



**MADHYA PRADESH URJA VIKAS
NIGAM LIMITED**

(M.P. Govt. undertaking)
Urja Bhawan, Link Road No.2, Shivaji Nagar,
Bhopal (M.P.) INDIA
Phone :0755-2553595, 2767270, 2556245 Fax : 0755-2553122
www.mprenewable.nic.in email: cmpuvn@bsnl.in

Ref No-MPUVN/ RFP–Notice /solar Traffic signals /2012-13/245 Date 18/04/2013

REQUEST FOR PROPOSAL/NIT

Online offer are invited in the prescribed documents of the Nigam **in three envelope system (A, B, C) where envelope-A consists EMD, envelope-B Consists Technical bid and envelope-C consists only price bid for** Survey, Design, Supply, Installation, Commissioning and annual maintenance for three years of **Solar-Hybrid traffic signal & solar blinker Systems** as per attached Technical specification & the scope of the work from manufacturers or their authorized representatives. The rates are to be quoted for Design, supply / installation and commissioning with 3 years AMC and warranty at site. The rates would also be standardized by the Nigam.

Name of System / Item	Token EMD (Rs. in Lakhs)	RFP DOCUMENT FEE (in Rs.)
Design, Supply, Installation, & Commissioning Solar-Hybrid traffic signals/Blinkers in BHOPAL municipal corporation limits & anywhere in MP As per list attached	Rs.1.00 (one lakhs)	11,000/- (Including e – tendering charges)

RFP/tender documents can be purchased only online from <http://mpuvn.mpeprocurement.gov.in> by making online payment.

For further details and conditions refer website <http://mpuvn.mpeprocurement.gov.in> or contact Nextenders (I) Pvt. Ltd., A-6 Sahyog Parisar, Opposite Makhanlal Chaturvedi University, Trilanga, Bhopal, Phone-0755-4075010 (E-mail Address: bhopal@nextenders.com) or Chief Engineer(I/C), M.P. Urja Vikas Nigam Ltd., Bhopal.

The details of RFP notice can be viewed & downloaded from Nigam's website i.e. www.mprenewable.nic.in from 18th April 2013, Managing Director MPUVN reserves all rights to cancel all or any or modify the documents without assigning any reason thereof.

MANAGING DIRECTOR

MADHYA PRADESH URJA VIKAS NIGAM LTD., BHOPAL

REQUEST FOR PROPOSAL

Online offer are invited in the prescribed documents of the Nigam **in three envelope system (A, B, C) where envelope-A consists EMD, envelope-B Cosmists Technical bid and envelope-C consists only price bid for** for Survey, Design, Supply, Installation, Commissioning and annual maintenance for three years of **Solar-Hybrid traffic signal & solar blinker Systems** as per attached Technical specification & the scope of the work from manufacturers or their authorized representatives. The rates are to be quoted for Design, supply / installation and commissioning with 3 years AMC and warranty at site. The rates would also be standardized by the Nigam.

Name of System / Item	Token EMD (Rs. in Lakhs)	RFP DOCUMENT FEE (in Rs.)
Design, Supply, and Installation & Commissioning of Solar-Hybrid traffic signal & solar blinker Systems from Manufacturer or their authorized distributors/representatives for BHOPAL municipal corporation limits & anywhere in MP	Rs.1.00 (One lakhs)	11,000/- (Including e – tendering charges)

ELIGIBILITY CRITERIA FOR PARTICIPANT

Participant having following minimum eligibility criteria would be allowed to participate in this RFP:-

- Bidders must have installed at least 5 Solar operated Traffic signals in last two years
- **Aggregate** turnover of the prime/lead bidder during the last 3 years ending 31st March 2013 must be at least Rs.100.00 Lakhs. **Audited financial statement** for the financial year 2010 to 13 shall be submitted along with the technical bid.
- Bidders must have experience in the field of ITS (intelligent transportation system) with experience of manufacturing/ marketing these products. The Bidder should be OEM for the offered products or their authorized distributor, clearly mentioning the tender number **in their authorization letter** (Bidder to submit documentary proof for the quoted items).
- The products must conform IP65.
- Considering skills and resources needed to install and implement the standalone solution for solar Traffic signals, Firm or a Company or a Consortium of a maximum of three Companies may bid. However one of the members of the consortium should act as the Prime Bidder and be responsible for discharging the responsibilities. It is the Prime Bidder who should submit the bid complete in all aspects on behalf of the members. Payments will be released to Prime bidder only.

- a) Since LED are new technology items, the Bidder should be **Manufacturer** (or through their only authorized representative for the tender) **of** traffic signals fixtures of the quoted items and have adequate facilities for testing of the complete system. However, the use of LEDs of reputed foreign make is allowed.

