

Terms of reference (ToRs) for the procurement of services

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|---|---|
| Market analysis of electric cooking devices in India | Project number/ cost centre: 1995.3511.3-100 |
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0. List of abbreviations

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| AVB | General Terms and Conditions of Contract (AVB) for supplying services and work 2018 |
| BMZ | Federal Ministry for Economic Cooperation and Development |
| DC | Development Cooperation |
| GIZ | Deutsche Gesellschaft für Internationale Zusammenarbeit GmbH |
| LPG | Liquefied petroleum gas |
| MNRE | Ministry of New and Renewable Energy |
| PNG | Piped natural gas |
| PV | Photovoltaic |
| RE | Renewable energy |
| SDG | Sustainable Development Goals |
| ToR | Terms of Reference |

1. Context

“Access to energy in rural areas – Phase II” component of the Indo-German Energy Program (from now on referred to as IGEN-Access II module) is a bilateral cooperation measure carried out by the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH on behalf of the German Federal Ministry for Economic Cooperation and Development (BMZ) and the Indian Ministry of New and Renewable Energy (MNRE). IGEN Access II aims to improve the energy supply in rural areas of selected federal states.

Access to clean cooking energy is one of the areas that the previous and current measures have been focusing on. MNRE has requested GIZ to support the electric cooking (e-cooking) to provide reliable, affordable and secure access to clean cooking energy.

As per the latest report from SE4ALL on Tracking SDG 7: The Energy Progress Report, SE4ALL, 2019 (<https://www.seforall.org/publications/tracking-sdg7>), the number of people without access to clean cooking has not changed significantly since the launch of the SDGs in 2015, with 2.9 billion people across the world still dependent on traditional fuels to meet their cooking energy needs. While India has performed better in this regard, with over 80 million LPG connections (exceeding the target set for 2020 by the government) under the Ujjwala scheme, it is estimated that this addresses the cooking needs of only around 50% of the households without access to clean cooking (more than 160 million households were estimated to rely on solid fuels such as fuel wood, dung-cakes, crop-residue or other types of biomass for their cooking energy needs as per the Census 2011, Government of India). India’s SDG dashboard shows that only 43% of all Indian households had access to clean cooking fuels by end of 2018.

A recent Council for Energy Environment and Water study indicates that only 15% of the households surveyed (8500 households across 6 states) use LPG as their primary fuel for cooking, though this is up from 5% in a previous survey conducted in 2015. In addition, despite the connections, the average annual refill under Pradhan Mantri Ujjwala Yojana is as low as three cylinders, while the national average is approximately seven refills per year. This is primarily due to access and affordability of LPG cylinders. Low utilisation/refill rates pose a risk to attaining the intended benefits of the scheme and pose a risk of pushing the users back to traditional cookstoves.

Cooking on highly inefficient traditional stoves using solid fuels leads to life-threatening levels of household air pollution, resulting in over 1.3 million premature deaths in India as per WHO estimates. It also leads to environmental impacts at the macro level due to deforestation and black carbon emissions.

Moreover, India is the world’s second-largest LPG importer. LPG consumption is expected to grow to 30.3 million tonnes by 2025 and 40.6 million tonnes by 2040. If the government continues to provide subsidy on LPG refills, this will put a lot of burden on exchequer. As per the petroleum ministry, India is projected to spend over €2.7 billion on LPG imports in year 2019-20 to fulfil the growing demand (https://www.ppac.gov.in/content/212_1_ImportExport.aspx).

Thus, it is imperative that the government redoubles its efforts in addressing the cooking energy needs through cleaner options. Despite the LPG programme, there are certain districts in India, where reliable supply and affordability of LPG refills is still an issue to be resolved.

Previously, the Indian government has worked on multiple other cooking technologies and programs, including biogas, biomass cookstoves and solar cooking. National level programmes on biogas and biomass cookstoves, particularly in rural areas have been going on for a long time, but the numbers are conservative. A couple of pilots on solar PV induction

have also been tested in rural areas, however this option is less financially and operationally viable.

