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**Support for the implementation of an “Innovation Programme” that promotes technology innovations in collaboration with South African municipalities**

**Project number/ cost centre: 2018.2101.6-001.00**

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## **0. List of abbreviations**

AVB	General Terms and Conditions of Contract (GTCC) for supplying services and work 2022
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
MoM	Minutes of Meeting
SAGEN	South African German Energy Programme
SMME	Small, Medium and Micro Enterprises
ToRs	Terms of reference
TRL	Technology Readiness Level
vRE	Variable renewable energy

## 1. Context

The GIZ South African - German Energy Programme (SAGEN) aims to contract a Firm of Consultants to support the preparation and implementation of an 'Innovation Programme'. The aim of this programme is to identify and pilot selected technology innovations that promote the system integration of renewable energies in South Africa's future power system.

The South African economy has been experiencing frequent bouts of load shedding (the local term for rolling blackouts) which has negatively impacted local industry and economic growth. In South Africa, approximately 85 percent or 42,000 MW, of the nation's electricity is generated via coal-fired power stations. Despite environmental concerns, coal will continue to provide the majority of South Africa's power for the next decade, although the share from renewables will grow rapidly. Due to the ageing of the power plant fleet, old coal-fired power plants with an installed capacity of in total approximately 11 GW are likely to be decommissioned by 2030 according to the South African Integrated Resource Plan (IRP) adopted in 2019. This corresponds to more than one fifth of the current power plant capacity. The capacities of coal-fired power plants are to be largely replaced by wind and solar power plants (with a capacity increase of around 16 GW and 7 GW respectively). Overall, electricity generation will move from an existing highly centralised structure with large fossil fuel power plants to more decentralised structures with high shares of (decentralized) renewable energies as well as flexible power plants based on gas and storage plants.

South African municipalities are highly dependent on energy, and access to and the provision of energy services affects urban energy transitions. While current energy systems have become unsustainable along social, economic, and environmental criteria, contemporary energy transitions in South Africa have become intertwined with numerous competing agendas, which can create trade-offs between growth, equity, and sustainability. In particular, South Africa's ability to generate sufficient power at a competitive price for economic growth while providing access to all its citizens, and at the same time distribute it in an equitable and affordable way and develop clean energy sources to mitigate climate change, present considerable challenges. Load shedding within municipalities makes it even clearer the urgency with which South Africa must act to ensure a reliable energy supply. Much of this crisis boils down to an inability to meet demand during peak times in the mornings and evenings. Several global forces (like rapid urbanization) are subjecting municipalities around the world to rapidly growing peaks.

South Africa must address its acute and significant electricity supply shortage which has led to an inability to meet demand during peak morning and evening hours, and subsequently leading to load shedding. Innovative technological solutions from the private sector can play an important role to address these solutions. The testing and development of such innovations can be well achieved in close collaboration between established actors in the market (utilities) and agile private sector (or research) entities that can contribute to new, possibly disruptive solutions, with the goal of forming reliable products that are technically and economically tested. The number of government policy measures to help start-ups get new clean energy technologies to the market has risen sharply as countries around the world (increasingly emerging market and developing economies like South Africa) seek effective mechanisms to meet their energy, climate and economic goals.

In this context, GIZ SAGEN seeks to support the implementation of an ‘Innovation Challenge’. The challenge aims to identify technological, incl. digital innovative solutions from the South African private sector (specifically SMMEs, start-ups or research institutions) that are at least at Technology Readiness Level (TRL) 5 and can make a contribution to the improved system integration of variable renewable energies (vRE) in South Africa’s future power system. Through this challenge up to two solutions shall be selected that – in the framework of an “Innovation Programme” – will be piloted in collaboration between the winning entities (the innovators) and a pre-identified implementing partner, such as a Municipality. The implementing partner will provide the necessary infrastructure to test the solutions.

The piloting will be accompanied by individualised advisory packages to support the winning entities in adapting and further developing their solutions and / or business models. This may include consultancy services, mentoring or the provision of relevant networks.

### **General objectives of the Technology Innovation activities under SAGEN**

The Technology Innovation component under SAGEN aims at strengthening capacities for developing technology innovations that make a contribution to an improved system integration of variable renewable energy (vRE) and to the clean energy transition in the broader sense.

The programme seeks to promote technology innovations that will be tested in collaboration between the private sector (in particular SMMEs, start-ups) or research institutions and established actors in the energy sector (utilities, incl. Municipalities).

