
Terms of Reference for Feasibility & Transaction Advisory Services

Consultant for Solar Project in BSMSN

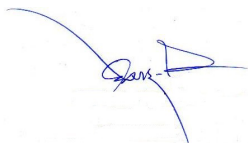
1. Background

The Bangabandhu Sheikh Mujib Shilpa Nagar (BSMSN) is the largest industrial zone in Bangladesh. It encompasses an area coverage of 30,000 acres, and has been succinctly divided into several zones. BSMSN will be built with cutting-edge infrastructure and utilities, with an emphasis on green technologies and climate resilience mechanisms to help the zone become more ecologically friendly, addressing climate change and environmental conservation. One of the core initiatives of the project lies in its green development objective. The various developments planned within the region will require significant amenities to support them, including sufficient electricity. In addition, as the site is located in a disaster-prone area, climate resilience remains a critical component for the project. As a result, the BSMSN will require environmentally clean energy source to fulfill the green development initiatives and supporting resilience measures to combat climate change impacts.

The proposed project comprises multiple forms of industrial, residential, and other uses. Such developments will require significant resources to manage and run. This is reflected in the BSMSN's 20-Year Power Infrastructure Master Plan, which has forecasted that the power demand for the region will be 600 MW in 2025, 1800 MW in 2030 and 3248 MW in 2041. For reliable and successful operation of the power system within BSMSN, the Master Plan states that the economic zone should not rely solely on grid power to fulfill all its energy demands. The Master Plan proposed that the BSMSN may take around 2,000 MW (without contingency) from the grid network against the demand of 3,248 MW. For reliable power and to meet the energy demand, generating units around the capacity of 1500 -1600 MW should be planned.

The BSMSN's green development initiative, along with the energy generation requirements, mean that renewable energy becomes an attractive option. Renewable energy for BSMSN would mean that pollution is minimized, benefits are yielded for the local communities, and energy security is enhanced in the zone, thereby meeting green development targets for the zone. The ultimate intention for solar PV generation lay in structuring the power generation as self-consumption by the BSMSN, i.e., the energy would be generated and consumed within the BSMSN, as opposed to being wheeled away from the zone via the grid.

e.Gen Consultants Ltd and RINA Tech UK Ltd. (RINA) have conducted a Technical and Financial Assessment study and provided a site screening of solar PV potential of BSMSN . For the financial and technical study of the project the consultants utilized broad assessment criteria to shortlist several sites for detailed analysis. The detailed analysis comprised an in-depth technical design, including layout, electrical drawings, evacuation, parameter setting, and assessment of ESS as a future potential option. Potential generation estimates were further assessed and verified using



PV syst. The site assessment comprised of an assessment of potential socio-environmental limitations in developing solar PV on a site-to-site basis. The consultants also assessed and recommended potential PPP arrangements for design, construction, and O&M for solar PV for the selected sites. This considered current PPP practices for solar PV development, and legally appropriate mechanisms for BEZA’s participation within the modality and legal framework. The financial and economic sustainability and impacts of the solar PV projects were assessed.

As part of the site screening phase, the team had identified the following sites for potential solar PV deployment.

Solar PV Site Category	Site	Recommended Model
Constructed Lake	Sheikh Hasina Sarobar FPV	IPP PPA Model with SPV
Canal	Ichakhali Canal FPV	
	Canal 1	
	Canal 2	
	Canal 2	
	Canal 3	
Super Dyke	Section 1	
	Section 2	
	Section 3	
Rooftop	BEZA-Owned Rooftops	
Land Below 400kV TL		IPP PPA Model with SPV

Sites	Capacity
Constructed Lake 35% Coverage	19 MWp
Canals 20% Coverage	19 MWp
Super Dyke	44 MWp
Total estimated PV Solar capacity	82 MWp

2. Objective(s) of the Assignment

The Objective of the consulting services is to (i) based on the above mentioned Technical and Financial Assessment Study, prepare a detailed feasibility study for **floating /ground-**

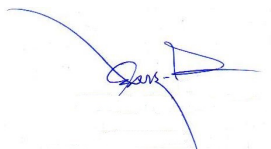


mounted/rooftop Solar PV at the BSMSN and, identify bankable PPP models; and, if the project is found to be technically and financially feasible, and subject to BEZA and Government of Bangladesh approvals, (ii) transaction advisory services to BEZA for developing project agreements, selecting the Private Sector Partner (PSP) and achieving financial close. The detailed feasibility study would be informed by the Technical and Financial Assessment study (referred above) undertaken for the Solar Project at BSMSN Economic Zone, would comply with World Bank Environmental and Social Standards, procurement and other requirements and be in line with Government of Bangladesh requirements for PPP Projects, to support BEZA in securing requisite internal approvals, as well as approvals from PPP Authority and CCEA.

3. Scope of Work

The major areas of the scope of work are summarized in Table below.

