

5 November 2018

TERMS OF REFERENCE

“Creating the Workforce of the Future”

**Consulting Services for Introduction of LMS and
eLearning at Electricidade de Moçambique, E.P. (EDM)**



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1. Introduction

Electricidade de Moçambique E.P. or shortly EDM¹, is the public utility in Mozambique in charge of generation, transmission, distribution and commercialization of electricity, in the whole Mozambican territory and in trading with the regional market of the Southern African Power Pool (SAPP)².

The rapid expansion of EDM's customer base, ambitious electrification targets, and massive investment requirements, combined with an aging workforce, has called for a fundamental transformation of the organisation to further strengthen efficiency and professional delivery of services. As part of this transformation an organisational restructuring and management overhaul is ongoing. Overall human resource management has been centralised to the new 'Directorate for People and Corporate Services', with one of the aims to ensure that available resources for capacity building are used strategically, and that internal training delivery is modernised.

The programme "Create the Workforce of the Future" (hereinafter referred to as "the Programme") focuses on building up capacity, within the core business areas of the company. The training on ethical principles will be conducted through the implementation of a digital Learning Management System (LMS) as the main learning platform, with the purpose of building up and maintaining EDM's skills-base and imprinting corporate values throughout the organisation.

As part of an ongoing Capacity Building Programme (CBP) agreement (see further below), EDM has received additional financing from the Swedish International Development Cooperation Agency (Sida), represented by the Embassy of Sweden in Mozambique, to implement the Programme.

These Terms of Reference detail the need for consulting services to support EDM in the implementation the Programme. The services include:

1. e-learning training module production, testing and roll-out, initially focusing on EDM's Code of Ethics and occupational safety;
2. acquisition and installation of a Learning Management System (LMS) and training production equipment;
3. training of EDM staff in preparing in-house online training, on skills transfer from retiring staff, promotion of technical training for women, and

¹ <http://www.edm.co.mz/>

² <http://www.sapp.co.zw/>

environmental protection and for additional/future areas of learning, as well as training in pedagogic and didactic skills in a blended teaching environment, as well as training in documentation of skills and in communication in the form of video and audio and other media/digital platforms.

EDM intends to use an open source LMS for its e-learning courses. Technical support to implement and deploy the LMS and train EDM staff in adapting, operating and maintaining the software shall also be provided, including LMS administration, management and monitoring of success metrics in terms of training impact.

2. Related Initiatives and Interventions

Since 2010, Sweden is supporting a Capacity Building Programme (CBP) for EDM aiming at organisational and human resource strengthening. The focus of the CBP is to enable EDM to build up capacity within the areas of commercial and financial performance, internal management and control, sustained development of the organisation and the human resources of the company, with the objective to enhance EDM's overall capabilities and performance to supply electricity efficiently.

Two initiatives under the CBP are currently ongoing in support of the organisational transformation of EDM:

1. Procurement Diagnostic Review and Support to Implementation of Procurement Function Overhaul; and
2. Risk Assessment on Safety, Occupational Health and Environmental Control.

As mentioned above, the introduction of e-learning will also be implemented under an extension of the CBP agreement between Sweden and Mozambique.

In addition, EDM has engaged various partners in funding the development of skills and the establishment of a culture of knowledge in the workplace. For instance, EDM has recently negotiated with the French Development Agency (AFD) for the support in rehabilitating the existing training centers and establishing a vocational training programme, and with the African Development Bank (AfDB) in fitting some meeting rooms with facilities for video conferencing ([Annex 2](#)). Various partners are also contributing with funding for various infrastructure projects, which include elements of training of the staff involved in these projects.