### **Aim and Scope of the Innovation Project**

#### **Identification of an implementing partner**

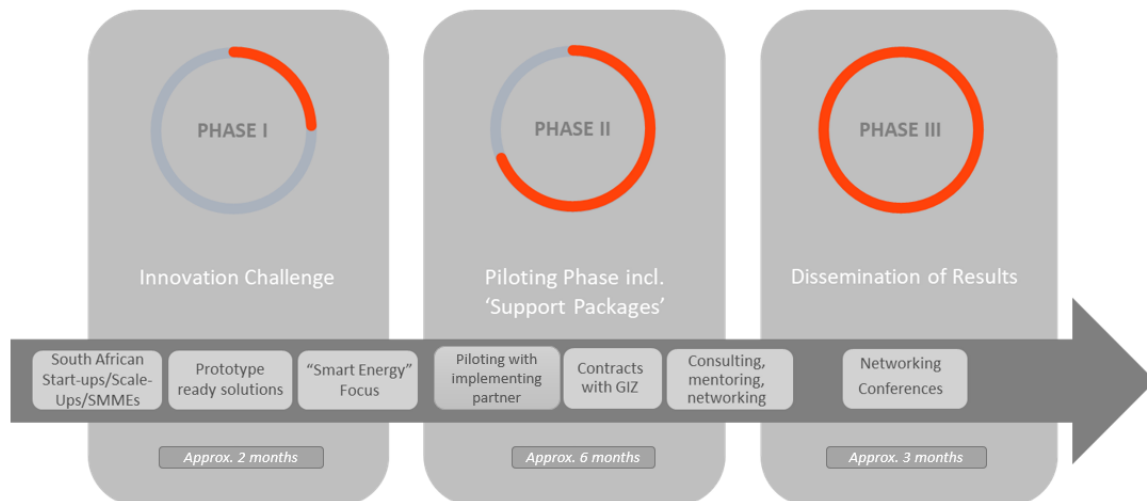
**In preparation for the innovation programme, the Firm of Consultants (bidders) shall propose and identify a suitable implementing partner with a pre-identified innovation challenge.** In their bids, the bidders should show prior engagement with the implementing partner, this could include but is not restricted to, emails, signed MoU etc. This implementing partner should be a municipality or utility with the relevant infrastructure required for piloting and an interest in identifying technology innovations that could provide a response to the innovation challenge. The pre-identified challenge should seek to identify technology innovations that promote the system integration of variable renewable energies (vRE) in South Africa’s future power system. The Firm of Consultants shall identify such implementing partner.

#### **The implementing partner should be a municipality or utility willing to:**

- Identify an energy challenge with the goal of piloting of technology solutions to address the challenge;
- Provide relevant infrastructure for the pilot and internal contacts that will support with the installation and/or integration and the testing of the technology solution;
- Assist during the piloting phase, including the provision of strategic input into the analysis that will be conducted.

GIZ SAGEN will enter into a written Memorandum of Understanding (MoU) with the identified implementing partner, if applicable.

The following graph presents the different phases of the envisaged Innovation Project.



### Phase 1: Innovation Challenge

As a first step and in collaboration with an implementing partner and the firm of consultants, GIZ will launch an 'Innovation Challenge' in the form of a tender process ("Call for Solutions"), which is based on the pre-identified energy challenge of the implementing partner. The implementing partner, in collaboration with GIZ and the Firm of Consultants shall refine the pre-defined challenge and define a problem statement. The goal of the challenge is to identify technology solutions that address the defined challenge. The challenge should assist in facilitating the operation of the future power grid with rising shares of fluctuating renewable energies

The challenge should be designed in a way that the GIZ in collaboration with the implementing partner and the Firm of Consultants will be able to select from a wide variety of different innovative solutions, that offer a response to the challenge posed. **The goal is to select up to two innovative solutions to address the implementing partner's challenge.** The refining of the challenge as well as the selection criteria (incl. eligibility criteria for participants and evaluation criteria for the solutions) will be specified and coordinated by the GIZ and supported by the Firm of Consultants and the implementing partner.

The **target group of the Innovation Challenge are South African companies**, including SMMEs, Start-Ups or Scale-Ups, universities and research institutions (this may be further specified in the context of the concretization of the challenge).

The solutions of the entities participating in the Innovation Challenge should

- facilitate the operation of the future power grid with rising shares of fluctuating renewable energies,

- contribute to enhanced energy security, stability and/or reliability of the power system,
- (indirectly) contribute to CO<sub>2</sub> emission reductions and cost savings and
- be at least at technology readiness level (TRL) 5.

The technology or digital innovations<sup>1</sup> should be at a stage to be tested in an operational environment. The solutions should hold out the prospect of market maturity in the near to medium future.

The aim is to make a positive contribution to a sustainable and reliable supply of electricity in South Africa's future energy system.

An expert committee to accompany the selection and implementation process of the technological innovations will be composed to support and advise the solution implementation process.

## **Phase 2: Innovation Programme - Piloting Phase incl. 'Support Packages'**

After the tender process, up to two entities that have been selected based on their innovation, will be given the opportunity to pilot their innovative solutions in collaboration with the implementing partner. To this end, the winning entities will enter into a service agreement with GIZ, the aim of which is to pilot their solution in collaboration with the implementing partner. The winning entities will get remunerated for the activities implemented under the contract. The implementing partner will provide the required infrastructure for the implementation of the pilots. The Firm of Consultant will coordinate the process and will support the finalists with mentoring and technical advice.

The programme consists of support for the collaboration process between the implementing partner and the winning entities of the Innovation Challenge, as well as individualised "Support Packages" for these entities. It is envisaged that the winning entities participate in the "Innovation Programme" for a period of 6 months after the conclusion of the contract with GIZ.

