Request for Proposal (RFP)
Operation Technology of Solar Photovoltaic Power Station Roof and Policy Framework-S EWG 24 12A

Introduction

A The APEC Secretariat is seeking proposals for the provision of the Works described in RFP Schedule 1 – Statement of Requirement.

B Each Bidder to this RFP is expected to:

(i) fully inform themselves on all aspects of the work required to be performed;

(ii) submit its proposal on the template provided at RFP Schedule 2 – Proposal, including the signed Declaration by Bidder at the end of Schedule 2; and

(iii) submit its proposal in accordance with RFP Schedule 1 – Statement of Requirement and with due note of RFP Schedule 5 – Evaluation Criteria.

C Each Bidder, by submitting its proposal, agrees that the proposal is subject to the RFP Schedule 4 – Standard Conditions of Proposal, and agrees to comply with those conditions. Acceptance of a proposal will occur only when a contract is executed. Any Contract will incorporate the APEC policies and guidelines identified in RFP Schedule 3 - Special Conditions of Proposal and the contract at RFP Schedule 6 - Standard Contract Conditions.

D Bids from contractors based in non-member economies and bids from international organisations may be considered. However, priority is given to suitably qualified tenders from member economies.
Structure of the RFP

The RFP has six parts:

- Schedule 1: Statement of Requirement
- Schedule 2: Proposal Template
- Schedule 3: Special Conditions of Project Proposal
- Schedule 4: Standard Conditions of Request for Proposal
- Schedule 5: Evaluation Criteria
- Schedule 6: APEC Standard Contract Conditions

## RFP Schedule 1 – Statement of Requirement

### Key Dates and Details

<table>
<thead>
<tr>
<th>Event</th>
<th>Dates</th>
</tr>
</thead>
<tbody>
<tr>
<td>Closing Time for submission of Proposals</td>
<td>04 October 2013 at 17:00 Singapore time</td>
</tr>
<tr>
<td>Method to Submit Proposal</td>
<td>Proposals must be submitted to:</td>
</tr>
<tr>
<td></td>
<td>Attention: Mr. Zhiwei LU, Director (Program)</td>
</tr>
<tr>
<td></td>
<td>APEC Secretariat</td>
</tr>
<tr>
<td></td>
<td>35 Heng Mui Keng Terrace</td>
</tr>
<tr>
<td></td>
<td>Singapore 119616</td>
</tr>
<tr>
<td></td>
<td>Email: <a href="mailto:lz@apec.org">lz@apec.org</a>; through: <a href="mailto:nma@apec.org">nma@apec.org</a></td>
</tr>
<tr>
<td></td>
<td>and copy to Mr WAN Lin, Contact officer</td>
</tr>
<tr>
<td></td>
<td><a href="mailto:wanlinuk@gmail.com">wanlinuk@gmail.com</a> <a href="mailto:lwan@vip.sina.com">lwan@vip.sina.com</a></td>
</tr>
<tr>
<td></td>
<td>(Noting the project number: S EWG 24 2012A)by the closing</td>
</tr>
<tr>
<td></td>
<td>time specified above.</td>
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<td></td>
<td>Proposals lodged in any manner other than</td>
</tr>
<tr>
<td></td>
<td>as detailed in this paragraph, or are</td>
</tr>
<tr>
<td></td>
<td>submitted after the deadline shall be</td>
</tr>
<tr>
<td></td>
<td>deemed to be invalid and may be excluded</td>
</tr>
<tr>
<td></td>
<td>from consideration.</td>
</tr>
<tr>
<td>Number of Copies to be Submitted</td>
<td>The Bidder shall submit one original hard</td>
</tr>
<tr>
<td></td>
<td>copy and one electronic version (in PDF</td>
</tr>
<tr>
<td></td>
<td>format) of its detailed Proposal.</td>
</tr>
<tr>
<td></td>
<td>Decisions will be taken on the basis of</td>
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<td></td>
<td>the original hard copy written Proposal.</td>
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<td>In the event of any discrepancy between</td>
</tr>
<tr>
<td></td>
<td>the original and copy thereof, information</td>
</tr>
<tr>
<td></td>
<td>contained in the original hard copy shall</td>
</tr>
<tr>
<td></td>
<td>be accepted as correct and shall prevail</td>
</tr>
<tr>
<td></td>
<td>over any statements contained in the copies.</td>
</tr>
<tr>
<td>Contact Officer</td>
<td>Mr WAN Lin</td>
</tr>
<tr>
<td></td>
<td>APEC EGNRET member</td>
</tr>
<tr>
<td></td>
<td>Executive Director, Beijing Energy Innovation Ltd.</td>
</tr>
<tr>
<td></td>
<td>E-mail: <a href="mailto:wanlinuk@gmail.com">wanlinuk@gmail.com</a>; <a href="mailto:lwan@vip.sina.com">lwan@vip.sina.com</a></td>
</tr>
<tr>
<td></td>
<td>Tel: 0086 10 5979 2987</td>
</tr>
<tr>
<td></td>
<td>Mobile: 0086 1360 133 0507</td>
</tr>
<tr>
<td>Expected execution date of Contract</td>
<td>7 October 2013</td>
</tr>
<tr>
<td>Date Works are to be completed</td>
<td>All stages of the Works are required to be</td>
</tr>
<tr>
<td></td>
<td>completed on or before 18 April 2014</td>
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</tbody>
</table>
|                                            | Please see the table of deliverables (page 5 of this document) for more detailed information.
The Works

The APEC Secretariat is seeking proposals for research services for the “Operation Technology of Solar Photovoltaic Power Station Roof and Policy Framework” project.

Background

With the continuous development of global economy, energy consumption continues to grow, which led to increasing scarcity of traditional fossil fuels, and exacerbating environmental pollution and global warming. Therefore, optimizing energy structure, improving energy efficiency, developing clean and renewable energy has become an important part of strategy for the future economic development of countries, the global economy is moving towards low carbonization after experienced industrialization and informatization.

