

REQUEST FOR PROPOSALS

FOR

**DEVELOPING A LONG-TERM VISION,
IMPLEMENTATION PLAN, ROAD MAP AND
INSTITUTIONAL FRAMEWORK FOR IMPLEMENTING
“ONE SUN ONE WORLD ONE GRID”**

**MINISTRY OF NEW AND RENEWABLE ENERGY
GOVERNMENT OF INDIA
BLOCK 14, CGO COMPLEX, LODHI ROAD, PRAGATI VIHAR,
NEW DELHI 110003**

MAY 2020

Ref. No. 322/2/2020-NSM

Request for Proposal for
Developing a long-term vision, implementation plan, road map and
institutional framework for implementing
“One Sun One World One Grid”

Dear Sir/Madam:

MNRE hereby invites proposals from qualifying Consulting Firms for “Developing a long-term vision, implementation plan, road map and institutional framework for implementing “One Sun One World One Grid”.

The World Bank has extended a \$625 million concessional loan to the State Bank of India (“SBI”) to debt finance GRPV projects. As a part of this process, SUPRABHA a Technical Assistance program to accelerate the deployment of Grid Connected Rooftop Solar installations in the country was also commissioned. The TA Program is governed by the Steering Committee comprising MNRE, SBI and The World Bank.

Basis the engagement between The World Bank and MNRE, the task of developing a vision, implementation plan, road map and institutional framework for implementing “One Sun One World One Grid” has been taken up by the TA Program. MNRE will be evaluating the proposals, select the implementing firm, supervising, driving all the activities and deliverables that will be implemented under this RFP by engaging the resources identified and allocated to ensure single source of communication, comprehensive review, diligent monitoring towards achieving high quality deliverables on a timely basis.

Please send your offer electronically, comprising a technical proposal and financial proposal. Your proposal should reach the dedicated email: **sk.gupta81@gov.in** at or before 11:59 PM Indian Standard Time (IST), on 6th July, 2020. MNRE may at its discretion extend the deadline for the submission of proposals.

The physical copy of the technical and financial proposals should also be delivered in two separate envelopes marked **“RFP No. 322/2/2020-NSM dated ”** for “Developing a long-term vision, implementation plan, road map and institutional framework for implementing “One Sun One World One Grid” and should be delivered / submitted on or before 8th July, 2020 at **Sunil Kr Gupta, Scientist-D, NSM Division, Ministry of New and Renewable Energy, Government of India, Block 14, CGO Complex, Lodhi Road, New Delhi 110003**. The financial proposal should be placed inside the envelope comprising the technical proposal.

At any time before the submission of proposals, MNRE may, for any reason, whether at its own initiative, or in response to a clarification requested by the bidder, carry out amendment(s) to the Documents. If you request additional information, we would endeavor to provide information expeditiously, but any delay in providing such information will not be considered a reason for extending the submission date of your proposal. Please send your query to email: **sk.gupta81@gov.in**.

Please note that at any time prior to the deadline for submission of Proposals, MNRE may, for any reason, whether at its own initiative or in response to a clarification requested by a prospective Bidder, modify the terms and conditions governing this RFP / Solicitation Documents by amendment, including through provision of supplementary information. Prospective Bidders are therefore advised to regularly check the MNRE website (www.mnre.gov.in) for amendments. The terms and conditions governing the proposed assignment are not exhaustive and additional conditions, as may be mutually accepted, will be included in the Work Order. The contractual obligations shall be as per the terms and conditions in the Work Order issued to the successful bidder at a later stage. The Bidders

are free to make suggestions in their offer, in addition to the specified Scope of Work or Methodology, to meet the objectives of the proposed assignment.

MNRE reserves the right to reject all or any of the proposals without assigning any reason thereof and is not bound to accept any of the proposals that may be submitted.

It may be noted that the costs of preparing the proposal and of negotiation of the contract, including visits to MNRE/Other organizations for presentation, are not reimbursable. The Proposal, as well as any and all related correspondence exchanged by the agency / bidder and MNRE, shall be in English.

Please note the proposed timelines for the RFP:

Publication on MNRE website and other websites	26 th May, 2020
Pre-bid Meeting at MNRE	5 th June, 2020
Deadline for submission of Questions	15 th June, 2020
Response to vendors' requests for clarification	Responses will be provided on a rolling basis with last responses provided no later than 29 th June, 2020
Deadline for submission of proposals	
Online	11:59 PM IST, 6 th July, 2020
Hard Copy	17:59 PM IST, 8 th July, 2020
Evaluation of the proposals & Approval	4 weeks (estimated)

The selected Bidder is expected to commence the assignment on the date specified in the Work Order.

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TERMS OF REFERENCE

A. Background

With renewable energy achieving grid parity in different countries, it has triggered accelerated large-scale deployment, worldwide. Renewable energy can also help to achieve an economical energy transition provided its distributed nature, intermittency and demand supply mismatch are addressed in a timely, geographically coordinated and an effective manner.

A larger grid based interconnectivity across geographies, which lays emphasis on the One World One Grid concept, has the potential to overcome these challenges and enable the world to transition to clean energy in a sustainable manner.

B. One Sun One World One Grid (OSOWOG)

India's Prime Minister recently called for connecting solar energy supply across borders, with the mantra of 'One Sun One World One Grid' (OSOWOG). The vision behind the OSOWOG mantra is "The Sun Never Sets" and is a constant at some geographical location, globally, at any given point of time. With India at the fulcrum, the solar spectrum can easily be divided into two broad zones viz. far East which would include countries like Myanmar, Vietnam, Thailand, Lao, Cambodia etc. and far West which would cover the Middle East and the Africa Region.