Component	Task
Component 1: Preparation of the detailed feasibility report and recommend a suitable PPP contract structure	<p>Task 1: Based on the above mentioned Technical and Financial Assessment Study, prepare a detailed feasibility report on solar project(s) which includes but not limited to: a) technical issues, including site specific due diligence,; b) economic and financial analysis, including development of detailed project cost estimates, value for money and a financial model (including potential improvement of the revenues from Carbon Credits generated from RE without additionalities – any cost for the ISO 14064 certification should be included); c) environmental and social issues including climate risk assessment and recommendations; e) linked projects, particularly transmission facility for power off-take, and address issues related to grid interconnection/reliability of the systems with regards to the proposed PV projects in the longer run.; f) legal & regulatory assessment with recommendations of best suited option for reforms; and g) PPP modality options and recommendation and optimum risk sharing methods, given level of financing available with BEZA for the project.</p> <p>Task 2 : Support BEZA in preparing reports and presentations that may be required to be made for seeking approvals from PPP Authority, CCEA and any other Government of Bangladesh institution and in addressing any issues raised / clarifications sought or revisions in the feasibility report required by the PPP Authority or the CCEA prior to approving the project for implementation under the PPP Act</p>



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- Component 2: Market Sounding
- Task 1:** Market Sounding 'Briefing Document' to be prepared
- Task 2:** Conduct market sounding through structured questionnaire and/or in-depth discussions
- Task 3:** Recommend final PPP modality/risk-sharing structure by incorporating inputs from market sounding.
- Component 3: PPP procurement
- Task 1:** Recommend appropriate procurement process – single stage or two stage, including justifications for the recommendation
- Task 2 :** If BEZA and Bangladesh PPP Authority decide on two stage procurement process, prepare RFQ documents in accordance with Bangladesh law/PPP act and green economic zone guideline
- Task 3 :** While recommending procurement process, preparing various bidding documents and during evaluation of bids, adhere to and comply with the provisions regarding Forced Labor
<https://thedocs.worldbank.org/en/doc/a5d4a4a88227973aecdbab19dd58258e-0290032021/original/Forced-Labor-Solar-Declarations-and-provisions-for-Procurement-Documents-ext.docx>).
- Task 4:** a) Reach out to leading players in the industry to try and attract maximum interest and bids for the project; b) Prepare documents / presentations required and support BEZA in the preparation and conduct of Pre-bid meetings / interactions with interested bidders
- Task 5:** Support bid evaluation committee in their initial evaluation of responses to RFQ (in case of two stage bid process)
- Task 6:** Prepare RFP and the draft concession agreement and other relevant agreements
- Task 7:** Prepare documents / presentations required and support BEZA in the preparation and conduct of Pre-qual meetings / interactions with interested bidders;
Support bid evaluation committee in their initial evaluation of responses to RFP;
Provide support in the negotiation of the PPP concession agreement with the preferred bidder, contract signing and support BEZA in its role in helping the project achieve financial close .



Task 8 : Prepare a comprehensive management plan for BEZA, in accordance with the provisions of the PPP Concession agreement, to help BEZA in the management of the Project and its risks, rights and obligations

Task 9 : Any other support that may be required through the management of bid process, negotiation and signing of the PPP concession agreement and financial close.

This assignment is proposed to be undertaken in two clear phases : Phase 1 will comprise the Detailed Feasibility Assessment and if approved by BEZA and other Government of Bangladesh entities, then BEZA will move ahead with Phase 2 of the assignment, which will comprise Market Sounding and PPP Procurement. At the end of Phase 1 of this assignment, BEZA, at its discretion, could decide not to move ahead with the conduct of Phase 2 of this assignment.

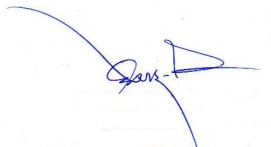
4. Detailed Tasks:

Component 1 – Preparation of the detailed feasibility report and recommend a suitable PPP contract structure

The detailed feasibility report is expected to be informed by the Technical and Feasibility Assessment Report submitted in January 2022, and build on the report. The Feasibility study will include proposed solar power generation projects on all the following sites :(a) Floating Solar on the Constructed Lake; (b) Floating Solar on the Canals; (c) Mounted solar on the Super Dyke; (d) Ground mounted solar under the 400kV Transmission line and (e) Solar on rooftops of BEZA buildings in BSMSN. The detailed feasibility study will include the following:

A. Technical due diligence. The consultant will carry out the technical due diligence, analysis, and assessment of the project, including:

(i) review technical assessment studies and resource assessments conducted for the projects and project sites under the Technical and Financial Assessment Report; and also confirm the power generation capacity of each site outlined in the Report;



(ii) review and update the sector assessment, including identifying any sector specific risks and its mitigation measures;

(iii) in addition to the technical assessments undertaken, carry out any other technical study and analysis to assure the technical feasibility of the project and linked subprojects (transmission / offtake) required which may include, but not limited to:

- a. general (main sources of information/databases)
- b. considerations on meteorological data (solar irradiation, ambient temperature, wind/rain)
- c. material and system gains/losses
- d. electromechanical design of the system (key electrical parameters, sizing of solar generator, sizing of the balance of system, etc.)
- e. system simulations and performances (system layouts, expected performances, simulation uncertainties)
- f. detailed analysis of the grid impact, stability, and synchronization analyses, including identifying any issues / concerns related to grid interconnection/reliability of the systems with regards to the proposed PV projects in the longer run and project design related mitigation measures for the same.