- b) The Bidder should submit proof i.e. certificate issued by competent Govt. authority certifying the manufacture of traffic signals fixtures of quoted items or the authorization as the case may be.
- c) The successful Bidders should have a Branch Office / Service Centre in MP State **of his own or through its authorized distributor: in case bidder does not have their office / service centre in MP state at present.** he shall be required to submit an undertaking for opening a Branch Office / Service Centre in MP State **of his own or through its authorized distributor** within seven days of agreement against this tender.
- d) The Bidder should not have been debarred from any Central / State Govt. Departments / Agencies / Boards / Corporations / PSUs / public limited etc.
- e) The Bidder shall submit the test report of the quoted products, confirming to the applicable BIS / International Standard & specifications, with the bid.
- . 2 The Participant should have valid CST / VAT / PAN.
- 3 RFP documents can be purchased only online from <http://mpuvm.mpeprocurement.gov.in> by making online payment for the Tender Document Fees.
- 4 The Bid Data should be filled in and the Bid Seals (Hashes) of all the envelopes and the documents which are to be uploaded by the Bidders should be submitted online up to as per time schedule (Key Dates)

Key Date : Single Submission Multi Opening With Prequal

Seq No	MPUVN Stage	Stage	Start Date & Time	Expiry Date & Time	View Forms	Envelops
1	Tender Preparation And Release of NIT	-	17-04-2013 10:30	18-04-2013 17:30	-	-
2	-	Tender Purchase - Online	18-04-2013 17:31	13-05-2013 17:30	✓	Envelope C,Envelope A,Envelope B
3	-	Tender Download	18-04-2013 17:40	13-05-2013 22:00	✓	Envelope C,Envelope A,Envelope B
4	-	Submit Bid Hash - Online	22-04-2013 10:30	13-05-2013 22:30	✓	Envelope C,Envelope A,Envelope B
5	Pre-bid meeting		30-04-2013 15:00	30-04-2013 17:00		
6	Close for bidding - Generation of Super Hash	-	13-05-2013 22:31	14-05-2013 17:30	-	Envelope C,Envelope A,Envelope B
7	-	Submit Bids Online Re - encryption	14-05-2013 17:31	15-05-2013 22:30	✓	Envelope C,Envelope A,Envelope B
8	Open EMD & Technical / PQ Bid	-	16-05-2013 11:30	16-05-2013 21:30	-	Envelope A,Envelope B
9	Open Financial / Price-Bid	-	20-05-2013 10:30	20-05-2013 21:00	-	Envelope C

**** Technical Bid documents should be submitted in MP URJA VIKAS NIGAM Head Office on or before -15.05.2013, 4.30 PM.**

1. The Bidders shall have to submit their financial bid and other required relevant documents/certificates if any, online only (decrypt the bids and re-encrypt the bids) as per time schedule (key Dates).
Technical Bid containing Original (downloaded) RFP document, relevant documents/certificates etc. duly sealed & signed along with Earnest Money Deposit should reach the office of the undersigned by **15/05/2013 up to 4.30 pm.**
2. Since the online Bidders are required to sign their bids online using Class III - Digital Certificates only, Bidders are advised to obtain the same at the earliest. For further information, Bidders are requested to contact at Nextenders (I) Pvt. Ltd., A-6 Sahyog Parisar, Opposite Makhanlal Chaturvedi University, Trilanga, Bhopal, Phone-0755-4075010, E-mail Address: bhopal@nextenders.com
(Note: It may take upto 7 working days to issue Digital certificates.)
3. Bidders intending to participate in the tender are required to get themselves trained on the e-Procurement System. The Bidders are required to contact the Service Provider – Wipro – NexTenders to confirm their session in advance.
4. The Earnest Money Deposit should be deposited in the form of crossed Demand Draft drawn in favour of „M.P. Urja Vikas Nigam Ltd. Bhopal , payable at Bhopal or in the form of F.D.R. in favour of „M.P. Urja Vikas Nigam Ltd. Bhopal - A/C of the tenderer, from any Nationalized /Scheduled Bank (duly discharged) of the equivalent amount, valid up to 31/03/2014 (No other form of EMD will be acceptable). The tender without EMD shall be rejected.
5. Validity period for acceptance of rate will be valid for 180 days from the date of opening of the financial bid.
6. The Managing Director, M.P. Urja Vikas Nigam Ltd., Bhopal shall have full rights to accept or reject any or all the tenders, in part or full, without assigning any reason thereof.
7. Other details can be seen in the RFP documents
8. **Pre-bid meeting will be held on 30th April 2013 at 03.00PM in the MPUVN Office** wherein the Bidder will have an opportunity to obtain information and clarifications regarding the conditions in the Bid Document. The Bidder will be free to ask additional information or clarifications. Based on this, a common set of clarifications, deviations, if any, will be prepared and will be published on the website of MPUVN. These common set of clarifications, deviations shall be part of Bid document and applicable to all Bidders irrespective of whether the Bidder have attended the Pre Bid Meeting or not. The offers submitted by the Bidder shall be based on the Bid Documents and Common Set of deviation issued.