The Ministry of New and Renewable Energy (MNRE), Government of India, has a critical role to play in synergizing over 140 countries, across the far east and the far west regions, to build consensus, launch energy policy imperatives and set up a framework for such a global cooperation.

India, through the OSOWOG initiative, plans to take another leap towards building a global ecosystem of interconnected renewable energy resources that are seamlessly shared for mutual benefits and global sustainability.

The initiative is planned across three phases:

- **Phase I (Middle East-South Asia-South East Asia (MESASEA) interconnection):** Indian Grid interconnection with Middle East, South Asia and South East Asian grids to share solar and other renewable energy resources for meeting electricity needs including peak demand. For this purpose, an assessment shall be made of renewable energy potential of all countries in these regions and a study carried out so as to how they can share their renewable energy resources with each other for meeting their electricity demand including peak demand and also for rationalizing their tariffs.
- **Phase II (Solar and other Renewable Energy resources rich regions' interconnection):** MESASEA grid getting interconnected with the African power pools to share solar and other renewable energy power of the countries located in solar and renewable energy rich areas.
- **Phase III (Global interconnection):** to achieve the One Sun One World One Grid vision

An interconnected grid would help all the participating entities in attracting investments in renewable energy sources as well as utilizing skills, technology and finances. Resulting economic benefits would positively impact poverty alleviation and support in mitigating water, sanitation, food and other socioeconomic challenges. Further, the proposed integration

would lead to reduced project costs, higher efficiencies and increased asset utilization for all the participating entities.

C. Engagement objectives, scope of work and team deployment

The engagement objectives and proposed scope of work is indicated below

a. Key Engagement Objectives

- Develop a long-term vision for OSOWOG
- Develop an action plan and a road map to achieve OSOWOG's vision
- Institutional framework to implement OSOWOG

b. Scope of Work

The scope of work is planned to be undertaken in a phased approach consisting of three phases viz. assessment, design & pilot followed by a full-scale roll-out. The key activities to be undertaken, across the three aforementioned phases, are detailed subsequently:

Phase I Assessment stage – Desk Review and Stakeholder Consultations: (6 months)

This stage shall undertake a desktop based comprehensive assessment of existing and future scenarios in the power sector of individual countries in MESASEA and Africa regions. The assessment shall use the historical data of supply and demand, future demand growth, clean energy supply availability, gaps in renewable capacities to assess demand-supply balance of individual countries by 2030, renewable potential vis-à-vis proposed deployments, prevailing costs structure for thermal and renewable energy generation, analysis of retail consumer tariffs. Basis these outcomes, assess potential renewable/solar surplus/deficit for the countries by 2030, analyse power market dynamics, identify policy & regulatory needs, assess readiness for cross border power transfer, and build an OSOWOG vision up to 2050. This stage shall include development of an integrated OSOWOG model which would identify potential demand-supply scenarios in the four regions (South Asia, South East Asia, Middle East and Africa) assuming an integrated grid connection. The demand supply scenarios should assess the utilization of existing and untapped solar potential of individual countries to address average and peak demand requirements of various countries in the region using time variations in peaks as well as solar generation during the day.

Phase II: Potential assessment and pilots identification: (4 months)

This stage would identify 2-3 cross-border projects that can be initiated within one or two years, preferably one with each of Middle East, South East and Africa regions considering India as the grid fulcrum for these identified pilots.

Phase III: Full scale roll out: (3 months)

This stage would be initiated during the last stages of Phase II and shall require support in institutionalizing the OSOWOG vision into full operations.

The key areas for assessment and for carrying out the study for each of these three phases are provided in Annexure I.

Deliverables

- **D1** - Vision and roadmap document clearly identifying activities to be undertaken across the three phases of the OSOWOG on an annual basis (End of Phase I)
- **D2** – Detailed implementation roadmap document for 2-3 cross-border projects (End of Phase II)
- **D3** - Draft policy papers and regulations, and framework for planning and establishing necessary institutional mechanisms to roll-out OSOWOG in India (Phase III)
- **D4** – Stakeholder consultation workshops and One National Workshop (Phase I and Phase III respectively)

Summary of Annexures

The key areas for assessment and for carrying out the study for each of these three phases are provided in **Annexure I**.

The details of firm qualification criteria, team deployment and terms of payment are provided in **Annexure II**.

The instructions to Bidders for formulation and submission of proposals are provided in **Annexure III**.

The details on the evaluation of proposals are provided in **Annexure IV**.

The details on the Bidder Information Forms are provided in **Annexure V**.

Key Areas for assessment and for carrying the study for each of the three Phases

Phase I Assessment stage – Desk Review and Stakeholder Consultations: (6 months)

This stage shall undertake a desktop based comprehensive assessment of existing and future scenarios in the power sector of individual countries in MESASEA and Africa regions. The assessment shall use the historical data of supply and demand, future demand growth, clean energy supply availability, gaps in renewable capacities to assess demand-supply balance of individual countries by 2030, renewable potential vis-à-vis proposed deployments, prevailing costs structure for thermal and renewable energy generation, analysis of retail consumer tariffs. Basis these outcomes, assess potential renewable/solar surplus/deficit for the countries by 2030, analyse power market dynamics, identify policy & regulatory needs, assess readiness for cross border power transfer, and build an OSOWOG vision up to 2050. This stage shall include development of an integrated OSOWOG model which would identify potential demand-supply scenarios in the four regions (South Asia, South East Asia, Middle East and Africa) assuming an integrated grid connection. The demand supply scenarios should assess the utilization of existing and untapped solar potential of individual countries to address average and peak demand requirements of various countries in the region using time variations in peaks as well as solar generation during the day.