(iv) consider options for the optimum grid-connected PV plant configuration and advanced technologies for major plant components, including design for potential installation of batteries for energy storage

(v) identify key issues in grid stability to accommodate the solar power generated from the proposed plants, if any. Recommend the method of power evacuation and the necessary arrangement and investment required.

(vi) prepare technical specifications and engineering designs of the solar power plant system, transmission system, auxiliary and support facilities, including storage system, as appropriate and as needed; including but not limited to the following:

- a. plant requirements (technical requirements of major equipment such as PV modules, trackers, inverters);
- b. electricity (switch, LV board, junction boxes, LV/MV cabling and networks, ground network, protections, control system, plant performance monitoring, monitoring equipment and data, communications, meteorological station, substations, medium voltage system, etc.)
- c. auxiliary services (buildings, HVAC, lighting system, fire protection, water treatment);
- d. protection, control and monitoring system;
- e. transmission line, and related auxiliary and support facilities including batteries/energy storage.

(vii) provide recommendations on required civil works (access road, site preparation, earthworks, excavation, Internal access tracks, fences, tracker foundations, cable trench, LV cable laying, support facilities, substation foundation and structure, etc).

(viii) project energy production by a state-of-the-art model used in the industry ; estimate gross and net energy production for P50, P75, P90, P95, and P99 conditions



(ix) develop detailed cost estimates, based on bills of quantities for each subproject, including costing of environmental and social mitigation, resilience and monitoring requirements;

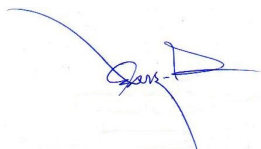
B. Legal and Regulatory framework and Project structure

The consultant will review the Legal and Regulatory analysis and proposed project structure section of the Report on Technical and Financial Assessment and based on that undertake a detailed analysis of the legal and regulatory framework in Bangladesh pertaining to Solar Power Generation projects, within Economic Zones. This analysis should include, amongst others, the following:

- (i) Review existing laws/acts that govern the generation and sale of solar power in Bangladesh
- (ii) Review concession agreements and Power Purchase agreements for IPPs of Solar Power projects in Bangladesh over the last couple of years
- (iii) Review Bangladesh's Captive Power Policy for power generation and distribution of such power within Economic zones and assess if the proposed Solar Power generation project in BSMSN could be governed under the aegis of this Policy and can be structured as a Captive Power plant for the economic zone and the associated terms and conditions
- (iv) Explore the existence of power generation projects within economic zones and evaluate the policy or legal/regulatory framework under which such projects are governed, particularly explore any projects that is operating under the Captive Power Policy within an economic zone and selling power directly to industrial consumers within the economic zone
- (v) Informed by the above review and assessments, the Consultant should evolve alternative project structuring options, particularly whether the proposed solar power project would be implemented as an IPP with a PPA with BPDB or as a Captive Power Project. The consultant would identify the pros and cons of each such structure from the point of view of (a) delivering on BEZA's objectives from the project and is amenable to BEZA's preferred risk sharing matrix; (b) attractiveness to potential private sector participants; (c) risk profile and its impact on bankability; (d) project implement-ability, in terms of project phasing, implementation time period and associated risks; and (e) any others that the consultant deems appropriate
- (vi) Develop a recommended project structure, including justifications for the same, and with a well defined list of approvals or licenses that would be required and the associated challenges and time frames for the same

C. Financial Analysis and Assessments. The consultant will carry out a detailed financial analysis and assessment of the project including:

- (i) prepare capex, operating and maintenance cost estimates over the likely tenure of the concession period, which are based on verifiable data and are sufficient to support project



implementation and operation and which include step-ups and indexation where relevant, and indexation mechanism for various cost items;;

(ii) evolve a financing plan based on (a) evaluation of financing structures of recently financially closed solar and other renewable power generation plants in Bangladesh; (b) interacting with all potential sources of debt, sub-debt and equity and the corresponding terms and conditions of the same; (c) securing inputs from BEZA regarding the funds available under the World Bank supported PRIDE project for supporting this project; (d) interactions with potential private sector partners to understand their preferred or likely financing structure for this / similar projects