The Government of India has conveyed India's intentions to promote e-cooking, including through solar (and other RE technologies). However, there is a gap in broader understanding on the supply and demand factors, which are crucial for promotion and adoption of e-cooking in India. With the rising penetration of e-cooking, Brookings India estimated that culinary power demand may add 48 to 72 billion units of consumption by 2030. The projection was subject to uncertainties related to service demands, technologies, policy allocations and enabling infrastructure.

To better understand the various challenges and opportunities of e-cooking, GIZ's IGEN-Access II is planning to conduct an assessment of e-cooking in India. Multiple factors including market analysis, user preferences and behaviours, grid readiness will be explored and studies, with some potential pilots. The objective is to study to understand markets and user behaviour towards e-cooking in peri urban and urban areas. The study will focus on a market analysis of e-cooking appliances - in particular induction cook tops and e-cookers/rice cookers - in India to assess the supply side and understand the challenges, sales, trends and market conditions.

2. Tasks to be performed by the contractor

A market assessment of e-cooking is crucial to understand how the market currently looks like in India and to evaluate its potential and challenges. Therefore, a market analysis on e-cooking appliances (induction cooktops and e-cookers/rice cookers) will explore the market in detail and provide important insights. The findings shall assist the Government of India to take informed decisions for supporting initiatives for e-cooking. The main beneficiaries of the results will be MNRE as well as other relevant ministries and departments like NITI Aayog, Ministry of Power and other state departments.

The contractor is responsible for providing the following services and deliverables:

- Market assessment of e-cooking in India through primary and secondary research to assess and understand the supply side
- Findings and results shall be used for a comprehensive market analysis study that comprises between 40-60 pages (without possible annexures) and is written in a clear and understandable manner
- Prepare an infographic and a doodle video with the key findings

Primary research

The primary research will be conducted in 10 states covering all regions of India (north, south, west, east, north-east). The following list gives a tentative overview of the states:

- Tamil Nadu
- Karnataka
- Andhra Pradesh
- Delhi
- Uttar Pradesh
- Maharashtra
- Gujarat

- West Bengal
- Odisha
- Assam

The selection of the states might still be changed as the contractor will conduct 5 in-depth interviews with the main suppliers (based on sales) of e-cooking appliances in India to get a first overview of the market. The focus will be on induction cooktops and e-cookers as they can be seen as an alternative for other cooking methods like LPG or traditional cookstoves. Once the states have been finalised, the contractor is expected to carry out in-depth interviews (specific content and interviewees to be discussed with GIZ beforehand) with the following stakeholders at the national level:

- 5 interviews with the top 5 manufacturers of e-cooking appliances in India to understand their sales, the historic development of e-cooking in India and the future trends and plans.
- At least 3 interviews with different retail chains such as Tata Chroma, Reliance Digital, Vijay Sales. The selection will be done in consultation with GIZ.
- At least 3 interviews with different online sellers such as Amazon, Flipkart or Snapdeal. The selection will be done in consultation with GIZ. In those interviews the contractor will focus on the online market for e-cooking appliances.
- At least 5-8 interviews with different social enterprises to focus on rural areas and the (potential) role of e-cooking appliances in those areas.

The interviews will be used to get an assessment of the market from the various stakeholders. The data from these interviews will be used in the different section of the study (details below). The bidder is expected to explain its approach in conducting the interviews and the focus.

Besides the interviews, the contractor needs to conduct surveys and analyse the data. The contractor needs to outline the data collection process with GIZ beforehand and also share the questionnaires. GIZ will provide feedback which needs to be incorporated. The surveys will be done with retailers across the 10 chosen states. The procedure in choosing the retailers is as follows:

- In-depth interviews with 3 distributors in each of the states (total number of interviews with distributors = 30). If a state wise approach is not possible, then an interview for a region can be done.
- Based on the interviews with the distributors, at least 2 wholesalers operating under each distributor will be interviewed. Across these wholesalers, the top two and bottom two clusters (in terms of sales) will be identified. Within these clusters at least 10 retail outlets/ local shops will be chosen for an in-depth survey. Similar surveys will also be carried out for 20 retail outlets in the 2 major cities within the state. Thus, the total number of surveys per state = 80. The surveys will focus on the sales, customers, strategy, potential and challenges.