The key areas to be looked at shall include the following:

Demand supply scenario till 2050:

- Demand growth studies, using appropriate tools, to assess the year-on-year demand growth for the country as a whole. The demand growth needs to be projected, using historical data and rational assumptions
- Supply scenarios need to be built, including non-solar renewable sources.
- Subsequently, projections need to be undertaken for solar and other renewable power (with and without storage) to meet the balance demand by assessing renewable energy capacity requirements including storage capacities.
- Necessary scenarios need to be developed for assessing future demand-supply behavior.
- Develop consolidated demand-supply curve(s) for enabling a better understanding of the renewable supply requirements for the next decade (2020 to 2030 period) which shall form the basis to establish the vision and road map for OSOWOG.

Renewable energy resource potential assessment:

- Evaluate feasible renewable energy resources' potential along with specific needs on grid connectivity, land availability etc. The study would primarily be based on review of existing assessments, desktop research using country wise renewable energy potential data, historical capacity additions etc.,
- Basis the renewable energy potential assessment and the demand-supply growth, annual renewable energy capacity gaps shall be identified. These annual renewable energy capacity gaps shall then form the renewable energy demand that would need to be catered through the OSOWOG framework.

Power market assessment:

- Assess the existing power market regulations to understand key drivers and barriers to renewable energy capacity additions as per projections. The assessment should also include existing cross border electricity trade regulations. This assessment should be made with other regional power markets globally and should identify key policy & regulatory requirements that would help achieve OSOWOG's vision. The power market assessment shall identify leading regional markets globally and study, in detail, the policy & regulatory evolution in such markets that led to successful regional markets. Any ongoing market plan should also be studied to identify best practices.
- The global policy & regulatory best practices, on power markets, shall then be used to assess India's power market maturity for a large-scale cross border power market. The output of this assessment shall be in the form of policy, regulatory and institutional recommendations to facilitate the OSOWOG agenda by creating a seamless cross border power market to suit India's power needs.
- Detailed analysis of prevailing cost structures for thermal and renewable energy generation, analysis of retail tariff structures, and its rationalization for a regional or globally interconnected regime considering the differential demand supply and timings

Other important aspects:

Beyond addressing the above aspects, the consultant may provide additional insights as outlined below, if not covered earlier, that would feed into the decision-making process through this OSOWOG initiative:

- a) A brief report on how the grid interconnection would facilitate energy transition in the potential partnering countries
- b) A brief report on the political/physical dimensions and boundaries of this initiative and a tentative framework on roles and responsibilities of the partnering governments
- c) A report, on drivers and motivators for each partnering country/Government, that would form the basis for future deliberations/dialogue amongst the partnering countries.
 - i. Business proposition with tentative quantification
 - ii. Opportunity costs (accounting and economic costs) arising out of capacity avoidance (Capital Costs and O&M costs)
 - iii. Grid operations & management cost avoidance
 - iv. Cost avoided in terms of carbon footprints
 - v. Climate Change benefits
 - vi. Take benefit from market, grid inertia, resilience and resource adequacy.
- d) Transmission infrastructure – as is scenario, gap assessment and requirements
- e) Cost base and cost sharing model for such transmission grid investment.
- f) Ownership, security and operational boundaries.
- g) A detailed report on key prospective challenges for the partnering countries /Governments under the following heads:

- i. Energy accounting and deviation settlement mechanism
- ii. Treatment of different foreign exchange and economic volatility mitigation mechanisms
- iii. Harmonization of Grid codes for seamless grid operations
- iv. Standard specifications and regulation needed for grid control and financial management
- v. Differential investment / ownership
- vi. Need for constitution of a dispute resolution body and its probable structure
- vii. System balancing reserve development and investment sharing other than solar
- viii. Thermal phase out feasibility and cost of supply changes differently for different country
- ix. Economic value of renewable energy
- x. Local grid resilience and synergy with development
- xi. Political feasibility and strategy

Comprehensive vision and road map for OSOWOG:

- Basis the outcomes of the previous activities, a comprehensive vision should be developed for OSOWOG along with a detailed road map that would clearly identify activities to be undertaken across the three phases of the OSOWOG on an annual basis.
- The road map shall first detail out the policy and program level readiness of India for rolling out OSOWOG and then detail out possible policy, technology and institutional level initiatives for making OSOWOG a global success.
- The road map has to be developed through a series of stakeholder consultations which would include a detailed presentation on the outcomes of the various assessments followed by the proposed vision and road-map

Phase II: Potential assessment and pilots identification: (4 months)

This stage would identify 2-3 cross-border projects that can be initiated within one or two years, preferably one with each of Middle East, South East and Africa regions considering India as the grid fulcrum for these identified pilots.

Key sub-activities shall include:

- Basis the Phase I assessment, identification of minimum 2-3 countries with untapped renewable energy potential, existing/planned grid strengthening and with the potential to build new/utilize existing interconnections with Indian grid.
- Detailed policy and regulatory scan of the identified countries, to identify readiness for being part of initial pilots under OSOWOG.
- Evaluate cost/investment of generation facility, opportunity costs (capacity avoidance costs, environmental costs related to the program/initiative) and landed cost on the Indian periphery.
- Undertake consultations with MEA for possible inter country energy cooperation with the identified countries.
- Build a country specific case, for initiating OSOWOG pilot, that can be used by the Indian Government for discussions with the Governments of target countries.
- Support to MNRE during the G2G consultation phase to shortlist the pilots.

