Section 3b LOT 2 - Consultancy services for the Design, Testing and Commissioning of a Management Information System (MIS) for the Utility Regulatory Authority (URA)

The main beneficiary of Lot 2 is the Utility Regulatory Authority. The URA is currently located at the 8th floor, 1 Cybercity Building, Ebène. As at June 2018, URA consisted of around 10 staff.

3.12 Objective of Lot 2

The main objective of this consultancy is to assess the existing MIS capacities of URA, which includes a review of the current IT system in place, submit a comprehensive design brief consisting of MIS architecture (process mapping, proposed software and hardware solutions, human resource capacity building, user manuals and any other related ancillary scope), scope and extent of the system, specifications (Bill of Quantities) as well as detailed costing and proposal for the supervision of the installation, commissioning and user acceptance testing, amongst others, for the successful Implementation of a Management Information System (MIS) for URA.

The specific objectives of the consultancy service are to:

1) Design a Management Information System (MIS) for URA.
2) Provide technical guidance to the UNDP for the procurement of the MIS.
3) Concurrently develop a website and associated applications as per the needs of URA.
4) Supervise the installation, testing and commissioning of the completed MIS and performance of the User Acceptance Test (UAT).
5) Develop an operation and user-maintenance manual and train the staff of URA.

3.13 Scope of works

The scope of works is as follows:

Phase I (Refer to item 1-3 of Payment Schedule for Lot 2)

1) Consultation of the URA staff to understand all the key activities and deliverables to implement the MIS.
2) Assess the current IT system at the URA and make recommendations, including physical space allocation within the URA office, on how a comprehensive, efficient and cost-effective Management Information System (MIS) can be implemented. Consultations with other stakeholders like the MEPU, URA and CEB will be required as part of the assessment.
3) Evaluate and recommend latest technology and standards to adopt for IT equipment and infrastructure of the MIS to ensure reliability, interoperability and scalability in the long term.
4) Assess the current staffing capacity to operate the proposed MIS at URA and recommend whether additional staff is required. The consultant is also expected to provide a training plan for the current staff.
5) Prepare the necessary technical specifications for the procurement of all hardware, software and ancillaries required for the MIS in the form of a Bill of Quantities (BOQ) which will be used in the Tender Document for recruiting the IT Supplier/Contractor for the installation phase. Any civil works for accommodating the server room or other facility, if required, will be included in the BOQ. A template for the maintenance contract for the hardware with the IT contractor needs to be submitted.
6) Provide cost estimates and time-frame for the implementation of the MIS using different technologies like Cloud Computing, Sharepoint, Open Source similar to Drupal etc. Annual maintenance costs for the proposed technology should also be provided.
7) Identification of latest state-of art systems for software and hardware requirements in the market and current trends in Information Systems.

8) Evaluate and recommend choice of technology and standards to adopt for IT infrastructure for implementing the MIS to ensure reliability, interoperability and scalability in the long term.

Phase II (Refer to item 4-6 of Payment Schedule)

9) Provision of technical support to the UNDP for the procurement of the MIS including all hardware, software and ancillary applications relating to same. This includes technical assistance to UNDP in the evaluation of bids for the selection of the IT contractor/supplier.
10) Creation of a versatile, modular, upgradable and scalable website/portal to inform and keep the public updated on the various activities and achievements of URA as well as functionalities to enable interaction with the public as per the needs and requirements of URA. A web service platform which best meets the requirements (e.g. Drupal, Sharepoint etc) to be proposed by the MIS consultant together with a cost analysis for operation and maintenance of such system. The MIS consultant will develop the infrastructure and all contents of website will be provided by client.
11) Provision of an e-licencing system for URA for providing licences to IPPs (Independent Power Producers), which will allow online registration, data capture and storage and viewing by registered and authorised users.
12) Creation of an electronic/web-based document repository and management system with proposal for a file coding system at URA.

Phase III (Refer to item 7 of Payment Schedule)

13) Supervise the installations made by the IT contractor(s) to ensure that standards, installation procedures, equipment handling and other health and safety aspects and overall client requirements and specifications as determined by the MIS consultant in the preliminary phase of this consultancy are strictly adhered to. The MIS consultant shall submit to the Project Manager weekly progress reports as well as a final commissioning report which will be the basis for payment under this phase.

Phase IV (Refer to item 8-9 of Payment Schedule)

14) Provision of training/capacity building to staff of URA on use of new software installed for the operationalisation of the MIS. This will include firstly an operation and maintenance manual for the MIS and secondly, a training plan as well as in-house workshops/ training sessions for URA staff. The final report on training will include both the training plan as well as contents of the in-house workshops/training sessions in PowerPoint format.