(iii) prepare revenue estimates of each solar sub-project based on existing tariff policies for both probable models (a) IPP with BPDB being the off-taker and (b) power generated is sold to industrial units located within BSMSN directly; (c) carbon credit generation with no additionalities for voluntary markets, evaluated net of certification costs (ISO 14064) and transaction costs (voluntary market exchange platform fees);

(iv) Prepare a detailed financial model in Microsoft Excel for the entire project and also for each sub-project independently, including, but not limited to :

- a. assessing which of the assigned projects are bankable under a PPP structure, and the associated tariff for each;
- b. quantifying if and how much government support (which may come in the form of grant, debt, or equity) may be required for each project under base and low case;
- c. incorporating BEZA funding under the WB PRIDE project as part of the transaction structure, either directly to the project or through financing of transmission infrastructure (if required);
- d. determining value for money (VFM) for government under PPP structure; and
- e. evaluating other commercial structures as may be required;

The financial model should include appropriate accounting, depreciation and tax treatments relevant for the project. With respect to financing, drawdowns and repayment, the financial model should accommodate:

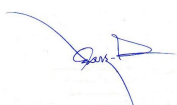
(i) currencies: dual currency financing, in US Dollar (“USD”) and BDT;

(ii) drawdown: Flexibility to permit different drawdown options (e.g. prorated and sequential) for various funding tranches, including but not limited to, senior debt and shareholder contributions;

(iii) repayment: Defined repayment types (e.g. sculpted, straight line, equal amounts etc.) for individual funding tranches; and

(iv) Reflecting important covenants such as DSCR, DSRA, LLCR, etc.;

The financial model should allow for the input of an array of assumptions and outputs typical for power projects including cost recovery tariffs, solar irradiation assumptions, pretax project IRR, project IRR, WACC, NPV, equity IRR, DSCR and LLCR. Model should be well organized by tabs as per international project finance modeling best practices. The financial model should provide outputs including projected financial statements (cash flow, balance sheet, profit and loss, etc.), feasibility metrics, project returns (e.g. NPV, NPV to government, IRR, RoE, etc.), and provide outputs in tabular and chart forms.



The financial model should include sensitivity analysis: it should be capable of carrying out various “what-if” scenarios and sensitivity analysis related to currency depreciation, funding assumptions, solar assumptions, cost increases, timing delays, etc.

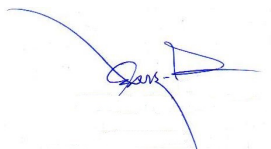
The financial model should be provided to BEZA in an unlocked form, i.e. formulas visible and editable in cells and, as a minimum, the models should include the following for at least [25]-year PPP concession period.

Conduct walk-through of model for BEZA as may be required; make and deliver presentations to other agencies of the Government of Bangladesh, like the PPP Authority and others, the World Bank, and other parties as requested on the financial analysis and other aspects of the project and respond to any queries or clarifications sought.

D. Commercial assessment. Advise BEZA and related agencies on commercial aspects of the transaction, including but not limited to recommendation on PPP structure, bankability analyses, and sensitivities as needed, including potential financial infusion by BEZA of the funds available to BEZA under the PRIDE project for this Solar Power Project; assess type(s) and quantum of government support that may be required to make the transaction bankable;; conduct other financial and structuring analyses as may be required.

E. Economic Analysis and Assessment. The Consultant will carry out an economic analysis of the project in accordance with the guidelines of the Government of Bangladesh including:

- (i) review the macroeconomic context of the project to provide an understanding of the economy’s overall performance and outlook, and of how specific macroeconomic factors may affect project performance;
- (ii) undertake demand analysis for the project; demand analysis provides the basis for estimating the scale of, and economic benefits from, the investment project;
- (iii) identify the project rationale for public intervention which can be based on the failure of (a) markets to adequately provide what society wants, or (b) public institutions to deliver public goods or services;
- (iv) help identify demands/problems to be solved by the project, the project intervention, outputs, expected outcomes and impacts;
- (v) identify project alternatives; least-cost analysis to be undertaken to identify the preferred alternative; the basis for selecting the preferred alternative should be clearly explained, particularly if it is not the least-cost alternative in economic terms;
- (vi) undertake and compare project benefits and costs in economic terms using with-project and without-project scenarios for each major project component; the basic criteria for assessing the project economic viability will be economic net present value and economic internal rate of return for subprojects/linked projects and total project; border parity pricing should be applied for major tradable cost and revenue items, along with other appropriate conversion factors;



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- (vii) undertake distributional analysis of project benefits to project beneficiary and stakeholder groups, and the extent to which they gain from benefits or bear costs associated with the project; undertake poverty impact assessment where necessary;
 - (viii) undertake sensitivity and risk analysis; where possible undertake a quantitative risk analysis and explicitly include probability distributions of key uncertain variables;

Undertake a value for money analysis to assess whether the project is beneficial economically and financially