3. EDM's Organisational Transformation

EDM is responsible for the security of electricity supplies in Mozambique, i.e., the availability of power and capacity to transfer and distribute power to the Mozambican population, services and industry, in a sustainable and reliable manner. As such, EDM has been operating as a nationwide vertically integrated company since 1977, and has not only developed the National Electricity Network (REN) up to 6,000 km of HV lines

and 18,000 km of MV lines, but it has also increased the number of households with electricity supplied from the network, from barely 100,000 in 1987 to more than 1.5 million households in 2017. Still, Residential Access to electricity stands at 28% and the goal to achieve Universal Access by 2030 will require the interconnection of almost 6 million households to the grid.

As a result of the inability to raise tariffs to the cost-reflective level in the period between 2007 and 2015, and the company's vulnerability to the exchange rate effect on its power acquisition contracts, coupled with large inefficiencies associated with obsolete equipment and infrastructure, and out-of-date processes, debt with suppliers accumulated to almost 800 million USD. To revert this situation, the company is reviewing its internal processes for cost and loss reduction, and obtained permission from the Government for annual tariff reviews, which will help shore up the books.

With this difficult challenge ahead, the new Board, under the auspices of the Government of Mozambique, has agreed on a vision for development for 2030, namely:

- **Provision of Universal Access:** To sustainably and innovatively expand the electrical supplies and ensure increased residential access to the National Electricity Network and off-grid, with good quality and service to customers
- **Regional Hub:** to develop the vast energy resources and exploit the geographical advantage in the region, to transform Mozambique into a power generator and exporter, to satisfy the growing power demand in the region and to contribute to the economic growth
- **Gender Equality:** To achieve 40% of women in the technical subject areas of the company, through programmes targeting the hire and training of women at work in order to elevate their skills to the highest quality standards

Development of the skill's base in the company is critical to the modernization and expansion of EDM's portfolio. 30% of EDM's workforce, currently comprising roughly 3,550 permanent staff members, will retire until 2019 and there are insufficient skills to operate, maintain and manage modern technology-based systems. The disconnect between existing human resources and current and future needs is large. To correct this, the company is engaged in a massive reform programme, which includes the implementation of a new organizational structure, the clarification of roles and procedures and the implementation of management methods and tools, which will imprint better controls in the work processes as well as in the adoption of clear rules for delegation of authorities. The new organisational structure is enclosed as Annex 3.

Furthermore, the goal of having at least 40% female participation in the technical areas is very ambitious. Recently EDM launched a competitive selection process to hire young technicians and professionals to work in the new power station, and within the required competence levels could only hire 20 out of 28 needed. In the top

management selection, the number of female directors and managers is even lower, at rates of 10-15%. Thus the reform will also focus in establishing conditions by which women have opportunities to learn and experience the various areas of expertise and be encouraged to participate at equal standing with their male colleagues.

4. Context of the Programme

Overall Organisation

EDM has its Headquarters in Maputo, with regional offices in the South, Central and Northern parts of the country, as well as in Maputo and Matola, each regional office headed by a Regional Director. As part of the organizational transformation, the majority of the administrative, financial and managerial tasks will be centralized to the HQ.

The overall responsibility for the implementation of the Programme rests with the Executive Directorate for “People and Corporate Services”, involving primarily the EDM Academy, through which all training activities within EDM will be centralized; and the Directorate of People and Organisation, responsible for human resources and gender equality, as well as the Ethics Directorate. In addition, the Directorate for Information and Communication Technology (ICT) will support in matters related to the roll-out of the training.

EDM Academy

As part of EDM’s organisational transformation, the previous training department under the Human Resource Directorate has been detached and restructured as an independent Directorate, the EDM Academy. The Academy, headed by a Director, has two departments: Department of Training and Department of Museums and Archives. Each department is headed by a Manager. Once the mapping of staff has been completed, which is part of the transformation, the Directorate will have a total staff of 25, of which 3-4 permanent trainers. In addition, EDM employees with other functions in the organisation are, and will be, used as part-time trainers.

Previously, a large share of the training funds were scattered in the organization, as the financing was often linked to a large number of investment projects or other types of project financing administered by different departments. In order to better manage and monitor the staff training and its impact, a centralisation of the training management is under development and as of September 2017, all funds allocated for training activities have been centralized.

