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Terms of Reference (ToR) and Request for proposals

Amended April 29th, 2016. Please see amendment and clarifications on pages 4 and 5.

For a service provider to train SMART Myanmar technical staff to deliver factory energy audits and provide coaching on improvements

1. Short introduction of sequa and SMART Myanmar

sequa is a non-profit development organisation. We promote the development of the private sector and its business membership organisations as well as vocational qualification. sequa's shareholders are Germany's top business membership organisations (DIHK, ZDH, BDA, BDI) and GIZ. Jointly with our partners we have performed more than 750 successful projects in the past 20 years.

SMART Myanmar (SMEs for environmental Accountability, Responsibility and Transparency) is a 4 year project (2016-2019) financed by the European Union through the SWITCH Asia program. The lead agency is sequa. SMART Myanmar regularly conducts social compliance audits and trainings at garment factories, runs HR management training modules, and works to build the organizational capacity of the Myanmar Garment Manufacturers Association, SMART Myanmar's local partner association. As one of the project's environmental targets, SMART Myanmar seeks to reduce energy and resource consumption at 100 garment factories by year end 2019.

2. Current Situation in the garment sector of Myanmar

Myanmar's garment sector currently encompasses about 400 companies with some 250,000 employees. In 2015, garment exports reached approximately 1.8 billion USD, accounting for about 14% of the country's overall exports.

With Western buyers emphasizing labour, social and environmental standards and foreign investments steadily increasing, SMART Myanmar is witnessing not only a quantitative but also a qualitative development of Myanmar's garment industry. In keeping with this, the project seeks to strengthen our own staff capacity to conduct factory energy audits as a potential commercial service offer for factories seeking to minimize their eco-footprint, as well as reduce unnecessary expenditure on electricity.

3. Objective of the assignment

The objective to be reached is that at least 40 garment factories reduce energy consumption significantly, 10 with direct support from the expert and a further 30 factories via staff who have been sufficiently trained by the expert.

Ensure that 8 technical staff become proficient in conducting factory energy audits and that at least 2 of the staff shall develop a higher level knowledge on factory energy consumption and efficiency and



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shall be fully capable of delivering and conducting full-scale factory energy audits by the conclusion of the assignment.

4. Duration of the assignment and expected workload

Training on energy audits must begin before mid-2016 and the target for the conclusion of activities shall be before January 31st, 2017. The total workload is estimated be **(please see amendment on final page)**, but can be more or less depending on the proposed curriculum and the expertise covered.

SMART Myanmar's technical staff will support the expert in auditing energy consumption at no fewer than 10 garment factories, and possibly more. These factory audits will be used as a practical on-the-job training tool for SMART's staff.

Audits are not limited to, but should include: examination of building equipment, systems, and maintenance procedures as compared to design intent and current operational needs. Evaluation of lighting systems and controls that improve light quality and reduce heat gain. Evaluation of the potential for supplemental load reductions and the use of alternative energy sources.

Furthermore the consultant will present the results and lessons learnt - outlining the business case for energy reductions - in a closing workshop open to the business community in the garment sector at the end of the whole assignment. This workshop will be organized by SMART Myanmar and the expert will elaborate energy consumption trends, examples and the potential for cost savings via energy reductions.

5. Required experience of the trainer

- Practical experience in conducting factory energy audits.
- Expert knowledge of environmentally efficient industrial technologies and practices.
- Strong experience in writing reports and communications.
- Experience delivering training and workshops.
- Experience in auditing and consulting garment factories.
- Trainer shall have a university degree in a relevant field.
- Fluency in either Myanmar or English (writing and speaking)

6. The specific tasks of this assignment

- Workshops, trainings, on-site assessments as proposed by the expert. 10 factories shall be audited directly by the expert with support from SMART technical staff and these 10 shall receive one mid-line follow-up visit by the expert for purposes of evaluating progress made and coaching them through implementing additional changes.
- Corrective action plans for energy reduction strategies shall be devised for 10 factories and the approach for developing this corrective action plan shall be taught to at least 2 experts from SMART Myanmar.



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- After completing the assignment with 10 factories, SMART Myanmar may or may not want to use the services of the expert to support follow-up coaching with additional companies. As such, a fee should be quoted for additional support. The fee should be quoted as either: 1) additional support as a full package per factory (on-site assessment, CAP and mid-line assessment) or as a simple daily rate for additional days of on-site consultancy and report writing.

