

## Terms of Reference

# **RCREEE Regional Information System Portal on Renewable Energy and Energy Efficiency**



**RCREEE** 

Regional Center for Renewable Energy and Energy Efficiency  
المركز الإقليمي للطاقة المتجددة وكفاءة الطاقة

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## 0 BACKGROUND

The Regional Center for Renewable Energy and Energy Efficiency (RCREEE) is an independent not-for-profit regional organization which aims to enable and increase the adoption of renewable energy and energy efficiency practices in the Arab region. RCREEE teams with regional governments and global organizations to initiate and lead clean energy policy dialogues, strategies, technologies and capacity development in order to increase Arab states' share of tomorrow's energy.

Through its solid alliance with the League of Arab States, RCREEE is committed to tackle each country's specific needs and objectives through collaborating with Arab policy makers, businesses, international organizations and academic communities in key work areas: capacity development and learning, policies and regulations, research and statistics, and technical assistance. The center is also involved in various local and regional projects and initiatives that are tailored to specific objectives.

Having today thirteen Arab countries among its members, RCREEE strives to lead renewable energy and energy efficiency initiatives and expertise in all Arab states based on five core strategic impact areas: facts and figures, policies, people, institutions, and finance.

### 0.1 Objective

Under the *Facts and Figures* activities 2013, RCREEE will implement a **regional information system** including data and information related to Renewable Energy (RE) and Energy Efficiency (EE), such as energy statistic data, policy information, reference institutions, etc.

The objective is to ensure systematic, consistent, timely, detailed data collection on RE & EE to enable analysis, evaluation, planning and better formulation of RE & EE policies in the Arab region.

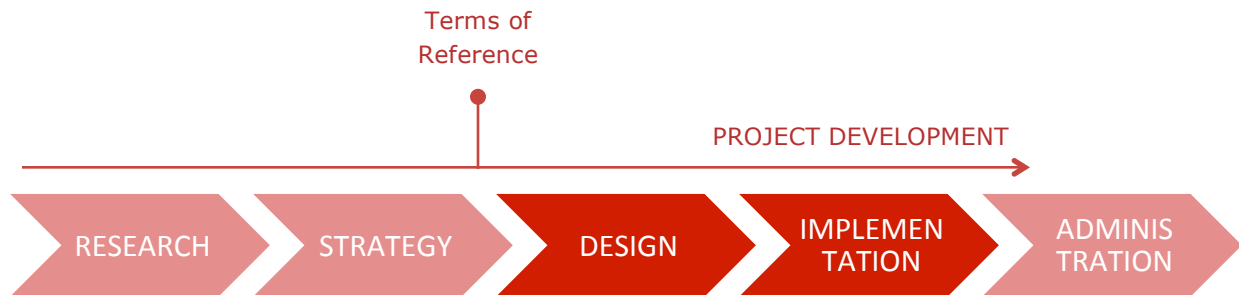
This information system will be published for public, and also for various stakeholders in the field of RE & EE and decision makers in the Arab region.

### 0.2 Project Development

RCREEE has worked previously to get a preliminary information analysis, and to explore the possibilities of web content management systems installed in remote Internet servers. As a result, a precise *concept model outline* of the system, based on the strategy goals, and a more *structured content definitions* for the further development of the information system have been produced.

## 0.3 Scope

These *Terms of Reference* assign the **Design and Implementation** works of the information system. As well, these ToR set the system developer's reference tasks, the expected results, the terminology and concepts, the qualification needed and the project duration.



## 0.4 Time limits

The RCREEE's regional Information System on RE&EE is a project with the objective to be launched before the end of 2013. Thus, a reference web version of the information system should be implemented before the end of 2013.

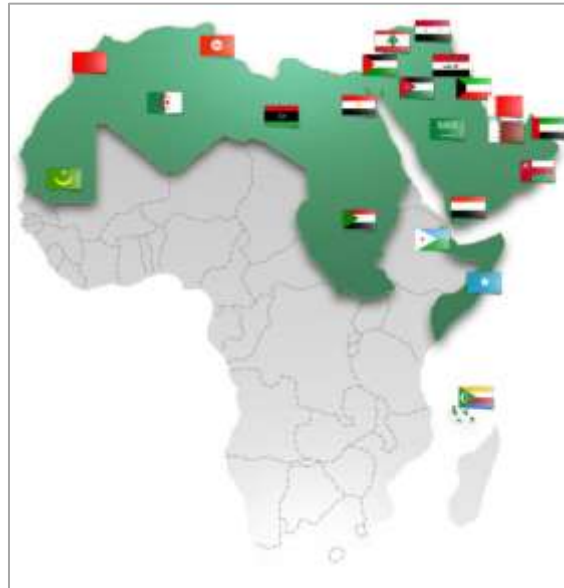
The project development may require further test and troubleshooting beyond the end of 2013.