It was pointed out in the Energy Ministers statement in June, 2012 in St.Petersburg, ‘We are working to develop renewable energy sources. These steps will serve to increase our energy security, contribute to our economic development, and reduce emissions of carbon dioxide and other pollutants into the atmosphere.’ China has pledged to lower its carbon dioxide emissions per unit of GDP by 40-45% by 2020.

As an important means of optimizing the structure of urban energy and improving the quality of local environment, developing and utilizing solar energy is becoming important today, especially with the rapid development of photovoltaic industry, the continuous declination of equipment costs, and the improvement of photoelectric conversion efficiency, there is a broad prospect in the market of photovoltaic power generation. In the process of urban low-carbon development, compared with wind resource, solar resource not only blesses with good space superiority, but also has a better stability and predictability.

The PV production capacity of the APEC economic entities occupies more than half of the world’s total production, but the share of market application is relatively low, so PV power stations have a good prospect for development in the APEC, of which rooftop PV power station is an important form of application. The economic benefits of rooftop PV power station is related to a number of factors, such as irradiation, latitude and climate, and the process requirements of the power station are associated with rainfall, acid rain level and the maximum wind speed. These statistics and analysis are necessary before the construction of each power station. However, there is not only lacking of statistics and analysis in the rooftop PV power station, but also short of systematic research and summary in the problems which exist in the development process. After a great deal of input, China has acquired many fruits in the solar photovoltaic field. This project would sum up experience and share within APEC.

During the development of rooftop PV power station, whether in the aspect of technology or policy level, lacking of an accurate assessment and development guideline for the project is one of the most important factors which hinder the large-scale development of rooftop PV power station. To strengthen the process of urban low-carbon construction, a good distributed PV power station project is of great importance to the local economy and environment. However, in order to attract more government support, financial support and investment business concern, how to judge the merits of a project, how to achieve the improvements of existing technologies, and how to achieve more excellent project reserves, it is an important problem to be solved.

This project will investigate the development potential and benefit assessment of all APEC rooftop PV power stations, including screening one to three typical cities from each economic entity to survey the latitude, irradiation resource information, rainfall and other meteorological information, based on which it is to calculate the average monthly and annual PV power generation benefits of local rooftop PV power stations and explain the
process needed by the construction of local PV power stations (such as the optimum tilt angle, bracket annual corrosion thickness and the maximum wind load).

The project will generate reports and electronic databases, of which electronic databases are to provide detailed data related to each APEC economic entity’s typical urban development rooftop PV power stations (including irradiation, latitude, average monthly electricity generation, average annual electricity generation, optimum tilt angle, investment payback period, whether it is suitable for the development of rooftop PV power stations, rainfall and acidity, PV panel bracket corrosion standard, etc.), available to all APEC economic entities and local governments and investors for reference, so as to select the best investment and construction scheme and dramatically reduce the early-stage workload of the rooftop PV power station construction plan.

The project will also summarize the experience and lessons of urban PV power generation project construction and raise corresponding policy recommendations and safeguard measures according to the characteristics of the APEC regional economy.

The report of the project will also includes the commercial access mechanism of roof PV power generation stations in Chinese cities, which offers timely and rich information for PV product manufacturers in APEC developing economies to enter the Chinese market.

This project proposal will be designed to be beneficial not only for those manufacturers in the APEC developing economies who would like to enter the Chinese market, but also for a wide variety of stake holders in the APEC developing economies, for example including local manufactures and government.

Objectives of the project

The key objectives of the project are:

- To research the solar resource characteristics, the characteristics of the development of photovoltaic technology and the PV support policy of each economic entity in the APEC region. Develop economic benefit databases for typical urban rooftop PV power stations of each APEC economic entity to provide a detailed and credible economic and technical reference for the development of rooftop PV power stations of each economic entity.
- To explore and reserves rooftop PV power station project resources, and establish an appropriate project evaluation system as a guiding system for developing rooftop PV power stations within APEC regions, providing the basis for the project risk assessment, revenue forecasting and policy support.
- To review the evolution process of rooftop PV power station technology, including construction modes, installation technology, maintenance technology, safety technology and access technology, and master the problems and risks existing in the development, construction and operation of a station, meanwhile seek some appropriate solutions to achieve the technology upgrades and changes of rooftop PV power station.
- To review rooftop PV power station as a critical component of green energy concept of local energy systems with a view to maximize the economic and environmental effect of tested and ready-to-use technologies.
- To create a framework for management policy of electric quantity gauge and trading system; Large PV power station is the mainstream PV technology in future, but the power fluctuation is inevitable due to climate changes. Therefore, the formulation of corresponding power calculation and settlement method will be attractive.
To help participants to improve the electric energy providers’ capacity in integration and application of photovoltaic power station roof.

To provide a menu of options to APEC economies for piloting of solar photovoltaic power station roof projects in the form of assessment methodologies, business scenario models and specific recommendations including, but not limited to the following:

- Urban construction, operation and management of PV projects;
- Research on PV by main APEC members: incentive policies issued and implemented; effects of policy implementation, and impacts on industrial development;
- Summary of APEC experience and lessons, and proposal of policy suggestions and guarantee measures.

Scope of Works

The project requires the contractor to complete and submit the following results:

1. To establish a rooftop solar PV power station project database
   - By desk research and field research, to collect, classify and summarize the data and information of the rooftop solar power station projects, including the finished projects, projects under construction, and pipeline projects in the APEC economic entities.

2. To build a rooftop solar power station project evaluation system framework
   - To establish an appropriate project evaluation system framework, in order to review and analyze the problems existing in the process of acceptance, audit and operation and maintenance within the built and unbuilt rooftop solar power projects, as well estimate the economic, environmental and social benefits of projects, and analyze the project investment risk, income level and the going concern status.