The IT consultant(s) will work in close collaboration with URA during the assignment.

3.14 Description of Deliverables

1) The IT consultant is expected to submit a detailed workplan for the setting up of the Management Information System at URA, consisting of design methodology, milestones, resources and timeframe for completing the consultancy services.
2) Prepare a preliminary design report on the functionalities and hardware/software requirements and specifications for implementation of the MIS at URA.
3) Submission of a detailed design report which includes cost estimates of proposed system and technology to be used, timeframe for completion of project and Bill of Quantities (BOQ) template. A template for the maintenance contract by the IT contractor is to be submitted

and all licencing implications for the software (annual maintenance costs, etc) should be detailed in the report.

4) Development of a website/portal which is an integral part of the MIS for URA. A draft website/portal including site architecture layout as well as proposed contents need to be submitted following by the launching of the final website.
5) Customisation and installation of appropriate software at URA.
6) Operationalisation of the MIS with integrated software software for the website/portal.
7) Supervision of installation, testing and commissioning of the MIS till handing over. The issue of completion/signed commissioning certificates is required.
8) Development of a detailed maintenance and operational manual with As-made drawings and maintenance and troubleshooting procedures.
9) A detailed training plan for URA with training modules on the MIS as an integrated system and on the different component of the system with focus on the hardware and software installed.

3.15 Requirements Matrix

The MIS shall comprise (but not limited to) of the following requirements, to be implemented as part of the MIS.

Table 7: Requirements Matrix for the implementation of the MIS at URA

AREA	REQUIREMENT	DESCRIPTION	COMMENTS
General	R.1 The MIS should satisfy the following inherent features: i) Paperless, electronic and web-based solution ii) Cost-efficient iii) High scalability iv) Ease of upgrade v) Modular (if deemed appropriate) vi) High user-friendliness and operationality vii) Ease of user-maintenance viii) Interconnection capability (future) with other institution's MIS ix) Incorporate a Document Repository and Management	The MIS should be an efficient, comprehensive and cost efficient inter-connected system that provides the best IT and communication solutions to allow smooth running of the URA office. It should be user friendly, easily scalable and upgradable as well as incorporate a document repository and management system, amongst others.	The system should consist of all hardware and software systems, as well as any other ancillary equipment, services and applications where necessary, that make up a fully-integrated, functional and operational MIS to allow all staff to use the system efficiently, in line with paperless strategy. HRMIS to be set at the office.

	System which allows for easy coding, uploading, safekeeping, sharing, processing and retrieval amongst others, of data and information relating to the day-to-day operations		
Hardware	R.2 Physical layout	The physical layout, electrical, environmental (air conditioning) and maintenance requirements of all the equipment that includes workstations, accessories, servers, server room (if any), switches, routers etc within the MIS should be clearly documented	The space allocation for the setting up of the MIS is the actual office for URA, located at the 8th floor, 1 Cybercity, Ebene.
	R.3 Network/Local Connectivity	A LAN shall be installed to allow a network to be created to connect users to the servers and other devices like printers etc	A network is essential to enhance connectivity within the URA office. The right topology needs to be determined.
	R.4 Video Conferencing facility	A fully-fledged and high-resolution video conferencing facility consisting of video, audio and internet connectivity (equipment, software, physical layout) is to be installed as per the needs of URA especially for communicating with IPPs from abroad.	A fully-fledged video conferencing facility tailor made to the requirements of the URA is to be proposed by the IT consultant, either as part of the MIS platform or separately.
	R.5 Camera	URA is looking for a camera for office use.	MIS consultant will recommend on model, type and specifications of camera for URA.

Software	R.6 Data Management	The MIS should enable various types of documents such as text, spreadsheets and presentations to be managed (created, edited, updated, shared, emailed, transferred, deleted etc.) in a paperless, integrated and user-friendly manner.	A suitable database/file server with the appropriate user software on each client workstation shall be specified and procured. Server(s) should have enough storage capacity to store large amount of data . The OS for each server to be determined. (Office 365 already installed on workstations). The possibility to use cloud computing or sharepoint for data storage and sharing will be assessed by IT Consultant. Suitable redundancy should be incorporated in the design for safeguard of data and information stored.
	R.7 Windows and Office Package	An up-to-date office package and OS to be installed at each workstation for daily office tasks.	Office package 365 is preferred while OS to be Windows 10.
	R.8 e-licencing	A customised e-licencing system is to be created to allow online registration, data capture and storage and viewing by authorised users.	The e-licencing system will allow online registration of IPPs (Independent Power Producers) on the platform. E-licencing system to be fully integrated in the MIS.
	R.9 Access to Internet	All workstations shall have access to internet with reliable connection speed.	Connection to internet is essential for research and access to email.
	R.10 Email accounts	The MIS should allow the use of email as per the	A mail server should be included in the MIS to allow