MANAGING DIRECTOR

**HEAD OFFICE: 'URJA BHAVAN',
MAIN ROAD # 2, SHIVAJI NAGAR
BHOPAL – 462016
PHONE # 0755-2556566, FAX # 0755 – 2553122,
E-Mail: cmpuvn@bsnl.in
Website: www.mprenewable.nic.in**



MP Urja Vikas Nigam Ltd; Bhopal

Project: Solar – Hybrid traffic signals / Blinkers in Bhopal

TENDER DOCUMENT

Online offer are invited in the prescribed documents of the Nigam **in three envelope system (A, B, C) where envelope-A consists EMD, envelope-B Cosnists Technical bid and envelope-C consists only price bid for** Survey, Design, Supply, Installation, Commissioning and annual maintenance for three years of **Solar-Hybrid traffic signal & solar blinker Systems** as per attached Technical specification & the scope of the work from manufacturers or their authorized representatives. The rates are to be quoted for Design, supply / installation and commissioning with **3 years** AMC and warranty at site. The rates would also be standardized by the Nigam.

2013

MP Urja Vikas Nigam Ltd;

URJA BHAWAN Shiwaji Nagar Bhopal MP

Tel 0755-2767270 fax: 0755-2553122

email: cmpuvn@bsnl.in

TENDER DOCUMENT

MPUVN Ltd; Bhopal – **{BEE State Designated Agency (SDA) of Govt. of MP}**

Online offer are invited in the prescribed documents of the Nigam **in three envelope system (A, B, C) where A envelope consists EMD, B envelope consists Technical bid and envelope C consists only price bid for** for Survey, Design, Supply, Installation, Commissioning and annual maintenance for three years of **Solar-Hybrid traffic signal & solar blinker Systems** as per attached Technical specification & the scope of the work from manufacturers or their authorized representatives. The rates are to be quoted for Design, supply / installation and commissioning with **3 years** AMC and warranty at site. The rates would also be standardized by the Nigam.

Name of System / Item	Token EMD (Rs. in Lakhs)	RFP DOCUMENT FEE (in Rs.)
Design, Supply, and Installation & Commissioning of Solar-Hybrid traffic signal & solar blinker Systems from Manufacturer or their authorized distributors/representatives for BHOPAL municipal corporation limits & anywhere in MP	Rs.1.00 (one lakhs)	11,000/- (Including e – tendering charges)

***The token EMD is indicated in the document however it may be appropriately enhanced before work order.*

Bids are invited from Bidders having eligible qualification & experience for manufacturing (or through their authorized representative for this tender), supply, Installation/ commissioning as per the Bid Evaluation Criteria (BEC) of this document.

The token EMD is indicated in the document however it may be appropriately enhanced before work order. Total 2 % of the bid value of the financial offer shall be required to deposit before final work order. The EMD will be forfeited in case the successful Tenderer fails to sign the contract in accordance with terms and conditions.

Bids submitted should be accompanied by the Tender Fee and Earnest Money Deposit as given above at MPUVN s finance section or in the form of DD drawn on any Nationalized Bank/ Scheduled Bank in favor of **MPUVN Ltd; Bhopal payable at Bhopal**. Bids are to be submitted in three parts (in three different envelopes):

Part I EMD & Tender Fee Envelope-A	Proof of Earnest Money Deposit & Tender Fee as per tender condition.
Part – II Technical Bid Envelope-B	Containing original Technical Bid duly signed and sealed on every page, documents in support of Bid Evaluation Criteria of the Bid, documents in support of Eligibility any other documents/ papers in

	support of claims made by the party
Part – III Financial Bid Envelope-C	Schedule of Rates as per the Performa attached in the Bid Document.
These envelopes should be packed in an envelope super scribed with Bid detail, Tender No. and due date.	

Critical Information

Place of opening of tender	MP Urja Vikas MPUVN Ltd; URJA Bhawan Shiwaji Road Bhopal
Contact Person for queries	Shri Bhuvnesh Kumar Patel I/c Chief Engineer (<u>Energy Management cell</u>) MPUrja Vikas MPUVN Ltd; Shiwaji Nagar Bhopal MP Tel 0755-2767270 fax: 0755-2553122 email: cmpuvn@bsnl.in

Abbreviations

1. MPUVN - Madhya Pradesh Urja Vikas Nigam
2. MNRE - Ministry of New and Renewable Energy
3. DREO - Distt. Renewable Energy Officer
4. STLS - Solar Traffic Light System
5. LED - Light Emitting Diode
6. SNA - State Nodal Agency
7. Designated officer - Shall mean the Engineer/s or officers authorized by Managing Director / addl. Managing Director for the purpose of this contract.

INTRODUCTION

The proposed scheme aims to promote ecological sustainable growth to facilitate increased penetration of solar products in public domain. MPUVN is pioneer in the field of implementing Solar Energy Programme. In order to demonstrate the utility of solar products in public domain this ambitious program has been taken by MPUVN.

Under the provisions of the Energy Conservation Act, 2001, **MP Urja Vikas Nigam Ltd; Bhopal** has been established as **State Designated Agency (SDA)** with effect from 20/08/2002

The mission of the State Designated Agency is to assist in developing policies and strategies with a thrust on self-regulation and market principles, within the overall framework of the Energy Conservation Act, 2001 with the primary objective of reducing energy intensity of the Indian economy. This will be achieved with active participation of all stakeholders, resulting in accelerated and sustained adoption of energy efficiency in all sectors.