3. To submit a research report, the specific content should cover the following aspects:
   - To make an introduction and description for the rooftop solar power station project database and the project evaluation system framework, and provide reference for the management plan adjustment of built projects, as well for the investment strategies and construction programs of unbuilt projects.
   - By desk research and field research, to review the evolution process of rooftop PV power station technology, and master the problems and risks existing in the development, construction and operation of a station, meanwhile seek some appropriate solutions. Through a typical case study, detailing the fundamental changes of next rooftop solar power station development caused by technology upgrade.
   - To have a commercial estimate and analysis for a typical rooftop PV power station project.
   - To research incentive policies issued and implemented on PV by main APEC members, as well effects of policy implementation and impacts on industrial development. Based on that, summarize the experience, lessons, and proposal of policy suggestions and guarantee measures for the APEC economic entities.
Expected Outputs and Timelines

Table of Deliverables

<table>
<thead>
<tr>
<th>#</th>
<th>Deliverable</th>
<th>Format</th>
<th>Quantity</th>
<th>Due Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Deadline for submission of proposal</td>
<td>According to RFP requirements</td>
<td>1 hard copy and 1 electronic copy</td>
<td>04 October 2013</td>
</tr>
<tr>
<td>2</td>
<td>Proposal evaluation and selection by a panel of representatives from APEC Member Economies</td>
<td>Not applicable</td>
<td></td>
<td>14 October 2013 (Anticipated)</td>
</tr>
<tr>
<td>3</td>
<td>Negotiation of contract details between the APEC Secretariat and the successful Bidder</td>
<td>According to APEC Standard Contract Conditions</td>
<td>2 Originals</td>
<td>25 October 2013 (Anticipated)</td>
</tr>
<tr>
<td>4</td>
<td>Regular reports on progress with the project, including a detailed work plan at an early stage</td>
<td>Email to the Project Overseer</td>
<td></td>
<td>Fortnightly, or as requested by the Project Overseer</td>
</tr>
<tr>
<td>5</td>
<td>APEC Solar Power Station project database</td>
<td>Electronic copy in MS Excel and Word</td>
<td>1 electronic copy</td>
<td>30 November 2013</td>
</tr>
<tr>
<td>6</td>
<td>Solar Power Station Project evaluation system framework</td>
<td>Software or evaluation model toolkits in MS Excel</td>
<td>1 software package</td>
<td>31 December 2013</td>
</tr>
<tr>
<td>6</td>
<td>Draft report on operation technology of rooftop solar photovoltaic power station and policy framework</td>
<td>Electronic copy in MS Word</td>
<td>1 electronic copy</td>
<td>31 January 2014</td>
</tr>
<tr>
<td>7</td>
<td>Final report on operation technology of rooftop solar photovoltaic power station and policy framework</td>
<td>Electronic copy in MS Word</td>
<td>1 electronic copy</td>
<td>18 April 2014</td>
</tr>
</tbody>
</table>

Duties of Selected Contractor

In consultation with the Project Office, the successful bidder will:

(1) To establish a rooftop solar PV power station project database, and finish the following works:
   - To carry out desk research and on site research on the rooftop solar power stations;
   - To collect, classify and summarize the data and information of the rooftop solar power station projects, including the finished projects, projects under construction, and pipeline projects among APEC member economies;
   - The information of each distributed rooftop PV project should include: the basic situation of the project, investment, key component and equipment, installation situation, technical and economic data, the official approval information, etc.
   - There should be at least 500 projects information in the database.

(2) To build a rooftop solar power station project evaluation system framework, and finish the following works:
   - To carry out on site testing, inspection and research to built rooftop solar power stations, to collect practical data of the project for further analysis;
   - To collect and classify the technology and safety problems emerging in the built rooftop solar power stations;
   - To have tracing investigation and accident analysis for the technology and safety issues occurred on the built rooftop solar power stations;
   - According to the above research and analysis, to establish a quantified project evaluation system framework;
The project evaluation system framework should include the following functions: to estimate the economic, environmental and social benefits for the built and ongoing projects, and analyze the project investment risk, profitability level and potential maintenance risks.

(3) To submit a research report, the specific content should cover the following aspects:

- To make an introduction and description for the rooftop solar power station project database;
- To make an introduction and description for the project evaluation system framework;
- By desk research and on site testing and investigation, to check outcomes of the latest PV technology development rooftop PV power station, and main problems and risks existing in the development, construction and operation of a station, meanwhile find out possible solutions.
- Through typical case studies, summarize the fundamental changes, outcomes and index of next generation of rooftop solar power station for future.
- To provide feasibility analysis example for a typical rooftop PV power station project through a detailed case study.
- To research incentive policies issued and implemented on PV by APEC member economies, as well as effects of policy implementation and impacts on industrial development. Based on that, summarize the experience, lessons, and proposal of policy suggestions and guarantee measures for APEC member economies.

To prepare the project database, evaluation system framework and report, the Contractor will:

a) Submit a work plan to be agreed with the Project Office
b) Work closely with Project Office staff
c) Liaise with the Project Office to gain a deeper understanding of the project
d) Incorporate feedback from the Project Office, expert reference group and participating economies in the finalization process.

In the preparation of the report, the Contractor must also focus on the following criteria:

a) Intended audience

✓ High level decision makers: Senior APEC Officials and APEC Ministers
✓ APEC forums, principally: Delegates to the Energy Working Group / New and Renewable Energy Technologies Expert Group (EGNRET)
✓ Local governments and investors in the APEC member economies who plan to develop rooftop solar power station
✓ Related stakeholders involved in the PV industrial chain

b) Reporting requirements

The report must:

✓ Be provided in fluent English
✓ Be accurate and not misleading in any respect
✓ Be written in a manner that will be easily accessible to the targeted audience
✓ Be prepared in accordance with APEC Guidelines
✓ Be provided at the time specified in this Request for Proposal
✓ Be provided in Microsoft Excel and Word format
**Reporting and Coordination Arrangements**

The selected Contractor will be required to liaise closely and work in collaboration with the Project Overseer in performing the Works in the Contract. The selected Contractor will keep the Project Overseer informed of progress of the Work, timelines and budget.