## 1 CONCEPT DEFINITION

### 1.1 Intended audiences

Detailed description of the users that will interact with the system:

- RCREEE staff
- Public in general
- RCREEE Member States (13 countries) and other Arab countries
- League of Arab States (22 countries)
- The Ministries having in charge the energy and the electricity
- The National Authority or Agency dealing with the EE and RE
- The National Utilities
- National institution of statistics
- Other institutions involved in the EE and RE in each country



League of Arab States

## 1.2 Current content

The key types of contents to be structured are the following:

Content type (1): <b>Parameters and statistics</b>
Content type (2): <b>Indicators</b> (as calculations or computed fields from arithmetical combinations of the parameters and/or statistics)
Content type (3): <b>Indexes</b>
Content type (4): <b>Documents</b>

References to other strategic websites such as the Solar Med Atlas (<http://www.solar-med-atlas.org/solarmed-atlas/map.htm>) should be taken into account as “external content” to be integrated comprehensively into the system in the form of appealing link buttons or similar.

At least, Parameters and statistics, Indicators and Indexes will be year dependent and country dependent.

### 1.3 Other planned content

Other types of contents to be taking into account are the following:

Content type (5): <b>Stakeholders/Institutions</b>
Content type (6): <b>Experts</b>
Content type (7): <b>Activities</b>
Content type (8): <b>Projects</b>

All these content types will be country dependent. Activities and projects will be year dependent, as well.

### 1.4 Planned website sections

The content may be arranged and displayed in several sections:

<b>SECTION (1): Universal Content Finder</b>
In the Universal Content Finder section, any content will be able to be retrieved, by name, by categories, by type, etc. with powerful and flexible filtering and interactive sorting elements.
<b>SECTION (2): Country Profile</b>
<b>SECTION (3): RE Potential</b>
<b>SECTION (4): EE Potential</b>
<b>SECTION (5): RE &amp; EE Governance</b>
<b>SECTION (6): Energy Efficiency Indicators</b>

### 1.5 Classifications and taxonomies

The contents need to be categorized and structured under multiple hierarchical classifications administrated in the core of the system, at least through dynamic taxonomies and tagging.

Taxonomies need to be administrated flexibly within the Content Management System interface: add, delete, edit, and seamlessly move them across the different levels of the classification, maintaining their relations with the content.

The Content Management System has to allow the translation of the taxonomies; taxonomies need to be shown translated to any available language selected by the users.

### 1.6 Concept Model Outline

A concept model has been outlined through a mind mapping methodology, abstracting the concepts through an organized representation of terms.

The mind map has been divided in three main concepts:

<p><b><i>VISUAL Interface</i></b> (needs of interface, content representation and interactive tools)</p> <p>The visual interface of the system will have Front End web pages that will display to the user the contents and the ways to filter and to search them. Also, default or customized Back End web pages to administrate contents, classifications, preferences, etc. must be included in the system in order to be used and managed by RCREEE staff.</p>
<p><b><i>STRUCTURE</i></b> (needs for the main databases of content)</p> <p>Content types and classifications are interlinked and they have to be managed with flexibility and agility from the Back-End web pages.</p>
<p><b><i>PROCESSES</i></b> (needs for roles and permissions)</p> <p>Real-time collaborative work will require roles and permissions management for efficiency for efficient authorizing, publishing and collaboration among different users into one place.</p>

**The customized functionalities are described further in the next section.**

This concept model expresses as well the given opportunity to integrate the current institutional RCREEE’s website (<http://www.rcreee.org>) into the same information system framework.