Instructions and Guidelines to the Bidder for submission of tender

1. Documents can be purchased only online from <http://mpuvn.mpeprocurement.gov.in> by making online payment for the Tender Documents Fees.
2. The Bid Data should filled in and the Bid Seals (Hashes) of all the envelopes and the documents which are to be uploaded by the Bidders should submitted online upto as per time schedule(key Dates)
3. The Bidders shall have to submit their financial bid and other relevant documents online (decrypt the bids and re-encrypt the bids) as per time schedule (key Dates). Original (Downloaded) tender form, Technical Bid & Earnest Money Deposit should reach the office of the undersigned by **15/05/2013 upto 4.30 PM.**
4. Since the online Bidders are required to sign their bids online using Class III-Digital Certificates only, Bidders are advised to obtain the same at the earliest. For further information, Bidders are requested to contact at Nextenders (I) Pvt Ltd. A-6 Sahyog Parisar, Opposite Makhnallal Chaturvedi University, Trilanga, Bhopal phone 0755-4075010 E-mail Address: Bhopal@nextenders.com

(Note: it may take upto 7 working days to issue Digital Certificates.)

5. Bidders intending to participate are required to get themselves trained on the e-procurement system. The Bidders are required to contact the Service Provider-Wipro-Nextenders to confirm their session in advance.
6. The Earnest Money Deposit should be deposited in the form of crossed Demand Draft drawn in favour of M.P Urja Vikas Nigam Ltd. Bhopal. Payable at Bhopal or in the form of F.D.R. in favour of M.P Urja Vikas Nigam Ltd. Bhopal-A/C of the tenderer, from any Nationalized /Scheduled Bank (duly discharged) of the equivalent amount, valid up to one year (no other form of EMD will be acceptable). The tender without EMD shall be rejected.
7. The Managing Director, M.P.Urja Vikas Nigam Ltd. Bhopal shall have full rights to accept or reject tender, in part or full, without assigning any reason thereof.
8. Bidder shall insure to submit all desired duly signed documents in a single binding for convenience.

1. ELIGIBILITY FOR THE BIDDER

Bidders who have following qualifications would be eligible for this tender:

- Bidders must have installed at least 5 Solar operated Traffic signals in last two years
- Aggregate turnover of the prime bidder during the last 3 years ending 31st March 2013 shall be at least Rs.100 Lakhs. **Audited financial account** for the financial year 2010 to 13 shall be submitted along with the technical bid.
- Bidders must have experience in the field of ITS (intelligent transportation system) with experience of manufacturing/ marketing these products. The Bidder should be OEM for the offered products or their authorized distributor clearly mentioning the tender number in **their authorization letter** (Bidder to submit documentary proof for the quoted items).
- The products must conform IP65 (for protection)
- **Considering skills and resources needed to install and implement the standalone solution for solar Traffic signals, Firm or a Company or a Consortium of a maximum of three Companies may bid. However one of the members of the consortium should act as the Prime Bidder and be responsible for discharging the responsibilities. It is the Prime Bidder who should submit the bid complete in all aspects on behalf of the members. Payments will be released to Prime bidder only. The MPUVN shall recognize and hold responsible and liable the prime bidder only for the entire obligation, responsibilities pertaining to and arising out of the tender document.**

(Please insure to submit the desired documents in support of your eligibility for the tender at a place duly flagged)

S No	Clause	Document Required
1.a	The bidder or bidders in consortium should be a company registered under the companies Act, 1956, or A partnership firm registered under. Indian partnership Act, 1932 and in business for the last more than two years.	Certificate of incorporation/ Registration
2	Consortium partners shall have JV/MOU.	MOU in original.
3	The bidder or prime bidder in case of consortium should have been in the business of supply of solar traffic signal equipments or networking and facility & maintenance management services for the last 2 years as on 31 December 2012 with an aggregate turnover of at least Rs.1.00 Crore from last three years. Let the technical requirement be met by the prime/lead bidder only.	Copy of the Balance sheet or chartered Accountant certificate.
4.	The bidder or prime bidders in case of consortium should have positive net worth during the last two financial years ending 31/3/2013	Chartered Accountant certificate to be submitted.
5.	The bidder or any one of consortium members in case of consortium should have executed minimum one project consisting 5 signal s with microprocessor based controller, in one city in India with population above 5.00 lakhs as per census of 2001, for supply, installation & maintenance in any one of the three (2010-11, 2011-12 and 2012-13) financial years. The experience of current year i.e. 2012-13 will also be considered subjected to completion of work before issue of the tender.	Satisfactory completion certificate from the client (s) for 5 signal s project(s) and work orders.

IMPORTANT-If any Participant feels that space for any requisite information(for technical bid) at any particular page / section of document is insufficient, may attach information in same format placed next to concerned page (mentioning page / section / clause / Para No.), on the page attached there-of.

