

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

CLUSTER MAPPING STUDY OF INDIAN SECONDARY STEEL SECTOR AND IDENTIFICATION OF MINIMUM 2 CLUSTERS PER SUB SECTOR FOR FURTHER DEEP DIVE ACTIVITIES **Project number/ cost centre:P.18.2256.8-001.00**

0.	List of abbreviations	2
1.	Context.....	3
2.	Tasks to be performed by the contractor	4
3.	Concept.....	5
	Technical-methodological concept	5
	Project management of the contractor.....	6
	Criteria for Eligibility of Firms.....	7
4.	Personnel concept	7
	Team leader	7
	Expert 1.....	8
	Short-term expert pool with minimum ..., maximum ... members	9
5.	Costing requirements	9
	Assignment of personnel	9
	Travel.....	10
6.	Inputs of GIZ or other actors	10
7.	Requirements on the format of the bid	10

0. List of abbreviations

AVB	General Terms and Conditions of Contract (AVB) for supplying services and work 2018
BEE	Bureau of Energy Efficient
PAT	Perform Achieve and Trade
SDA	State Designated Agency
Toe	Tonnes of oil equivalent
ToRs	Terms of reference

1. Context

GIZ is an international cooperation enterprise for sustainable development which operates worldwide, on a public benefit basis. GIZ is fully owned by the German Federal Government and implements development programs in partner countries on behalf of the German Government for achieving its development policy objectives.

The Federal Republic of Germany and the Government of the Republic of India have, under the Indo-German Technical Cooperation, agreed to jointly promote the “Indo-German Energy Programme” (IGEN) with the aim to promote energy efficiency/conservation, renewable energy, access to energy, etc. and in turn improve the environment/climate protection. The Energy Efficiency component of the IGEN (IGEN-EE) works in collaboration with the Bureau of Energy Efficiency, Ministry of Power for the implementation of the Energy Conservation Act (EC Act, 2001), focusing on energy efficiency and conservation.

A new project “Energy Efficiency in Industry and Data” is being commissioned by BMZ Germany. The main objectives of the project are:

- i. Capacity building of selected SDA's to promote energy efficiency in Non PAT industries
- ii. Providing Non-PAT secondary steel and pulp and paper industries with access to information on key energy efficiency processes and technologies
- iii. Institutionalization of peer to peer learning among SDAs and Non-PAT secondary steel and pulp and paper industry clusters
- iv. National Energy Efficiency dialogue for secondary steel and pulp and paper sector between policy makers, research institutions and business associations.

The steel industry in India is one of the most important segments of the manufacturing sector, contributing to the infrastructure development, housing and urbanization. In India, steel has an output multiplier effect of nearly 1.4 times on GDP and employment multiplier effect of 6.8 times (National Steel Policy 2017). In 2019, India was the second largest crude steel producer in the world, with total production of about 111 million tonnes of crude steel (MoS, Annual report 2019-20). The production of finished steel i.e. non-alloy and alloy/stainless stood at around 132 million tonnes, during the same period. India is also the largest producer of sponge iron or Direct Reduced Iron in the world and the third largest finished steel consumer after China and USA. The National Steel Policy 2017 aims to create 300 million tonnes of steel production capacity by 2030.

The Indian steel industry comprises mainly two sectors namely (1) Integrated Steel Plants and (2) Secondary Steel Plants. The large steel industries are covered under the mandatory programme PAT (perform, achieve and trade) of the Bureau of Energy Efficiency (BEE) under the Energy Conservation Act, 2001. The steel industries, having energy consumption levels (threshold limit) of 20,000 toe or more have been mandated to reduce their energy consumption as set by BEE.

Secondary steel sector contributes around 57% of the total steel production in India. The secondary steel sector includes several sub-sectors, namely sponge iron units, electric arc furnace (EAF), electric induction furnace (EIF), foundry, forging, rerolling, galvanized coil/ sheet, alloy steel, pelletizing units, etc. As of 2014-15, steel produced by secondary steel sector was 45 million tonnes and same is expected to increase to 70 million tonnes

by 2025, which is a 55% increase (FICCI report “Indian Secondary Steel Industry Opportunities- Challenges, 2015). Majority of units in these sub-sectors of secondary steel are MSMEs and are not covered under the PAT scheme, but as a group, they are large consumers of energy and there exists substantial scope for energy conservation in these sub-sectors. In many cases, the units are located in clusters, which provide a good opportunity to develop deep-dive cluster/sub sector based programs for efficiency improvements. In terms of performance, the lack of exposure and knowledge of modern technology has reduced the secondary steel sector to a moderately performing industrial sector with average margins, resulting in poor investment potential. In this context, sustainable and efficient methods of production along with necessary regulatory framework assume great importance. Secondary steel sector therefore offers significant energy saving potential by providing suitable technical assistance.

In view of this background, the objectives of this ToR are:

- i. Mapping of clusters under individual sub sectors of Secondary Steel sector in India
- ii. Identify and recommend minimum 2 clusters per sub sector to be selected for further deep dive activities

2. Tasks to be performed by the contractor

The contractor is responsible for providing the following services:

Deliverable: A report mapping the clusters of individual subsectors in Secondary Steel sector in India along with identification and recommendation for minimum 2 clusters per sub sector, to be selected for further deep dive activities.