		domain name URA. Selected users shall have unique email accounts for internal and external email communication.	use of email by selected users. A contact database to be created.
	R.11 Webservices	The platform in the MIS should be capable of supporting web services protocols.	Capability to transparently interact with appropriate web services using standard protocols
	R.12 Remote Access	Users shall be able to access the platform away from the organisation.	The platform shall be accessible via a browser using internet protocols to allow key users to have access to documents on server at any time.
Communication	R.13 Website/Portal for URA	A website shall be created to allow digital visibility of URA at local and international level, as a one stop shop for RE investment in Mauritius.	IT consultant to determine the best hosting solution for the website/portal following consultation with URA. A Platform similar to Drupal to be used for the website/portal. Drupal is currently being used by Governmental bodies and Parastatals. Intranet and an Extranet to be implemented as part of the MIS to allow registered stakeholders to have access to specific database and forms. MIS to include functionality that allows other stakeholders like CEB, MEPU to have access to the platform. User-managed and configurable access

			privilege control (by system's admin) should be an inherent aspect of the MIS and website intranet.
	R.14 Telephone Communication	The MIS should be supported by a fully-fledged IP PBX telephony network with IP PBX server, SIP/VoIP handsets (at selected workstations) and VoIP gateway	A PBX system to be used to allow effective telephone service for internal and external line use.
Security	R.15 Confidentiality	The MIS shall provide sufficient security to keep all information provided by potential investors confidential and accessible to privileged users only as controlled and configured by the systems admin. In this respect, a suitable Information Security Management System (ISMS) (based for e.g. on ISO 27001 information security guideline) should therefore form integral part of the MIS and the solution proposed.	A secured system to be implemented within the MIS to keep confidentiality at all times and to give limited access to this information.
	R.16 Security	The MIS shall be effectively secured to prevent possible fraudulent access and software attack. Minimum physical protection should include surge protectors, UPS backup and redundancies.	Security is essential at URA office to secure information and equipment.

		Minimum software level protection should include latest Antivirus incorporating anti-spyware, ransomware and other malwares. The proposed Antivirus should be centrally served and managed by the systems administrator.	
	R.17 Disaster Recovery System	The MIS at URA should include a Disaster Recovery System, to allow sensitive and confidential data to be saved in case of technical failure of system or a fire	Stored information at URA needs to be able to be saved and retrieved even in case of major technical failure or a fire using a remotely located DRS and Backup solution with automatic switch-over when required.
	R.18 Backup system	As per R.17, a backup system complementary to the Disaster Recovery needs to be installed.	MIS Consultant to recommend on location of the Disaster Recovery and Back Up system
Operational	R.19 Document Repository & Management (filing) System with suitable coding system	The MIS should include a comprehensive and fully-fledged DRMS for files kept on server/cloud. A suitable coding system should also be designed, in consultation with the client.	The IT consultant should recommend, design and implement of an electronic DRMS with proper codification of files on server/cloud.
Capacity Building	R.20 Support/Training to users	The MIS shall be equipped with a fully-fledged training kit that includes support information to assist users to use the system effectively. Furthermore, the MIS consultant should submit additional staffing requirement w.r.t the MIS and help in the	IT consultant to submit a training plan for the current staff and recommend on additional staffing requirement.

		drafting of TOR (roles and responsibilities) for any future recruited systems administrator(s), as required.	

3.16 Training/Capacity Building/Workshop

For the purposes of training/capacity building in Lot 2, the MIS consultant is expected to provide training/capacity building to the staff of URA.

3.17 Deliverables

3.17.1 Description of Deliverables

The MIS consultant is expected to submit the following deliverables during the course of the project:

1) A detailed workplan for the setting up of the Management Information System at URA. The Workplan shall consist of the following:
    a. A detailed Gantt chart showing milestones/major deliverables and activities and highlighting the critical path and version number as well as the duration for the assignment and expected start and completion dates;
    b. Project Implementation Methodology;
    c. Schedule, type and context of consultations with stakeholders (for approval by client)
    d. Pool list of approved sub-contractors/suppliers;
    e. Any other relevant sections, documents, procedures, processes, literature and references

2) Following initial consultation rounds, a preliminary design report on the functionalities and hardware/software requirements and specifications for implementation of the MIS at URA for approval of the client.