A macro level project report needs to be developed for the potential pilot using desktop research. This project report shall be used to initiate discussions with the potential partner countries for the proposed pilots. It shall also form the basis of future detailed project reports of the approved pilots.

Phase III: Full scale roll out: (3 months)

This stage would be initiated during the last stages of Phase II and shall require support in institutionalizing the OSOWOG vision into full operations.

Key activities shall include but not limited to:

- Develop institutional framework for international co-operation, steering arrangements and governance
- Support in implementation of the proposed roadmap through establishing a Project Management Office (PMO) at the MNRE

The key objective of this phase would be to support MNRE in rolling out the recommendations that have been set forth for the first year of the OSOWOG road-map and based on the experience gained from Phase II. This shall include development of draft policy papers and regulations, support in planning and establishing necessary institutional mechanisms to roll-out OSOWOG in India, supporting MNRE in global branding of the OSOWOG with an aim to ensure maximum participation from the globe.

Firm qualification criteria, Team deployment and Terms of payment

A. Firm Qualification Criteria

A brief summary of the requirements from the interested agencies for implementing this assignment and other general terms and conditions are provided below.

- The bidding entity must be a legal entity registered either in India or any other country under applicable laws. Registration certificate should be provided.
- JV or Consortium is allowed (Lead partner or consortium/JV partner) of complimentary functional expertise with at least one Indian firm in the JV or Consortium. JV or Consortium should include adequate expertise to demonstrate the following:
 - Direct experience on cross border power transmission covering multiple countries (i.e South Asia, South East Asia, Africa, China, Europe, Middle East, North America etc.,)
 - In depth understanding on Power systems, power market, power planning, Transmission planning covering each of country of interest
 - Direct experience in under sea transmission feasibility and experience in desert (extreme weather variation)
 - Experience in environment and social impact assessment studies
- The bidding entity must have MAAT (Average of last 3 years) to be INR 500 Crores from consulting business in India or any other country. Chartered Accountant certificate should be provided.
- The bidding entity must have experience of executing (completed on ongoing) at least one assignment in grid related studies covering generation, transmission, integration etc., in India
- The bidding entity must have experience of executing (completed on ongoing) atleast one assignment in renewable energy generation, energy storage, transmission, integration in India
- The bidding entity must have experience of executing (completed on ongoing) at least 10 assignments relevant to the scope of work of this RFP in countries other than India in last 10 years (member firm or parent company credentials shall not be considered)
- The bidding entity must have experience of executing (completed on ongoing) atleast one assignment related to power sector aspects related to different studies across multiple countries in last 5 years in the areas of harmonization of regulation, technical standard, power market coupling and transmission pricing etc.,
- The bidding entity must have experience of executing (completed or ongoing) assignments related to consensus building or stakeholder consultation in last 5 years in the regions mentioned above (South Asia, South East Asia, Africa, China, Europe, Middle East, North America etc.,)

B. Team Deployment

The team deployment for the assignment shall be as follows :

Core Team :

S.No.	Proposed position	Minimum qualification	Experience requirement
1	Team leader	M.Tech/M.E (Electrical Engineering)	15+ experience in power sector covering multiple country experience
2	Renewable Energy and Energy Storage expert	M.Tech/M.E (Electrical / Renewable Energy Engineering)	10+ years of experience in clean energy domain
3	Transmission expert	M.Tech/M.E	10+ years of experience in power transmission sector covering multiple country experience
4	Power Generation expert	M.Tech/M.E.	12+ years of experience in power sector covering multiple country experience
5	Energy Economics Expert	M.Com / MBA (Economics / Finance)	15+ years of experience in power sector
6	Power Finance Expert	BA/B Com/BBA/CA/CPA or equivalent	10 years of experience in power sector
7	Power Sector Policy & Regulatory expert	M.Tech/M.E/M.Com/MBA (Economics / Finance or Engineering)	10+ years of experience in power sector covering multiple country experience
8	Power Sector Political Economy expert	M.A / M.Sc (International Relations / Political Economy)	10+ years of experience in power sector covering multiple country experience

Other Team Members:

In addition to above Core Team, the support staff/analysts may be deployed as needed and specified in the proposal.

C. Terms of Payment

The terms of payment for the assignment shall be as follows :

Installment	Deliverable	Percentage of Value of Contract
First	Submission of Inception Report	5%
Second	Submission and approval of MNRE team of the first draft report of Phase I – Vision and Roadmap Document	10%
Third	Submission and approval of MNRE team of the final report of Phase I – Vision and Roadmap Document and completion of all stakeholder consultations as agreed in the inception report	10%
Fourth	Submission and approval of MNRE team of the first draft report of Phase II – implementation roadmap document for 2-3 cross-border projects	15%
Fifth	Submission and approval of MNRE team of the final report of Phase II – implementation roadmap document for 2-3 cross-border projects	10%
Sixth	Submission and approval of MNRE team of the first draft report of Phase III – Draft policy papers and regulations, and framework for planning and establishing necessary institutional mechanisms to roll-out OSOWOG in India	15%
Seventh	Submission and approval of MNRE team of the final report of Phase III – Draft policy papers and regulations, and framework for planning and establishing necessary institutional mechanisms to roll-out OSOWOG in India	10%
Eighth	After organization of one National Level Workshop	15%
Ninth	Submission of (i) a consolidated report of Phase I, Phase II and Phase III and (ii) 100 high quality hard copies of the report and (iii) submission of proceedings of the National Level Workshop	10%

Note:

- No advance amount will be provided under this activity
- The assignment will be target oriented and if not achieved, the contract amount may be reduced proportionately which will be at the discretion of MNRE.