Given that most innovative solution providers, such as specialized SMMEs or Start-Ups, have little experience in working with public sector entities, the implementing partner and the winning entities of the Challenge will receive support on how to build a strong foundation for their collaboration project. This entails a facilitated collaboration process in terms of building trust, anticipating possible challenges that arise from different organisational forms or ways of working and the alignment of expectations and working strategies. In this context, the winning entities will among other things receive support in adapting the innovative solution to the technical requirements posed by the implementing partner or end user needs (product-market fit) and in piloting the solution in the context of the implementing partner's operations. In this context, the implementing partner and the winning entities will be supported by the Firm of Consultants and GIZ in jointly preparing and monitoring the collaboration phase (by defining

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<sup>1</sup> Digital innovation refers to the application of digital technology to existing (business) problems. Technology innovation refers to the innovation linked to technological aspects of a product or services. An innovation in the context of this assignment may be technical or digital solutions that has been proven as viable in another context and are introduced and adapted to the local conditions.

adequate milestones and indicators). Furthermore, the possibilities and framework conditions for a long-term collaboration between the participating entities and the implementing partner will be explored.

This **process support** will be facilitated through **mandatory workshops**, in which the winning entities, the implementing partner and GIZ SAGEN will participate. The winning entities will also receive continuous mentoring and regular process support during the piloting phase by the Firm of Consultants (see details on the assignment below).

In addition, and depending on their individual needs, the winning entities can make use of **individually tailored “Support Packages”**. These support packages may include consultancy services (e.g. on technical, business development or legal aspects), mentoring or matchmaking and networking activities (e.g. with specialist networks in the power sector or, depending on the maturity of the solution, regarding financing opportunities).

### **Phase 3: Dissemination of Results**

Finally, the results of the pilot will be analysed and shared in aggregated form with other relevant industry representatives for whom the pilot results may be of interest (e.g. representatives of other municipalities). The aim is to demonstrate the benefits and impact of the developed solution and the further possibilities for dissemination of the innovations. This will also include the presentation of the general approach taken by the innovation program.

#### **Specific objective of the assignment**

Within the scope of the assignment described in the ToR (see detailed description of the Work Packages to be implemented by the Firm of Consultants in Section 2 of the ToR below), the Firm of Consultants will be responsible for **the design, promotion and implementation of the above described ‘Innovation Program’** to identify and pilot innovative solutions from the private sector (or research institutions) that support the system integration of renewable energies in South Africa in the public sector context of an implementing partner.

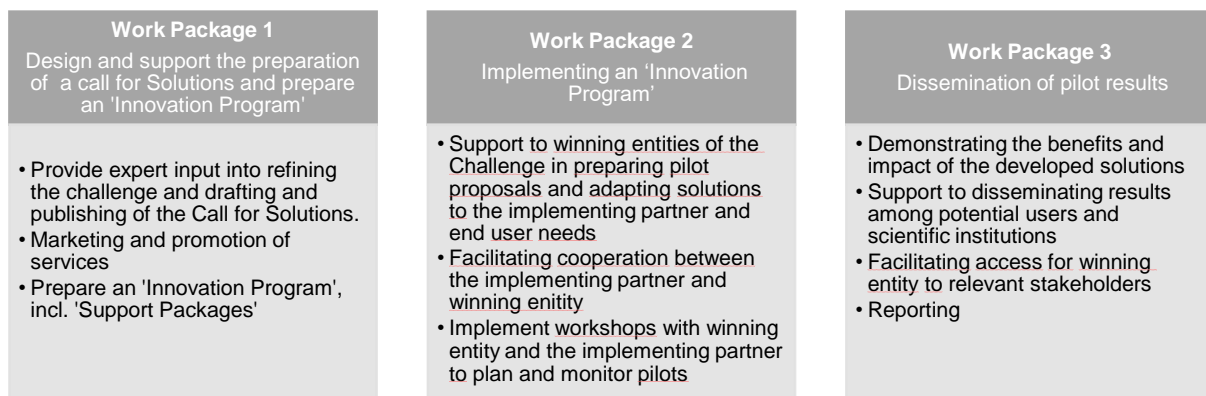
An “Innovation Challenge” tender process will be carried out by GIZ, in collaboration with the Firm of Consultants and implementing partner, the tender process includes drafting and publishing the call for solutions. All parties will support in the selection of the winning entities.

The firm of consultants will then **support the selected winning entities in adapting their solution to the needs of the implementing partner and in implementing the pilot, supporting them in** showcasing the economic and technical viability of their solutions in a real target environment. This will be done in collaboration with the implementing partner and GIZ. In this context, the Firm of Consultants shall **facilitate the collaboration process between the implementing partner and the winning entities.**

Where required by the winning entities of the innovation challenge (the innovators), the Firm of Consultants will furthermore **provide advisory and mentoring services to the winning entities.** This may include advisory services on business development, to bring the solutions closer to market - or to a limited extent - technical advisory services to support the innovators in preparing their solutions for the piloting phase. Finally, the Firm of Consultants shall provide

the winning entities with **networking opportunities**, either through sector networks or (depending on the maturity of the solutions) regarding access to finance.

**The assignment entails three Work Packages.** All of these Work Packages will be implemented in collaboration with the implementing partner and GIZ SAGEN. An overview of the work packages is provided in the below illustration:



## 2. Tasks to be performed by the contractor

The Terms of Reference (ToR) cover the scope and deliverables by the Firm of Consultants to enable fulfilment of the objectives outlined in section 1 of the ToR. The main activities outlined in this tender document provide guidelines for the activities envisaged, however the Firm of Consultants is expected to appropriately adjust the work plan based on what is emerging through the course of the assignment in consultation with GIZ.