The training activities have been divided into three categories: 1) Leadership/management; 2) Quality professionals/specialists; and 3) Vocational. Most of the training in categories 1 and 2 is currently outsourced, while the majority of the vocational training is performed internally and/or as part of investment projects. A

Training Policy is at its late stages of approval (Annex 4) and guides the vision for learning and knowledge management in EDM.

The Academy will be the 'project owner' of the e-learning programme and be responsible for the course and training module production, training delivery, course management and monitoring. Close cooperation with the Directorates responsible for the area or subject of training will be required.

EDM has two training centres, about to be refurbished. The establishment of digital access rooms in 30 locations is currently in the planning stage, but the aim is to use these for (blended) e-learning delivery in the medium term perspective, as well as for virtual meetings and information dissemination to EDM's staff.

Ethics Directorate

The Ethics Directorate, previously the "Commission of Ethics", was established in September 2017 as an independent staff function directly under the CEO, headed by the Director of Ethics. Three additional staff members will join the unit in April 2018. The Director is currently also working closely with the Central Ethics Commission and prosecutors.

As part of the development and dissemination of the Code of Ethics, 23 Ethics Agents (or Focal Points) will be appointed by internal voting, estimated to be completed in December 2018.

A lot of work has already started: Areas of risk, primarily related to corruption, were identified in 2017, and EDM has established a "Line of Ethics" linked to a call centre platform and a web site for ethics issues is under development. A benchmarking exercise is planned, and a video has been produced, to be posted also on EDM's new official web-site.

Human Resource Directorate

The HR function is currently in a process of centralization. As mentioned above, the training function has been separated from HR, and all HR functions that were previously performed regionally will be transferred to HQ, although there are a number of "business partners" (focal points) at the regional offices that will continue to support HR management at HQ.

EDM is developing a digital HR system/worker portal, where all employees have an employee number, a personal e-mail address, and access to all personal data stored in the system, including personal information, salary level and – to be included – performance. A new performance scheme is under development, and the aim is to track individual performance levels.

The HR Directorate also has responsibility for gender equality, which is one of EDM's key visions. A team of 3 staff members has been made responsible for promoting gender equality, and a number of initiatives have been initiated. One aim is to orient

training towards women, and attract women in the recruitment process and encourage women to take on currently male-dominated work tasks. EDM has established a “Women’s Forum” – a voluntary space for discussing issues and problems related to gender in the company. At the moment, more than 400 women are registered in the Forum, and there is great expectation that the Forum will mobilize women in EDM to be more participative and engaged in the discussion of gender issues.

The “Bring your daughter to work” initiative, where EDM employees bring their daughters to the workplace for an orientation in technical work areas, has been very successful and it is already in preparation for the third round. This type of activity is being extended to schools, partly for dissemination of the safety message, but also to influence the career choice of girls from an early age.

EDM’s Staff Structure and Digital Maturity

EDM has a permanent staff of 3,550, of which 18% are women. The estimated percentage of staff with access to computers which can be used for e-learning (in % of the total number of staff in each area) is as follows:

- HQ (incl. parts of Generation): 447 employees – 100%
- Distribution: 2,733 employees (of which 900 in Maputo/Matola) – 20%
- Transmission: 565 employees (of which 200 in Maputo) – 10%
- Generation: 144 – 90%

In addition, the head unit in each province has a staff of 50-100, of which at least some are digitally mature.

All in all, around 1,180 staff members are estimated to be computer literate, which corresponds to about a third (33%) of the workforce, of which the majority works at HQ or in the Maputo/Matola area.

