By end 2024
10 demonstrations	By October 2025
Submission of final report	By 10 November 2025

Period of assignment: from 15 November 2023 until 15 November 2025.

## 3. Concept

In the tender, the tenderer is required to show *how* the objectives defined in Chapter 0 (Tasks to be performed) are to be achieved, if applicable under consideration of further method-related requirements (technical-methodological concept). In addition, the tenderer must describe the project management system for service provision.

Note: The numbers in parentheses correspond to the lines of the technical assessment grid.

## Technical-methodological concept

**Strategy (1.1):** The tenderer is required to consider the tasks to be performed with reference to the objectives of the services put out to tender (see Chapter 1 Context) (1.1.1). Following this, the tenderer presents and justifies the explicit strategy with which it intends to provide the services for which it is responsible (see Chapter 0 Tasks to be performed) (1.1.2).

The tenderer is required to present the actors relevant to the services for which it is responsible and describe the **cooperation (1.2)** with them.

The tenderer is required to present and explain its approach to **steering** the measures with the project partners (1.3.1) and its contribution to the **results-based monitoring system** (1.3.2).

The tenderer is required to describe the key **processes** for the services for which it is responsible and create an **operational plan** or schedule (1.4.1) that describes how the services according to Chapter 0 (Tasks to be performed by the contractor) are to be provided. In particular, the tenderer is required to describe the necessary work steps and, if applicable, take account of the milestones and **contributions** of other actors (partner contributions) in accordance with Chapter 2 (Tasks to be performed) (1.4.2).

The tenderer is required to describe its contribution to knowledge management for the partner (1.5.1) and GIZ and to promote scaling-up effects (1.5.2) under **learning and innovation**.

## Project management of the contractor (1.6)

The tenderer is required to explain its approach to coordination with the GIZ project. In particular, the project management requirements specified in Chapter 2 (Tasks to be performed by the contractor) must be explained in detail.

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

The tenderer 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 tender in accordance with Section 3.3.1 of the GIZ AVB:

- Service-delivery control
- Managing adaptations to changing conditions
- Ensuring the flow of information between the tenderer and GIZ
- Assuming personnel responsibility for the contractor's experts
- Process-oriented steering for implementation of the commission
- Securing the administrative conclusion of the project

## Further requirements (1.7)

N/A

#### **4. Personnel concept**

The tenderer is required to provide personnel who are suited to filling the positions described, on the basis of their CVs (see Chapter 7), the range of tasks involved, and the required qualifications.

The below-specified qualifications represent the requirements to reach the maximum number of points in the technical assessment.

##### **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
- 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
- Regular reporting in accordance with deadlines
- Lecturing on green hydrogen production during demonstrations
- Conducting classroom-setting hydrogen production demonstrations

###### Qualifications of the team leader

- Education/training (2.1.1): university degree PhD in Engineering OR Science
- Language (2.1.2): C2-level language proficiency in English
- General professional experience (2.1.3): 5 years of professional experience in the South African hydrogen sector
- Specific professional experience (2.1.4): 3 years in hydrogen demonstration projects
- Leadership/management experience (2.1.5): 5 years of management/leadership experience as a project team leader or manager in a company
- Regional experience (2.1.6): 5 years of experience in projects in southern Africa (region), of which 2 years in projects in South Africa (country)
- Development cooperation (DC) experience (2.1.7): N/A years of experience in DC projects
- Other (2.1.8): Experience with hydrogen demonstration in classroom settings

###### Soft skills of team members

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

- Team skills
- Initiative
- Communication skills
- Socio-cultural skills
- Efficient, partner- and client-focused working methods
- Interdisciplinary thinking

## **Short-term expert pool with a, maximum of 2 members**

For the technical assessment, an average of the qualifications of all specified members of the expert pool is calculated. Please send a CV for each pool member (see below Chapter 7 Requirements on the format of the bid) for the assessment.

### Tasks of the short-term expert pool

- Prepare packaging and shipping of equipment
- Lecturing on green hydrogen production during demonstrations
- Conducting classroom-setting hydrogen production demonstrations
- Support demonstrations from a logistical and administrative perspective

### Qualifications of the short-term expert pool

- Education/training (2.6.1): 1 expert with university qualification ('Diplom'/Master) in engineering OR science, 1 expert with university qualification (first degree in engineering OR science OR economics or business administration)
- Language (2.6.2): 2 experts with C2-level language proficiency in English
- General professional experience (2.6.3): 2 experts with 3 years of professional experience in the green hydrogen sector
- Specific professional experience (2.6.4): 2 experts with 3 years of professional experience in demonstration of hydrogen production in a classroom setting
- Regional experience (2.6.5): 2 experts with 5 years of experience in southern Africa (region), 2 experts with 5 years of experience in South Africa (country)
- Development cooperation (DC) experience (2.6.6): N/A experts with N/A years of experience in DC
- Other (2.6.7): Demonstratable experience with hydrogen electrolyser equipment transportation.

The tenderer must provide a clear overview of all proposed short-term experts and their individual qualifications.

## **5. Costing requirements**

### **Assignment of personnel and travel expenses**

Per-diem and overnight accommodation allowances are reimbursed as a lump sum up to the maximum amounts permissible under tax law for each country as set out in the country table in the circular from the German Federal Ministry of Finance on travel expense remuneration (downloadable at <https://www.bundesfinanzministerium.de>).