**Milestones and Terms of Payment**

<table>
<thead>
<tr>
<th>#</th>
<th>Milestone Deliverable</th>
<th>Due Date</th>
<th>Means of Verification</th>
<th>Payment Schedule (US$ inclusive of tax)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>APEC Solar Power Station project database</td>
<td>30 November 2013</td>
<td>Approved by the Project Overseer</td>
<td>US$15,000</td>
</tr>
<tr>
<td>2</td>
<td>Solar Power Station Project evaluation system framework</td>
<td>31 December 2013</td>
<td>Approved by the Project Overseer</td>
<td>US$20,000</td>
</tr>
<tr>
<td>3</td>
<td>Draft report on operation technology of rooftop solar power station Roof and policy framework</td>
<td>31 January 2014</td>
<td>Approved by the Project Overseer</td>
<td>US$20,000</td>
</tr>
<tr>
<td>4</td>
<td>Final report on operation technology of rooftop solar power station Roof and policy framework</td>
<td>18 April 2014</td>
<td>Report reviewed by project overseer and approved by the APEC Secretariat</td>
<td>US$50,000</td>
</tr>
</tbody>
</table>

Total Value (including Tax) US$105,000

**Qualifications of Bidder**

The Bidder will need to supply evidence of ability and experience to undertake the specified objectives/duties in this Request for Proposal, and explain their approach to the Works including:

1. Professional institution, company or entity in the field of rooftop PV projects for years
2. Abundant experiences and human resources of on site rooftop PV projects testing, inspection, assessment and investigation
3. Wide knowledge and understanding to analysis the technology and safety problems existing in the inspection assessment and operation of a station, and carried out related research work
4. Proper database and software development capabilities, good capacity to develop and design photovoltaic equipment and system preferred
5. Abundant information and data collection channels on the PV projects, and strong capacity of data collection, analysis and processing
6. Proven capacity to deliver high quality research projects on time and within budget
7. Proven analytical, research and plain English report writing skills

In addition, it would be advantageous if the Bidder had:

1. A good understanding of APEC’s goals and work program in relation to human resource development
2. Experience in undertaking APEC level projects and familiarity with APEC project requirements

**Budget**

A budget of up to US$105,000 is available for a selected Contractor to complete the identified deliverables.

This amount is made up of two components:
(a) contractor costs up to US$ 90,000;
(b) Short-term clerical up to US$15,000; and

For consultancy fees, the Bidder is required to prepare a detailed itemized budget in submitting their proposal, including consultancy fees and administrative support charges, with unit cost and the number of hours/days proposed to be devoted to the project.

**Travel Expenses**

Included in the reimbursable budget is an allocation of up to US$6,900 for travel expenses for the selected Contractor to attend the site visits. This will be reimbursed by the APEC Secretariat, in line with APEC travel regulations stipulated in the Guidelines.

All travel reimbursements are subject to APEC travel regulations as set out in the Guidebook on APEC Projects. The Guidebook specifies what type of travel can be claimed and provides guidelines on the use of per diem payments.

**Facilities and assistance proposed by the Project Overseer’s economy**

The Project Office will arrange the publication of the final report. At a minimum, this will include an electronic copy being made available on relevant APEC working group websites and circulated to all APEC member economies, as well as other stakeholders mentioned elsewhere in this document.
Instructions to assist Bidders to complete their proposal have been included as white text on a black background.

Instruction to Bidders:
Ensure your response covers off on the evaluation criteria identified in Schedule 5 - Evaluation Criteria.

Bidder’s Details

Full legal name and postal address:
Business registration number (if applicable):

Contact Officer
For all matters relating to this RFP, the Bidder’s Contact Officer will be:
Name/position title:
Telephone:
Mobile:
Email:

Contract Manager
Instruction to Bidders:
Bidders should provide the requested details of the person who is the Bidder’s proposed Contract Manager, responsible for general liaison and accepting and issuing any written notices under the contract, if a contract is awarded.
Name/position title:
Telephone:
Mobile:
Email:

Bidder’s Proposal
Instruction to Bidders:
Bidders should describe how they will meet the requirements set out in Schedule 1. Include Method and Work plan.

Proven Capacity
Statement of Skills and Experience
Instruction to Bidders:
Bidders should provide evidence of their skills and experience in providing the Works. Give evidence of why you/your company/your team members are most capable to deliver the Works. Ensure this responds to the
requirements of this project, identified in Schedule 1 “the Works”.

**Specified Personnel**

Instruction to Bidders:

List who will do what. Attach CVs where appropriate. Note that any fees shown in this table form part of the pricing itemised budget below – they are not additional. If no Specified Personnel insert “Not applicable”.

<table>
<thead>
<tr>
<th>Name</th>
<th>Position/Role</th>
<th>Rate ($USD, inclusive of taxes)</th>
<th>Anticipated Time</th>
<th>Total for Person</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Total (inclusive of tax)</td>
<td></td>
<td></td>
<td></td>
<td>$USD</td>
</tr>
</tbody>
</table>

**Subcontractors**

Instruction to Bidders:

Bidders must provide (in the form of the table below) details of any subcontractors that the Bidder proposes to engage to deliver the Works and an explanation for using subcontractors. If no subcontractors will be used insert “Not applicable”.