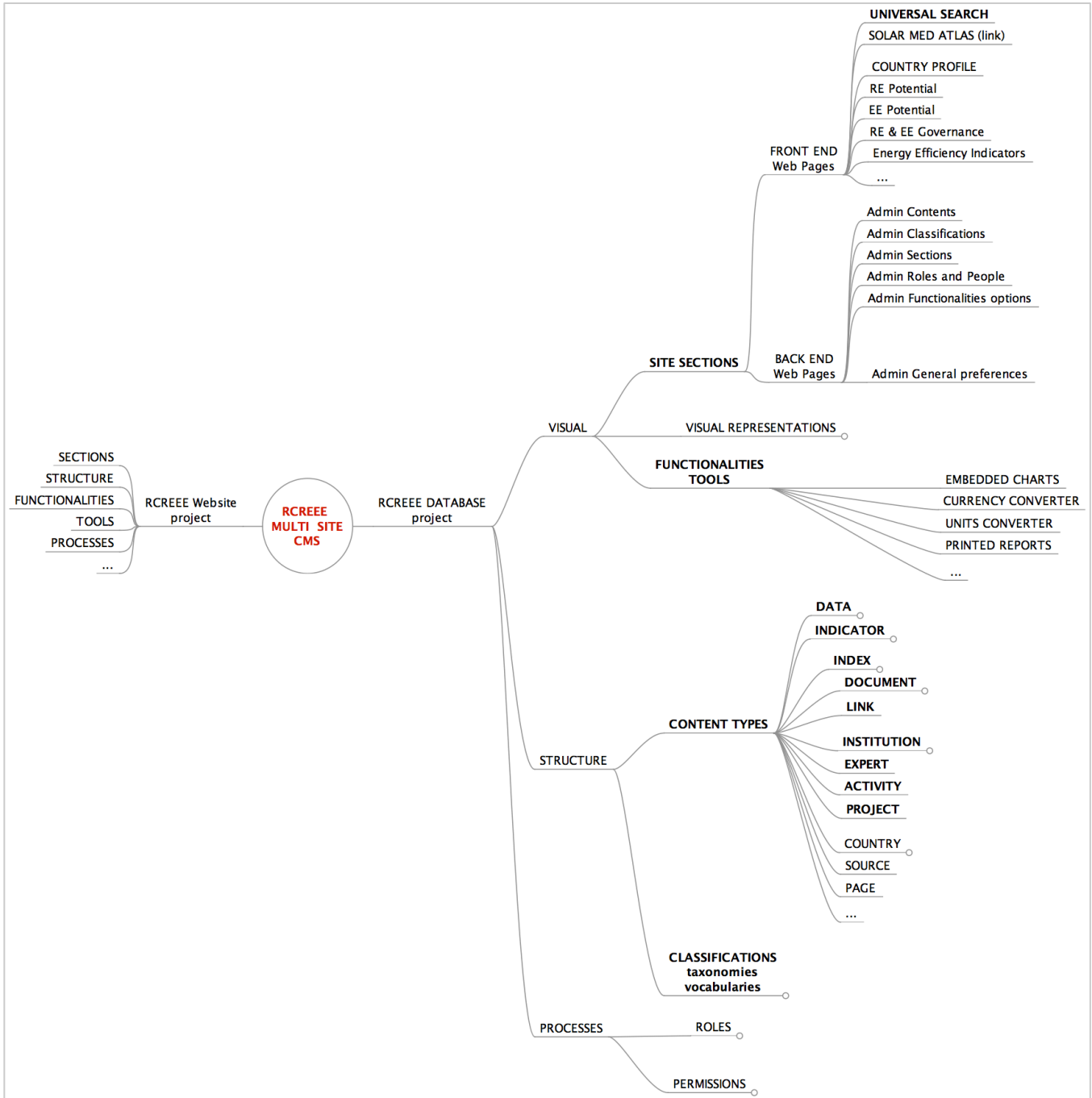


The system needs to be designed and implemented in a multi-domain/multi-site structure that will allow the coexistence of RCREEE database website and the institutional RCREEE website.

The design and implementation of the new institutional website, as well as the data migration, will be undertaken in a further project development.

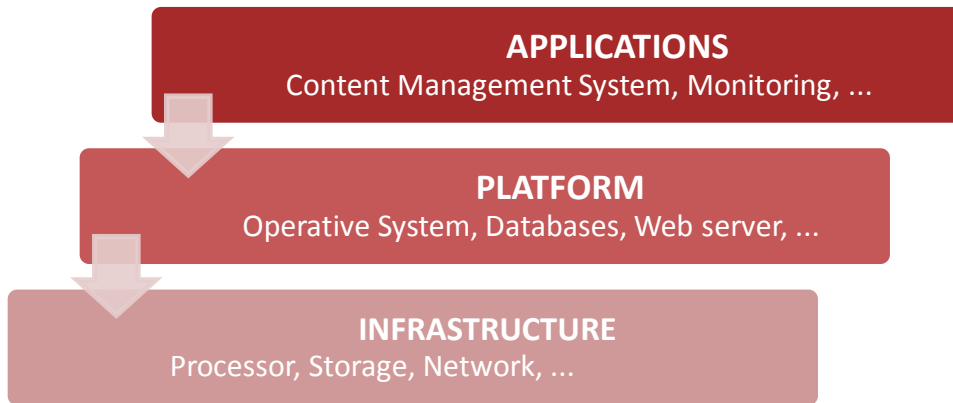
The design and migration of the institutional RCREEE website will not be considered as part of this project, however the information system (RCREEE database) has to be conceived as a seamless multi-site system that will enable the strategy above mentioned.

## Concept Model outline



## 1.7 Definition of the server model

Represented here, as a concept and for terminology purposes, is the structure of the server. It will be built over three main technology layers:



The main application should be developed strategically over flexible and convenient foundation architecture. This will enable RCREEE to promote further upgrades, expansions and new developments, without critical time laps and elevated infrastructure management costs.

## 2 TECHNOLOGY REQUIREMENTS

### 2.1 Main Application

The computer software identified to administrate, edit and publish the contents and sections is a web Content Management System (CMS).

The specific technicalities that should be taken into account for the development of the CMS are:

1.	Application built compatible with W3C web standards
2.	Application fully Open Source
3.	Support of spatial databases (PostgreSQL/PostGIS or equivalent)
4.	Support for W3C Semantic Web Data standards such as Linked Data and Ontologies (RDF, OWL, SKOS, SPARQL, etc.)
5.	Support for scalability and options of customization through the existence of contributed modules and a large community of developers.
6.	Internationalization and flexible multi-language structure for user interface and content. Seamlessly display content in multiple languages (Arabic, English and French languages, among others)
7.	Powerful search integration such as search autocomplete, full-text search, hit highlighting, faceted search, indexing, rich document handling (e.g., Word, PDF), and geospatial search.
8.	Capacity for organizing complex content (including pages, blog posts, videos, podcasts, polls, files, images and metadata) through a robust user-friendly administration interface.
9.	Availability of creating Content Types as a "computed field" from other content type values (basic arithmetical operations)
10.	Availability to manage hierarchical taxonomies for attributing and classify content types, as well for filtering and searching.
11.	Availability to insert inline text popups (tooltips or equivalent).
12.	Multi-site management to share a single installation (including core code, contributed modules, and themes) across several sites.
13.	Affiliated sites management to share users, content, and configurations across a group of sites.
14.	Availability to perform bulk operations on users attributes, content, permissions, classifications, tagging, etc. for massive management, editing, updating and publishing.
15.	Availability of integrating and email server engine to the modules/functionalities of the content management system.
16.	Availability to publish content via RSS feeds.
17.	Availability to share content links through social networks and mail.
18.	Availability to import massive content to the CMS through a guided import tool/process.
19.	Availability for the user to export and download large amounts of data and files directly through the website interface.
20.	Availability to automate tasks, establish sequential series of automated operations as workflows and trigger actions based on a set of criteria.