3) Upon approval of preliminary design, submission of a detailed design document which shall include the following (but not limited to):
    a. Detailed process mapping for URA towards implementation of the MIS;
    b. Detailed design (architecture, layout, content, modules, layers, functionalities etc.) of the proposed MIS;
    c. Detailed design of ancillary services/applications such as Document Repository & Management System and File Coding System etc;
    d. Cost estimates of proposed system and technology to be used;
    e. Requirements documentation / Bill of quantities (BoQ);
    f. Templates for contractual services to be procured within the scope of this assignment as well as post-commissioning maintenance;
    g. Procurement methodologies and timeline (Gantt Chart) (support to UNDP for procurement - technical assistance for evaluation of bids for procurement of IT equipment);

h. Licencing implications for all software (annual maintenance costs, etc);
i. Any other relevant information and details which are pertinent.

4) Supervision of installation, testing and commissioning and operationalization of the MIS till handing over. The issue of completion/signed commissioning certificates is required.

5) Development and operationalization of a website/portal which is an integral part of the MIS for URA.

6) Customisation and installation of appropriate software at URA**.**

7) Development of a detailed user-maintenance and operational manual with as-made system layout/schematics and user-maintenance and troubleshooting procedures.

8) A detailed training plan for URA staff with training modules on the MIS as an integrated system and on the different component of the system with focus on the hardware and software installed.

9) Future staffing requirements as well as roles & responsibility definition for future system administrator(s) of the MIS.

3.17.2 Submission Procedure

All outputs/deliverables should be submitted to the Project Manager and copied to the Project Coordinator and the CEO of URA for review. The team will review all outputs/deliverables and their comments shall be communicated to the consultants within 14 days of submission of the output/deliverable. The consultants will then have to consider and incorporate the comments within a period of 2 weeks from the date of receipt of comments. The consultants will have to provide for justifications when comments are not incorporated in the output/deliverable.

3.18 Responsibility of Consultancy Firm

3.18.1 Team Leader/System Architect

The Team Leader will be leading the team and providing project management for the whole duration of the project.

Education

- Post graduate degree in IT/Project Management or any other related, with specialization in System Architect field from a recognized university.

Experience

- Must have at least 8 years' relevant experience in terms of project planning, development and review, resource planning, role and responsibility definition, coordination across multiple teams, project risk analysis and mitigation techniques related to MIS/IT projects, among others.
- Must have at least 2 site references.
- Experience in developing MIS for Governmental Bodies or parastatals would be an advantage.

Skills and competencies:

- Strong leadership and planning skills.
- Strong understanding of needs and issues of non-profit companies.

- Strong analytical skills.

Language

- Excellent written and spoken French and English is required. Report writing skills is a must.

3.18.2 Software Developer

The software developer will be responsible for software development and programming required as part of the MIS for URA.

Education

- Degree in Information and Communication Technology or Information System from a recognized university.

Experience

- Must have at least 5 years' experience of successful software development and programming for IT project implementation.
- Must have at least 2 site references.
- Experience in software development/programming for MIS for Governmental bodies or parastatals would be an advantage.

Skills and competencies

- Strong leadership and planning skills
- Strong understanding of IT needs and issues of institutions.
- Strong analytical skills

Language

- Excellent written and spoken French and English is required

3.18.3 IT security Expert

The IT security expert will design all security protocols and recommend infrastructure with required hardware and software for securing access to information stored at URA.

Education

- Degree in Information and Communication Technology or Information System from a recognized university.

Experience

- Must have at least 5 years' experience of successful design of IT security systems.
- Must have at least 2 site references.

- Experience in designing IT security systems for MIS for Governmental bodies or parastatals would be an advantage.

