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

Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH

Terms of Reference (ToR) for engaging a consultant/firm to develop the standards for densified biomass in the Indian context.	**Project number/ cost centre:** **17.2166.1-001.00**

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0. List of abbreviations

AVB	General Terms and Conditions of Contract (AVB) for supplying services and work 2018
ToRs	Terms of reference
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit
BMZ	Economic Cooperation and Development
GHG	Green house gases
MNRE	Ministry of New and Renewable Energy, Government of India
SSS-NIBE	Sardar Swaran Singh National Institute of Bio-Energy

1. Context

The Indo-German Energy Programme (IGEN Access - II) is a bilateral cooperation project 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. IGEN Access - II aims to improve the energy supply in rural areas of selected federal states.

India is envisaged to play a key role in the global energy scenario as India is likely to account for 25% of the rise in global energy demand by 2040 (International Energy Agency). India's energy sector is set for a sea change with recent developmental ambitions of the Government of India. India plans to achieve 450 gigawatts (GW) of renewable energy installations, by 2030, 24X7 Power for all by 2022, 10% reduction of oil and gas import dependence by 2022 (from 2014-15 levels). Provision for ensuring of clean, reliable and affordable energy for all sectors such as transport, cooking, agriculture, industry, MSME etc will certainly make India's energy sector development friendly and secure.

India has significant biomass resources, which traditionally has contributed to a third of its primary energy requirement, primarily towards cooking and water heating in rural areas. Such resources can however be utilized more efficiently to generate energy, which is not only renewable and carbon neutral, but also contributes to energy security and resilience of local communities. Further, such projects generate electricity that can be scheduled/is dispatchable due to its high availability and plant load factor. The energy generation potential from the biomass surplus from agro-residues1 alone is estimated at 25 GW (electricity from combustion/ gasification) or 51.53 Billion Liters (bioethanol for transport). To promote the development of such biomass energy projects, the Ministry of New and Renewable Energy has provided both capital subsidies as well as feed-in tariffs over the past two decades, which has resulted in a capacity addition of 9.8 GW to date.

However, several project developers have indicated their inability to operate at full capacity primarily due to feedstock challenges, both in terms of availability as well as pricing, despite some state governments defining catchment areas for specific biomass projects. In future, there are also plans to utilize processed biomass for cogeneration, different industrial processes like cement, MSME, SMEs etc.

Further, the non-utilization of these resources often leads to burning of such crop residues, especially in North India, resulting in significant and potentially hazardous air quality levels.
Beyond the energy usage of Biomass there are multiple other usages where Biomass can be utilized for e.g. Pulp, paper and plywood industries etc. Utilization of the waste biomass is key to prevent burning of wasted crop residue on fields, hence preventing GHG emissions and air pollution.

[1] Agro-residues - 150 MT (MNRE); 178 MT (TIFAC, 2018); Agro + Forest residues - 249 MT (Biomass Energy Atlas, IISc, 2005)

To reduce the above-mentioned risks to projects and mitigate the effects of crop residue burning on the environment, MNRE is keen to develop the standards for different densified biomass products as well as the standards for the supply chain.

2. The Areas of Activities for IGEN Access-II Programme

IGEN Access-II Programme is geared to specialists and managers at state-run and private energy companies, to providers of financial and other services and to private and public training facilities and networks. Acting through these intermediaries, the module will indirectly reach the rural population who will then benefit from a modern, environment-friendly, high-quality energy supply, irrespective of gender, age, income or ethnicity.

It is expected that implementing the below-mentioned measures will increase the share of RE in rural areas of the partner federal states, and thus boost diversification in the Indian energy matrix (results hypothesis). In the long term, expanding RE will reduce the need to operate conventional power plants and thus increase their capacities. The upshot: fuel savings and reduced emissions of climate-noxious gases. In this way, the project will make another important contribution to a sustainable and above all eco-friendly energy supply in India, thus contributing directly to the achievement of the programme objective.

The module aims to improve rural energy supply in selected Indian federal states. Therefore, one of its key elements centres on strategic advice for decision-makers (e.g. relevant Ministries, State Nodal Agencies and other departments) regarding the initiation of a cross-sector energy planning process for rural areas. Secondly, the module will work on improving overall sector environment by facilitating access to finance, improving capacities and awareness for demand and supply side stakeholders. In addition, development of concepts to explore role of decentralised renewables in special conditions, like disaster prone areas, livelihood generation etc is also planned. All this will lead of more affordable and reliable access of power in rural areas.