<table>
<thead>
<tr>
<th>Proposed subcontractor (full legal name)</th>
<th>Scope of works to be subcontracted and technical significance</th>
<th>Fees and associated expenses (inclusive of tax)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
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</tbody>
</table>

**Pricing**

1. **Itemised budget (all pricing must be inclusive of taxes)**

Instruction to Bidders:

Prepare a detailed itemised budget in your proposal, including specification of:

- Consultancy fees and administrative support charges, with unit cost and the number of hours/days proposed to be devoted to the project.

If there are reimbursable items in your proposal (if stated in the RFP Schedule 1), refer to the Guidebook on APEC Projects that sets out guidelines for reimbursable items.

**Conflict of Interest**

Instruction to Bidders:

This is a mandatory field, a response is required. If there is no conflict of interest then state that. If a real or perceived conflict of interest exists with the submission of a proposal, or would exist if the Bidder entered into a contract with the APEC Secretariat for the Works in this proposal, full details should be included here. Detail a plan to manage the conflict of interest.
Bidners must complete and sign a Declaration in the form presented below.

Declaration by Bidder

The Bidder proposes to provide the Works described in Schedule 1 to the RFP (Statement of Requirement) on the following terms:

- the RFP Schedule 1 - Statement of Requirement;
- the proposal is submitted according to Schedule 2 – Proposal Template;
- the RFP Schedule 3 – Special Conditions of Proposal;
- the RFP Schedule 4 - Standard Conditions of Request for Proposal; and
- the APEC Standard Contract Conditions described at RFP Schedule 6.

These documents collectively comprise the Bidder’s “Proposal”.

The Proposal

The Bidder agrees to enter into a contract to provide the Works in accordance with its Proposal in the form of the Standard Contract at Schedule 6 of this RFP which incorporates by reference APEC Terms and Conditions of Contract, and in accordance with APEC Guidelines referenced in RFP Schedule 3.

The Bidder agrees that the APEC Secretariat may accept or decline the Bidder’s Proposal at its discretion. No commitment or contract exists until a contract in the form of the Standard Contract is executed by both parties.

The Bidder agrees that participation in any stage of the RFP process is at the Bidder’s sole risk and cost.

Conflict of Interest

At the time of submitting a proposal, the Bidder agrees there is no conflict of interest (real or perceived) unless specifically and clearly identified in their proposal (see Schedule 2, under heading Additional Information) with a recommended plan to manage the conflict of interest.

The Bidder agrees to notify the APEC Secretariat immediately if an actual or potential conflict of interest arises.

<table>
<thead>
<tr>
<th>Signatory’s printed name:</th>
<th>Signatory’s signature:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Signatory’s Position</td>
<td>Date</td>
</tr>
<tr>
<td>Signatory’s Phone Number</td>
<td>Signatory’s Email Address</td>
</tr>
</tbody>
</table>
RFP Schedule 3 – Special Conditions of Proposal

1. APEC POLICIES

Bidders should familiarize themselves with APEC Policies, Guidebooks and Guidelines as they are all applicable to the management and delivery of APEC projects:

   (a) Guidebook on APEC Projects;
   (b) APEC Logo Guidelines; and
   (c) APEC Publications Guidelines.

These Policies describe APEC’s approach to contracting activities, expectations of team members and contractors, and state specific requirements for use of APEC logo, branding and APEC nomenclature and other publishing requirements. Bidders are encouraged to access and inform themselves of this set of guidelines which are available on APEC’s internet site at http://www.apec.org/en/About-Us/About-APEC/Policies-and-Procedures.aspx
1. GENERAL

Bidders should submit proposals in the format provided at RFP Schedule 2 – Proposal Template, in response to the requirements stated in RFP Schedule 1. Proposals must be provided in English and with prices quoted in United States of America Dollars.

2. APEC SECRETARIAT’S RIGHT TO DECLINE

The APEC Secretariat, at its discretion, may discontinue the RFP; decline to accept any proposal; decline to issue any contract; or satisfy its requirement separately from the RFP process.

3. CHANGES TO REQUEST FOR PROPOSALS

The APEC Secretariat may, at its discretion, vary the Request for Proposals before the Closing Time. Changes will be posted on the APEC website as a Revision, beside the original RFP. The Bidder is encouraged to regularly monitor the APEC website to ensure they access any Revisions that may be released.

4. CONTRACT

If the Proposal of the Bidder is accepted by the APEC Secretariat, the Bidder shall execute a contract in a standard form (“the Contract”) within the time period specified by the APEC Secretariat. See Standard Contract Conditions at RFP Schedule 6, which will form part of the Contract.

5. LODGEMENT

5.1 All documentation submitted as part of the Proposal must be in English.

5.2 Bidders are required to include all information specified in this RFP in their Proposal. Bidders accept that their failure to provide all information required, in the format specified may result in their Proposal being considered as a non-conforming Proposal and liable to rejection.

6. EVALUATION OF PROPOSALS

6.1 The evaluation panel will evaluate proposals to determine best value for money outcome. The panel will consist of members appointed at the APEC Secretariat’s discretion.
6.2 The criteria for evaluation will be assessed according to the criteria outlined at Schedule 5 - Evaluation Criteria.

7. FINANCIAL INFORMATION

7.1 If requested by APEC Secretariat, the Bidder must be able to demonstrate its financial stability and its ability to remain viable as a provider of the Works over the term of any agreement.

8. REFERENCES

As part of the evaluation of proposal process, the APEC Secretariat, at its discretion, may request from the Bidder information on past projects/experience claimed in the Bidder’s proposal, including contact details for referees.

9. NO CONTRACT OR UNDERTAKING

Nothing in this RFP will be construed to create any binding contract (express or implied) between APEC Secretariat and any Bidder until a written Contract, if any, is entered into by the parties.