Instructions to Bidders for formulation and submission of proposals

The bidders are expected to examine all terms and conditions and instructions included in the document. Failure to provide all requested information will be at the bidder's risk and may result in rejection of their proposal. Further, the bidders are requested to submit technical and financial proposals separately with the following details:

- a. Proposal submission Cover Letter Form
- b. Documents, supporting the eligibility of firm in all respect for the participation under the bid (all pages should be signed)
- c. Technical Proposal with supporting Documents (like work experience, Work Order, Details of Expertise etc.)
- d. Financial Proposal in all respect as per terms and conditions of Bidding Document
- e. Bid Security, if applicable
- f. Any other supporting documentation duly referenced

PREPARATION OF TECHNICAL PROPOSAL

The Proposal, as well as any and all related correspondence exchanged by the agency / bidder and MNRE, shall be in English.

The Technical Proposal for the assignment should give a detailed description of each of the Activities mentioned in the Section 2 and include the following:

A brief description of the Bidder/Bidder's organization and an outline of past and recent experience on assignments of similar nature. The information is to be furnished for each assignment and should indicate, inter-alia, the profiles of the professionals, duration, contract amount and their involvement.

- **Proposed Methodology, Approach and Implementation Plan** – this section should demonstrate the Bidder's response to the Terms of Reference by identifying the specific components proposed, how the requirements shall be addressed, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; identifying the activities that will be implemented by different experts / inhouse teams and demonstrating how the proposed methodology meets or exceeds the specifications, while ensuring appropriateness of the approach to the local conditions and the rest of the project operating environment;
- **Expertise of the organization** in the related area of work, including the work done, and key experts available for the Assignment – this section should provide details regarding management structure of the organization, organizational capability/resources, and

experience of organization/firm, the list of projects/contracts (both completed and on-going, both domestic and international) which are related or similar in nature to the requirements of the RFP, and proof of financial stability and adequacy of resources to complete the services required by the RFP.

- **Management Structure and Key Personnel** – This section should include the comprehensive curriculum vitae (CVs) of key personnel that will be assigned to support the implementation of the proposed methodology, clearly defining the roles and responsibilities vis-à-vis the proposed methodology. In complying with this section, the bidder assures and confirms that the personnel being nominated are available for the Contract during the proposed duration of the activities under this RFP.
- **Activity-wise time schedule** – This section should include the comprehensive detailed plan weekly/monthly wise for successful accomplishment of Deliverables as mentioned in this RFP.

PREPARATION OF FINANCIAL PROPOSAL

The Financial Proposal shall be prepared using the attached standard form. It shall list all major cost components associated with the services, and the detailed breakdown of such costs. All outputs and activities described in the Technical Proposal must be priced separately on a one-to-one correspondence. Any output and activities described in the Technical Proposal but not priced in the Financial Proposal, shall be assumed to be included in the prices of other activities or items, as well as in the final total price.

DOCUMENTS ESTABLISHING THE ELIGIBILITY AND QUALIFICATIONS OF THE PROPOSER

The bidder shall furnish documentary evidence of its status as an eligible and qualified vendor, using the forms provided under Section 5, Bidder Information Forms.

QUALIFICATION REQUIREMENTS

- The bidding entity must be a legal entity registered either in India or any other country under applicable laws. Registration certificate should be provided.
- JV or Consortium is allowed (Lead partner or consortium/JV partner) of complimentary functional expertise with at least one Indian firm in the JV or Consortium. JV or Consortium should include adequate expertise to demonstrate the following:
 - Direct experience on cross border power transmission covering multiple countries (i.e South Asia, South East Asia, Africa, China, Europe, Middle East, North America etc.,)
 - In depth understanding on Power systems, power market, power planning, Transmission planning covering each of country of interest
 - Direct experience in under sea transmission feasibility and experience in desert (extreme weather variation)
 - Experience in environment and social impact assessment studies
- The bidding entity must have MAAT (Average of last 3 years) to be INR 500 Crores from consulting business in India or any other country. Chartered Accountant certificate should be provided.

- The bidding entity must have experience of executing (completed or ongoing) atleast one assignment in grid related studies covering generation, transmission, integration etc., in India
- The bidding entity must have experience of executing (completed or ongoing) atleast one assignment in renewable energy generation, energy storage, transmission, integration in India
- The bidding entity must have experience of executing (completed or ongoing) at least 10 assignments relevant to the scope of work of this RFP in countries other than India in last 10 years (member firm or parent company credentials shall not be considered)
- The bidding entity must have experience of executing (completed or ongoing) atleast one assignment related to power sector aspects related to different studies across multiple countries in last 5 years in the areas of harmonization of regulation, technical standard, power market coupling and transmission pricing etc.,
- The bidding entity must have experience of executing (completed or ongoing) assignments related to consensus building or stakeholder consultation in last 5 years in the regions mentioned above (South Asia, South East Asia, Africa, China, Europe, Middle East, North America etc.,)

EVALUATION OF TECHNICAL AND FINANCIAL PROPOSALS

A Screening Committee will be constituted by MNRE to evaluate the project proposals and recommend award to the Steering Committee governing SUPRABHA TA Program for final approval. Eligible bidders will be required to make presentations before the committee on their Technical Proposal.