The overall module objective of IGEN Access-II programme: The energy supply is improved in rural areas of selected federal states. The achievement of the module objective can be measured using the following indicators:

1. Implementation of one component from the energy plans (e.g. remuneration system for integrated decentralised energy systems, subsidy programme for promoting electric mobility) is funded in 2 federal states respectively.
2. The number of RE systems sold to rural users by module-backed providers has quadrupled.
3. 4 recommendations elaborated by the module for improving the quality of the energy supply under certain specific conditions are implemented.
4. 40% of women-led Village Level Enterprises (VLEs) that disseminate RE confirm that their standard of living has improved by two points on a scale from 1 to 5.

3. Tasks to be performed by the contractor

The contractor is responsible for providing the following services

Work package 1: Creation of Stakeholder advisory group and conducting stakeholder consultations

Consulting the various stakeholders in the biomass sector is an important aspect as far as the development of biomass standards are concerned, in consultation with NIBE. The objective is to get the holistic views from each of the stakeholders to take the stock and review of these standards in the light of changes in the external environment such as legislation and regulations, advances in the best practices, changes in scientific understanding and sectoral views. The proposed stakeholder advisory group may have(but not limited to) the following representatives from :

- Forest department
- Agriculture department and farmers' associations
- Traders and Trade association
- End users/Consumers
- Individual experts/consultants
- Accreditation/certification body/ies
- Academia and research institutions
- Environmental/conservation/Social NGOs

Work Package 2: Development of biomass standards, related guidelines and recommendations

Provide advice to NIBE/GIZ on attempts to define voluntary standards,guidelines and eventually begins the process towards globally recognized standards and guidelines. Also, to provide an effective and verifiable process that Biomass Producers can use to assure End-users that feedstock is legally and sustainably sourced with the intact quality.

- Pre-processing: Develop the guidelines and standards for pre-processing activities like on collection, storage of biomass, including
    - Feedstock compliance standards and guidelines: sets out the principles, criteria and indicators to be met by participating biomass producers
    - Verification of feedstock standards and guidelines: sets out how Biomass Producers verify feedstock inputs
- Plant performance and process: Develop the guidelines and standards for setting up or running the plants for biomass densification processes, including
    - Plant and machinery standards and guidelines: sets out the technical standards and guidelines for the plant and machinery used to produce the biomass products.
- Product: Develop and highlight best practices on guidelines/standards for the finished densified biomass products. Additionally

  - Combine and consolidate the biomass product (fuel) standards developed by SSS-NIBE with the newly identified process standards
  - Specific chapter on to summarise the standards of biofuels depending upon its applications which includes Boilers, Gasifiers, Community level biomass cookstoves etc.
  - Develop guidelines for critical aspects like Emissions, safety and security concerns etc.
- Requirements for certification bodies: defines how the Certification Body assesses that the evaluation undertaken by organisations meets the requirements
- Present the draft to stakeholder advisory group
  - Convene workshops of key stakeholder organizations and subject matter experts to resolve the public comments and draft the standards/guidelines (and testing protocols as needed).
- Develop a list of proposed actions to promote the adoption of the draft voluntary biomass performance standards
- Submit the standards/consolidated report

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

Milestone	**Deadline/place/person responsible**
Creation of stakeholder advisory group	1 month from the signing of the contract
Development of standards and related guidelines for Densified biomass	7 months from the signing of the contract
At least 3 workshops conducted to gather stakeholders' feedback	During the assignment.

Period of assignment: **From Nov 2021 until June 2022**.

4. Concept

In the bid, the bidder is required to show how the objectives defined in Section 3 are to be achieved, if applicable under consideration of further specific method-related requirements (technical-methodological concept). In addition, the bidder must describe the project management system for service provision.

Technical-methodological concept

Strategy: The bidder is required to consider the tasks to be performed with reference to the objectives of the services put out to tender. Following this, the bidder presents and justifies the strategy with which it intends to provide the services for which it is responsible (see Section 3).

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 Section 3 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 Section 3.

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

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 (international and national, short and long term) assigned to perform the advisory tasks.
- The contractor makes available 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 General terms and conditions of the Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH from 2018
- During the period of assignment, the organisation is expected to report on a fortnightly basis regarding the progress on the assignment. The organisation is expected to develop a Project Monitoring Sheet (PMS) for regular tracking of progress made on the assignment. The format of PMS will be shared with the organisation.
- The organisation will report to a Technical Expert (to be nominated) from IGEN Access-II programme of GIZ India.

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

- Inception report
- Contributions to reports to GIZ's partner (MNRE/SSS-NIBE)
- Brief monthly reports on the implementation status of the project (2-3 pages)

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.