21.	Single Sign-On, integration with OpenID standard, Facebook Connect, LDAP (Lightweight Directory Access Protocol) systems or equivalent functionality.
22.	Creation of user accounts and fine-grained user permissions; assignment of one or more roles that allow users to view and create only what the administrator permits.
23.	Field and content type level access control to allow site owners to delegate content creation responsibilities to other users.
24.	Full-featured revision control system for content that includes revision comparison and restoration.
25.	Adequate security levels and audit trails to protect the integrity of the content and the system.
26.	Availability to integrate OpenLayers maps interface, Google Earth plugin or equivalent
27.	On screen client-side editor (WYSIWYG) to edit content and to easily create rich text pages or comments, insert markups, images, etc.
28.	User-friendly design and publication of web-based forms to collect data or feedback from visitors/users.
29.	Availability to create lists of inter-related content and integrated into the web pages.
30.	Availability to easily create custom layouts of the website sections, and drag and drop interface for adding lists, content, etc.
31.	Availability to easily integrate linked data from other semantic information systems as content types of the CMS
32.	Eye-catching, contextualized and modern graphical design and user-friendly interface interactions.

## 2.2 Other customized functionalities, tools, and applications

A preliminary list of the functionalities (or tools to be designed and developed, as reflected in the concept model) include the following:

33.	<i>Embedded charts:</i> the possibility of creating charts (as combination of data and indicators) through a convenient user interface. There will be a variety of charts that could be selected depending on the criteria of the editor, and the control variables such as colors, axis scales, etc. will be administrable. These charts need to be placed in any section of the website by the administrator and editors of the system.
34.	<i>Units converter:</i> the units of the physical magnitudes from related content types should be able to be converted dynamically when navigating the sections of the website.
35.	<i>Currency converter:</i> the units of the economical magnitudes from related content types should be able to be converted dynamically when navigating the sections of the website. The opportunity of using external API from currency service providers should be explored.
36.	<i>Print reports:</i> a tool for printing reports should be incorporated as an explicit functionality in the website for the user. Templates for printing reports should be administrable and easily editable.
37.	<i>Monitoring application:</i> a web analytic application is needed to allow measuring, collecting, analyzing and reporting Internet data, enabling the optimization and supervision the information system.

### 2.3 Infrastructure and Platform

Specific technicalities that should be taken into account for the Server implementation:

<b>38.</b>	The comparison of an <i>elastic cloud server</i> (Infrastructure as a Service) versus a <i>dedicated remote server</i> should be explored and the two options' "pros and cons" should be presented.
<b>39.</b>	The operative system of the Platform has to be based in open source code.
<b>40.</b>	Since the beginning, the information system has to be implemented on a database technology that supports spatial data and web geographic information systems' further development and integration.
<b>41.</b>	The operative system should be able to integrate innovative and state of the art open source webservers and geoservers, as well as open source web GIS technologies.
<b>42.</b>	FTP server and Mail server have to be implemented and fully integrated to the CMS
<b>43.</b>	The server side development should support PHP scripting language
<b>44.</b>	The server should be built within standard and powerful security technologies

## 3 COMPETENCES OF THE SYSTEM DEVELOPER

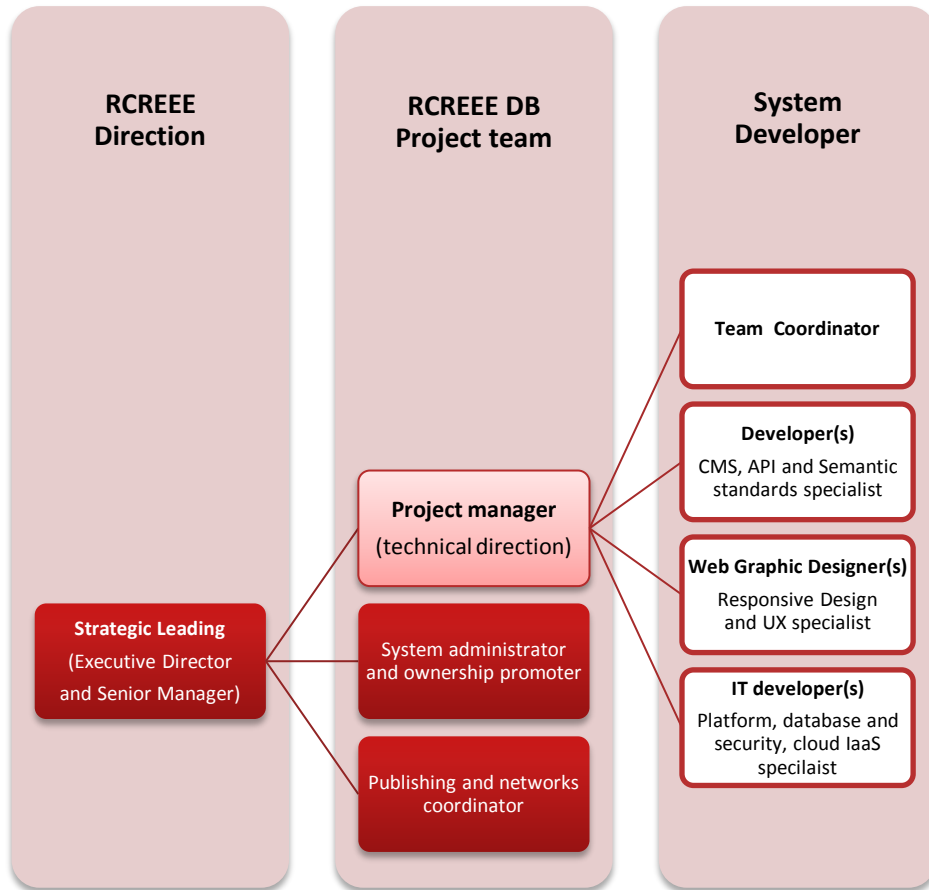
### 3.1 Project management and System Developer team