2. CHECK LIST

To ensure that your tender submitted to MPUVN is complete in all respects, please go through the following checklist & tick mark for the enclosures attached with your tender:

Sr. No.	Attachments	Attached	Remarks
	Part – I (Envelope-A)		
1.A	Earnest Money Deposit (EMD) & Tender Fee		
	Part – II Technical Bid (Envelope-B)		
1	Documents in proof of bidders eligibility		
2.	The original document duly signed & sealed on every page, as a confirmation of acceptance of the terms & conditions of the document. Acceptance of technical specifications.		
3.	Details of similar work done in last two years along with copies of the orders or certificates from the clients.		
4.	Details of Technical Manpower available for execution		
5.	Declaration of the Bidder about any relatives working with MPUVN		
6.	Authorization for signing of the tender by MD/CEO of the company.		
7.	Proof of Registration with any other Govt. agency (if any?)		
8.	Proof of PAN No:/Service Tax Number / VAT registration		
10	Declaration Letter on official letter head of bidder stating that “We are not black-listed by any Central / State Government / Public Sector Undertaking in India and have not been debarred for participation in any tender process” Duly signed by the authorized signatory with date & seal.		
	Part – III Financial Bid (Envelope-C)		
9.	Schedule of Rates		

3. GENERAL INFORMATION ABOUT THE BIDDER

1	Name of the Consultants	
2	Constitution of applicant (pl. highlight / tick mark appropriate category and attach Proof of Company Registration.	- Individual / Proprietary Firm - Partnership Firm - Limited company - Others (pl specify _____)
3	Professional Registration (Attach copies of certificate / proof)	- MNRE - TERI - Others
4	Postal Address	
5	Telephone/Fax No	
6	E-mail address & URL	
7	Name and designation of the Representative of the Bidder to whom all reference shall be made to expedite technical co-ordination.	Mr. _____ (with contact details)
8	Amount and reference of the Earnest Money Deposit deposited.	Rs. _____ DD No: _____ Date: _____ _____ Bank:
9	Local office details	
10	Details of Technical Manpower	
11	Details of Infrastructure &	

	Instruments Attach list	
12	Details of previous Work Experience (including that with Government sector, if any) as per ANNEXURE - III	(attach details & proofs)
13	Does any of the employee of the company or his/her relative, working in MPUVN, if yes, state the name, designation & relationship.	
14	Year of Registration/Incorporation	
15	Service tax Number	

(Declaration on company s letter head)

Earnest Money Deposit

Earnest Money Deposit of `...../-, submitted in the form of Demand Draft/Banker s Cheque drawn onBank,.....
.....Branch, bearing DD/BC No.....dated
..... is attached herewith.

(Sign & Seal of the Manufacturer)

4. Objective

- To provide un-interrupted solar signalling services without any break.
- Monitor and maintain every signal point and to promptly attend the failure/ breakdowns
- Operate the solar signalling parameters at each traffic junctions.

5. Proposed System

- To bring standard Traffic Signalling System in Bhopal city
- It is proposed to install the solar traffic signals at the intersections indicated at page no:23 of the document.
 - Ensure zero downtime for the signals
 - All signals will have Countdown timers, power backup, with all necessitated infrastructure required at site.
- To operate signals for a period of three years after commissioning.

The primary responsibility of the vendor would be to:

- Survey and Design Solar – LED Traffic Signal / Blinkers System for the city of Bhopal as per locations indicated / given in the tender.
- Supply & installation of Microprocessor controlled Solar – LED Traffic signalling / Blinkers System.
- Operation of the Signalling/ Blinkers System for a period of three years.

6. PREPARATION OF BIDS

Language of Bid

The bid, and all correspondence and documents related to the bid exchanged between the bidder and the Purchaser shall be written in English or Hindi language.

Bid Preparation

The bids submitted shall in 3-Tire Viz:

i) Pre-Qualification Bid.

ii) Technical Bid

iii) Financial Bid

6.1 Three Stage Bidding Procedure

The bidding will be in three stages and at the end of every stage short listed bidders will be informed to have fair and healthy competition. The following is the comprehensive procedure for selection of bidders at each and every stage.

6.1.1 Stage-I – Pre-Qualification Bidding Procedure

The bidder shall furnish the below mentioned required information in **Stage-I Bidding (Pre-Qualification)**. The bidder who fails to provide necessary information will be liable to be treated,

as non-responsive. Information furnished after opening of the stage I bids will not be considered for evaluation purpose.

Pre-qualification

1. A copy of registration certificate of the company / firm /JV
2. Local Presence or undertaking for opening local office within three days of the agreement.
3. Experience certificates/work order regarding working in the field of Installation of Traffic Signal System.
4. three years Audited Balance sheet certified by Chartered Accountant.
5. Experience in handling similar projects during the **last 2** years and past track record of Bidder
6. Project experience in supply, installation and maintenance etc. of at least **5** signals and cost of the project. (Satisfactory completion Certificate from client for **5** signals project.
7. MoU in original if a consortium is bidding
8. Profile of the Company/JV
9. Proof of Tender Fee and EMD

6.1.2 Stage-II Technical Bidding Procedure

The qualified bidders in the Stage I may be asked to give presentation on the solution offered and Technological related issues.