**The Firm of Consultants will perform the tasks in collaboration with GIZ SAGEN and the implementing partner, and other South African partner institutions or consultancies, where required.**

**In preparation for the innovation programme, the Firm of Consultants (bidders) shall propose and identify a suitable implementing partner with a pre-identified innovation challenge** (see also Chapter 1 above).

The Firm of Consultants is responsible for providing the following services:

### **Work Package 1: Design and support the preparation of a call for Solutions and prepare an 'Innovation Program'**

Under this work package, the Firm of Consultants will, in collaboration with GIZ, support the implementation partner with refining the pre-identified challenge and problem statement. This challenge will be used for the call for solutions with the aim to identify innovative technology



solutions that can respond to the challenge. On that basis, the call for solution tender process will be carried out by GIZ. The Firm of Consultants shall further support the winning entities over a 6 month programme as they work with the implementing partner to integrate the solution in a real-life environment. Furthermore, the Firm of Consultants shall elaborate a concept for a 'Support Program' (workshops, consultancy, mentoring and / or networking services) for the innovation program.

Work package 1 entails the following tasks:

### **1.1 Preparing the Assignment (up to 6 days in total)**

- Following a kick-off meeting with GIZ, the Firm of Consultants shall prepare a detailed operational plan (incl. the personnel assignment plan) for the implementation of the assignment. Principles for the collaboration in the implementation of the assignment will be drafted by the Firm of Consultants in close collaboration with the implementing partner and agreed upon between all parties.
- With the support of GIZ, the Firm of Consultants shall support the implementing partner in refining the pre-identified Innovation Challenge and problem statement.
- The Firm of Consultants shall provide a project dashboard to share data and provide a tool to monitor the project progress and to facilitate the collaboration with GIZ and the implementing partner (and other relevant partners that may be identified during project implementation).

#### **Deliverables for Task 1.1:**

- Revised plan of operations with planned activities, timelines, milestones and deliverables and incl. a personnel assignment plan.
- Final version of the problem statement as basis for the innovation challenge to be put out on tender by GIZ

### **1.2 Support to preparing the Innovation Programme (up to 15 days in total)**

Through the below tasks the Firm of Consultants shall refine the scope of the 'Innovation Challenge' and shall furthermore prepare a concept for the 'Innovation Program'.

- The Firm of Consultants shall allocate experts to form part of an **"expert committee"** that will provide guidance in the implementation of the Innovation Challenge and in the course of the piloting phase. The CV's of the expert committee allocated by the Firm of Consultants should be submitted with the bid. The expert committee will consist of representatives from the firm of consultants, additional experts (if required), representatives of the implementing partner as well as the GIZ.
- The Firm of Consultants, including the expert committee, in collaboration with the implementing partner shall provide expert input into the **refinement of the scope and design of the Call for Solutions (Innovation Challenge)** that is outlined in section 1 of these ToR. In collaboration with the implementing partner, the Firm of Consultants will also support inputs on the following aspects / processes, these processes (to implement the call for solutions) will be led by GIZ:

- Definition of selection criteria for the Innovation Challenge (e.g. eligibility criteria for participants of the Call for Solutions / evaluation criteria for the proposed technology or digital innovations).
- Drafting Terms of Reference for the Call for Solutions that will, amongst other things, describe the Innovation Challenge objectives, tasks or activities to be implemented by the winning entities with dedicated milestones, indicators, eligibility and evaluation criteria, categories of innovations, key qualifications of staff, timelines, etc.
- The Firm of Consultants shall refine the concept for the ‘Innovation Programme’ (see more details in Work Package 2 below) that outlines in detail the process and approach to prepare and support the pilot phase, incl. adapting the proposed solutions of the innovators to the needs of the implementing partner and to accompany and track the pilot progress.
- **The Firm of Consultants shall prepare a “Support Package” concept** that summarizes a suite of instruments to train and mentor/coach the winning entities of the Innovation Challenge on business development or regarding the further technical development of their solutions and that outlines opportunities for networking (e.g. with specialists’ networks or financiers, if applicable) (see more details in Work Package 2 below).
- The Firm of Consultants shall provide a detailed **marketing concept**, which includes but is not limited to the promotion of the Innovation Programme (incl. promoting the Innovation Challenge / Call for Solutions) on their Website and social media.

#### **Deliverables for Task 1.2:**

- Support in drafting the Terms of Reference for the Call for Solutions/Innovation Challenge
- Summary of preliminary ‘Innovation Programme’ concept, incl. preliminary ‘Support Package’ concept (either in the form of a brief report or a power point presentation)
- Marketing Concept for the Innovation Project

#### **1.3 Promoting the Innovation Challenge and assessing the submitted proposals (up to 10 days in total)**

##### **The preparation and implementation of the Call for Solutions is the responsibility of GIZ.**

The Firm of Consultants shall also advertise and promote the Challenge on relevant channels to assure a high degree of return, the Challenge will also be advertised and promoted on the GIZ channels. The expert(s) assigned by the Firm of Consultants to participate in the ‘Expert Committee’ will be involved in the assessment of bids from the entities that participate in the Challenge.