5. Programme Focus and Objectives

The current process of transformation prioritised the approval of a Code of Ethics in EDM, in 2016, which sets the basic principles for running and expanding the company towards a professional, transparent and efficient company. The Code of Ethics establishes that EDM will operate under ethical principles such as:

- Anti-corruption: Integrity, Transparency, Professionalism, Confidentiality
- Compliance with rules for full disclosure and on conflict of interest
- Austerity and Good Management
- Non-violence and Respect towards colleagues and the public
- Responsibility and high sense of duty
- No-discrimination to any kind of physical, religious or social characteristics
- No-sexual harassment

- No smoking and no drinking in company premises and worktime
- Safety to workers and the public in the company premises and infrastructure
- Responsible behavior towards the environment
- Truthfulness high integrity in business contacts

The goal of Gender Equality by 2030 was set in recognition that gender balance is an ethical issue, as well as a good business strategy, and must be addressed in the development plans. Specific programmes will be designed to promote training of existing female staff as well as the hiring of women in the technical fields and to ensure their success in what are, currently, male dominated areas of work. The gender equality target will require proactive initiatives, along with activities that introduce and sustain environmentally responsible, sound and sustainable practices.

The programme “Create the Workforce of the Future” will focus on matters of anti-corruption, gender equality and environmental responsibility, and will strengthen the institutional capacity for further developments in other areas of Ethics and of business practices.

As a first step, it is envisaged that the new Code of Ethics will be the driver for change of the work environment, beyond the traditional anti-corruption rules. Issues such as gender equality, environmental responsibility, geographical inclusion, integrity and others are viewed as ethical issues, and as such deeply linked with the company’s ethical standing. Thereafter, EDM Academy staff will be trained to produce gender sensitive in-house training modules to retain and develop corporate competence in a wider sense, e.g. in various technical areas, maintenance practices, and work and occupational safety.

In summary, the objectives of the introduction of eLearning in EDM are to improve and develop skills of staff, strengthen corporate performance and efficiency, create career paths and employability as well as functional and geographical mobility in response to the organizational transformation, including creation of common corporate values.

6. Programme Phases

The Programme will be divided in the following three phases:

Phase 1: INCEPTION PHASE (3 months)

Phase 2: IMPLEMENTATION PHASE (12-18 months)

Phase 3: CONSOLIDATION PHASE (6 months)

The implementation of Phase 2 and Phase 3, respectively, will only be started after EDM’s approval of the results of the previous phase.

7. Scope of Work

The selected provider of the consulting services shall support and advise EDM in the implementation and coordination of the Programme. A supporting and capacity building approach shall be adopted, involving and training EDM staff 'on-the-job' to the extent possible during the duration of the consulting services. Procurement on behalf of EDM of required technical services for LMS installation and integration, as well as equipment for e-learning production, shall be included as part of the services.

The implementation of the Programme will require careful coordination, but also substantial flexibility to ensure that performed activities are aligned with general progress of the organisational transformation and other interfacing interventions.

The Scope of Work of the Consulting Services shall comprise, but not necessarily be limited to, the following activities:

Phase 1: INCEPTION PHASE – 3 months

The Inception Phase shall include, as a minimum, the following:

- Initial fact-finding and review of relevant background documents, interviews and detailed planning and sequencing of the Programme, performed in close collaboration with concerned staff at EDM;
- Identification of a number of course topics to be delivered to an agreed number of staff with course delivery in different forms: Instructor-led training in classrooms, fully virtual or in combination ("blended learning"); asynchronous, self-paced learning; social and group learning; mentoring, communities, etc.
- Identification of success metrics of different e-learning topics to either be linked to EDM's existing KPIs or formulation of new indicators;
- Pilot testing of e-learning for smaller groups of staff to check acceptance and response of different staff categories. A minimum of three demos or MOOCs, covering ethics and safety, adapted to different staff groups, should be tested;
- Structured, state-of-the-art assessment of the pilot testing and presentation of conclusions for implementation design and learning paths;
- Pilot-testing of cloud-based, open source LMS, involving EDM staff to be responsible for LMS management (IT and dedicated LMS management staff);
- Advise on open source LMS and IT infrastructure or hosting alternatives, online and offline delivery with sync alternatives, including investment and maintenance cost estimates of different alternatives;