The approach above is indicative and the consultant can suggest additional steps that could enhance the output and understanding of the market. In the bid, the bidder is required to explain their approach in detail. The surveys can be conducted via face-to-face or telephone. The bidder is expected to explain the approach to conduct the surveys. Additionally, along with the proposal, the bidder shall provide key questions and the structure of the questionnaire as an example for the surveys with the retailers.

Market analysis study

Based on the primary research above as well as some additional secondary research, a final study needs to be submitted to GIZ. The primary research as well as the additional secondary research need to be designed in a way to address the section mentioned below. The final study is expected to cover the following content (indicative) and requirements:

- Clear layout with illustrative figures where needed; logical structure with clear messages delivered to the target audience; precise formulations; very good writing style (in English); use of appropriate language (no jargon, technical terms are explained) to avoid misunderstandings
- Contents, list of abbreviations, introduction of authors, acknowledgements
- Executive summary
- Introduction
- Methodology and approach
- Types of e-cooking appliances in the markets and prominent suppliers, including price points, recurrent costs and geographic area where appliances are sold
- Comparison of the overall efficiency (conversion, cooking, etc.) of e-cooking options (induction cooktops and e-cookers) vis-à-vis alternatives (LPG, PNG, biomass, biogas, etc.) and evaluate back-up options for e-cooking in case of grid failures
- Identification of the market segments and customer types where e-cooking options can be promoted, factoring in the various aspects like costs, financing options, user convenience, comparative advantage over other technologies etc. A comparison between urban, peri-urban and rural areas with the potential and challenges will be done
- End-user financing
 - Likelihood of end-user financing based on a comparison with the experience in end-user financing for equivalent technologies/solutions
 - Alternative options for promoting such technologies (e.g. monthly charges for a customer along the lines of LPG distribution)
- Channels for scaling up
 - Analysis of the existing and new delivery chains and agencies which can be explored for scaling up adoption of these appliances
- Conclusion (including outlook to future and what the e-cooking market is lacking)
- References
- Annexures

The key findings of the market assessment shall be summarized in an infographic and audio-visual with the following requirements. The format of the infographic shall be in A3, but can be changed in consultation with GIZ. The doodle video shall have a length of up to 2:30 mins. The language for both assignments is English. The specific content will be decided once the findings from the market assessment are clear. The objective of both assignments is to provide a clear and comprehensive overview of the market assessment with its results.

Timeline

Due to the on-going Covid-19 pandemic and its effects, the bidder is asked to provide details on the strategy and how the effects can be mitigated. The primary research and especially the surveys could be affected by the current restrictions. Hence the bidder is asked for the

approach in how this can the data collection can be done. Also other potential risks and mitigation measures shall be described in the bid.

An inception meeting after the contract is concluded as well as monthly meetings or update calls (including minutes of the meetings between 2-3 pages) are mandatory. In the inception meeting, the contractor is required to give a presentation on the approach, methodology, details on schedule and milestone and discuss the assignment with GIZ. An inception report (15 - 20 pages) will be sent to GIZ within 2 weeks afterwards. Furthermore, GIZ will provide a project monitoring sheet to the contractor. The contractor is responsible to fill in the sheet and send an updated version at the end of each month to GIZ.

Certain milestones, as laid out in the table below, are to be achieved by certain dates during the contract term, and at particular locations:

| Milestone | Deadline/place/person responsible |
|--|---|
| Inception Meeting | Within 1 week of signing the contract |
| Present findings of interviews with top 5 manufacturers and finalise list of 10 states | 1 st month from the start of the contract, New Delhi |
| Presentation and report on the implementation status of the project (5-8 pages) | 2 nd month from the start of the contract, New Delhi |
| Update results and findings with presentation and report on the implementation status of the project (5-8) pages; finish data collection | 3 rd month from the start of the contract, New Delhi |
| Interim study | 4 th month from the start of the contract |
| Final study, doodle video and infographic | 6 th month from the start of the contract |
| Present findings at roundtable/workshop | New Delhi, last quarter of 2021 |

Period of assignment: 6 months from the date of the contract (from September 2020 until February 2021).

