

RCREEE INTERNSHIP PROGRAM INTERNSHIP TOPICS

Dear Applicant,

Below you will find a list of topics with internship vacancies. You are requested to write the name and number of the topic in the Subject field of the email. Note that **RE** stands for Renewable Energy while **EE** stand for Energy Efficiency.

Topic 1: Listing of different scenarios used for subsidies removal in MENA and other region

Objective: Assist In preparation of the study on Energy Subsidies to be included in the work plan 2013.

Tasks:

- Reporting on the different existing energy subsidy systems in the RCREEE member states, including subsidy levels and implementation mechanisms
- Searching information on the different studies performed on the removal of energy subsidies
- Collecting the different scenarios used for removal subsidies mechanisms
- Listing the basic information needed for the scenarios

Background: Relevant degree in: economics or engineering

Topic 2: Support SHAMCI Network Secretariat

Objective: SHAMCI is a project that aims to create a certification scheme for solar thermal products in the Arab region in order to achieve a quality control system. This program is implemented by SHAMCI network which is coordinated by RCREEE.

Tasks: Technical and administrative support for project activities as follow:

- Adapt the SWHs European standards
- EN 12975-EN 12976 to establish an Arabian standards for collectors and systems
- SWHs testing facilities minimum qualifications to meet ArSol certification scheme requirements.
- Managing the network docs, files, contacts, website and publications.

Background: Mechanical Engineering degree. Experience in Knowledge in SWHs standards and testing is required. Knowledge of networks managements, marketing tools (web, publications...etc) is a plus.

Topic 3: Evaluation of value creation and external costs effects of renewable electricity generation in RCREEE Member States

Objective:

- Analyze economic value creation of the RE upscale at the macroeconomic perspective.
- Assess the impact of externalities on the adoption of RE technologies through the financial quantification of the externalities of electric power generation technologies.
- Support RCREEE initiative of raising the awareness of policy makers and other stakeholders

Tasks:

- develop a simplified value creation model based on available literature and apply it on RCREEE countries,
- develop a simplified model for external costs estimation, and apply it on RCREEE countries,
- prepare short summaries, presentations and produce 2 topical reports within the internship period

Background: B.Sc. in economics or engineering economics

Topic 4: Applying EFFECT, MACTool, and TRACE tools to RCREEE Member States to Design Strategic LCD Plans

- Objective:** The effects of climate change on the MENA region are expected to be severe. Thus, putting a strategic plan that depends on decreasing Green House Gas (GHG) emission is essential. The World Bank has developed free excel-based tools that can be used to develop such strategies:
1. The Energy Forecasting Framework and Emission Consensus Tool (EFFECT), <http://esmap.org/esmap/EFFECT>
 2. The Marginal Abatement Costs Tool (MACTool), <http://esmap.org/esmap/MACTool>
 3. Tool for Rapid Assessment of City Energy (TRACE), <http://esmap.org/esmap/TRACE>
- Tasks:**
- Assist in detailing and implementing the required training program.
 - Assist in drafting a ToR for a training program for EFFECT, MACTool, and TRACE tools.
 - Data Collection and analysis.
- Background:** Degree in economics with 1 year experience in macro-economics, or registered for 1 year in master program in economics. Background in climate change is an asset.

Topic 5: Reference ratios identification in the different sectors and Updating the EE indicators data in RCREEE member states.

- Objective:** Reference ratios identification for subsectors in the industry, usages for residential, mode of transportation, and services) and Updating the EE indicators study using the 2010-2011 data.
- Tasks:** Collecting data for RCREEE member states in activities and energy for :
- Subsectors in the industry (cement, steel, glass, chemicals, paper...)
 - Usages in the residential (heating, cooling, water heating, cooking, refrigerators, Appliances...)
 - Transportation mode(ground transportation-public &private-rail, maritime, air...)
 - Subsectors of services (hotels, hospital, administration...)
 - Calculation of basic ratios for the region
 - Calculating the new EE indicators and Updating the analysis of the indicators
- Background:** Relevant degree in: economics or engineering with basic knowledge of the energy sector.

Topic 6: Support of NEEAP

- Objective:** NEEAP: National Energy Efficiency Action Plan: RCREEE supports its member states in preparing their NEEAPs. It includes a set of EE measures designed to achieve a specific target to be met at specific year.
- Tasks:** Choose 3 EE measures of the most common measures planned or implemented in the Arab region, and apply the cost-effectiveness test according to the manuals. The results should be documented in a final report.: <http://www.epa.gov/cleanenergy/documents/suca/cost-effectiveness.pdf>
http://www.energy.ca.gov/greenbuilding/documents/background/07-j_cpuc_standard_practice_manual.pdf
- Assign a short term expert to prepare the draft NEEAP,
 - review and approve the draft by RCREEE
 - draft NEEAP quality control by an international expert
 - organizes a national workshop for NEEAP launching
- Background:** Engineering or Economics degree (multi science specialty is preferred). Knowledge of EE and energy savings measures, projects feasibility, utilities. ...etc)

Topic 7: Best practices on wind and solar resource assessment in RCREEE MS

Objective:

- Summarizing international best practices in the resource assessment field based on available literature,
- Reviewing the existing solar and wind resource assessment activities in RCREEE member states,
- Benchmark and identify gaps in RCREEE MS activities in comparison with international practices, and propose recommendations on filling this gaps.

Tasks: Prepare short summaries and produce a topical report on the subject within the internship period.

Background: B.Sc. or higher in Engineering, physics, with background on solar energy

Topic 8: Manuals and Guides project: Land Use Agreement and Power Purchase Agreement

Objective: RCREEE developed regional best practices for the key project agreements for private finance RE projects (LUA&PPA). The deliverables are Term Sheets "templates" to draft and agree on "Model Agreements" which can be used by relevant public entities within RCREEE region when tendering and implementing RE electricity generation projects in public lands owned by governmental bodies and sells electricity to the Grid Company.

Tasks: Review, check and finalize the models in Arabic and English languages.

Background: Relevant degree with experience in agreements related to Energy projects.