- Acquisition of EDM’s selected LMS option, as well as installation and HR-system integration, or procurement of necessary technical services to perform installation and integration;
- Training in LMS management, including user tracking and administration, to be formulated in a manual;
- Identification and formulation of specifications and budget for procurement of required equipment for internal EDM production of training modules, including authoring software (SCORM), as well as procurement of agreed equipment;
- Formulation of LMS user discussion guidelines for dialogue and community interactions to help clarify expectations and foster an environment of mutual respect and collaborative inquiry;
- Formulation of an Inception Report, including a detailed Work Plan with milestones and a detailed, itemised budget for the next phase, which shall be approved by EDM prior to proceeding with the Programme implementation activities.

Phase 2: IMPLEMENTATION PHASE (12-18 months)

- Introduction to eLearning to EDM staff in meetings and digitally;
- Roll-out of agreed training modules to an agreed number of staff in different staff categories, including on-the-job-training on how this is done. The training is expected to mostly take on the form of mandatory online modules, which will be accessed from any of EDM premises through the LMS, or on personal devices, and will provide certification to EDM’s staff, and possibly, in due course, to other entities of the sector. Blended and/or classroom training delivery will be required for staff working outside of the Maputo/Matola region.
- Training in preparation of teaching material (e-learning modules) adapted to different staff group contexts: authoring, video production, formulation of quizzes, gamification features, etc. Preparation of multi-media studio, including procurement of equipment
- User testing of course materials to assess the understanding and effectiveness, disclosing any need for changes or adjustments.
- Formulation of assessment criteria for certification of the knowledge and acceptance by the different staff groups, including how the training will be measured (number of completed courses, time to completion, success rate, etc.), and how to assess the content and delivery to ensure impact on corporate performance (KPIs).
- Coordinating with ICT Directorate regarding the LMS deployment.

- On-the-job training of EDM Academy staff and formulation of manuals (or e-learning modules) on preparing gender sensitive in-house online training for additional/future areas of learning - training in pedagogic and didactic skills in a blended teaching environment, as well as training in documentation of skills and in communication in the form of video and audio and other media/digital platforms.
- Launching at least two in-house produced e-learning programmes, as agreed with EDM.
- Identification of activities and post-delivery support to be provided during a Consolidation Phase, including a clear plan and procedures for provision of this support and budget framework, based on the outcome of Phase 2.

Phase 3: CONSOLIDATION PHASE (6 months)

- Post-delivery support in ensuring that required equipment for a successful implementation of the e-learning is in place and functional, and assist EDM in preparing a plan for the full coverage of employees nationwide.
- Support to EDM LMS and e-learning staff as required and agreed to ensure the adequate running of the e-learning modules and proper LMS management.
- Review and recommendations on results assessment, validation and recommendations for enhancing impact.

8. Expected Results of the Programme

The consulting services are expected to result in the following outputs:

1. A set of online training modules produced, tested and rolled out to different staff groups at EDM, covering the Ethics Code, skills transfer from retiring staff, promotion of technical training for women, occupational safety and environmental protection.
2. Learning Management System (LMS) installed and integrated with EDM's HR system software.
3. Equipment and software in place to produce and deliver e-learning on different devices and at various EDM premises and training centres.
4. LMS administration and management capacity within EDM, including eLearning monitoring procedures, linked to EDM's Key Performance Indicators (KPIs).
5. EDM Academy staff able to develop and produce online modules for training and to procure production support.
6. Capacity of EDM trainers to professionally perform blended training.
7. At least two training modules produced in-house by EDM staff and rolled out.

9. Responsibilities, Organisation and Coordination

Sida, through the Embassy of Sweden, is providing EDM with financing of the Programme and will provide no objection to the tender evaluation, the contract with the selected firm, the Inception Report and must approve any major changes in the content or budget of the Programme.