10. BIDDERS ACKNOWLEDGEMENT

10.1.1 The Bidder acknowledges by lodging a Proposal that it accepts the terms of this RFP Standard Conditions of Request for Proposal, the Special Conditions of Proposal and the APEC Standard Contract Conditions.

10.1.2 A Proposal is submitted on the basis that the Bidder:
   (a) has examined this RFP and any other documents referenced or referred to herein, and any other information made available in writing by APEC Secretariat to Bidders for the purposes of submitting a Proposal; and
   (b) has sought and examined all necessary information which is obtainable by making reasonable enquiries relevant to the risks, contingencies and other circumstances having effect on its Proposal.

11. CONFLICT OF INTEREST

11.1 Conflict of interest can be defined as any situation in which an individual or organisation is in a position to exploit his/her professional or official capacity in some way for personal or corporate benefit.

11.2 Bidders must identify in their Declaration by Bidder:
   (a) any actual or potential conflict of interest; and
the procedures they intend to implement for dealing with, any actual or potential conflicts of interest, which may arise in connection with the submission of their Proposal or the conduct of the Works in a Contract, as described in this RFP. Bidders should include details of any known circumstances that may give rise to either an actual or potential conflict of interest in relation to the project.

11.3 Bidders must notify the APEC Secretariat immediately if any actual, potential or perceived conflict of interest arises after submission of a proposal (a perceived conflict of interest is one in which a reasonable person would think that the person’s judgement and/or actions are likely to be compromised).

11.4 If any actual or potential conflicts of interest arise for a Bidder, the APEC Secretariat may:

(a) enter into discussions to seek to resolve such conflict of interest;
(b) disregard the Proposal submitted by such a Bidder; or
(c) take any other action that APEC considers appropriate.

12. INSURANCE

The Bidder must ensure that it and its subcontractors maintain insurance policies relevant to the delivery of Works identified in this RFP, in the event that the Bidder is awarded the contract.

13. CLARIFICATION

APEC reserves the right to seek clarification or additional information from any Bidder related to their proposal.
EVALUATION CRITERIA

1. The Evaluation Criteria detailed in this clause apply to this Proposal, and the Bidder’s response to them:

(a) THE ORGANISATION:

(i) Demonstrated ability to provide adequate management and support to deliver the Works on time, of high quality and within budget

(ii) Project staff have appropriate qualifications, experience and skills to implement the Works

(iii) Mainly engaged in solar photovoltaic industry-related research work

(iv) A certain solar photovoltaic industry background and resources that can be carry out on site testing, inspection, assessment, investigation and research to rooftop solar power station

(b) APPROACH TO THE WORKS:

(i) Demonstrated understanding of the context, key issues and risks to achieve the Work’s objectives

(ii) Appropriate methodology and work plan to fulfill the objectives of the Works in the specified timeframes

(c) ANALYTICAL AND RESEARCH SKILLS:

(i) Demonstrated understanding of the context, key issues and risks to achieve the project’s objectives

(ii) Proven analytical and research skills in past projects

(iii) Abundant experiences and human resources of on site rooftop PV projects testing, inspection, assessment and investigation

(iv) Wide knowledge and understanding to analysis the technology and safety problems existing in the inspection assessment and operation of a station , and carried out related research work

(v) Proper database and software development capabilities, good capacity to develop and design photovoltaic equipment and system preferred

(vi) Abundant information and data collection channels on the PV projects, and strong capacity of data collection, analysis and processing
(vii) A proven capacity to establish quality evaluation system framework to rooftop solar power stations

(viii) A proven capacity to conduct the economic analysis to rooftop solar power stations

(d) EXPERIENCE WITH APEC ECONOMIES

(i) An understanding of the priorities of APEC and Energy Working Group / New and Renewable Energy Technologies Expert Group (EGNRET)

(e) COMMUNICATION SKILLS

(i) Excellent English-language oral and written communication skills

(f) PROPOSAL COST

(i) Project proposal provides value for money
THE APEC SECRETARIAT AND THE CONTRACTOR AGREE TO THE FOLLOWING:

PART A

1. PARTIES

1.1. The Parties to this contract are the APEC Secretariat and the Contractor.

2. PAYMENT

2.1. Subject to the satisfactory completion of the Work, the APEC Secretariat will pay the Contractor up to US$105,000 (United States Dollars One Hundred and Five Thousand). Any payment is inclusive of any Goods and Services Tax (GST) and bank charges levied by the Contractor’s agent and/or beneficiary banks for remittances made to the Contractor’s bank account.

2.2. This maximum amount payable to the Contractor is comprised as follows: Contractor costs of US$ 90,000 and Short-term clerical fees of US$15,000 as represented in milestone payments identified below at clause 2.4.

2.3. The APEC Secretariat must make payment on Consultancy Fees according to the following schedule and/or as soon as practicable after approving the milestone and receiving the appropriate invoices and accompanying supporting documentation from the Contractor.

2.4. Milestones and Terms of Payment

<table>
<thead>
<tr>
<th>#</th>
<th>Milestone Deliverable</th>
<th>Due Date</th>
<th>Means of Verification</th>
<th>Payment Schedule (US$ inclusive of tax)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>APEC Solar Power Station project database</td>
<td>30 November 2013</td>
<td>Approved by the Project Overseer</td>
<td>US$15,000</td>
</tr>
<tr>
<td>2</td>
<td>Solar Power Station Project evaluation system framework</td>
<td>31 December 2013</td>
<td>Approved by the Project Overseer</td>
<td>US$20,000</td>
</tr>
<tr>
<td>3</td>
<td>Draft report on operation technology of rooftop solar power station Roof and policy framework</td>
<td>31 January 2014</td>
<td>Approved by the Project Overseer</td>
<td>US$20,000</td>
</tr>
<tr>
<td>4</td>
<td>Final report on operation technology of rooftop solar power station Roof and</td>
<td>18 April 2014</td>
<td>Report reviewed by project overseer and</td>
<td>US$50,000 (US$35,000 for final report and US$15,000)</td>
</tr>
</tbody>
</table>
3. **INVOICES**

3.1. The Contractor must submit invoices to the APEC Secretariat to claim payment for Milestones and approved Reimbursement cost items. Original or electronic copies of the invoices may be submitted. The invoices must be accompanied by all supporting documentation as set forth in the Guidebook on APEC Projects (the Guidebook) as varied from time to time.