RCREEE is considering establishing a long-term relationship with a team of developers who can develop the current needs, and work as well in future improvements for the information system.

The development team will be reporting directly to RCREEE Database’s Project Manager.

Extended documents on *Information Architecture* elaborated by RCREEE and a *cloud server prototype* will be shared with the selected system developer in order to discuss project details and agile development planning.

The proposed organizational chart is presented below.



### 3.2 Competences on technology for the system developer team

45.	Reliable experience on information architecture is needed
46.	Reliable experience on web design, wireframes, usability and user interfaces is needed
47.	Reliable experience on content management systems is needed
48.	Reliable experience on Geographic Information Systems will be an advantage
49.	Experience with reliable high-quality open source solutions is required
50.	Experience with Linked Data format is required
51.	Track record of project team, designing and implementing similar websites, is required
52.	Experience in other regional information systems based on renewable energy and energy efficiency will be an advantage
53.	Experience in other multi-language information systems will be is required
54.	Reliable experience on server stacks architecture (LAMP, Javascript, W3C standards, databases, PHP, and others) is required
55.	Advanced degree in graphic design or 5 years of equivalent experience is required
56.	Experience with Responsive Web Design will be an advantage

### 3.3 Definition of required roles

RCREEE seeks the services of an efficient and thoroughly professional development team capable of undertaking the *Design* and *Implementation* stages of the project, with outstanding skills in several fields of computer science, design and software project management. Thus, a preliminary description of the minimum required roles has been outlined as follows:

#### Developer(s)

57.	Experience with a major Open-Source Content Management System
58.	Senior-level development skills in code programming (PHP, Javascript, and others)
59.	Experience with custom module development in CMS
60.	Experience with version control system
61.	Experience with integration with external web services
62.	Experience with Semantic web W3C standards (RDF, SPARQL...) and Linked Data standards
63.	Experience with integration of external web services and API customization
64.	Strong communication skills



### Web Graphic Designer(s)

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<b>65.</b>	Experience with Web designing and Graphic Designing
<b>66.</b>	Experience with template customization of a major Open-Source Content Management System
<b>67.</b>	Experience with Responsive Web Design (RWD)
<b>68.</b>	Experience with usability, front-end design, and UX (user interface)
<b>69.</b>	Senior-level development skills in HTML5 + CSS3 + Javascript + JQuery
<b>70.</b>	Experience with mock-up software for wire-framing
<b>71.</b>	Experience with version control system
<b>72.</b>	Strong communication skills

### IT developer(s)

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<b>73.</b>	Senior-level development skills in Server Platform deployments, particularly in LiNux/UNIX operative systems
<b>74.</b>	Experience in <i>Infrastructure as a Service</i> foundation models
<b>75.</b>	Experience developing for high-traffic environments, including performance optimization and scaling websites on load-balanced systems
<b>76.</b>	Experience in Relational Databases, Spatial Databases and non-relational
<b>77.</b>	Senior-level skills in web security protocols and data encryption
<b>78.</b>	Experience in automated server back-up configurations
<b>79.</b>	Strong communication skills

### Team Coordinator

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<b>80.</b>	Outstanding communication skills
<b>81.</b>	Senior-level experience in information systems
<b>82.</b>	Senior-level experience in Agile methods for software development
<b>83.</b>	Previous experience in management with Renewable Energy and Efficiency information systems (preferably in Africa region).
<b>84.</b>	Project Management Professional certification issued by PMI® or other equivalent process-oriented experience.