The evaluation will be done as mentioned below:

Proposals will be evaluated based on QCBS only.

The evaluation committee shall evaluate the Technical Proposals on the basis of their responsiveness to the Terms of Reference and the RFP, applying the evaluation criteria, sub-criteria, and point system specified in this RFP. Each responsive Proposal will be given a technical score. A Proposal shall be rejected at this stage if it does not respond to important aspects of the RFP or if it fails to achieve the minimum technical score indicated in this RFP

Scores shall be awarded on **a relative scale** based on following criteria and weights, with accuracy up to two decimal places:

Item No	Particulars	Max Score
1	Team	55 marks
A	Team leader The expert must have an advanced degree, minimum master's degree, in electrical engineering or be a chartered engineer. Specific demonstrated experience in successfully using expansion planning software with capabilities to integrate intermittent renewables and storage is essential (such as PSR/Optgen, PLEXOS, UPLAN, Ventyx). As a team leader, this expert will be responsible for all activity outputs and will serve as liaison with MNRE, MOP, Power Grid in India and counterparts in other countries. The expert will coordinate the inputs of all team members and ensure the quality and timely submission of reports. Qualification Minimum Master's Degree, in electrical engineering or be a Chartered Engineer Experience At least 15 years of experience in power system planning,	15 marks

	including 5 years as a project manager.	
B	<u>Renewable Energy and Energy Storage expert (Solar and Energy Storage)</u> <u>Qualification</u> The experts shall have an advanced degree, minimum master's degree, or be a chartered engineer in electrical or renewable energy. <u>Experience</u> <u>Renewable energy and storage engineers</u> – large scale solar, wind, hydro, storage (pumped hydro, battery, advanced storage). The renewable energy experts shall have at least 10 years' experience in large scale grid-tied renewable energy planning, feasibility studies and development (particularly solar photovoltaic and wind). The storage specialists should have at least 5 years' planning and integration experience in analysis, planning and feasibility assessment of large utility-scale storage technologies, especially battery storage.	10 marks
C	<u>Power Generation Expert</u> <u>Qualification</u> The expert shall have an advanced degree, minimum master's degree, or be a chartered engineer. <u>Experience</u> The expert shall have at least 10 years' experience in planning for integration and operation of conventional power generation technologies with intermittent renewable energy sources.	5 marks
D	<u>Transmission expert</u> <u>Qualification</u> The expert must an advanced degree in electrical engineer minimum master's degree, or be a chartered electrical engineer specializing in power transmission. <u>Experience</u> The expert shall have at least 10 years of experience working with transmission planning software tools such as PSS or ETAP, including certificates of completed software courses. The expert should have at least 5 years of experience in transmission planning. Knowledge of and experience with Power Grid Corporation transmission planning and UHV AC and DC transmission will be a distinct advantage. Must have direct experience on (i) cross border power transmission covering multiple countries (i.e South Asia, Africa, China, Europe, United Arab Emirates, North America etc.,) (ii) under sea transmission feasibility and (iii) experience in desert (extreme weather variation). Experience in power system operation for atleast 3 years in desirable.	8 marks
E	<u>Energy economics expert</u> <u>Qualification</u> The economics expert must have an advanced degree, minimum master's degree, in economics or finance or an MBA <u>Experience</u> The expert with at least 15 years of experience, including at least 10 years' experience in power system economic and financial analysis including transmission pricing. Specific experience in IPP tariff determination will be invaluable.	3.5 marks
F	<u>Power finance expert</u> <u>Qualification</u> The finance specialist must have degree in finance or	3.5 marks

	business administration, or CA/CPA or equivalent <u>Experience</u> The expert with a minimum of 10 years' experience, and extensive experience with PPP and IPP projects. Power generation and transmission investment mobilization and financial structuring will be invaluable.	
G	<u>Power Sector Regulatory and Policy expert</u> <u>Qualification</u> The expert must have an advanced degree, minimum master's degree in economics, finance or engineering <u>Experience</u> The expert should have at least 10 years' experience in power sector regulation and policy development. Experience is required in analyzing and preparing regulations and policy with respect to renewable energy integration and transmission system operations in a regional or national regulatory body.	7 marks
H	<u>Power sector political-economy expert</u> <u>Qualification</u> The expert must have an advanced degree minimum master's degree in international relations or political economy, <u>Experience</u> The expert should have experience in international relations or political economy, especially related to South Asia or and at least 10 years' experience in politics and economic relations of India and neighboring countries. Specific experience related to cross-border power trade would be invaluable.	3 marks
2	Firm credentials (Technical)	5 marks
A	Experience in power system and transmission planning and especially integration of renewable energy generation and storage, social and environment impact assessment studies. Successful development and implementation of renewable energy, storage and transmission projects. Strategic planning in the power sector into policy development. Power sector experience especially renewable energy development in the region will be valuable. Demonstrated experience in successfully managing large and complex assignments of this type is necessary.	5 marks
3	Engagement specific presentation with detailed approach and methodology and work plan	40
	Specific Experience: Experience in power system and transmission planning and especially integration of renewable energy generation and storage. Successful development and implementation of renewable energy, storage and transmission projects. Strategic planning in the power sector into policy development. Power sector experience especially renewable energy development in the region will be valuable. Demonstrated experience in successfully managing large and complex assignments of this type is necessary.	5
	Methodology	
	Understanding of requirements. Demonstration of accurate understanding of the purpose, scope, and of the outcomes of the project.	5
	Description and level of detail of proposed methodology and approaches that reflect best practices and adoption of lessons from global experiences in similar endeavors. Thoughtful explanation of anticipated tradeoffs and limitations.	25
	Innovation. Demonstration of creativity and awareness of innovative methodological approaches	5
	Maximum Score	100