Skills and competencies

- Strong leadership and planning skills
- Strong understanding of needs and issues of non-profit companies
- Strong analytical skills

Language

- Excellent written and spoken French and English is required

3.19 Table 8 - Estimated Person Days for Lot 2

	Component	Estimated person day input
1.	Approved workplan for consultancy services for setting up of MIS at URA.	**3**
2.	Preliminary design report on the functionalities and hardware/software requirements and specifications for implementation of the MIS. Different scenarios (e.g. dedicated servers, cloud computing or both must be presented with associated benefits, cost estimates, licensing implications, etc.)	**10**
3.	Detailed design report which includes costs estimates – hardware and software including costs associated with maintenance of software, timeframe and Bill of Quantities (BOQ) template for implementing the MIS.	**5**
4a.	Draft website/portal including site architecture layout as well as proposed contents.	**10**
4b.	Final website launched and completion certificate signed.	**7**
5.	Customisation and installation of appropriate software at URA	**7**
6.	Report on supervision of installation and commissioning of hardware, including all appropriate certificates	**5**
7.	Operationalisation of the Management Information System with integrated software for website	**5**
8a.	Operation and maintenance manual for MIS	**4**
8b.	Training plan and training completion report	**2**
9.	Completion of assignment	**2**
TOTAL		**60**

The assignment should be completed within 7 months from the starting date.

3.20 Reporting, Presentations and Language

All project implementation documents such as progress reports, draft project documents, templates (website, MIS), preliminary and intermediate designs, layouts, specification documents etc. shall be submitted in editable Microsoft Office Word Version and editable PDF Version, and in hard copies (4 copies) in a scale to be agreed with all stakeholders and in soft copy. The soft copy should not be secured with password(s) to allow printing or copy and paste of extract from the reports.

The language of the assignment shall be in English. All the outputs and deliverables shall be written in English language and should be presented in a format acceptable by URA. All the final versions of the reports and documentation should also be dispatched to the Project Manager electronically. There shall be no security restrictions on printing/editing in the deliverables.

The Consultant will have to submit all the deliverables where applicable, in draft form (in soft format - MS Word) in the first instance, and should thereafter incorporate any comments URA may submit, prior to their finalization. Draft reports and documentation would have to be submitted at least 2 weeks before the final reports/documentation are due so that URA will have ample time for review. Payment will be made only on the final deliverables, and these final deliverables should be to the satisfaction of the URA and the UNDP Country Office.

3.21 Logistical Arrangements

All transportation costs and administrative costs related to the execution of the assignment are to be borne by the MIS consultant. In case workshops/ training sessions have to be organised, all costs will be borne by UNDP.

3.22 Delivery and Payment Schedule.

- Deliverables will be the basis for the payment schedule. All reports will be submitted in draft (for comments) and then final.
- The Deliverables shall be submitted in electronic format (MS Word, and Pdf versions) and by courier to the following recipients. The address for delivery is:

Mr Shakil Beedassy, Project Coordinator
Accelerating the Transformational Shift to a Low-Carbon Economy in the Republic of Mauritius
Address: United Nations Development Programme
6th Floor, Anglo Mauritius Building
Intendance Street,
Port Louis
Email: shakil.beedassy@undp.org
Tel: +230 212 3726
Fax: +230 208 4871

And copied to:

Mr Alfred Byigero
CEO Utility Regulatory Authority
Address: Utility Regulatory Authority (URA)
8th Floor, One Cybercity Building,
Ebene
Email: ceo@uramauritius.mu/info@uramauritius.mu

Tel: +230 454 8070/79
Fax: +230 489 2796

And:

Manusen RAGGOO, Project Manager
Address: MARENA, 4th Floor, Celicourt Building
Celicourt Antelme St
Port Louis
Email: manusen.raggoo@undp.org
Tel: +230 5819 9871

3.23 Table 9 - Payment Schedule for Lot 2

SN	Deliverable/Milestone	Payment Schedule	Time Schedule
1	Submission of Workplan	10%	21 September 2018
2	Submission of a preliminary design report	10%	12 October 2018
3	Submission of a detailed design report	15%	5 November 2018
4a	Submission of draft website/portal including site architecture layout as well as proposed contents	7%	19 November 2018
4b	Final website launched and completion certificate signed.	8%	31 January 2019
5	Customisation and installation of appropriate software at URA	10%	30 November 2018
6	Report on supervision of installation and commissioning of hardware and MIS, including all appropriate certificates	10%	Weekly visit during installation in December 2018 – February 2019
7	Operationalisation of MIS with integrated software for website	10%	8 February 2019
8a	Operation and maintenance manual for MIS	5%	22 March 2019
8b	Training plan and training completion report	5%	22 March 2019
9	Completion of assignment	10%	5 April 2019
	TOTAL	**100%**	

3.24 Important Notes:

The Consultant shall take due note of the following when preparing its proposal:

- Bidders are advised to ensure that sufficient information is provided in the CVs of the experts to support any qualifications and experience claimed.
- All experts shall provide an original signed letter of availability and association for the duration of the assignment. In the event of their unavailability, the Consultant shall be under the obligation to provide a replacement of equal or better calibre at no extra cost to the Client.