## 4 TASKS OF THE SYSTEM DEVELOPER AND ESTIMATED PROJECT DURATION

<b>DESIGN</b>		
<b>85.</b>	KICK-OFF MEETING (Cairo, Egypt)	<b>1 week</b>
<b>86.</b>	Detailed blueprints: <ul style="list-style-type: none"> <li>• Data modeling (database model of the information)</li> <li>• Entity relationship model (content types, relationships and attributes)</li> </ul> Complete series of wireframes	<b>3 weeks</b>
<b>87.</b>	Server's Infrastructure definition	
<b>88.</b>	Graphic Design's template and guidelines	
<b>89.</b>	<u>MILESTONE 1</u> [Deliverable 1] System Design Document <ul style="list-style-type: none"> <li>• Prioritized route map of agile development</li> </ul>	<b>2 weeks</b>
<b>IMPLEMENTATION</b>		
<b>90.</b>	<u>MILESTONE 2</u> [Deliverable 2] Prototype development from Design	<b>5 weeks</b>
<b>91.</b>	Agile development and versioning (phase 1) <ul style="list-style-type: none"> <li>• Reference version of the information system</li> </ul> <u>MILESTONE 3</u> <ul style="list-style-type: none"> <li>• Site Launch [Friday, December 27, 2013]</li> </ul>	<b>6 weeks</b>
<b>92.</b>	Agile development and versioning (phase 2) <u>MILESTONE 4</u> [Deliverable 3] <ul style="list-style-type: none"> <li>• Site final version</li> </ul>	<b>3 weeks</b>
<b>93.</b>	Training to the client strategy team in content transfer Support to content transfer and tagging	<b>1 week</b>
<b>94.</b>	Targeted audiences test feedback and troubleshooting	<b>2 weeks</b>
<b>95.</b>	<u>MILESTONE 5</u> [Deliverable 4] Final System Documentation submission <ul style="list-style-type: none"> <li>• System "as built" Document</li> <li>• Administration guide</li> <li>• User guide</li> <li>• Final transference</li> </ul>	<b>2 weeks</b>
<b>96.</b>	<u>MILESTONE 6</u> [Deliverable 5] Training Programme <ul style="list-style-type: none"> <li>• RCREEE staff training</li> <li>• Administrator training</li> </ul>	<b>2 weeks</b>
<b>Total</b>		<b>27 weeks</b>

Deliverables are the design documents, the platform and websites, the source code, the training and user manuals, and the training programme.

## 5 QUALIFICATION REQUIREMENTS

**In the following sections the System Developer team will be referred as “The Contractor”**

### 5.1 Formal and legal requirements

- Certificate of Incorporation: the Contractor should be registered as a legal Entity authorized to enter into contracts for provision of services and goods. As a proof, the Contractor should provide a certified copy of Certificate of Incorporation or other documents setting forth the legal basis of the company.
- Licenses/Authorizations/Quality-Standards: The Contractor should provide a copy of relevant licenses and/or authorizations, where applicable, enabling the company to perform the required services/work required; include quality standards if applied.

### 5.2 Quality of services

- The applicant should provide information that the required services and solutions meet international quality standards and, if yes, exactly which standards.
- A warranty period of twelve (12) months is required.

### 5.3 Financial requirements

The applicant has stable and sufficient source of finance to implement the activities. A certified copy of the Financial Statement shall be provided. In the optimum case it should meet the following basic financial criteria:

- Profit Margin ratio or Return on Assets Ratio should be in excess of 1%;
- A solvency ratio (ratio of current assets to current liabilities) of more than 1 is required.
- The average annual turnover for the past 3 years (or for whatever period of the time the contractor has been in the business for, if it has not yet reached 3 years) should be at least four times more than anticipated value of the contract.
- The impact of any pending claims, arbitration and other pending legal action should not exceed 50% of total of the contractor.

### 5.4 Management requirements

The Contractor has sufficient management capacity to implement the projects:

- Statement of Contractor’s and Subcontractor’s facilities, resources and staff available for this contract;
- Adequacy of management organization and plan.

## 6 EVALUATION CRITERIA

Bids will be evaluated based on the following criteria:

### 70% Quality of TECHNICAL PROPOSAL

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- Technical expertise through curriculum vitae / portfolios of previous track records
- Qualification on requirements and competences numbered in this document, for the following sections:
  - *Section 2 - TECHNOLOGY REQUIREMENTS*
  - *Section 3 - COMPETENCES OF THE SYSTEM DEVELOPER*
- Quality and quantity of similar works conducted particularly in the energy area and on international levels.
- Quality of a proposed methodology, software solution and modules: clear understanding of all technical aspects related to services requested.
- Qualification of a plan based on the tasks numbered in this document, in the following section:
  - *Section 4 -TASKS OF THE SYSTEM DEVELOPER AND ESTIMATED PROJECT DURATION*

Only the 3 best technical proposals will qualify for the financial proposal evaluation.

### 30% FINANCIAL PROPOSAL

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For the evaluation of the best financial offer the following costs will be considered:

- Personnel costs
- Software costs
- Travel costs
- Other costs

The financial evaluation of bids will be done according to the formula:

$$\text{Financial Score} = 30 \times F_m / F$$

where,  $F_m$  is the offer with lowest price, and  $F$  is the offer of price under consideration

RCREEE reserves the right to verify the information provided by the applicant independently.

## 7 LANGUAGE OF WORK

The interface and content should be published in English, Arabic and French. The contractor must have a capacity to work in English, and all documents required should be submitted in English.

## 8 PAYMENT AND REPORTING SCHEDULE

- 20% of the payment upon signing the contract and approval of inception report.
- 50% upon successful completion MILESTONE 4 and submission of all required documents up to Deliverable 3 (included).
- 30% upon successful completion MILESTONE 6 and submission of all required documents up to Deliverable 5 (included).

## 9 DEADLINE FOR OFFERS AND QUESTIONS

Bidders shall send their technical and financial proposals in PDF file through electronic submission to info@rcreee.org and mohamed.hamed@rcreee.org at latest by 21st of October 23:59h Cairo time.