- The Firm of Consultants shall **promote** the Call for Solutions/Innovation Challenge on a webpage and also **promote** it via social media and directly among eligible entities (i.e. South African SMMEs, Start-Ups, Scale-Ups, research institutions) to assure a

high degree of return. This will include online posts on social media, i.e. 2 posts per week over 3 weeks on all relevant channels (incl. LinkedIn, Facebook, Twitter, Instagram).

- A representative of the Firm of Consultants shall **support the evaluation of solutions** submitted to the Innovation Challenge (Call for Solutions) and the selection of up to two finalists. The solutions shall also be evaluated by representatives from the implementing partner and will be evaluated by representatives from the GIZ. At this point it is estimated that up to 7 expert days may be required for the assessment of the applications.

### **Deliverables for Task 1.3:**

- Filled out assessment grid for the applications (bids) to the Call for Solutions.

### **Work Package 2: Implementing an Innovation Programme, incl. Support Packages**

Up to two winning entities of the Innovation Challenge will be given a chance to further develop and launch a pilot in collaboration with the implementing partner. Under this work package, the Firm of Consultants shall support the winning entities in adapting their solutions to the needs of the implementing partner and through process and mentoring support in the piloting phase. The Firm of Consultants shall guide the collaboration process between the winning entities and the implementing partner.

In collaboration with GIZ and the implementing partner, the Firm of Consultants shall implement an 'Innovation Programme', which entails workshops that will be mandatory for the winning entities to attend, process support by an anchor mentor as well as demand-oriented 'Support Packages' that will take into account the technological and business readiness of the winning entities and proposed solution and will include consulting, mentoring or networking offers that are tailored to the needs of the finalists.

Work Package 2 includes the following tasks:

**2.1 Implementation of Workshops to prepare and support pilot phase** (up to 31 days in total, incl. 8 days preparation, 17 days execution with experts and 6 days follow-up)

To structure and monitor the piloting phase and facilitate the collaboration between the implementing partner and the winning entities, the Firm of Consultants shall prepare and implement (mandatory) workshops with the implementing partner, GIZ SAGEN and each winning entity.

- **Detailed Workshop Concepts and workshop preparation (up to 8 days)**  
Based on the "Innovation Programme" concept elaborated under Work Package 1.2 the Firm of Consultants shall prepare a detailed concept for (mandatory) workshops with the implementing partner, GIZ SAGEN and each winning entity (up to 8 workshops in total). The concept will include the definition of the goal of the workshops, the preparation of a detailed agenda (incl. required participants and responsibilities) and

the preparation of the required materials for the workshops. The Firm of Consultants will share the materials prior to the workshop and shall brief all participants in advance.

- **Implementation of Workshops**

The Firm of Consultants shall implement the below workshops with the winning entities, the implementing partner and GIZ. This includes the moderation of the workshops.

**Kick-Off Workshop and follow-up (2 days per winning entity with 2 experts, up to 8 days in total)**

The Kick-Off Workshop lays the foundation for the collaboration between the finalists and the implementing partner during the piloting phase. The infrastructure for the pilots will be provided by the implementing partner. In the workshop, necessary steps to adapt the offered solutions to the needs of the implementing partner and to pilot the solutions will be discussed and agreed upon between the respective finalist, GIZ SAGEN and the implementing partner and recorded in an “adaptation plan”. Furthermore, roles and responsibilities during the piloting phase as well as an operational plan with key activities, milestones and key performance indicators (KPIs) will be defined.

Following the Kick-off workshop, the winning entities shall be supported in adapting their pilot concept. The concept will be finalized in iteration loops with the implementing partner and in collaboration with GIZ SAGEN. All parties shall finally agree on the pilot concept.

**Mid-Term Workshop (1 day per winning entities with 2 experts, up to 4 days in total)**

The first mid-term workshop takes place half-way through the pilot phase and serves to review and, if necessary, adjust the agreed upon milestones and KPIs defined at the beginning of the program. Interim results of the pilot will be presented.

The way of collaboration between all parties involved will be reflected and adjusted if necessary.

**Final Workshop (1 day per winning entity with 2 experts, up to 4 days in total)**

At the end of the pilot phase, another workshop will be held to discuss and evaluate the collaboration process and to present the achieved results of the pilot. A decision shall be taken how to proceed after the “Innovation/piloting programme” ends and what possibilities exist to ensure a future collaboration or scaling up possibilities of the solution.

**Closing Workshop (up to 0.5 days per winning entity and for joint closing event with 2 experts; up to 1 day in total)**

The closing workshop serves to summarise the collaboration process and pilots. If potential was identified to continue the collaboration between the implementing partner and the winning entities, the next steps will be agreed.

- **Documentation of workshop results and follow-up (up to 6 days)**

The Firm of Consultants shall document and disseminate among all participants of the workshops the key take-aways and decisions taken. Furthermore, the Firm of Consultants shall follow-up on all open issues with the participants.