5. Criteria for Eligibilty of firms

Bidders have to submit the documentary evidence for the criteria's specified below.

- Experience of projects on biomass handling, collection, processing and other logistics
- Experience of drafting institutional framework
- Experience of developing recommendations on policy reforms
- Experience of projects on market assessment.

The bidder needs to demonstrate following ability through adequate references and documents.

- Provide evidence of at least 5 reference projects / assignments in "Biomass energy sector" with at least 5 references "in Setting up Institutional structure" in the last Five years. The commissioning value of the reference project must be a minimum of 10000 euros.
- Average annual turnover for the last three financial years for the firm should be more than 50000 euros. Demonstrate ability to work in a highly collaborative environment with teams that are subject to time and skill constraints.
- The bidding firm/consortium should have at least 10 persons working as their employees.
- It is also desirable that the firm should have experience of development projects (ODA financed). This will be considered while evaluating the eligibility of the bidding firm for this assignment.

6. Personnel concept

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

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

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

Qualifications of the team leader

- Education/training (2.1.1): University qualification (Master) in Management, Energy and/or Agriculture
- Language (2.1.2): Good business language skills in English and Hindi.
- General professional experience (2.1.3): 15 years of professional experience in the Power/Energy sector
- Specific professional experience (2.1.4): 10 years in power generation
- Leadership/management experience (2.1.5): 6 years of management/leadership experience as project team leader or manager in a company
- Regional experience (2.1.6): 5 years of experience in projects in Asia (region), of which 2 years in projects in India (country)
- Development Cooperation (DC) experience (2.1.7): 6 years of experience in DC projects
- Other (2.1.8): Experience of developing policy papers which has been adopted.

Sector Expert

Tasks of expert 1

- Reports to Team Leader
- Support team in biomass sector related scenario building
- Technical feasibility of the solutions
- Reviewing the standards available internationally
- Support researcher/analyst in developing documents

Qualifications of expert 1

- Education/training (2.2.1): University Degree (Master) in Technical Sciences, Engineering, Mechanics, Energy and/or Agriculture, or related studies

- Language (2.2.2): English and Hindi
- General professional experience (2.2.3): At least 10 years of professional experience in the agriculture, energy efficiency and/or renewable sectors
- Specific professional experience (2.2.4): At least 5 years of hands-on experience in solid biomass production
- Leadership/management experience (2.2.5): 4 years of management/leadership experience as project team leader or manager
- Regional experience (2.2.6): 5 years of experience in projects in Asia (region), (International working experience in projects in any developing nation would be an added advantage)
- Development Cooperation (DC) experience (2.2.7): Not applicable
- Other (2.2.8): Excellent interpersonal and diplomatic skills, as well as the ability to communicate effectively with all stakeholders and to present ideas clearly and effectively

Junior sector expert cum Research Analyst

Tasks of expert 1

- Reports to Team Leader
- Support in the implementation of the project
- Support in the monitoring and evaluation of the assignment
- Reviewing the standards available internationally
- Coordination with the stakeholder advisory group

Qualifications of expert 1

- Education/training (2.2.1): University Degree(Master) in Technical Sciences, Engineering, Mechanics, Energy and/or Agriculture, or related studies
- Language (2.2.2): English and Hindi
- General professional experience (2.2.3): At least 6 years of professional experience in the agriculture, energy efficiency and/or renewable sectors
- Specific professional experience (2.2.4): At least 3 years in training materials development and/or conducting training and capacity building activities for farmers, agricultural processors and/or solid biomass producers
- Leadership/management experience (2.2.5): Not applicable
- Regional experience (2.2.6): Not Applicable
- Development Cooperation (DC) experience (2.2.7): Not applicable
- Other (2.2.8):
    - Demonstrated expertise in solid biomass production technologies, processes and constraints
    - Knowledge with solid biomass market development dynamics;
    - Advanced training and facilitation skills, mastery of interactive participatory training techniques and adult learning methods;

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

7. Costing requirements

Assignment of personnel

Team leader: Assignment in country of assignment / home country for 15 expert days

Expert 1: Assignment in country of assignment for 20 expert days

Expert 2: Assignment in country of assignment for 35 expert days

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 and list the expenses separately by daily allowance, accommodation expenses, flight costs and other travel expenses.

It is also estimated that the above 3 experts would undertake 4 round trips to the site of the implementation of the concept they would propose. However, it is encouraged that the bidding firm should propose detailed travel requirements that is needed to implement the overall project viz. different experts and the numbers of travel to be taken by each.

Workshops, training

The contractor implements the following workshops:

- At least 3 workshops with the stakeholder advisory group

Other costs

- Cost for organising the workshops/events.