## 10 REFERENCE WEBSITES AND USEFUL LINKS

The following websites can be used as reference to get ideas for information design, navigation design and interface design.

	<p><b>ECOWREX</b></p>
<p><a href="http://www.ecowrex.org">http://www.ecowrex.org</a></p>	
	<p><b>Solar Med Atlas</b></p>
<p><a href="http://www.solar-med-atlas.org/solarmed-atlas/map.htm">http://www.solar-med-atlas.org/solarmed-atlas/map.htm</a></p>	
	<p><b>World Energy Council</b></p>
<p><a href="http://www.worldenergy.org/data/">http://www.worldenergy.org/data/</a></p>	
	<p><b>African Development Bank</b></p>
<p><a href="http://www.afdb.org/en/">http://www.afdb.org/en/</a></p>	
	<p><b>World Data Bank</b></p>
<p><a href="http://databank.worldbank.org/data/home.aspx">http://databank.worldbank.org/data/home.aspx</a></p>	
	<p><b>Reegle</b></p>
<p><a href="http://www.reegle.info/countries/a">http://www.reegle.info/countries/a</a></p>	

Other useful links
<a href="http://afrec.mem-algeria.org/en/index.htm">http://afrec.mem-algeria.org/en/index.htm</a>
<a href="http://www.irena.org">http://www.irena.org</a>
<a href="https://www.iea.org/country/maps.asp">https://www.iea.org/country/maps.asp</a>
<a href="http://www.imf.org/external/datamapper/index.php">http://www.imf.org/external/datamapper/index.php</a>
<a href="http://hdr.undp.org/en/statistics/">http://hdr.undp.org/en/statistics/</a>

## 11 WEB SKETCHES

In the following pages, three conceptual web sketches are draft by RCREEE (with mock-up/wireframes tools) for better understanding of some the mentioned needs:

- *Universal Search Section*: this draft wireframe shows an example of a very functional oriented section where all the items requested (for example parameters/statistics or indicators) can be found and listed to the user through several filters of classifications or/and attributes
- *Examples of visual representations of the Content types*: this draft wireframe shows a way of representing the information of some Content Types of the information system through: tables of values, time series tables, charts (for parameters/statistics and indicators), lists and text representations.
- *Example of a conceptual "Indicator page layout"*: this draft wireframe shows an example of a summary page layout of an indicator (content type) with its related information (i.e. attributes like Title field, Source field, Methodology description field, etc.)

Data Base - Universal Search

- |   |  |   |   |  |   |
|---|--|---|---|--|---|
| <b>FILTER 1</b> ↓<br><input type="checkbox"/> Option 1<br><input checked="" type="checkbox"/> Option 2<br><input type="checkbox"/> Option 3 | <b>FILTER 2</b> ↓<br><input type="checkbox"/> Option 1<br><input checked="" type="checkbox"/> Option 2<br><input checked="" type="checkbox"/> Option 3<br><input type="checkbox"/> Option 4<br><input type="checkbox"/> Option 5 | <b>FILTER 3</b> ↓<br><input type="checkbox"/> Option 1<br><input checked="" type="checkbox"/> Option 2<br><input type="checkbox"/> Option 3<br><input checked="" type="checkbox"/> Option 4 | <b>FILTER 4</b> ↓<br><input checked="" type="checkbox"/> Option 1<br><input type="checkbox"/> Option 2<br><input type="checkbox"/> Option 3 | <b>FILTER 5</b> ↓<br><input type="checkbox"/> Option 1<br><input checked="" type="checkbox"/> Option 2<br><input type="checkbox"/> Option 3<br><input type="checkbox"/> Option 4<br><input type="checkbox"/> Option 5<br><input type="checkbox"/> Option 6 | <b>FILTER 6</b> ↓<br><input type="checkbox"/> Option 1<br><input type="checkbox"/> Option 2<br><input type="checkbox"/> Option 3<br><input type="checkbox"/> Option 4<br><input checked="" type="checkbox"/> Option 5<br><input checked="" type="checkbox"/> Option 6 |
|---|--|---|---|--|---|

**Category A**

Item 1	Value 1	Units 1	Source 1
Item 2	Value 2	Units 2	Source 2
Item 3	Value 3	Units 3	Source 3
Item 4	Value 4	Units 4	Source 4
Item 5	Value 5	Units 5	Source 5
Item 6	Value 6	Units 6	Source 6
Item 7	Value 7	Units 7	Source 7
...	...	...	...

**Category B**

Item 8	Value 8	Units 8	Source 8
Item 9	Value 9	Units 9	Source 9
Item 10	Value 10	Units 10	Source 10
Item 11	Value 11	Units 11	Source 11
Item 12	Value 12	Units 12	Source 12
Item 13	Value 13	Units 13	Source 13
Item 14	Value 14	Units 14	Source 14
...	...	...	...

**Category C**

Item 15	Value 15	Units 15	Source 15
Item 16	Value 16	Units 16	Source 16
Item 17	Value 17	Units 17	Source 17
Item 18	Value 18	Units 18	Source 18
Item 19	Value 19	Units 19	Source 19
Item 20	Value 20	Units 20	Source 20
Item 21	Value 21	Units 21	Source 21
...	...	...	...