## **2.2 Support to process management (up to 24 days in total)**

During the innovation phase, each of the winning entities will receive process support by an anchor mentor. This role entails regular (twice a month) check-ins to guide the winning entities through the innovation process. The anchor mentor will be responsible for keeping track of progress made, incl. in terms of achievement of milestones agreed upon in the workshops (Work Package 2.1). He/she will jointly with the winning entities plan the next steps and ensure that all teams have the necessary information, contacts and knowledge to pilot their solutions. The Firm of Consultants shall coordinate this process with the implementing partner and GIZ SAGEN and provide regular progress reports, including through regular meetings with GIZ SAGEN (and possibly with the implementing partner).

## **2.3 Design and Implementation of ‘Support Packages’ (demand-oriented; up to 4 days in total)**

In addition to the mandatory workshops under Work Package 2.1, demand-oriented support will be offered to the selected winning entities through ‘Support Packages’ that are a suite of instruments to train and coach the selected finalists to further develop their products and innovations and bring the solutions closer to market. This may include consulting, mentoring and networking activities. The Firm of Consultants shall **analyse the needs of the finalists and develop and implement individual support packages.**

This entails the following tasks:

### **Preparation and Implementation of Individual Support Packages**

- During the kick-off workshop (see Work Package 2.1) as well as through interviews, the Firm of Consultants shall **identify the consulting, mentoring and networking needs of the winning entities.**
- Based on the needs analysis the Firm of Consultants shall **elaborate tailored ‘Support Packages’ for each finalist (for up to two winning entities in total).**

Depending on the development stage (readiness level) of the innovation / winning entities, the level and in particular the type of support for the winning entities may differ.

The Support Packages may be implemented through small workshops, meetings or training sessions or through mentoring, coaching or networking activities, incl. but not limited to the following:

- Mentoring & Technical Support: based on the adaptation plan agreed upon during the Kick-off workshop (see Work Package 2.1), the winning entities will receive mentoring and technical support to adapt their solutions to the needs and institutional requirements of the implementing partner.
- Business development support that is linked to bringing the solutions closer to market, incl. aspects such as business model review, key partners, key activities,

key resources, value propositions, marketing, customers segments and relations, distribution channels, financial and economic planning and analyses, cost structures and revenue streams, economic and financial planning, strategic planning, marketing and distribution, investment readiness, strategic planning, monitoring, IP-related issues or other business specific issues;

- Networking support through specialist networks or to facilitate access to finance (if applicable and depending on the maturity of the winning entities and provided solutions).
- The Firm of Consultants shall **present a summary of tailored ‘Support Packages’** for all winning entities (up to two) that were agreed upon with the winning entities to GIZ and the implementing partner for feedback. In this context, it should be pointed out if further specific technical consulting services are required, the Firm of Consultants should make the technical experts available. Based on the feedback from GIZ and the implementing partner, the Firm of Consultants will finalise the “Support Packages”.
- The Firm of Consultants shall provide individual coaching, consulting or networking services to the finalists as agreed upon in the ‘Support Packages’. Under these packages, **for each of the winning entities, up to 10 days of coaching / consulting / networking services shall be provided (in total up to 20 days)**. These days are in addition to the organization of the workshops outlined under Work Package 2.1.

#### **Deliverables for Work Package 2:**

- Workshops agendas with workshop goal and responsibilities
- Documentation of the key take-aways and decisions taken at the workshops (e.g. in the form of MoM)
- Detailed implementation plan (incl. adaptation plan and operational plan) for the piloting phase for each finalist (with milestones, KPIs), coordinated and agreed upon with the implementing partner and GIZ; the plan will be drafted after the Kick-off workshop and updated as part of the interim workshop
- Documentation of an individual “Support Package” for each winning entity, agreed upon with the winning entities, GIZ and the implementing partner
- Documentation (e.g. presentation) of exchange with winning entities

#### **Work Package 3: Support to the dissemination of pilot results and documentation of Lessons Learnt (up to 15 days in total)**

- The Firm of Consultants shall support the dissemination of the results of the pilots to sector experts and potential users of the innovation. This includes
  - The preparation of results of the pilots for dissemination in the form of a report and/or presentation for each solution

- The development of marketing material for the developed solutions to facilitate the dissemination of the pilot results.
- The facilitation of the participation of the finalists at relevant conferences or fora
- The Firm of Consultants shall draw up a final report and concise presentation that summarizes the key Lessons Learnt of the “Innovation Programme” process
- The Firm of Consultants shall organise (Up to 3) dissemination events with support from GIZ and the implementing partner.

### **Deliverables for Work Package 3:**

- Documentation of each pilot for dissemination (brief report or presentation)
- Final report on assignment with key lessons learnt (max. 15 pages)
- Concise briefing paper (max. 5 pages), as well as a PowerPoint presentation, on the key lessons learnt and the pilot results

### **Schedule and location of the assignment**

- The period of assignment is: **December 2022 until November 2023.**
- The primary location of the consultancy work is Gauteng (Pretoria and Johannesburg). Specifications on travel requirements can be found in Section 4 of the ToR.
- Certain milestones, as laid out in the table below, are to be achieved by certain dates during the contract term. These milestones with timelines will be revised during the kick-off meeting for the assignment.