EDM procures and enters into a contract with the consulting firm and has the responsibility for the implementation of the Programme. EDM will nominate a Project Manager and a Programme Coordinator, as well as project team members, selected among staff from EDM's Academy and other relevant units in the organisation. The project will be supervised quarterly by a Steering Committee, which will support and validate the deliveries of the Programme.

EDM will provide office space for the Consultant's experts of minimum 10 m², to be equipped under the funding of the Programme, and the necessary support in communication facilities.

EDM will organise events and workshops, planned under this Programme, and will support the Consultant in all its contacts within EDM and with external entities.

The selected consulting service provider shall be responsible for supporting EDM in the implementation of the Programme in line with these Terms of Reference and the contract with EDM. The majority of the consulting input shall be provided at EDM's Head Office in Maputo, and partly at its regional offices. The Consultant's Team Leader will be the main focal point for coordination with EDM's Programme management team and for reporting to the Steering Committee on a quarterly basis.

In-between Steering Committee meetings, the Team Leader will, as a minimum, hold monthly progress meetings with EDM's project manager and coordinator, or more frequently, as agreed or needed.

10. Reporting

A detailed work plan, time schedule and budget shall be elaborated during the Inception Phase in close coordination with EDM to ensure that activities are aligned with needs and priorities as well as properly interfaced with other interventions. The following reports (in draft and final versions) shall be produced:

- Inception Report
- Monthly progress briefs of performed activities, any deviations and proposed actions, if required
- Quarterly Progress Reports
- Completion Report

The Quarterly Reports shall contain an analysis of progress of the Programme activities and expected results, following the structure elaborated in the Work Plan. Each report will cover a quarter and will be submitted as agreed in the Work Plan. The Quarterly Reports shall contain an account on a cumulative basis covering the entire project period, of

- activities performed during the period of reporting in relation to the work plan;
- achieved outputs compared to planned outputs and an analysis of any deviations;
- an assessment of risk factors that may affect the achievement of the objectives;
- an assessment of the need for possible adjustments in the Programme work plan, including risk management measures; and
- an itemised financial follow-up in relation to budget

The possible implementation of the Consolidation Phase shall be proceeded by an approved detailed work plan, time schedule and budget, and progress reporting be provided as during the Implementation Phase.

The Completion Report shall include a full account of provided input, implemented activities and results in relation to the Results Framework, highlighting any deviation from the work plan, lessons learned, and recommended way forward. A full financial report in relation to budget shall also be included.

All reporting shall be written in the English language. The training modules shall be produced in Portuguese as the primary language.

11. Estimated Consulting Input and Timeline

The Programme shall be implemented within a time period of maximum three (3) years, including decision time between the three phases. The total consulting input is estimated to 100 weeks.

The Consultant's proposed budget shall include fees and reimbursable expenses for the consulting input, costs for all required equipment, software, Open Source LMS installation and deployment.

12. Required Expertise

The provider of the required consulting services will be selected by open tender under Sida Procurement Guidelines. The selected firm/organisation, and associates, shall have documented experience of implementing similar Programmes Africa, preferably in a utility or larger corporate context. The lead firm shall have a recognized quality management system, a documented corporate code of conduct and an environmental

policy. A team of qualified experts shall be provided with combined competence and experience in the following areas:

- Development of training programmes, specifically e-learning
- Production of video and graphic online learning modules
- Corporate training methodology and training of trainers
- Documented pedagogic capacity and experience from implementing/roll-out training programmes in larger companies
- Project management capabilities
- English and Portuguese proficiency

Association arrangements with other firms are allowed, but the lead firm/organisation is expected to provide the majority of the key experts.

One of the team members shall have a Team Leader position, responsible for the overall coordination, planning and reporting. A gender balanced team is encouraged.

Attachments

- Annex 1: Code of Ethics
- Annex 2: Digital Access Rooms (financed by African Development Bank)
- Annex 3: EDM's Organisational Structure
- Annex 4: EDM's Training Policy and Road Map