3.2. Invoices shall include the following information:

   (a) full name and number of project;
   (b) name of Contractor;
   (c) invoice date and invoice number;
   (d) description of services provided and associated dates;
   (e) charges and payments for previous invoices;
   (f) charges for billing period;
   (g) detailed banking instruction which includes the bank name, branch name, bank SWIFT code, account holder’s name and number;
   (h) billing by company/organisation rather than individual requires the official letter head of the company/organization;
   (i) a signed statement by the Contractor that the services have been performed in accordance with the terms and conditions of this contract, and the costs being billed are true and correct and have not been previously paid; and
   (j) the invoice should be accompanied by an endorsement by the Project Overseer that the services have been satisfactorily completed.

4. **COMPLETION DATE**

4.1. The Contractor must complete the Work by **18 March 2014**.

5. **AUTHORISED REPRESENTATIVE**

5.1. The APEC Secretariat may authorise representative(s) to instruct and provide clarification to the Contractor in performing the Work.

6. **APEC SPECIFIC POLICIES AND PROCEDURES**

7. **EXAMINATION OF RECORDS**

7.1. Upon request, the Contractor must provide the APEC Secretariat or its designated representative with access to materials relevant to the Contract, including the following:

    7.1.1. electronic documents;
    7.1.2. books;
    7.1.3. documents;
    7.1.4. papers; and
    7.1.5. other records which document transactions related to the Contract.

7.2. The Contractor’s obligation to provide access commences from the date on which the Contract is made and continues for a period of three (3) years following the completion of the Work.

8. **ASSIGNMENT**

8.1. The Contract is intended to cover a relationship between the Parties only. The Contractor must not transfer (i.e. assign) the Contract or any interest or benefit arising out of, or in connection with, the Contract to another person or company without the prior written approval of the APEC Secretariat.

9. **CHANGES TO CONTRACT**

9.1. The APEC Secretariat and the Contractor may change (i.e. vary) the terms of the Contract by written agreement only.

10. **CONTRACTOR LIABILITY FOR PERSONAL INJURY AND/OR PROPERTY DAMAGE**

10.1. If the Contractor, its employees, agents or contractors cause damage during the performance of the Contract, the Contractor will bear all liability on behalf of the APEC Secretariat. If someone makes a claim against the APEC Secretariat for damage caused by the Contractor, its employees, agents or contractors, the Contractor must indemnify and reimburse the APEC Secretariat for any costs it has incurred (including actual legal costs on a full indemnity basis).

11. **DEFAULT**

11.1. A Default is anything the APEC Secretariat considers to be a significant breach of the Contract including:

    11.1.1. failure to perform an obligation under the Contract within the agreed time; or
11.1.2. failure to deliver outputs of satisfactory capability, quality or reliability.

11.2. In the event of a Default by the Contractor, the APEC Secretariat may write to the Contractor setting out the Default and the time by when the Contractor must fix it. If the Contractor fails to fix the Default within the time specified, the APEC Secretariat may immediately terminate the Contract by issuing a written Notice of Termination to the Contractor.

11.3. Termination under this clause does not affect the rights and/or remedies either party may have accumulated up to the date of termination including the rights and/or remedies the APEC Secretariat may have in relation to the Default.

12. **RIGHTS IN DATA**

12.1. If intellectual property or confidential information is required to enable the Contractor to provide the Work, the Contractor shall be solely responsible for obtaining approvals for the use of any intellectual property and/or confidential information that belongs to anyone else (i.e. third parties).

12.2. The APEC Secretariat shall own all intellectual property and confidential information that it creates in relation to the Work. The APEC Secretariat shall own all intellectual property and confidential information that the Contractor creates as a result of performing the Work. In particular, the APEC Secretariat shall own the following:

12.2.1. all data resulting from performance of the Contract, regardless of its form, format, or media;
12.2.2. all data (other than that owned by third parties) used in performing the Contract regardless of its form, format, or media;
12.2.3. all data delivered under the Contract making up manuals or instructional and training materials;
12.2.4. all processes provided for use under the Contract; and
12.2.5. all any other data delivered under the Contract.

12.3. If the Contractor wishes to use the intellectual property and/or confidential information (mentioned in clause 12.2 above) for purposes that are not in relation to the performance of the Work, it must obtain prior written consent from the APEC Secretariat.

12.4. The Contractor consents to the APEC Secretariat’s use of the Contractor’s own intellectual property and/or confidential information if the APEC Secretariat requires the Contractor’s own intellectual property and/or confidential information to use the Work.

12.5. The Contractor must protect all intellectual property and/or confidential information belonging to the APEC Secretariat vigorously to the extent permissible by law. If the Contractor has a reasonable suspicion that there has been any event that infringes the
rights of the APEC Secretariat in relation to its intellectual property and/or confidential information, it will inform the APEC Secretariat immediately.

13. **SUSPENSION OF WORK**

13.1. The APEC Secretariat may, at any time, give a written order to the Contractor, suspending all, or part, of the Work. The APEC Secretariat has full and sole discretion to decide the length of the suspension. Upon receiving the order, the Contractor must immediately comply with its terms and take all steps necessary to minimize any and all costs resulting from the suspension. The APEC Secretariat and the Contractor must negotiate any adjustment to the price and/or schedule for completing the Work, which may result from the suspension.