**Category ...**

Item ...	Value ...	Units ...	Source ...
...	...	...	...



VISUAL REPRESENTATIONS

EXAMPLES OF TABLE REPRESENTATION

EXAMPLE OF TABLE PER COUNTRY

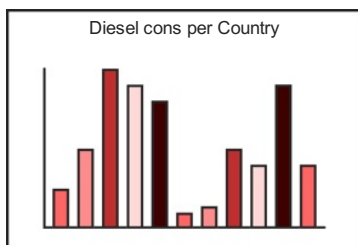
Country A	Value 1
Country B	Value 2
Country C	Value 3
Country D	Value 4
Country E	Value 5
...	...

EXAMPLE OF TIME SERIES TABLE

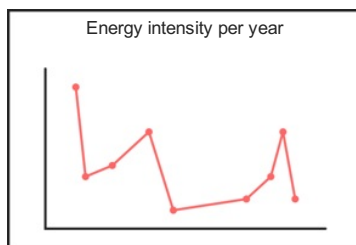
Item / Year	Country	2012	2011	2010	2009	2008	2007	...	...
Egypt	Data01	Value	Value	Value	Value	Value	Value	...	...
	Indicator 52	Value	Value	Value	Value	Value	Value	...	...
Jordan	Data01	Value	Value	Value	Value	Value	Value	...	...
	Indicator 52	Value	Value	Value	Value	Value	Value	...	...

EXAMPLES OF CHART REPRESENTATION

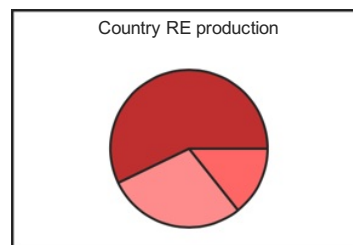
EXAMPLE OF BAR CHART



EXAMPLE OF LINE CHART



EXAMPLE OF PIE CHART



EXAMPLES OF LIST REPRESENTATION

EXAMPLE OF LIST OF SOURCES

- Sources
- (1) Ministry Of ENERGY
  - (2) World Bank
  - (3) RCREEE
  - (4) League of Arab States
  - (5) United Nations Development Programme
  - (...)

EXAMPLE OF LIST OF STAKEHOLDERS

- Stakeholders - Jordan
- ASSOCIATION OF TUNISIAN CONSUMERS
  - NATIONAL ENERGY LABORATORY
  - UNIVERSITY OF DAMASCUS
  - TECNOSOLAR JORDAN
  - SUDAN ENERGY EFFICIENCY AGENCY
  - INTERNATIONAL BUREAU OF RENEWABLE ENERGY
  - ...

EXAMPLE OF LIST OF DOCUMENTS

- List of Policy Documents
- Policy on RE 01 [ PDF ]
  - Policy on EE 02 [ PDF ]
  - Declaration 03 [ PDF ]
  - Technical document 04 [ PDF ]

EXAMPLE OF TEXT REPRESENTATION

**Methodology**

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This Item is the combination of the DATA 01 with DATA 02, and a correction factor of 0,2

**Description**

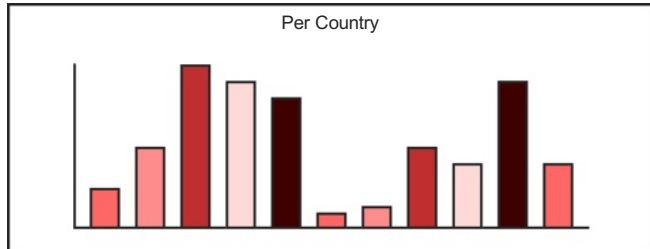
---

Energy intensity is a measure of the energy efficiency of a nation's economy. It is calculated as units of energy per unit of GDP. High energy intensities indicate a high price or cost of converting energy into GDP. Low energy intensity indicates a lower price or cost of converting energy into GDP. Energy Intensity as defined here is not to be confused with Energy Use Intensity (EUI), a measure of building energy use per unit area.

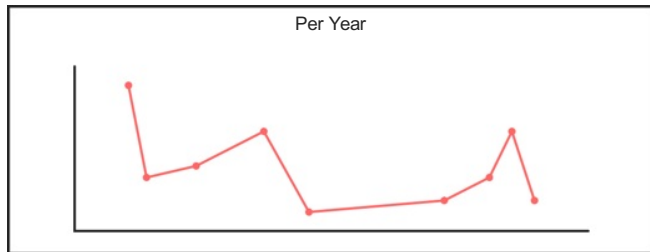
Data Base - Universal Search

ITEM 01

Country A	Value 1	Units 1
Country B	Value 2	Units 2
Country C	Value 3	Units 3
Country D	Value 4	Units 4
Country E	Value 5	Units 5
Country F	Value 6	Units 6
Country G	Value 7	Units 7
...	...	...



Year A	Value 1	Units 1
Year B	Value 2	Units 2
Year C	Value 3	Units 3
Year D	Value 4	Units 4
Year E	Value 5	Units 5
Year F	Value 6	Units 6
Year G	Value 7	Units 7
...	...	...



SOURCES and Methodology

Sources

- (1) Ministry Of ENERGY
- (2) World Bank

Methodology

This Item is the combination of the DATA 01 with DATA 02, and a correction factor of 0,2