At this stage the bidder is expected to give a **brief approach paper** and **an outline of the solution proposed**. These are required to provide information for evaluation based on the following criteria:

1.	Technical Compliance.
2.	Note on the understanding of the project and related issues.
3.	Detailed Technical methodology of the proposed work including technical description of the system offered. Approach paper indicating as to how the deployed solution will work.
4.	Details of equipment to be installed at a junction.
5.	List of cities where Annual Maintenance Contract(s) is/are currently undertaken and completed in past by the bidder.
6.	Information regarding current litigation debarring/ blacklisting/ expelling of bidder or an abandonment of work by bidder, if any with reasons thereof
7.	Manufacturers / authorizztion for all products proposed.
8.	Details regarding software's(s) to be utilized for achieving synchronization for the corridor optimization at isolated junction and all relevant details.
9.	Approach for execution.
10.	Manpower deployment plan& plan for the movement if Technical manpower to sites.
11	Issues and Risks in the implementation.

6.2 Documents Comprising the Bid in addition

Stage 1: (Pre-Qualification)

- a. Bid form/Letter

- b. All the required details at [Stage-I Bidding (Pre-Qualification)] along with documentary evidence.
- c. Proof of Local Presence.
- d. Quality Certifications and document in support of eligibility.
- e. Audited balance sheet(s) / certificate from the Chartered Account.
- f. Proof of Work orders and completion certificates.
- g. Income Tax & Sales Tax certificates.
- h. Proof of purchase of Bid Documents

i. Earnest Money Deposit: (Envelope-A)

The token EMD is indicated in the document however it may be appropriately enhanced before work order. Total 2 % of the bid value shall be of the financial offer shall be required to deposit before final work order. The EMD will be forfeited in case the successful Tenderer fails to sign the contract in accordance with terms and conditions.

Stage 2: (Technical Proposals) (Envelope-B)

All details required at technical stage as indicated at above including the (**Prescribed Formats “A” & “B”**) attached with this document.

Stage 3: (Financial Proposals) (Envelope-C)

Financial bid enclosed [Prescribed **Format “C”**]

6.3 Bid Submission and Signing

The bidder has to **submit one set of documents** (duly sealed) subscribing on the right hand side top corner as “Original”. Copy of the bidding document will consist of Pre-qualification, Technical and Commercial (Financial) that is sealed individually. The copy of the bidding documents consisting of copies of all in the following form:

6.4 Bid document must be sealed properly as one Set and contain three separate covers:

- i. Pre-Qualification details **Super Subscribing** on the right hand side top of the cover as “**Pre-qualification Original**”.
- ii. Technical Proposal details **Super Subscribing** on the right hand side top of the cover as “**Technical Bid Original**”.

The Procedure for Opening of the Proposals shall be as under:

- i. Biggest Envelope containing 2 Sealed Envelopes A & B shall be opened as per schedule and all the contents of the same will be taken out.
- ii. **Envelope-A** bearing RFP No. / Due date & super-scribed as “EMD” shall be opened first at the time and date mentioned in the RFP, in the presence of Participants who choose to be present.

- iii. **Envelope-B** bearing RFP No. & super-scribed as “TECHNICAL PROPOSAL” shall be opened only of those Participants whose above two Envelope-A have been found as per Terms & Conditions of RFP in the presence of Participants.
- iv. **Envelope-C** (“FINANCIAL PROPOSAL”) shall be opened online after establishing / ascertaining that Technical Information(s), Certification(s), Specification(s) and Clarification(s) thereof as received in envelop A & B are as per Terms & Conditions of RFP Documents (Financial proposal of participants shall be accepted only if they fulfill technical qualification & minimum eligibility criteria. This will be applicable even their financial proposal/ rates are opened online).

Postal delays shall be no excuse for accepting Proposals after stipulated date and time. No Proposal shall be accepted by Fax / E-mail. Proposals received in Unsealed / Open Envelope(s) shall not be considered.

The letter of authorization shall accompany the bid. All pages of the bid, except for an amended printed literature, and shall be initialled by a person or persons signing the bid.

6.5 SUBMISSION OF BID

The completed bids may be submitted as per tender procedure before specified date and time.

Address for submission of bids

Chief Engineer I/c (Officer In-charge)
MPUVN Ltd
Urja Bhawan Bhopal MP
Tel: 0755-2553595, Fax: 0755-2553122

Email: cmpuvn@bsnl.in

6.6 Deadline for submission of Bids

The OFFICER INCHARGE at the address specified in the Bid Document not later than the date and time indicated in bid document must receive the bids. Managing Director MPUVN may, at its discretion, extend this deadline for submission of bids by amending the Bidding Documents, in which case all rights and obligations of the Client/Consultant and Bidders will thereafter be subject to the deadline as extended.

