

REQUEST FOR EXPRESSION OF INTEREST FOR SELECTION # 1260870

This Request for Expression of Interest is for a Firm Selection. Please log in as a valid Firm User if you wish to express interest in this selection.

Selection Information

Assignment Title	Global Rooftop Solar Potential Data Collection
Publication Date	18-Jan-2019
Expression of Interest Deadline	11-Feb-2019 at 11:59:59 PM (Eastern Time – Washington D.C.)
Language of Notice	English

Selection Notice

Assignment Country	BD - Bangladesh ET - Ethiopia GH - Ghana KE - Kenya MX - Mexico NG - Nigeria PK - Pakistan PH - Philippines LK - Sri Lanka TZ - Tanzania TR - Turkey UZ - Uzbekistan
Funding Sources	The World Bank Group intends to finance the assignment/services under: BB - BANK BUDGET
Individual/Firm	The consultant will be a firm.

Assignment Description

A. INTRODUCTION

Solar PV has the potential to make electricity generation cheaper and cleaner when it displaces more expensive, more polluting alternatives. Rates of solar PV deployment in developing countries are accelerating as capital costs fall, and with support from programs by an increasing number of governments. Almost half of global PV capacity growth in the next five years is forecast to be in distributed applications, primarily on rooftops, driven mainly by commercial, industrial and public sector building owners seeking to reduce their electricity bills. Rooftop solar PV can provide an effective solution to meeting building energy demands, especially in urban areas where other forms of renewable energy generation are limited, as the building sector currently represents more than 50% of global electricity demand and nearly 40% of global carbon dioxide emissions .

In spite of the attractive economics and great potential of rooftop solar PV energy to provide clean and reliable energy, in many emerging markets, the adoption and scaling up of rooftop solar installations remains challenging due to the lack of access to data/tool for feasibility studies, finance and reliable/quality technical partners. To overcome these barriers, it is essential to build the partnership and capacity of project developers/installers, financial Institutions, customers, regulators, and utilities. An important initial barrier to address is lack of relevant and accurate rooftop PV potential data for public planning purposes. The World Bank Group is helping client countries develop effective tools to estimate rooftop PV potential to support planning and project development.

In 2018, the World Bank launched the open source tool Technical Rooftop Potential in Vietnam (<http://rooftoppvpotential.effigis.com/index.html>) which provides individual building level rooftop PV potential estimates in two major Vietnamese cities. Access to this data in a standardized open source platform allows relevant developers/installers, financial Institutions, customers, regulators, and utilities to better identify, prioritize and develop rooftop PV projects. The World Bank Group intends to support other jurisdictions in carrying out such analysis by developing a standardized, global platform under the existing ENERGYDATA website (<https://energydata.info>), which will be commissioned separately and in parallel. To help populate this platform and achieve economies of scale, the World Bank Group is seeking the services of a consulting firm (Consultant) to carry out detailed assessments of the technical rooftop solar PV potential in multiple cities using satellite data and machine learning methods. The required data outputs will include, but are not limited to, available suitable rooftop area (m2), total installed capacity (MW), total potential generation (MWh).

B. GENERAL SCOPE OF THE SERVICES

The envisaged scope of work is as follows:

Producing assessments of the total technical rooftop solar PV potential (in m², MW and MWh) across the total building stock in the selected cities (see list of cities at end of section B), broken down by residential, public sector, commercial, and industrial buildings. Based on this assessment, the selected Consultant shall provide an estimate of the total rooftop solar PV potential for each city. The assessment shall take into account solar irradiation data provided by the World Bank via the new Global Solar Atlas and to the extent possible color, shading, tilt and azimuth effect on rooftop suitability. No primary data collection (LiDAR, surveys, solar data measurements, or similar) is envisaged;

Developing and deploying a cost-effective methodology to conduct the above outlined assessment in other jurisdictions. The assessment shall be carried out using WorldView3 high resolution stereo satellite imagery (obtained directly by the WBG) and a combination of machine learning and human verification to identify suitable rooftops and quantify their potential for solar PV. In order to deploy the most cost-effective approach to undertaking this assignment, and increase the potential replicability in other countries, the contracted C shall seek to automate the analytical work as far as possible and prepare a methodology for the deliverables to be replicated in other jurisdictions.