F. Environmental and Social Impact Assessment and Preparation of ESMP. The Feasibility study needs to include a section on ES Impact Assessment (ESIA) addressing the following aspects and prepare ESMP:

- (i) Baseline Assessment. Conducting a baseline assessment on environmental and social aspects including data and analysis
- (ii) ES Laws, Policy and Procedure. Analysis of national legislation, laws, policy and regulations on environmental and social issues and WB ESF, find gaps and provide recommendations on reducing the gaps
- (iii) Screening and ES Risks and Impacts. Screening for ES risks and impacts due to project activities and interventions
- (iv) Labor. Type of labor used, impact of labor influx, labor related risks and impacts, labor camp siting, OHS issues, labor GRM etc, in line with the project Labor Management Procedure (LMP).
- (v) Waste Management and Resource Efficiency. How waste will be generated and waste management plans/ strategy as well as use of resources optimally.
- (vi) Community Health and Safety. How project interventions impact community health and safety including traffic, noise, waste generation, SEA/SH, use of security personnel if any, safety and security etc, development of community health and safety plan
- (vii) Land. Issues relating to land acquisition and requisition, impact on livelihood and living, compensation payment etc.
- (viii) Biodiversity and Living Natural Resources. How biodiversity and habitats will be impacted by the project and mitigations measures.
- (ix) Ethnic Community. If ethnic communities are present in the project areas and impacts on them, including need for Free, Prior, Informed Consent (FPIC)
- (x) Cultural Heritage. If cultural heritages are present in project area and ways to mitigate risks on them including provision of chance find procedures.
- (xi) Stakeholder Engagement including Grievance Redress Mechanism (GRM). Identification of stakeholders and beneficiaries, ways to communicate with them and completion of feedback loop, inclusion of the vulnerable and the disadvantage. (Project SEP and GRM need to be followed during preparation of ESA).



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- (xii) Gender (WB Corporate Requirement). Identification of impact on gender, how to close the gender gap in terms of four gender pillar of WB Gender Strategy

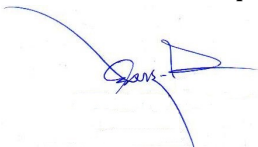
H. Climate risk assessment. Based on an initial climate risk screening assessment of the project, the performance of the proposed investment is likely to be affected by future changes in climate conditions and their impacts including temperature increase, precipitation increase, flood, and land slide risk. To achieve the impact and outputs of the proposed investments, a climate risk and vulnerability assessment (CRVA) is required to provide a detailed and focused risk and vulnerability assessment that will identify and, to the extent possible quantify risks to the project from climate change and variability, and provide corresponding adaptation measures. Outputs of the CRVA will be used by the PPP SPV to finalize detailed design.

Scope of work.

- (i) Conduct a climate change vulnerability and risk assessment for the project area to identify vulnerability of the planned infrastructure, and adaptation measures to be incorporated into the project design;
- (ii) review existing studies, data and information on current and projected climate change risks and vulnerability for the proposed specific geographic areas and sectors covered by the project;
- (iii) identify climate risks and vulnerabilities and potential adaptation options and practices as inputs to modelling and/or assessment of climate change impacts on relevant aspects of the project;
- (iv) conduct technical and economic assessments of potential climate risk and vulnerability adaptation options and practices relevant to the project;
- (v) within the context of the project, assess existing policies, laws and regulations and/or institutional framework for adaptation and identify ways to enhance the enabling environment (if necessary);

G. PPP Options. The consultant should identify and evaluate all the possible PPP options for each one of the five identified locations / sites : (a) Floating Solar on the Constructed Lake; (b) Floating Solar on the Canals; (c) Mounted solar on the Super Dyke; (d) Ground mounted solar under the 400kV Transmission line and (e) Solar on rooftops of BEZA buildings in BSMSN, and recommend the one best suited to this project. The pros and cons of each option should be evaluated rigorously across an exhaustive set of relevant criteria, which would include, amongst others, the following:

- i. Deliver on BEZA's objectives from this project;
- ii. Maximization of solar power generation and utilization within BSMSN;
- iii. Optimal risk sharing between BEZA and the Private Sector Partner, with each partner bearing the risks that they are best equipped to address / mitigate
- iv. Attractiveness to potential private sector participants / bidders
- v. Financial returns to the private sector partner and BEZA (if the option recommends investment participation by BEZA from its receipts from PRIDE Project)



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- vi. Bankability, i.e., levels of comfort to potential lenders to the project
 - vii. Ability to absorb the funding available to BEZA for this project from PRIDE project, in a manner that optimizes BEZA's financial returns as well as is in line with BEZA's capacity to manage this investment;
 - viii. Maximizes BEZA's and the Government of Bangladesh's Value-for-money;
 - ix. In line with the current legal and regulatory framework;
 - x. Any other criteria that the Consultants believe to be appropriate for this evaluation

The consultant should detail out the recommended PPP option across all its dimensions, including the roles and responsibilities of BEZA and the private sector partner. The Consultant should also outline the pros and cons of the recommended PPP option and also its risks and potential risk mitigation measures.