For each key expert category, following will be the weighting of the score:

- 30 percent: General qualifications: general education and training, length of experience, positions held, previous assignments as team expert, experience in developing countries, etc.
- 60 percent: Adequacy for the assignment: education, training, and experience in the specific sector, field, subject, and so forth, relevant to the assignment.
- 10 percent: Experience in the region: knowledge of the local language, culture, administrative system, government organization, etc.

Minimum total technical score to qualify: 75.

PRICE

- Price (F) excluding all applicable taxes has to be quoted in Indian Rupee only
- Taxes should be mentioned separately

GENERAL INSTRUCTIONS

- Bids that are incomplete in any respect, or those that are not consistent with the requirements as specified in this Request for Proposal (RFP), or those that do not adhere to formats, wherever specified, may be considered non-responsive and may be liable for rejection.
- All communication and information should be provided in writing.
- No change in, or supplementary information to a Bid, shall be accepted once submitted. However, the MNRE reserves the right to seek additional information from the Bidder(s), if found necessary, during the course of evaluation of the Bid.
- Non-submission, incomplete submission or delayed submission of such additional information or clarifications sought, may be a ground for rejecting the Bid.
- MNRE reserves the right to reject any or all the Bids submitted in response to this Request for Proposals at any stage without assigning any reasons whatsoever.
- Firms/organizations if found to have indulged in any corrupt or fraudulent practices or Blacklisted by any Central Government/State Government/PSUs/Other will have their proposal document not taken up for consideration.
- MNRE reserves the right to change any or all of the provisions of the RFP Document. Such changes would be intimated to all parties.

SUBMISSION OF PROPOSALS

- The Bidders must send their offer electronically, comprising a technical proposal and financial proposal. Your proposal must reach the dedicated email: sk.gupta81@gov.in on or before the deadlines as mentioned in this RFP
- The Bidders must submit one "Original" and "Two Copies" of the Technical proposal in one envelope, which must be sealed and clearly marked "Technical Proposal". The Financial proposal must be kept in a separate envelope, which must be sealed and clearly marked "Financial Proposal".
- Both these envelopes must then be placed in a single outer envelope, which must be sealed and addressed to the **MINISTRY OF NEW AND RENEWABLE ENERGY, GOVERNMENT OF INDIA, BLOCK 14, CGO COMPLEX, LODHI ROAD, PRAGATI VIHAR, NEW DELHI 110003**
- and must reach on or before last date of submission.

- The Bidders should also submit the technical proposal by email to sk.gupta81@gov.in before the deadline mentioned in this RFP.
- The Outer Envelope must further be clearly marked: Bid for **“Developing a long-term vision, implementation plan, road map and institutional framework for implementing One Sun One World One Grid”**
- The outer envelope should clearly indicate the name of the assignment and the bidder’s full address. Bids received with outer envelopes that do not indicate this information are liable to be rejected.
- The Bidder(s) may submit their Bids by Registered Post / Courier or in Person, so as to reach the above mentioned address by the time and date stipulated in this RFP.
- MNRE shall not be responsible for any delay in submission of the Bids. Any Bid received by after the deadline will not be accepted by MNRE.

Evaluation of proposals

Preliminary Examination of Proposals:

MNRE shall examine the Proposals to determine whether they are complete with respect to minimum documentary requirements and whether the documents have been properly signed. Proposal may be rejected at this stage.

MNRE shall examine the Proposal to confirm that all terms and conditions under this RFP have been accepted by the Proposer without any deviation or reservation.

In the second stage, only the Financial Proposals of those bidders who achieve the minimum technical score will be opened for evaluation for comparison and review.

The Financial Proposal Envelopes corresponding to Proposals that did not meet the minimum passing technical score shall not be opened. The overall evaluation score will be based on QCBS i.e on a combination of the technical score and the financial offer.

The lowest evaluated Financial Proposal will be given the maximum financial score of 100.

The weights given to the Technical (T) and Financial (P) Proposals are: T = 80% & P = 20%

Based on the combined scoring method, the formula for the rating of each Proposal will be as follows:

Rating the Technical Proposal (TP):

TP Rating = (Total Score Obtained by the Offer / Max. Obtainable Score for TP) x 100

Rating the Financial Proposal (FP):

FP Rating = (Lowest Priced Offer / Price of the Offer Being Reviewed) x 100

Total Combined Score:

Total Combined and Final Rating of the Proposal =

(TP Rating) x (Weight of TP, i.e. 80%) + (FP Rating) x (Weight of FP, i.e. 20%)

Bidder Information Forms

A. COVER LETTER FOR SUBMISSION OF PROPOSAL

To: [*insert: Name and Address of MNRE TA Program focal point*]

Dear Sir/Madam,

We, the undersigned, hereby offer to provide professional services for [*insert: title of services*] in accordance with your Request for Proposal No. [*Number of RFP*] dated [*insert: Date*] and accepting all the terms and conditions quoted in the RFP document.

We are hereby submitting our Proposal, which includes the Technical Proposal and Financial Proposal sealed under a separate envelope.