6.7 Bid Opening and Evaluation

Bid Opening

Date and Time : As indicated in bid document

Place for bid opening : MPUVN Urja Bhawan Shiwaji Nagar Bhopal MP or for on-line: Nextenders (I) Pvt Ltd. A-6 Sahyog Parisar, Opposite Makhanlal Chaturvedi University, Trilanga, Bhopal

“In the event of the specified date of bid opening being declared a holiday, the bids shall be opened ***at the rescheduled time*** on the ***next working day.***”

7 General Guidelines for bid opening

Bids will be in three parts (pre-qualification, technical and financial/commercial) and there will be three bid-opening events. OFFICER INCHARGE/ officers at each such event will generally follow guidelines containing in this document. However OFFICER INCHARGE may deviate from these in specific circumstances if it feels that such deviations are unavoidable, or will improve speed of processing and consequent project execution.

Bids will be opened in the presence of bidder s representatives, who choose to attend. The bidder representatives who are present shall sign a register evidencing their attendance.

The bidders names, bid modifications or withdrawals, discounts, and the presence or absence of requisite bid security and such other details as the OFFICER INCHARGE officer at his/her discretion, may consider appropriate, will be announced at the opening. No bid shall be rejected at bid opening, except for late bids, which shall be returned unopened.

8 Clarification of bids

During evaluation of the bids, OFFICER INCHARGE may, at its discretion, ask the bidder for clarification of its bid.

Preliminary examination of the bids

Preliminary scrutiny will be made to determine whether they are complete, whether any computational errors have been made, whether required sureties have been furnished, whether the documents have been properly signed, and whether the bids are generally in order.

OFFICER INCHARGE may waive any minor informality; nonconformity or irregularity in a bid that does not constitute a material deviation, provided such waiver does not prejudice or affect the relative ranking of any bidder.

Prior to the detailed evaluation, OFFICER INCHARGE will determine the substantial responsiveness of each bid to the bidding documents. For purposes of these clauses, a substantially responsive bid is one, which conforms to all the terms and conditions of the bidding documents without material deviations.

If a bid is not substantially responsive, it will be rejected by the OFFICER INCHARGE and may not subsequently be made responsive by the bidder by correction of the nonconformity.

If any bidder is declared disqualified technically, the Commercial Bid of the bidder shall not be entertained and shall be kept unopened. The eligible bidders may be called for a Technical presentation. The date and time for the same will be intimated separately.

9 Evaluation Criteria

Evaluation of the bids will be done in three stages and at the end of every stage short listed bidders will be informed to have fair and healthy competition. Bid evaluation will be done stage wise. The following is the evaluation criteria.

Stage I

Bidding (Pre-Qualification). The bidder who fails to provide necessary information will be liable to be treated, as non-responsive. Information furnished after opening of the stage I bids will not be considered for evaluation purpose.

Stage II

The qualified bidders in the Stage I may be asked to give presentation on the solution offered and Technological related issues. At this stage the bidder is expected to give a **brief approach paper** and **an outline of the solution proposed**.

Stage III

The bids of short listed bidders in Stage II only will be opened.

B. General Supplies and maintenance, Warrantee/Guaranty and AMC

1. Supply material and Spares: An undertaking that the bidder is able to supply material and has the sufficient infrastructure and capability to keep/store spares required for maintenances. **This needs to be kept in Technical Bid.**

2. Technical teams: Bidders shall have experience of traffic signalling, who possess adequate knowledge of the traffic conditions and are capable of designing the total signalization for intersections and areas. This will involve time study, traffic volume counts, traffic flow pattern etc. as well as thorough technical knowledge of the whole traffic signalling system. **All details in respect of adequate qualified personnel must be kept in the Technical Bid.**

3. Time Period and AMC: The Time Period for competition of the project after signing of the agreement shall **be 90 days from the date of agreement**. This will include installation and testing. The firm will be responsible for smooth operation of the system for a period **of 3** years from the date of successful completion, installation & functioning of the allotted work and any defect /replacement of the equipment will be at the cost of the company. The company will also submit the rates & conditions for AMC (Comprehensive) i.e. 4th year onwards for next 7 years i.e. upto the completion of 10th year. Cost to be given for each year of comprehensive AMC of the project either in abstract amount or **as a percentage of the project cost**. The AMC (comprehensive) shall cover, repair, maintenance and check up of all the equipment and accessories including consumables and fitting of new spares. The AMC (Comprehensive) shall come into force after the expiry of the guarantee/warranty period. The payments on account of AMC (Comprehensive) shall be released **on 3 monthly basis** against a certificate issued by concerned authority/designated officer confirming **above 90% up-time** of the equipment during the service contract period. No advance payments on account of AMC (Comprehensive) shall be made.