7. Deliverables

- Write ups about the different trainings including training agendas
- All training materials in electronic version: all supporting documents (check lists, presentations, hand outs etc.) used during the trainings.
- Within 10 days after each visit, an audit report that summarizes the activities done in the factories and recommendations for future actions including a corrective action plan with factory-specific recommendations for energy reduction.
- Presentation for a closing workshop at the end of assignment with lessons learnt and visible results for a group of MM garment factories. (compilation of experiences gathered in cases with photos etc.)
- Brief guidelines on the effective implementation of energy audits and effective communication of the business case for energy reduction.

8. Schedule

To be defined at a later date, but activities shall occur between May, 2016 and January, 2017.

Proposals due by midnight on May 6th.

9. Management, supervision and final approval of the contract

The senior person in charge is:

Simone Lehmann

SEQUA gGmbH, Partner of the German Business, Alexanderstr. 10, 53111 Bonn,

<http://www.sequa.de/>

Questions regarding these terms of reference may be addressed to:

Jacob Clere, SMART Myanmar Team Leader.

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The SMART Myanmar Team Leader will be coordinating and managing all visits and activities.

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Amended April 29th, 2016:

This amendment provides a change in the terms of section 4. The assignment “duration and workload” expectation has been amended:

Regarding section 4, “Duration and Workload”. After receiving feedback and requests for clarification on the duration and workload, we wish to issue this amendment:

It is expected that this assignment will take at (minimum) 30 man-days and up to 65 (maximum) man-days. Proposals which fit within this range will be considered.

Other clarifications and answers to questions thus received are as follows:

What are the skills of the local technicians?

Our local technicians are mostly trained locally as electrical engineers. This is what most of them studied and what a couple of them worked in, briefly. In particular, the two staff we are hoping to become expert in conducting factory energy audits completed local degrees in electrical engineering. They have had a little prior exposure to conduct factory energy audits (although worked briefly with one senior local engineering expert to assess energy consumption in 3 factories).

What processes are the factories involved with handling?

It is expected that most participating factories will be “CMP” factories - those involved primarily with cutting, sewing and packaging of garments. We anticipate that 2 or 3 factories in the program will be capable of handling more than CMP, most likely the washing of garments and possibly other processes, such as computerized knitting (we will likely work with one computerized knitwear factory), embroidery, dyeing or printing.

What is the situation with water consumption and costs associated per month and per year (supply and treatment of waste water)?

Very few factories do the washing and dyeing which requires significant wastewater treatment. However, some do and we would expect to possibly work with them. As such, we can probably assume that out of the 10 factories, 2 factories in the program may have small wastewater treatment facilities. Other than this, water is used only for the spot cleaning of garments and for facility cleaning, toilets, etc.

What is the state of energy consumption (all liquid and solid fuels, electricity) and costs associated per month and per year?

All factories consume energy from the grid + at least one back-up generator. Sometimes factories will have two or three different back-up generators. In addition, factory boilers are powered by various combinations of charcoal, wood, natural gas and occasionally other fuel sources. Regarding the electricity bill, electricity is loosely correlated with building size. A 40,000 square foot garment factory pays (very roughly) about \$5,000 USD per month for electricity + they have to purchase fuel for a generator and boiler. We haven't typically gotten reliable data on this. Small factories often tell us their electric bill is equivalent to around \$2,000 or \$3,000 USD per month. Bigger factories tell us they pay



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close to \$10,000 USD and, for the absolute largest factories in Myanmar, the bill can be still higher. A small percentage of factories in the industry are equipped with natural gas powered boilers.

What is the typical size of the factories being considered for the program?

A "typical" factory which we expect to work with may have anywhere between 200 and 2,500 workers and building size anywhere between about 12,000 square feet and 200,000 square feet. To some extent, we expect/will invite a range of sizes to participate in the program - we intend 2 "small" factories (less than 20,000 sq ft.), 4 or 5 "medium factories" (roughly 45,000 +/- sq. ft.) and 3 "large factories" (more than 100,000 sq ft.). Production volumes vary dramatically based on product types, quality, factory size, market, etc. Product types will be of many different kinds - sweaters, jackets, trousers, underwear, etc.

What is the work schedule (number of shifts, number of days worked in a year)?

Most typically, garment factories in Myanmar operate on a 60-hour per week production schedule, some do less, some do more. One production shift is normally the case. We expect to work with factories who operate according to one production shift per day, 5.5 or 6 days per week.