<b>Milestone</b>	<b>Indicative Date</b>
Kick-off meeting with GIZ and the implementing partner	December 2022
Updated operational plan for the assignment and principles for collaboration	December 2022
Input into ToR for the Innovation Challenge, incl. on the concept, the process and selection criteria	January 2023
Preliminary ‘Support Package Concept’ elaborated	January 2023
Marketing concept for Innovation Challenge elaborated and agreed upon with the implementing partner and GIZ	February 2023
Innovation Challenge promoted	February 2023
Selection of winning entities (up to two) supported	March/April 2023
Kick-off Workshops implemented	March/April 2023
Implementation plan for each pilot (incl. adaptation and operation plan) and Support Packages for each winning entity agreed upon with winning entities, the implementing partner and GIZ	From April 2023
Mentoring, consulting and networking services provided to finalists	From April 2023

Mid-Term Workshops implemented	June/July 2023
Final and Closing workshops implemented	September/October 2023
Pilot results are documented for dissemination to relevant stakeholders	October 2023
Final workshop with GIZ and the implementing partner	October 2023
Final Report (incl. Lessons Learnt) available, with the implementing partner and GIZ comments incorporated	November 2023

### **3. Technical-methodological 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.

#### **Strategy (section 1.1 of the assessment grid)**

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) and provide a critical appraisal of the tasks. 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). In doing so, the bidder shall interpret the described elements of the Innovation Program, propose a concept for the content and extend of the Support Package support element and highlight critical points (if any) to be considered in the implementation of the Innovation Program. The bidder should avoid repeating information from the description of the implementation approach.

#### **Cooperation (section 1.2 of the assessment grid)**

The bidder is required to present the actors relevant for the services for which it is responsible and their interactions (section 1.2.1 of the assessment grid). The bidder shall describe the cooperation with the relevant actors (section 1.2.2 of the assessment grid). In this section, the bidder shall outline engagement strategies and strategies to foster a cooperation between private sector participants and public sector entities.

#### **Processes (section 1.4 of the assessment grid)**

The bidder is required to describe the key processes for the services for which it is responsible and present an implementation plan incl. 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 (section 1.4.1 of the assessment grid). The bidder shall take account of the milestones and contributions of other actors (section 1.4.2. of the assessment grid) in accordance with Chapter 2.



### **Learning and innovation (section 1.5 of the assessment grid)**

The bidder is required to describe its contribution to knowledge management for the partner and GIZ (section 1.5.1 of the assessment grid), in particular how lessons learnt and results from the innovation programme will be disseminated among relevant stakeholders. In addition, the bidder is required to present and explain measures that promote horizontal or vertical scaling-up (section 1.5.2 of the assessment grid), incl. on how the Innovation Programme could be scaled-up.

### **Project management of the Firm of Consultants (section 1.6 of the assessment grid)**

The bidder is required to describe its approach and procedure for coordination with the GIZ project in the context of implementing the tasks outlined in Chapter 3 (section 1.6.1 of the assessment grid).

- The Firm of Consultants is responsible for selecting, preparing, training and steering the experts (international and national, short and long term) assigned to perform the advisory tasks.
- The Firm of Consultants makes available equipment and supplies (consumables) and assumes the associated operating and administrative costs.
- The Firm of Consultants manages costs and expenditures, accounting processes and invoicing in line with the requirements of GIZ.
- The Firm of Consultants reports regularly to GIZ in accordance with the AVB of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH from 2018

The bidder is required to draw up a **personnel assignment plan** with explanatory notes that lists all the experts proposed in the bid (section 1.6.2 of the assessment grid); 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.

## **4. Personnel concept**

The total period of the assignment is planned from the beginning of the contract for up to **twelve (12) months**.

The assignment shall be conducted by a team of experienced consultants that are very well networked in the innovation landscape in South Africa as well as the South African electricity supply industry. The team shall combine expertise in engaging innovative private sector companies and public sector entities with business development and technical expertise in the power sector.

In this tender, GIZ is looking for a South African consulting firm or consortium of consulting firms providing highly qualified short-term experts (STE). The overall coordination and quality must be assured through a **Team Leader**. An **innovation expert** shall provide expertise on the process design. A **technical expert** contributes experience in the power sector. A **business development expert** will amongst other things provide expertise on business model development, economic and financial planning, leadership and team management, strategic

planning, marketing and distribution, customer relations, monitoring, IP-related issues and/or investment readiness.

Of particular relevance is a **good network within the South African partner structure**, especially in the innovation landscape and the power sector.

**The qualifications specified below represent the requirements to reach the maximum number of points.**

### **Team leader**

**Note: The team leader may form part of the Short-term expert pool (see below) as well. For the tasks of the team leader her/his CV will be assessed independently according to the qualifications outlined below for the team leader role.**

#### Tasks of the team leader

- Overall responsibility for the advisory packages of the Firm of Consultants, specifically regarding timeous delivery, deadlines and the quality management of the deliverables
- Leading the engagement process with the implementing partner and GIZ
- Coordinating and ensuring communication with GIZ, the implementing partner and others
- Regular reporting in accordance with work plan and deadlines
- Managing adaptations to changing conditions and being proactive in identifying risks and finding solutions

#### Qualifications of the team leader (section 2.1 of the assessment grid)

- Education/training (2.1.1): University degree (Honours) in Engineering, Economics, Business Administration, Business Management or any other relevant qualification for the delivery on the assignment
- General professional experience (2.1.3): 10 years of professional experience in the field of technology innovation OR 10 years of professional experience in business development / incubation
- Specific professional experience (2.1.4): 8 years in the field of implementing or supporting technology innovation projects
- Leadership/management experience (2.1.5): 5 years of management/leadership experience as a project team leader or manager in a company
- Other (2.1.8): 2 years of professional experience in facilitating collaboration projects between i) public sector organizations or large corporations and ii) private sector entities such as SMMEs/Start-Ups