1. Provide brief write up about the following sub sectors of secondary steel sector: sponge iron units, electric arc furnace (EAF), induction furnace (EIF), foundry, forging, rerolling units etc. and any other mutually agreed sub sectors;
2. Identification of the total number of plants/industries in each sub sector along with mapping of their geographical location (district level);
3. Provide information regarding name of industry, location, the total installed capacity, along with technology used, for individual clusters in each sub sector;
4. Classify the industries under each sub sector as Large, Medium, Small and Micro on the basis of their capacities;
5. Provide information regarding the raw material used and finished products for each cluster in individual sub sectors;
6. Provide information regarding the type and approximate quantity of fuel used by industries in each cluster of individual sub sectors;
7. Estimate total energy consumption of industries in each cluster of individual sub-sectors;
8. Range of thermal and electrical specific energy consumption for each cluster of individual sub-sectors;
9. Estimate the CO₂ emissions for each subsector and each cluster of individual sub sectors;
10. Provide information on contribution of each sub sector to INDIA's GDP;

11. Provide information regarding the various industrial associations for each cluster/sub sector;
12. Provide information regarding global leaders (countries) in technology having best specific energy consumption figures for the various sub sectors;
13. All estimates shall have clear, relevant and authentic sources of data, along with logical assumptions (whenever necessary) approved by BEE/GIZ;
14. Conduct telephonic/online consultations with relevant industrial associations/industry representatives on a sample basis (decided in consultation with GIZ/BEE) regarding level of awareness about energy efficiency measures and willingness to implement the same.
15. Identify minimum 2 clusters per sub sector on the basis of mutually agreed parameters to be selected for further detailed study;
16. All data provided in the report should be latest.

Timelines

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 of contract/release of work order
Cluster mapping report	Within 12 weeks of signing of contract/release of work order
Identification of minimum 2 clusters per sub sector	Within 13 weeks of signing of contract/release of work order
Finalization of report	Within 16 weeks of signing of contract/release of work order

Period of assignment: From April 2021 to August 2021.

In addition to Inception meeting, monthly meetings or update calls (including minutes of meetings) are mandatory. In the inception meeting, the contractor is required to give a presentation on the approach, methodology, details on schedule and discuss the assignment with GIZ.

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.

The bidder is required to describe its contribution to knowledge management for the partner and GIZ (**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 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

The bidder is required to submit CV for technical and administrative backstopper.

Criteria for Eligibility of firms

Commercial Eligibility Assessment

- Please provide legal status of your firm
- Average annual turnover of the agency for the last three financial years: at least 100,000 Euros
- Number of employees of the agency for the previous year: at least 100

Technical Eligibility Assessment

The bidder shall have reference projects with a minimum commission value of 20,000 Euros

- At least 1 reference projects in the secondary steel sector in last 3 years
- At least 1 reference projects in MSME sector in last 3 years

Technical Experience

- Minimum 15 years of experience in the field of energy efficiency in India
- Minimum 15 years of experience in MSME sector in India
- Minimum 10 years of experience in working with Bureau of Energy Efficiency

Regional Experience

- Regional presence with at least 4 offices in India

Experience of Development Studies (ODA Financed)

- Minimum 10 years of experience in Development project, with at least 3 projects related to industrial energy efficiency

4A. Personnel concept

The bidder is required to provide personnel who are suited to filling the positions described, on the basis of their CVs (see Chapter 5), 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): Masters in Engineering/Technology
- Language (2.1.2): Good business language skills in English and Hindi
- General professional experience (2.1.3): 20 years of professional experience in the sustainable development
- Specific professional experience (2.1.4): 15 years in energy efficiency field
- Leadership/management experience (2.1.5): 10 years of management/leadership experience as project team leader or manager in a company
- Regional experience (2.1.6): 15 years of experience in projects in Asia Pacific region, of which 10 years in projects in India
- Development Cooperation (DC) experience (2.1.7): 6 years of experience in DC projects
- Other (2.1.8): Experience of working with MSME sector will be an advantage

Team Member

Tasks of expert 1

- Conducting secondary research for data required to meet the objectives of the ToR
- Review of report
- Carrying out discussions

Qualifications of expert 1

- Education/training (2.1.1): Masters in Engineering/Technology
- 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 sustainable development
- Specific professional experience (2.1.4): 10 years in energy efficiency field
- Leadership/management experience (2.1.5): NA
- Regional experience (2.1.6): 10 years of experience in projects in Asia Pacific region, of which 5 years in projects in India
- Development Cooperation (DC) experience (2.1.7): 3 years of experience in DC projects
- Other (2.1.8): Experience of working with MSME sector will be an advantage

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

Tasks of expert 2

- Conducting secondary research for data required to meet the objectives of the ToR
- Analysis of collected data
- Preparation of report

Qualifications of expert 2

- Education/training (2.1.1): Masters in Engineering/Technology
- Language (2.1.2): Good business language skills in English and Hindi
- General professional experience (2.1.3): 5 years of professional experience in the sustainable development
- Specific professional experience (2.1.4): 3 years in energy efficiency field
- Leadership/management experience (2.1.5): NA
- Regional experience (2.1.6): 3 years of experience in projects in Asia Pacific region, of which 1 year in projects in India
- Development Cooperation (DC) experience (2.1.7): NA
- Other (2.1.8): NA

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

3. Costing requirements

Assignment of personnel

The assessment of required human days for the entire project is listed below:

Personnel	No of person days
Project Lead	15
Expert 1	53
Expert 2	85
Total person days	153

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.

4. Inputs of GIZ or other actors

GIZ shall help in steering the study along with implementation partner.

5. 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.

The complete bid shall not exceed 50 pages (excluding CVs & other supporting company documents)

The CVs of the personnel proposed in accordance with Chapter 0 of the ToR and shall not exceed 5 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.

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 on the aforementioned costing requirements. In the contract, the contractor has no claims to fully exhaust the days/travel/budgets. The number of day/travel and the budget amount shall be agreed in the contract as “up to” amounts. The specifications for pricing are defined in the price schedule.