Providing a full report and slide deck summarizing the total technical rooftop solar PV potential across the total building stock and break-downs for building categories (in M², MW and MWh) in each jurisdiction

Transfer of all relevant data generated under this assignment in a metadata format suitable to be uploaded to the ENERGYDATA platform, including any training required to use them for future independent analysis.

The Terms of Reference (TOR) for the assignment will be further developed at the Request for Proposals (RFP) stage, and the tasks may change and/or be further developed at that time. Any feedback from Consultants at the REOI stage will be taken into account in developing the TOR.

Suggested Cities for Assignment

Accra, Ghana

Addis Ababa, Ethiopia

Colombo, Sri Lanka

Beirut, Lebanon

Dar es Salaam, Tanzania

Dhaka, Bangladesh

Izmir, Turkey

Karachi, Pakistan

Lagos, Nigeria

Manila, Philippines

Mexico City, Mexico

Nairobi, Kenya

Samarkand, Uzbekistan

C. EXPRESSION OF INTEREST & INFORMATION

Consultant firms are invited to submit Expressions of Interest (EOI) for this selection, which shall respond to the following qualification criteria:

Outline of the Consultants (or Consortiums) core business and experience in carrying out remote sensing, geospatial analysis and machine learning at it relates to this assignment;

Summary description of their proposed approach for carrying out the assignment;

Description of any data supplier relationships, preferences or restrictions they have in place;

Prior experience working on World Bank financed or commissioned projects;

Expertise in high resolution stereo satellite imagery, and ideally specific experience with WorldView 3 imagery;

Expertise in deploying open source geospatial tools and experience with geospatial analysis;

Any comments or suggestions that the Consultant has on the approach being proposed or methodological considerations that the World Bank Group team should take into account.

D. FIRM PROFILE

It is anticipated that Consultants responding to this EOI will be firms, or a consortium of firms (with one firm designated as the lead Consultant).

E. SUBMISSION REQUIREMENTS

The World Bank now invites eligible Consultants to indicate their interest in being invited to submit a full proposal at the RFP stage.

Interested Consultants must provide information indicating that they are qualified to perform the services, referring to the guidance above. Consultants may associate with other invited and non-invited firms to enhance their qualifications. The EOI submission shall be in the form of a single attached PDF file, including any annexes. Please note that the total size of this PDF file should be less than 5MB, and there is no need to complete the text fields available on eConsult. We require that Consultants limit their EOI to a focused and tailored submission not to exceed 10 pages, exclusive of CVs and suggestions/comments on the proposed approach/methodology, which can be included as annex material. EOI submissions that go beyond the 10 page limit WILL NOT BE REVIEWED beyond this point, which may negatively impact on the scoring that is given. The intention at the REOI stage is to assess the suitability of each Consultant to be invited to the RFP stage, and so firms should focus on responding to the criteria outlined in Section C above, and should keep their EOI submissions concise and to the point.

F. NOTES

Following the completion of the EOI stage, a shortlist of eligible consultants will be invited to the RFP stage, which will include a full technical and financial evaluation.

Interested firms are hereby invited to submit expressions of interest.

Expressions of Interest should be submitted electronically through World Bank Group eConsultant2 (<https://wbgeconsult2.worldbank.org/wbgec/index.html>).

Attachments

[Optional TOR File](#)

Qualification Criteria

1. Provide information showing that they are qualified in the field of the assignment. *
2. Provide information on the technical and managerial capabilities of the firm. *
3. Provide information on their core business and years in business. *
4. Provide information on the proposed methodology and timeline of the assignment on a per city basis, and whether the methodology can be replicated at the same time in parallel for each city, or on a city by city basis. *

* - *Mandatory*

If you encounter technical difficulties during upload, please send an e-mail to the Help Desk at wbgeconsultant@worldbank.org.

Shortlisted consultants will be invited to respond to a Request for Proposal. Contract awards will be made in accordance with the World Bank Group Procurement Policies and Procedures.