### **Short-term expert (STE) pool with minimum 2, maximum 8 members**

**Note: It must be clearly indicated in the offer, which experts (with CVs) will form part of the STE pool. In addition to his/her function as the team leader, the team leader may also form part of the Short-term expert pool; as a short-term expert, his/her CV will be assessed according to the criteria outlined below and in section 2.6 of the assessment grid.**

**All experts proposed for the pool (2-8 experts) will be assessed individually against the criteria set out below. The final score for the pool will be based on an average of each expert's evaluation.**

The pool must consist of at least one **“Innovation Expert”** with experience in supporting collaboration or innovation projects between the public and private sector, at least one **“Technical Expert”** with experience in the power sector and at least one **“Business Development Expert”** with expertise in business development and / or incubation. In total the pool consists of **2-8 experts (one expert may fulfil several roles)**. The bidder's offer should clearly state which expert(s) is/are (an) "innovation expert(s)", "business development expert(s)" and "technical expert(s)". The CVs will be assessed for each role according to the below criteria.

#### Tasks of the short-term expert pool

- Execute consulting, mentoring and networking services in respect of each of the Work Packages 1 – 3 (see Chapter 2 of the ToR for details)
- Provide in-depth technical expertise in the areas of incubation, business development and technology (incl. digital) innovation in the power sector
- Engage with the implementing partner and GIZ and other relevant stakeholders to effectively execute the project

#### Qualifications of the short-term expert pool (section 2.6 of the assessment grid)

**Note: it must be made clear which CV should be used for the assessment of the innovation expert, the business development expert or technical expert in section 2.6 of the assessment grid. The final score for the pool will be based on an average of each expert's evaluation.**

- Education/training (2.6.1):
  - *Innovation expert / business development expert*: at least 1 expert with university qualification (Honours) in Economics, Innovation Management, Business Administration, Business Management or equivalent
  - *Technical expert*: at least 1 expert with university qualification (Honours) in Electrical Engineering or equivalent
- 
- General professional experience (2.6.3):
  - *Innovation expert / business development expert*: at least 1 expert with 6 years of experience in the innovation or business incubation sector,
  - *Technical expert*: at least 1 expert with at least 6 years of professional experience in the power sector, incl. consulting
- Specific professional experience (2.6.4):
  - *Innovation expert / business development expert*: at least 1 expert with at least 6 years of experience in the innovation or business incubation sector,
  - *Technical expert*: at least 1 expert with 4 years of professional experience in the field of technology (incl. digital) innovation in the power sector.

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

### Requirements for all experts:

In addition to their specialist qualifications, the experts must have the following qualifications:

- Sociocultural and intercultural skills and interdisciplinary thinking
- Ability to work in interdisciplinary teams
- Client and partner orientation
- Efficient work practices and initiative
- Fluency in English (both written and oral form)

## 5. Costing requirements

### Assignment of personnel

Team leader: Tasks related to team coordination, coordination with the GIZ team, partners and other consultants, as well as quality control of deliverables.

The team leader may also be one of the experts in the STE pool where he/she will take on content related tasks as described in the Work Packages.

Short-term expert pool: total of up to **125 expert days for all experts combined.**

Work package	Indicative estimates for required expert days per work package (see more detailed estimates in Chapter 2 of the ToR)
Work package 1	up to 31 expert days
Work package 2	up to 79 expert days
Work package 3	up to 15 expert days
<b>Total</b>	up to <b>125 expert days</b>

### Travel

**The need for travel as part of the assignment will be closely coordinated and decided between GIZ and the Firm of Consultants. For the offer, the bidder should nevertheless include a travel budget according to the specifications listed below.**

The primary location for the assignment is Johannesburg and Pretoria. The bidder is required to calculate the travel by the specified experts and the experts it has proposed based on the location of the assignment and list the expenses separately by the daily allowance, accommodation expenses, flight costs and other travel expenses.

### **Workshops, training**

The Firm of Consultants in collaboration with GIZ and the implementing partner will prepare and implement the following event and workshops.

- Workshops with the 2 winning entities (Kick-off workshops, mid-term workshops, final workshops, closing workshops)

The Firm of Consultants will coordinate the logistics for the workshops and will cover the costs for the venue and the participation of partners, as required

### **Other costs**

The Firm of Consultants shall budget for a lump sum for material cost for the workshops (print outs).

### **Flexible remuneration item**

A flexible remuneration of up to ZAR 100,000 is foreseen. The budget can only be used with prior written approval from GIZ. The flexible remuneration forms part of the contract value.

## **6. 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 (Chapter 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 the English language.

### **The complete bid shall not exceed 15 pages (excluding CVs).**

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. It must be clear from the offer which CV is intended for which role (as team leader or in the pool as innovation expert, business development expert or technical expert).

### **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 will be submitted in the 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 Firm of Consultants 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.

## 7. 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 **25<sup>th</sup> November 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.
  
- 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.**