If the Project is approved by BEZA and appropriate entities of the Government of Bangladesh, BEZA would move ahead with Phase 2 of this assignment, comprising Market Sounding (Component 2) and PPP Procurement (Component 3).

Component 2: Market Sounding

In this component the transaction advisor engages in detailed consultation with potential private sector entities interested in this project and this specific consultation is also called market sounding.

Objectives

The main objective of market sounding is to test the private sector's ability to assume risks that are to be transferred via the concession contract from the public sector to the private sector. The objectives of the market sounding are to:

- Generate interest in the proposed Solar Project, and encourage new, private sector parties to come forward with their ideas.
- Understand the expectations, maturity and readiness of potential market participants in the project, and the factors affecting their level of interest.
- Explore how exploiting benefits of the project could deliver additional funding, reducing the overall burden on taxpayers and establish a self-sustaining model for economic zones.



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- Test the market's appetite to share the risk of development and the size, scale and scope of the market for potential participation.
 - Receive market views and feedback on how the potential development of the project could best be undertaken.
 - Understand the merits of different development and procurement routes, to inform the next stages of project development

Market sounding would focus on the private sector as a whole, rather than on any individual company. The Consultant, together with BEZA, will conduct a Market Sounding with existing and potential promoters, funders, financiers, developers, advisors, construction contractors and other industry participants to assess market interest in the Solar Power Project at BSMSN. It includes no element of evaluation, and there is no commitment of any kind involved.

The Consultant should conduct at least one offline market sounding workshop in Dhaka, inviting as many potential members of the target audience as possible, in association with BEZA and engage intensively to get a good understanding of the attractiveness and challenges with the project and proposed project structure. The Consultant should build in the costs for conduct of such a 2-3 hour workshop, including costs for venue, catering, etc., in Dhaka, into its financial proposal.

The other interactions as part of the market sounding exercise could be undertaken on a one-on-one or group basis, virtually or physically, by the Consultant.

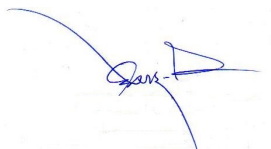
Process

To provide respondents with some relevant background, the Advisor will also produce a **Market Sounding Briefing for Solar Project (the 'Briefing Document')**. This Briefing Document would include a brief description of the Solar Project, including its sub-projects, the total generation capacity of the project, the estimated size of the investment, the broad contours of the PPP model, the role of BEZA as a Contracting Authority, and other key aspects of the project as deemed appropriate.

The consultations should be undertaken by a mix of using a free flowing discussion as well as a discussion based on a broad guideline, covering specific areas, agreed on with BEZA, prior to the start of the Market Sounding interaction. The areas of discussion may be structured under the following topics, amongst others:

- a. interest in the project
- b. the readiness, maturity and capability of the market
- c. structuring the development process
- d. barriers and enablers to sharing risk of development

Component 3 : PPP Procurement



Upon approval of the Detailed Feasibility Assessment and decision by BEZA to move forward with the PPP transaction, , the Transaction Advisor is expected to:

- Review whether the Business Case remains valid and if required, revise accordingly;
- Based on the output of the Market Sounding exercise and other inputs, evaluate and recommend whether the PPP Procurement should be a two-stage process or a single stage process, along with sound justifications for the same
- Support BEZA in selecting appropriate procurement process, preparation of bidding documents, evaluation of bids, and contract agreement development complying with WB provisions on Forced Labor mentioned in IPF Solar Procurement Bidder Declaration - Forced Labor (<https://thedocs.worldbank.org/en/doc/a5d4a4a88227973aecdbab19dd58258e-0290032021/original/Forced-Labor-Solar-Declarations-and-provisions-for-Procurement-Documents-ext.docx>)
- If BEZA chooses a two stage process and if the PPP Authority and other appropriate Government of Bangladesh entities have approved the same, then the Advisor would draft a Request for Pre-Qualification (RfQ), including an Information Memorandum and seek BEZA's and the PPP Authority's approval of the same
- Support BEZA to advertise and market the project to enhance the competitive bid process for the project
- Support BEZA in the preparation and conduct of pre-bid meeting(s) with all interested private sector partners and also help BEZA draft minutes of such meeting(s) and draft responses and clarifications to all questions raised at the pre bid meeting(s)
- Support the bid evaluation committee, as required, in evaluating the responses to the RfQ and in developing a short-list of bidders
- Draft the Request for Proposal and the draft concession agreement, in line with the PPP Act and other similar concession agreements executed in Bangladesh in the recent past. Discuss these drafts with BEZA and the PPP Authority and secure approval for the same, including from the Government of Bangladesh's Law Department, if possible, at this stage (else, this would be mandatorily required prior to finalization of the concession agreement and prior to signing of the agreement);
- Support BEZA in responding to any queries and clarifications from short-listed bidders;
- Support the bid evaluation committee, as required, in evaluating the responses to the RfP and in identifying the preferred bidder and the top one or two fall-back bidders (in order of preference)
- Support BEZA in negotiating and signing the PPP Concession agreement and support BEZA in its role of facilitating the process of the project achieving financial close
- Within 1 month of signing the PPP Concession Agreement, the Advisor should prepare a comprehensive project management plan for BEZA, in accordance with the provisions of the PPP Concession agreement, including formats for regular reports and project MIS, to help BEZA in the management, monitoring and supervision, of the Project and its risks, rights and obligations. The Advisor should undertake at least two detailed training workshops of 2-3 days each, on implementation of this project management plan,