14. **TERMINATION BY THE APEC SECRETARIAT**

14.1. The APEC Secretariat may terminate this Contract, in whole or in part, by issuing a written Notice of Termination. The APEC Secretariat may terminate this Contract without giving any reasons. If this Contract is terminated, the APEC Secretariat and the Contractor must negotiate the rights, duties, and obligations of the parties, including but not limited to compensation to the Contractor and/or the APEC Secretariat. Any compensation to the Contractor must not exceed the total value of the Contract, which is set out in clause 2.1.

14.2. Upon receiving a Notice of Termination, the Contractor must immediately stop work as specified in the notice, except if directed otherwise by the APEC Secretariat.

14.3. After termination, the Contractor must submit a final termination settlement proposal to the APEC Secretariat. The settlement proposal must include a certification from the Project Overseer of the actual costs the Contractor has incurred.

14.4. If the Contractor fails to submit the termination settlement proposal within seven (7) days from the date of the Notice of Termination, the APEC Secretariat may determine the amount, if any, due to the Contractor following the termination.

15. **LANGUAGE AND NOMENCLATURE**

15.1. All of the Work, including any drawings, documents, information, correspondence, test reports and similar items must:

15.1.1. be in the English language; and
16. **INTERPRETATION**

16.1. Should a dispute about the meaning of any term in the Contract arise, the APEC Secretariat may make a written determination as to the term’s meaning. A written determination made under this clause shall be final and conclusive between the Parties.

17. **GOVERNING LAW**


18. **COMMUNICATIONS**

18.1. All communications relating to this Contract must be in writing and may be delivered:

   18.1.1. personally;
   18.1.2. by prepaid registered post with recorded delivery to one of the addresses listed at the beginning of this Contract (as relevant); or
   18.1.3. by email.

19. **ENTIRE AGREEMENT**

19.1. This Contract is the entire agreement between the APEC Secretariat and the Contractor in relation to the matters set out in this Contract. No other terms and conditions may be included or implied. Any warranty, representation, guarantee or other term or condition not contained in this Contract has no effect.

20. **ILLEGALITY AND SEVERABILITY**

20.1. A term of this Contract that is, or becomes invalid, illegal or unenforceable in any way, may not in any way affect any other term of this Contract.

21. **WAIVER**

21.1. A Party’s failure, delay or relaxation in exercising any power or right it has under this Contract does not mean that the Party has given up (i.e. waived) that power or right.

21.2. A Party exercising a power or right does not stop it from:

   21.2.1. further exercising that power or right; or
   21.2.2. exercising any other power or right under this Contract.
22. **REASONABLENESS**

22.1. The Contractor confirms it has had the opportunity to receive independent legal advice relating to all the matters relating to this Contract.

22.2. The Contractor agrees that, having considered the terms of this Contract as a whole, the terms of this Contract are fair and reasonable.

23. **PARTNERSHIP**

23.1. This contract does not create a partnership between the APEC Secretariat and the Contractor.

24. **FORCE MAJEUERE**

24.1. A Force Majeure Event is any event which is beyond the reasonable control of the Contractor or the APEC Secretariat and which makes it impossible to perform an obligation under this contract, including the following:

24.1.1. acts of God, lightning strikes, earthquakes, volcano eruptions, floods, storms, explosions, fires, pandemics and any natural disaster;
24.1.2. acts of war (whether declared or not), invasion, acts of foreign enemies, mobilisation, requisition, or embargo;
24.1.3. acts of public enemies, terrorism, riots, civil commotion, malicious damage, sabotage, rebellion, insurrection, revolution, military usurped power, or civil war; or
24.1.4. contamination by radio-activity from any nuclear fuel, or from any nuclear waste from the combustion of nuclear fuel, radio-active toxic explosion, or other hazardous properties of any explosive nuclear assembly or nuclear component of such assembly.

24.2. A Party that does not perform an obligation under this contract shall not be in breach to the extent that a Force Majeure Event caused the non-performance.

24.3. Where the Contractor thinks there is likely to be a delay in performing an obligation under this Contract because of a Force Majeure Event the Contractor must:

24.3.1. immediately notify the APEC Secretariat in writing of:
   24.3.1.1. the likely delay and how long they think it will last; and
   24.3.1.2. details of the likely effect on the Work and the Contractor’s ability to perform the Contract;
24.3.2. take all reasonable steps to lessen (i.e. mitigate) the effects of any delay; and
24.3.3. use its best efforts to continue to perform its obligations under the Contract.
24.4. The APEC Secretariat and the Contractor shall, as soon as practicable after receiving the notification, discuss whether the Contract can continue. If, following that discussion, the APEC Secretariat and the Contractor agree that the Contract can continue they may:

24.4.1. continue the Contract unchanged; or
24.4.2. change the Contract using the process in clause 9.

24.5. Nothing in this clause limits the APEC Secretariat’s ability to suspend or terminate the Contract under clause 13 or clause 14.

25. **CONTRACTS (RIGHTS OF THIRD PARTIES) ACT - SINGAPORE**

25.1. A person who is not a party to this Contract has no right under the Contracts (Rights of Third Parties) Act Chapter 53B to enforce any terms of this Contract.

26. **PROVISION OF WORK**

26.1. The Contractor must provide the Works to the APEC Secretariat on the delivery dates identified in the Contract. The Contractor must promptly notify the APEC Secretariat if the Contractor becomes aware that it will be unable to provide all or part of the Works by the relevant delivery date and advise APEC Secretariat as to when it will be able to do so.

26.2. The Works must be provided to the standard that would be expected of an experienced and professional supplier of similar Works and any other standard specified in the Contract.

26.3. The Contractor and its staff or sub-contractors shall not by virtue of this Contract be, or for any purpose be deemed to be, and must not represent itself as being, an employee, partner or agent of APEC Secretariat.