8. Inputs of GIZ or other actors

N/A

9. Requirements on the format of the bid

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

The proposal should contain a very brief company profile followed by a detailed approach and methodology to execute the project (mentioned above). The proposal should also contain the project timeline highlighting milestones and deliverables. Please elaborate the roles and responsibilities of the different team members in the proposal.

The complete bid shall not exceed 35 pages (excluding CVs & other supporting company documents)

The CVs of the personnel proposed in accordance with Section 5 of the ToRs. The CVs shall not exceed 03 pages. The CVs must clearly show the position and job the proposed person held in the reference project and for how long. The CVs should be submitted in English (language) only.

- The template for financial quotes has been attached with the tender documents. The potential bidders are advised to follow the attached budget template.

- The bidder is expected to keep separate detailed budgetary provision for flights, other (local/national) travel costs, per diems and accommodation costs for their team.

- Consideration of local resources should be clearly outlined in the proposal. Local resources could be used for coordination purposes and local logistics.

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

10. Further Requirements

- All reports, slides, presentations and other media and information material need to be submitted to GIZ in soft copy and in hard copy as required.
- Timelines shall be strictly adhered and delay in any of the deliverable shall be reported and aligned with GIZ in advance.
- The bidder may be required to make technical presentation to GIZ before final selection at GIZ office. In case it is required, the bidder will be informed in advance.

Note:

- In order to select a suitable organisation, GIZ may invite shortlisted organisations to present their methodology and approach to a committee which will help GIZ in making final selection.
- It may also be foreseen that GIZ may consider termination of the contract prematurely in case of limited participation or due to any other unforeseen events. All communications through any media (e.g. print, newspaper, journals, and any other mass/social media) must be approved by the responsible person of GIZ

11. Annex

Specific Conditions pertain to Covid- 19 Measures

The specific conditions pertain to Covid- 19 measures are integral part of contract and shall act as binding under special agreement and interpreted along with GTCC.

In addition to the provisions as detailed in clause 09 of The General Terms of Contract governing the delivery of works and services commissioned by **Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH (local),** the Consultant confirms that he/she accepts the Consulting engagement with full knowledge and understanding of the travel and other requirements of the engagement including specifically the need, on the part of the Consultant, to take all required precautions (including prevention and risk mitigation measures) against the risks arising from the ongoing Novel Corona Virus (CoVid - 19) Pandemic

The Consultant shall provide to the GIZ an RT-PCR Negative Test Report for Novel Corona Virus (CoVid - 19) prior to starting the Consulting Engagement and shall additionally comply with the following at all times in the course of the Consulting Engagement:

1. Obtain Medical and other Insurance Cover in respect of the Novel Corona Virus (CoVid - 19) Infection/Disease and consequences thereof – (GIZ will reimburse the insurance cover up to 5000 Indian Rupees on lumpsum basis)

2. Strictly follow and comply with the prescribed Mask, Hand Washing/Sanitization and Social Distancing Protocols.

3. Take safe and secure mode of transportation.

4. Observe all local restrictions/precautions as applicable for the specific areas of travel covered by the Consulting Engagement.

5. If eligible, get vaccinated against the Novel Corona Virus (CoVid - 19).

6. Install and maintain as active at all times the Government of India's Arogya Setu App.

7. If exposed to any active case of Novel Corona Virus (CoVid - 19) to take all steps as advised by the Government of India's advisories in such case.

8. If feeling unwell and experiencing any of the symptoms of Novel Corona Virus (CoVid - 19) infection - to take all steps as advised by the Government of India's advisories in such cases including but not limited to getting an RT-PCR Test for Novel Corona Virus (CoVid - 19), self-isolation, notifying the GIZ and also the concerned local Novel Corona Virus (CoVid - 19) isolation/treatment facility.

9. Other compliance as may be notified by the GIZ and the Government of India from time to time in relation to Novel Corona Virus (CoVid - 19) infection/disease.

Furthermore, The Consultant accepts the Consulting Engagement on a best and informed judgement basis with full knowledge of the tasks to be performed, the place of performance and the precautions and safeguards to be reasonably taken try the Consultant to mitigate all types of risks associated with the said Consulting Engagement. The Consultant undertakes the Consulting Engagement at his/her own risk and responsibility and shall not, under any circumstances and at any time, be entitled to assert any liability or other claims whatsoever against the GIZ, its Management, Officers and Employees for any consequences or risks or harm that may arise to the Consultant in the course of or as a consequence of undertaking the Consulting Engagement or any actions or consequences arising in relation to such Consulting Engagement.