including gaining a detailed understanding of BEZA's role in monitoring and supervision and its risks, rights and obligations on the project, for personnel identified by BEZA.

5. Expected Time Schedule

The total duration of consulting services is expected to be 26 months (6 months for drafting and finalizing of the feasibility study and proposed structure; 3 months for approval of the feasibility report by PPP Authority, CCEA and any other Government of Bangladesh institutions; 11 months for transaction phase until commercial close or signing of the PPP Concession Agreement; 2 month to assist in developing project monitoring manuals and training BEZA personnel in project implementation monitoring and supervision; 6 months to support the preferred bidder in achieving financial close). The implementation schedule expected is as shown in table.

Key Activities	Duration in months
Invitation of EOI	10 June 2022
Issue of RFP	10 August 2022
Commencement of Consulting Services	22 February 2023
Expected Termination of Consulting Services	21 April 2025

6. Expertise Required

The consultant team will consist of key Experts engaged for the duration of consulting services. The team of key consultants is expected to comprise a team leader/ PPP expert, Renewable (Solar) Energy expert, Floating solar expert, Procurement expert, legal expert, Environment and Social specialists

Key Experts and indicative Expected Person-Months (PM)

SN	Position	No	PM for Component 1	PM for Components 2 & 3	Total
1	Team leader/PPP expert	1	3	7	10
2	Floating solar expert	1	5	1	6

3	Renewable energy (solar) expert	1	5	1	6
4	PPP/Project financing expert	1	4	8	12
5	Procurement Expert	1	1	5	6
6	Legal expert	1	1.5	2.5	4
7	Environmental Specialist	1	2.5	0.5	3
8	Social specialist	1	2.5	0.5	3
9	Carbon Credit Expert	1	2	0.5	2.5
Total		9	26.5	26	52.5

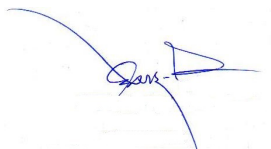
Note : The above are purely estimates of the number of person months of engagement likely to be required for each position and are not definitive. Consultants should base their proposals based on their own estimates of person months of involvement required for each Position to deliver on the scope of work outlined above.

7. Qualifications

The following table provides minimum qualifications (educational background and professional experience) required for each Key Expert.

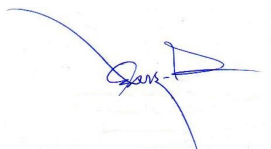
SN	Position	Qualification	Experience
KI-1	Team leader/PPP expert	Master's degree in business administration/ Chartered Accountant / CFA with a bachelors degree in engineering would be preferred.	<ul style="list-style-type: none"> • Minimum 20 years experience of developing and undertaking transaction advisory assignments of infrastructure PPP Projects , with experience of leading consulting teams in at least 3 similar assignments • Minimum specific consulting or

			<p>transaction advisory experience of working on at least 2 solar energy projects</p> <ul style="list-style-type: none"> • At least 10 years experience of working on infrastructure consulting and /or transaction advisory experience in Bangladesh and / or other South Asian countries would be preferable
KI-2	Floating solar expert	Bachelors degree in energy engineering, or mechanical engineering or a bachelor's degree in energy system engineering of any other relevant field	<ul style="list-style-type: none"> • Minimum 10 years experience in developing, designing, structuring and implementing Solar Power Generation projects; • Experience of designing and working on detailed feasibility assessment of at least one floating solar project, preferably in South Asia; • Minimum 5 years experience in engineering and general consulting in the area of

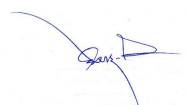


			energy generation projects, preferably in South Asia
KI-3	Renewable energy (solar) expert	Bachelor degree in electrical engineering, or mechanical engineering or a bachelor's degree in energy system engineering of any other relevant field	<ul style="list-style-type: none"> • Minimum 10 years experience of developing, designing, structuring and implementing Solar Power Generation projects; • Experience of designing and working on detailed feasibility assessment of at least one solar project, preferably in South Asia; • Minimum 10 years experience of engineering and general consulting in the area of renewable energy generation projects, preferably in South Asia;
KI-4	PPP/project financial expert	Master's degree in finance/business administration/ Chartered Accountant / CFA or similar	<ul style="list-style-type: none"> • Minimum 8 years experience of developing, and working on detailed feasibility assessment assignments of infrastructure PPP