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).

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.

Other specific requirements

The bidder is required address the role of women in the proposal (gender equality) and how it would be taken into account in the market analysis later onwards. Hence, the bidder shall outline how it would address the role of women with regard to end-user financing for instance.

Project management of the contractor

The bidder is required to explain its approach for coordination with the GIZ project.

- The contractor is responsible for selecting, preparing, training and steering the experts (national, short and long term) assigned to perform the advisory tasks.
- 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 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; 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.

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 AVB:

- Service-delivery control
- Managing adaptations to changing conditions
- Ensuring the flow of information between GIZ and field staff
- Contractor's responsibility for seconded personnel
- 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

4. Personnel concept

Eligibility Criteria for Firm

- The bidder requires an average turnover over the last three financial years of at least 82000 Euro (or equivalent in other currencies) per year and must have employed, as on the 31.12. 2019, at 10 persons full time. In the case of a consortium, the lead agency should meet the stated criteria.

- The bidder has experience in managing high value contracts (at least 5 projects; each, larger than 20,000 Euro or equivalent) from comparable organisations.
- At least 5 reference projects in market assessments of consumer durables and 3 reference projects in primary research (including surveys and interviews), secondary research and statistical analysis
- Experience of min. 5 years in working in market assessment related to cooking appliances, consumer durables or other household based electronic equipment.
- Experience of min. 10 years in analysing primary and secondary data and writing thorough reports.
- Experience of min. 5 years in executing primary surveys across large samples.
- Experience of min. 5 years in working and managing projects pan-India

If the bidder is a consortium, then they must provide the signed agreement/letter from the consortium partner, highlighting the willingness to collaborate.

Consortium guidelines –

- Consortium with other firms is allowed. All the partners must be onboard at the time of bidding.
- The lead partner must be legally registered entity in India. The contract will be issued in favour of Lead Partner and in INR only.
- The bidder can hire the services of freelance consultants.
- Subcontracting the said assignment to different agency/outsourced agency is not allowed
- In case of entering into a consortium. The agency must submit the following documents within technical proposal.
 - a. **Name of Lead Partner (first party)**
 - b. **Name of the Firm with whom the consortium is formed**

Team

The bidder is required to provide personnel who are suited to filling the positions described, on the basis of their CVs (see Chapter 6), the range of tasks involved and the required qualifications. Only personnel that is listed by the bidder in the proposal can conduct work for this project. In case the bidder wants to use other personnel during the project, it needs approval from GIZ.

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

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 short-term experts
- Regular reporting in accordance with deadlines
- Provide expertise to the project team on market research, research design and methods

Qualifications of the team leader

- Education/training (2.1.1): University qualification (German 'Diplom'/Master) in a relevant field (RE, economics, engineering, etc.)
- Language (2.1.2): Good business language skills in English
- General professional experience (2.1.3): 20 years of professional experience in the renewable energy sector or market assessment in consumer durables or electronics
- Specific professional experience (2.1.4): 10 years in clean cooking, e-cooking or market assessment of electronic products
- Leadership/management experience (2.1.5): 10 years of management/leadership experience as project team leader or manager in a company

Expert 1

Tasks of expert 1

- Identify available e-cooking products and suppliers to provide accurate picture of the Indian market based on several parameters such as prices, performance and comparison to other cooking alternatives
- Develop appropriate research design for the study, including primary and secondary research and conduct interviews with stakeholders
- Analyse e-cooking market based on gathered data to give accurate assessment
- Identify end-user finance options and channels for scaling up e-cooking
- Prepare and write market analysis study in a clear and logical manner
- Flexible and able to multitask; can work within an ambiguous, fast-moving environment, while also driving toward clarity and solutions; demonstrated resourcefulness in setting priorities and guiding investment in people and systems

