

Terms of Reference

Technical Advisor on Energy Efficiency Policy and Programmes - International Consultant

Location: South Africa (international-based with two country visits to South Africa as agreed in advance with UNDP and Department of Energy)

Application Deadline: 09 October 2017

Category: Appliance energy efficiency; climate change mitigation; incentives

Type of Contract: Individual Contract (International Consultant)

Assignment Type: Assist with finalization of the business requirements related to the design of a product database for the national appliance standards and labelling project

Languages Required: English

Starting Date: (date when the selected candidate is expected to start): Early November

Duration of Initial Contract: 20 working days in the period 01 Nov 2017 – 31 October 2017

Background:

The South African government through the Department of Energy (DoE) in collaboration with the Department of Trade and Industry (the dti), and the United Nations Development Programme (UNDP) is implementing the project, *Market Transformation through the Introduction of Energy Efficiency Standards and the Labelling of Household Appliances in South Africa* (S&L Project). The project's objective is removing inefficient appliances from the South African market and encouraging adoption of new minimum energy performance standards (MEPS). The project forms an integral part of the measures/interventions designed to reduce electricity consumption and the carbon footprint of the residential sector. The project paves the way for the continuous introduction of energy efficiency improvements into the appliances and equipment industry.

The ability to measure the impact that a S&L programme is having on consumers, industry and the economy as a whole is crucial. Policy makers and implementing agencies can process market data, to: 1) Make informed decisions regarding the tightening of minimum energy performance standards (MEPS); 2) Introduce additional appliances to the programme; 3) Identify strengths and weaknesses in programme implementation to allow for corrective action; 4) Assist with M&E activities; 5) Provide inputs into national energy planning and energy efficiency policy; and, 6) Report on CO2 emission reduction targets.

This however, is only possible if a reliable data set is available. Collecting such data retroactively is not only difficult, it is time consuming, expensive, and requires the cooperation of all stakeholders. A proactive approach, where the required

data is collected utilizing a mandatory process of product registration and certification, is preferable as this is both cost-effective and reliable. The Department of Energy, who are implementing the programme, recognize that the most opportune time to introduce a mandatory reporting system is at project inception. To this end, an ICT service provider is in the process of being contracted to build a database and reporting system. This however, does not satisfy the full requirement, as the software developers will need to rely on appropriately defined business rules, which consider strategic and operational matters. With regards strategy, in order for data to be converted into meaningful energy information, it must be appropriate and complete. Achieving this will require the establishment of a functional relationship between the Department of Energy and the appliance industry. In other words, developing a reporting regime which is realistic and which does not place an unnecessary or excessive burden on the industry is likely to increase industry participation and support, and provides the moral basis for punitive action should industry fail to report. On operational design, recognising that S&L reporting has been undertaken in many countries around the world, many but not all, of the issues which may arise are not unique. Thus, international S&L practice and expertise should provide the local business analysts and the DoE with valuable insight, such as: 1) Distinguishing between ‘necessary’ and ‘nice to have’ data; 2) Guidance on data processing and reporting outputs; 3) Provide oversight and a ‘sounding board’ to the analysts and developers during the project; and, 4) Conduct an independent review and assessment of the system during beta testing.

UNDP is seeking to recruit an experienced S&L business analyst (BA) to support the development of the programme’s S&L database.

Requirements

The consultant must demonstrate strong knowledge and experience in the development and assessment of databases built specifically for appliance S&L programmes. Knowledge of the South African S&L programme will be an advantage.

Scope of Work

1. Undertake a review of the South African S&L programme to understand its current status, reporting frameworks and structures, and document the DoE’s and the other implementing partner’s, (such as the dti or department of environmental affairs) data requirements,
2. Identify appropriate and relevant examples of international situations (2 or 3), and present recommendations in the form of country case studies,
3. In cooperation with the local BA’s, produce the business rules for the software developers,
4. During the database development period, be available to answer questions and provide clarification as required. This requirement will be managed by the PM to ensure that any support requested remains reasonable,
5. Undertake a thorough review of the ‘beta’ database once it has been developed. The database development time is estimated to take 7 months.

Expected Outputs and Deliverables:

The consultant shall prepare and submit:

1. **Deliverable 1: Inception and Country Case Studies:** Having received and reviewed requested project documentation, develop the above report detailing the approach and requirements to deliver the business rules
2. **Deliverable 2: Country Visit:** Within two weeks of a country visit, deliver the final set of business rules
3. **Deliverable 3: Support:** Keep a written record of any support provided to the ICT development team
4. **Deliverable 4: Testing and Sign off:** Undertake detailed review and testing of the beta database to ensure that it meets the project requirements, before it goes into a 'live' environment. It is preferable that this is done in South Africa.

Institutional Arrangement:

The consultant will report to, and seek approval/acceptance of outputs from, the Project Manager, UNDP and the Department of Energy.

Payment terms:

Deliverables	Description	Proposed due date	Days	Payment Schedule
1. Inception Report and Case Studies Report	Outline of approach to develop business rules, as described in Deliverable 1	Within 2 weeks of appointment	4	20%
2. Business Rules	Signed off report detailing database business rules which are accepted by ICT service provider	Within 3 weeks of country visit	10	50%
3. Ad-hoc support	Be available to answer questions of clarification or opinion to the ICT development team as required	October 2018	6	30%
4. Testing and closure report	Beta version of software is tested, issues identified with suggested corrective action			



Duration of the Work:

The duration of the consultancy is 20 working days within the period November 2017 until October 2018, inclusive of two country visits

Duty Station:

The consultancy assignment will be home-based, with two trips to South Africa.

Required Skills and Experience:

The selection of consultants will be aimed at maximizing the overall qualities in the following areas [weighting applied to each quality is shown in brackets, summing to 100]:

- Proven 10 years' experience in the development of S&L programmes, with clear evidence of involvement in the development of reporting databases. Multi-country experience will serve as an advantage [50]
- Knowledge of the South African context and the South Africa S&L programme status. [10]
- Papers written (conference and academic) on the topic of S&L reporting specifically, and S&L programmes in general [10]
- A motivation letter (up to 2 pages) detailing an approach and why the candidate is suited for the assignment [20]

Education:

- Master's degree in Engineering, Energy and Developmental Studies, Physics, Business Management or relevant field [10]

Language:

- English

Response Format

To facilitate the analysis of responses, all interested parties are required to prepare their response in accordance with the instructions outlined in this section. All proposals should be electronically generated. The contract will be awarded to the lowest priced technically qualified proposal.

Where 70% is the minimum technical score of the following overall criteria: -

- Experience
- Understanding of SA Context



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- Written papers
- Motivation Letter / Technical Proposal
- Qualification

Applicants are required to submit the following:

- A Technical Proposal: Letter of Interest, stating why you consider your service suitable for the assignment and a brief methodology on the approach and implementation of the assignment;
- Personal CV highlighting qualifications and experience in similar projects;
- Work references - contact details (e-mail addresses) of referees (organisation for whom you've produced similar assignments);
- All-inclusive financial proposal (fixed cost bid) indicating consultancy fee and a breakdown of expenses (unit price together with any other expenses) related to the assignment. The proposal must incorporate all the costs of travel, accommodation, etc for the service provider to achieve the required deliverables.

Applicants are required to submit the following documents to **procurement.za@undp.org** on or before the **09 October 2017** with the subject line: **Job Code Title and Reference Number.**