			<p>Projects, with experience of developing financial models for at least 3 similar assignments</p> <ul style="list-style-type: none"> • Experience of working on detailed feasibility assessments and PPP structure development of at least two renewable energy projects, preferably Solar power generation projects, in South Asia
KI-5	Legal expert	Bachelors or Master's degree in law	<ul style="list-style-type: none"> • Minimum 10 years experience of working on infrastructure sector PPP agreements • Experience of working on at least two energy generation projects, preferably renewable energy projects, in South Asia
KI-6	Environmental Specialist	Master's degree in Environmental Engineering/Science	<ul style="list-style-type: none"> • Minimum 10 years experience of working on environmental aspects of infrastructure projects, preferably energy generation projects



			<ul style="list-style-type: none"> • Experience of working in at least one World Bank or other Multilateral financed infrastructure project, in a similar position, preferably in South Asia
KI-7	Social specialist	Master's degree in social science or any other relevant subject	<ul style="list-style-type: none"> • Minimum 10 years experience of working on social aspects of infrastructure projects, preferably energy generation projects • Experience of working on at least one World Bank or other Multilateral financed infrastructure project, in a similar position, preferably in South Asia
KI-8	Procurement Specialist	Master's degree in business administration/procurement/or Bachelors degree in engineering with an advanced academic/professional qualification in procurement and supply chain management (e.g.) MCIPS,CPSM)	<ul style="list-style-type: none"> • Minimum 10 years experience of transaction advisory / procurement of private sector partner in PPP projects • Experience of transaction advisory / procurement of at least one Renewable Energy PPP project, preferably in South Asia



			<ul style="list-style-type: none"> • Experience of working on at least one World Bank or other Multilateral financed infrastructure project, in a similar position
KI-9	Carbon Credit Expert	Master's degree in Engineering/Business Administration	<ul style="list-style-type: none"> • Minimum 5 years experience on carbon credit markets, standard certifications for carbon credit verified emission certificates (including tokens) such as ISO 14064, VERRA, Golden Standard, and similar.

8. Deliverables and Tentative Time Schedule for Deliverables

Deliverable No.	Payment milestone	Deliverable / milestone	Timeline
Deliverable - 1	1 st Payment	Comprehensive Feasibility Report Prepared and Bankable PPP Solar Project Structured and Submitted for Approval of PPP Authority and CCEA Presentation and workshop on Feasibility study conducted for BEZA	
Deliverable - 2	2 nd Payment	Market Sounding Report and presentation of the same to BEZA	

Deliverable No.	Payment milestone	Deliverable / milestone	Timeline
Deliverable - 3	3 rd Payment	Preparation of draft RFQ/ISD document and approval of the same by PPP Authority	
Deliverable - 4	4 th Payment	Assistance in Pre-bid Meeting(s), response to bidder queries, support bid evaluation committee in evaluation of proposals received to RFQ/ISD and assist in preparation of evaluation report	
Deliverable - 5	5 th Payment	Preparation of draft RFP and PPP Concession agreement and Presentation / Workshop for BEZA; and getting the drafts approved by BEZA and PPP Authority	
Deliverable - 6	6 th Payment	Assistance in Pre-bid Meeting(s), response to bidder queries, support bid evaluation committee in evaluation of proposals received to RFP and Preparation of evaluation report	
Deliverable - 7	7 th Payment	Assistance in negotiations, assistance in getting necessary approval from CCEA, PPP Authority, law ministry and issuance of Letter of Award (LOA)	
Deliverable - 8	Final Payment	Contract Signing, Supporting BEZA in its role of facilitating Financial Close, Preparation of Project Management Plan and at least 2 training workshops for BEZA personnel on implementation of the project management plan	

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- (a) **9. BEZA's Input and Counterpart Personnel** Services, facilities, and property to be made available to the Consultant by BEZA are as follows:
- (i) introduce the Consultant to relevant stakeholders and local offices in the collection of pertinent information on project sites;
 - (ii) provide access to the project sites and furnish information related land area, etc. of the project sites;
 - (iii) usage of the conference room for stakeholders' meetings/workshop;
 - (iv) 2 workstations (on demand) at BEZA's office;
 - (v) furnish information on industrial units that have been allotted land to establish manufacturing facilities in BSMSN and make introductions to some of these companies, if required and
 - (vi) try and support the Consultant with information on any other aspects related to the economic zone and introductions to other appropriate Government agencies
- (b) BEZA will nominate a senior resource as a single point of contact for the Consultant, and will also nominate a core team who will be responsible to interact with the Consultant on a regular basis and be the first point of evaluation / assessment of all Consultant's outputs.