Yours sincerely,

Authorized Signature [*In full and initials*]:

Name and Title of Signatory:

Name of Firm:

B. Documents Establishing the Eligibility and Qualifications of the Bidder

Bidder Information Form

Date: *[insert date (as day, month and year) of Proposal Submission]*

RFP No.: *[insert number]*

1. Bidder's Legal Name <i>[insert Bidder's legal name]</i>		
2. In case of Joint Venture (JV), legal name of each party: <i>[insert legal name of each party in JV]</i>		
3. Actual or intended Country/ies of Registration/Operation: <i>[insert actual or intended Country of Registration]</i>		
4. Year of Registration: <i>[insert Bidder's year of registration]</i>		
5. Countries of Operation	6. No. of staff in each Country	7. Years of Operation in each Country
8. Legal Address/es in Country/ies of Registration/Operation: <i>[insert Bidder's legal address in country of registration]</i>		
9. Value and Description of Top three (3) Biggest Contract for the past five (5) years		
10. Latest Credit Rating (if any)		
11. Brief description of litigation history (disputes, arbitration, claims, etc.), indicating current status and outcomes, if already resolved.		
12. Bidder's Authorized Representative Information Name: <i>[insert Authorized Representative's name]</i> Address: <i>[insert Authorized Representative's name]</i> Telephone/Fax numbers: <i>[insert Authorized Representative's name]</i> Email Address: <i>[insert Authorized Representative's name]</i>		
14. Attached are copies of original documents of: ☐ All eligibility document requirements listed above ☐ If Joint Venture/Consortium – copy of the Memorandum of Understanding/Agreement or Letter of Intent to form a JV/Consortium, or Registration of JV/Consortium, if registered ☐ If case of Government corporation or Government-owned/controlled entity, documents establishing legal and financial autonomy and compliance with commercial law.		

C. TECHNICAL PROPOSAL FORMAT

INSERT TITLE OF THE SERVICES:

Note: *Technical Proposals not submitted in this format may be rejected. The financial proposal should be included in separate envelope.*

Name of Proposing Organization / Firm:	
Country of Registration:	
Name of Contact Person for this Proposal:	

Address:	
Phone / Fax:	
Email:	

SECTION 1: EXPERTISE OF FIRM/ ORGANISATION:

This section should fully explain the Bidders resources in terms of personnel and facilities necessary for the performance of this requirement. All contents of this section may be modified or expanded depending on the evaluation criteria stated in the RFP

1.1 Brief Description of Bidder as an Entity: Provide a brief description of the organization / firm submitting the proposal, its legal mandates/authorized business activities, the year and country of incorporation, types of activities undertaken, and approximate annual budget, etc. Include reference to reputation, or any history of litigation and arbitration in which the organisation / firm has been involved that could adversely affect or impact the performance of services, indicating the status/result of such litigation/arbitration.

1.2 Financial Capacity: Provide the latest Audited Financial Statement (Income Statement and Balance Sheet) duly certified by a Public Accountant, and with authentication of receiving by the Government's Internal Revenue Authority. Include any indication of credit rating, industry rating, etc.

1.3 Expertise of the organization in the related area of work, including the work done, and key experts available for the Assignment – this section should provide details regarding management structure of the organization, organizational capability/resources, and experience of organization/firm, the list of projects/contracts (both completed and on-going, both domestic and international) which are related or similar in nature to the requirements of the RFP as per below format, and proof of financial stability and adequacy of resources to complete the services required by the RFP.

(Provide the following information regarding corporate experience within the last five (5) years which are related or relevant to those required for this RFP)

Name of Work/Project	Organization	Contract Value	Period of activity	Type of Activities undertaken	Status or Date of Completion	Remarks

1.4 Proposed Methodology, Approach and Implementation Plan – this section should demonstrate the Bidder's response to the Terms of Reference by identifying the specific components proposed, how the requirements shall be addressed, as specified, point by point; providing a detailed description of the essential performance characteristics proposed; identifying the activities that will be implemented by different experts / inhouse teams and demonstrating how the proposed methodology meets or exceeds the specifications, while ensuring

appropriateness of the approach to the local conditions and the rest of the project operating environment;

- 1.5 **Management Structure and Key Personnel** – This section should include the comprehensive curriculum vitae (CVs) of key personnel that will be assigned to support the implementation of the proposed methodology, clearly defining the roles and responsibilities vis-à-vis the proposed methodology. In complying with this section, the bidder assures and confirms that the personnel being nominated are available for the Contract during the proposed duration of the activities under this RFP.
- 1.6 **Activity-wise time schedule** – This section should include the comprehensive detailed plan weekly/monthly wise for successful accomplishment of Deliverables as mentioned in this RFP.
- 1.7 **Other information relevant to the RFP** – This section should include any information that the consultant considers directly relevant to this RFP's scope of work and deliverables.

D. FINANCIAL PROPOSAL

Description	Amount (INR)
The Cost of the assignment Lumpsum Amount for : i) Deliverables - D1 ii) Deliverables - D2 iii) Deliverables - D3 iv) Deliverables - D4	 XXXX.XXX (Rupees XXXXX only) (excluding GST as applicable)

Inclusion : As outlined below.

- Expand these inclusions in this sheet when submitting the financial proposal.
- The amount mentioned in this proposal will be one lumpsum amount without reimbursement of any actual expenses

Sr No	Activities
1.	Manpower Cost
2.	Travel and associated expenses
3.	Stakeholder Consultation Workshops and One National Workshop
4.	All other costs as applicable