Qualifications of expert 1

- Education/training (2.2.1): University qualification (German 'Diplom'/Master) in engineering, economics or related field
- Language (2.2.2): Good business language skills in English
- General professional experience (2.2.3): 10 years of professional experience in conducting market research studies
- Specific professional experience (2.2.4): 5 years in clean cooking, e-cooking or consumer durables
- Leadership/management experience (2.2.5): 5 years of management/leadership experience as project team leader or manager in a company
- Others (2.2.8): very good skills in preparing and writing market research reports

Expert 2

Tasks of expert 2

- Design strategy for a market analysis with suitable methodology, including interviews and surveys
- Brief short-term experts on data collection and survey
- Analyse e-cooking market based on gathered data to give accurate assessment
- Process and prepare data in a meaningful, understandable and visual appealing way
- Prepare and write market analysis study in a clear and logical manner
- Flexible and able to multitask; can work within an ambiguous, fast-moving environment, while also driving toward clarity and solutions; demonstrated resourcefulness in setting priorities and guiding investment in people and systems

Qualifications of expert 2

- Education/training (2.3.1): University qualification (German 'Diplom'/Master) in statistics/economics
- Language (2.3.2): Good business language skills in English
- General professional experience (2.3.3): 6 years of professional experience in planning and conducting market analysis
- Specific professional experience (2.3.4): 5 years of experience in using statistical analysis tools
- Leadership/management experience (2.3.5): 3 years of management experience as project team leader or manager in a company
- Others (2.3.8): Clear understanding of qualitative and quantitative survey techniques

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, partner- and client-focused working methods
- Interdisciplinary thinking

Short-term expert pool

Tasks of the short-term expert pool

- Conduct survey and data collection
- Support primary and secondary research for market analysis
- Support in processing data

Qualifications of the short-term expert pool

- Education/training (2.6.1): graduation in any relevant subject
- Language (2.6.2): good language skills in English and local language
- General professional experience (2.6.3): 5 years of experience in market research
- Specific professional experience (2.6.4): 3 years of experience in conducting primary surveys

The contractor is expected to use a team of short-term experts. In the bid, the bidder is expected to explain the approach and how many short-term experts will be used. CVs of the short-term experts should be shared with the proposal for evaluation.

5. Costing requirements

Assignment of personnel

Team leader: On-site assignment (in India) for 10 expert days

Expert 1: Assignment in India for 45 expert days

Expert 2: Assignment in India for 30 expert days

Short-term expert pool: total 60 expert days

The total duration of the assignment is six months from the signing of the contract.

The selection process has some pre-selection criteria for the bidders. Please refer to the bidding guidelines for details. The bidders who are unable to meet the pre-selection criteria will not be evaluated any further. Hence, the bidder will have to provide all the necessary documents/ evidence to meet the pre-selection criteria. The pre-selection process will be followed by the technical evaluation followed by the financial assessment.

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.

Other costs

- Please specify any additional costs

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 English (language).

The complete bid shall not exceed 15 pages back to back (excluding CVs and company documents).

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. The CVs 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).

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

The shortlisted candidates may be invited for a presentation in GIZ Delhi Office within 40 days after the last date for submission of the proposal. If a presentation in GIZ Delhi office is not possible due to certain circumstances (e.g. Covid-19 and travel restrictions) this meeting might be conducted virtually.

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.

GIZ does not pay for the cost of a software license or its renewal.

GIZ honors intellectual copyrights and strictly prohibits any copyright violations and plagiarism; The bidder ensures that GIZ staff is briefed continuously on the progress of the project and informed immediately on any changes whatsoever (e.g., delays, availability of information, etc.);

The bidder has to maintain the confidentiality of the data. The data/information/findings/outputs and any other classified information collected under this assignment shall not be used by the bidder anywhere and in any manner without GIZ permissions. It is not encouraged that based on the information collected through the assignment any research work is conducted with an intention to publish research papers and perform thesis work in an individual capacity;

Timelines shall strictly adhere, and delay in any of the deliverables shall be reported and aligned with GIZ in advance.