Accommodation costs which exceed this up to a reasonable amount and the cost of flights and other main forms of transport can be reimbursed against evidence

All business travel must be agreed in advance by the officer responsible for the project.

### **Sustainability aspects for travel**

GIZ would like to reduce greenhouse gas emissions (CO<sub>2</sub> emissions) caused by travel. When preparing your tender, please incorporate options for reducing emissions, such as selecting the lowest-emission booking class (economy) and using means of transport, airlines and flight routes with a higher CO<sub>2</sub> efficiency. For short distances, travel by train (second class) or e-mobility should be the preferred option.

If they cannot be avoided, CO<sub>2</sub> emissions caused by air travel should be offset. GIZ specifies a budget for this, through which the carbon offsets can be settled against evidence.

There are many different providers in the market for emissions certificates, and they have different climate impact ambitions. The [Development and Climate Alliance \(German only\)](#) has published a [list of standards \(German only\)](#). GIZ recommends using the standards specified there.

#### Specification of inputs

Fee days	Number of experts	Number of days per expert	Total	Comments
Designation of team leader	1	16	16	
Designation of short-term expert pool	2	10	20	Based on the assumption of 2 experts participating in 20 demonstrations
Travel expenses	Quantity	Price (ZAR)	Total	Comments
<b>Per-diem allowance in country of assignment</b> <i>If an on-site assignment takes place over the weekend, per diem allowances for weekends can be reimbursed between the fee days.</i>	20			
<b>Overnight allowance in country of assignment</b> <i>If an on-site assignment takes place over the weekend, overnight allowances for weekends can be reimbursed between the fee days.</i>	20			
Transport	Quantity	Price	Total	Comments
<b>International flights</b> N/A				Travel to the place of service delivery
<b>Domestic flights</b>	20			Flights within the country of assignment during service delivery
<b>CO<sub>2</sub> compensation for air travel</b> <a href="#">Link to working aid and table for determining the budget and Guidance for GIZ service</a>	20	1000	20 000	A budget is earmarked for settling carbon offsets against evidence.

<a href="#"><u>providers on avoiding, reducing and offsetting GHG emissions on setting the budget.</u></a>				
<b>Travel expenses (train, car)</b> • Car Hire • Mileage (private vehicles) • Airport transfers	1			Travel within the country of assignment, transfer to/from airport etc.
<b>Other travel expenses</b> N/A				e.g. visa costs
<b>Other costs</b>	<b>Number</b>	<b>Price</b>	<b>Total</b>	<b>Comments</b>
<b>Flexible remuneration</b> <i>Please calculate a number corresponding to approximately 10% of the contract value and specify this amount in the specification of inputs.</i> <i>In accordance with Section 3.3.5.7 AVB, when the flexible remuneration item is used, the contractually agreed amounts may be exceeded up to the amount of this budget item. This can be used only for cost items specified in the original agreement.</i> <i>The contractually agreed individual rates (e.g. amount of air travel expenses) and type of settlement (against evidence or flat rate) may not be changed.</i>	1	46660	46660	A budget of ZAR 46 660 is foreseen for flexible remuneration. Please incorporate this budget into the price schedule.  Use of the flexible remuneration item requires prior written approval from GIZ.
<b>Workshops</b> N/A				The budget contains the following costs .  <i>Alternatively:</i> Please calculate a budget for workshops taking the following cost items into account:
<b>Subcontracts</b> N/A				The budget contains the following costs .
<b>Procurement of materials and equipment</b> N/A				The budget contains the following costs .
<b>Local contributions</b> N/A				The contractor administers the following local <i>contributions</i> in

				accordance with Section 2.7 AVB:
<b>Other costs</b> Packaging and shipping of electrolyser and demonstration equipment	<b>20</b>			The budget contains the following costs packaging and shipping costs for equipment.

## Workshops and training

- N/A

## 6. Inputs of GIZ or other actors

GIZ and/or other actors are expected to make the following available:

- Arrangements for all training, events and information sessions. Please note that the service provider is not required to arrange any events themselves.

## 7. Requirements on the format of the tender

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

The complete tender must not exceed 10 pages (excluding CVs). If one of the maximum page lengths is exceeded, the content appearing after the cut-off point will not be included in the assessment. External content (e.g. links to websites) will also not be considered.

The CVs of the personnel proposed in accordance with Chapter 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 each. They must clearly show the position and job the proposed person held in the reference project and for how long. The CVs can also be submitted in English (language).

Please calculate your financial tender based exactly on the parameters specified in Chapter 5 Quantitative requirements. The contractor is not contractually entitled to use up the days, trips, workshops or budgets in full. The number of days, trips and workshops and the budgets will be contractually agreed as maximum limits. 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](mailto:ZA_Quotation@giz.de) no later than **06.10.2023** 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.
- Participating more than once in same tender is not allowed and it will lead to your proposal as well as that of the company where you appear more than once being disqualified. The responsibility rests with the companies to ensure that their partners/experts are not bidding/participating more than once in same tender.
- **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.

#### Scientific data

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. Outsourced processing of personal data**

The service provider is not required to collect or handle any personal data.

## **9. Annexes**

- H2.SA project fact sheet