4. Guarantee/Warranty: The guarantee/warranty shall cover entire equipment with all its accessories UPS/batteries and all consumables. This shall also cover the satisfactory performance with all accessories during these periods. In case the system or its any part supplied by successful tenderer develops any manufacturing defect or otherwise does not function properly/correctly during the guarantee period, the successful tenderer shall have to replace the equipment/repair the fault at their costs and expenses with in a period **of Three days** from the date defect is communicated to them. The successful tenderer shall be bound to stock with the service engineer an adequate inventory of spares required for repair and maintenance of the equipment(s) to maintain **their 90% uptime**. During the guarantee period, software update if applicable shall be provided free of cost by the lowest tenderer.

5. TERMS AND CONDITIONS

The terms and conditions will be binding on all the Tenderers. Some of the following terms and conditions will also form part of the agreement signed with the successful tenderer after the outcome of tender process.

All prospective Tenderers who have purchased this document shall be intimated of any amendment in writing by e-mail and or by fax, and all such amendments shall be binding on them without any further act or deed on OFFICER INCHARGE s part. These amendments shall also be posted/uploaded on websit www.mprenewable.nic.in

It is considered that the tenderer has visited the site of work, fully acquainted himself with the local situations regarding materials labour and other factors pertaining to work and studied the locations before submitting the tender. Especially, it is considered that the tenderer have understood climatic condition for operation of equipments in rains, winter & hot temperature climate.

OFFICER INCHARGE may at its sole discretion waive any minor informality or non-conformity or irregularity in a proposed document, which does not constitute a material deviation, provided such a waiver does not prejudice or affect the relative ranking of any Tenderer.

Conditional offers by the Tenderers

The Tenderer should abide by the terms and conditions specified in the document. If tenderer submit conditional offers it shall be liable for outright rejection.

6 Pre-Bid meeting

A pre-bid meeting is scheduled at MPUVN Urja Bhawan on **30th April 2013 at 03:00 PM** to discuss the issues and scope of the work with prospective bidders. The Bidder will be free to ask additional information or clarifications. Based on this, a common set of clarifications, deviations, if any, will be prepared and will be published on the website of MPUVN (www.mprenewable.nic.in). These common set of clarifications, deviations shall be part of Bid document and applicable to all Bidders irrespective of whether the Bidder have attended the Pre Bid Meeting or not. The offers submitted by the Bidder shall be based on the Bid Documents and Common Set of deviation issued.

The M.P. Urja Vikas Nigam Ltd. shall purchase systems/materials as per requirement. Hence, the quantity as given in the N.I.T. may be increased or decreased & site may be changed.

7 Modification and Withdrawal of offers

Modification or Withdrawal of offers is not permissible after its submission. If the offer is withdrawn before the validity period, the EMD will stand forfeited.

8 Clarification of offers

To assist in the scrutiny, evaluation and comparison of offers, the OFFICER INCHARGE may at his discretion, ask some or all vendors/tenderers for clarification of their offer. The request for such clarification and the response will necessarily be in writing.

9 Right to accept any proposal and to reject any tender or all Tenders

Notwithstanding anything stated herein above, Managing Director reserves the right to accept or reject any tender, and to cancel the tendering process and reject all tenders at any time before the award of the contract, without assigning any reason and thereby without incurring any liability to the affected tenderer/s or any obligation to inform the affected tenderer/s of the grounds for action/decision.

10 **Signing of Tender Offers**

The original copy of the Tender offer shall be typed or written in ink and shall be signed by the Tenderer or a person or persons duly authorized in writing to bind the Tenderer to the Contract. Such authorization shall be indicated by authorization letter, accompanying the Tender offer. All pages of the tender offer shall be initialled by the person or persons signing the Tender offer with seal.

The tender offer shall contain no insertions, erasures or overwriting.

- Tender documents should reach before **4:30PM on 15th May 2013** (the BID DUE DATE mentioned). Tenders received after the bid due date and time will not be considered.
- Tender should clearly specify item/equipment delivery and erection schedule.
- Insurance, if any, shall be arranged by the vendor, unless otherwise specified in the Order.
- Delivery & storing of material at site and during its installation including loading and unloading shall be the responsibility of supplier.
- The bidder should give in writing the acceptance of work order within seven days of receiving the LOI.

10.1 Clarifications on the bid:

All clarifications/queries on the technical specifications, drawings, tender terms and conditions, etc. should be requested in writing to Urja Vikas Nigam **before 30th April 2013** (pre-bid date). Clarifications/queries from bidder shall be accompanied by page no. and clause no. of tender document

10.2 Liability / Accident:

The bidder shall identify and keep indemnified Urja Vikas Nigam (the purchaser) against all losses and claims for injuries and damages to any person or property whatsoever which may arise out of or in consequence of the construction or maintenance of the work and against all claims, demands, proceedings, damages, costs, changes, expenses whatsoever in respect thereof in relation there to. The bidder should comply with all Govt. (State & Central) statutory requirements as per law.

- 11 If some extra work is required to be done at site; bidder firm will be required to inform in writing to Officer In-charge MPUVN before undertaking any extra work. If it is found necessary and not included in the scope of work then payment of such items shall be made at actual, however such need of the work shall be supported by necessary documents.
- 12 Contractor / bidder must make their own arrangement for AC (grid power) power connection for entire period of AMC. They will bear all expenses for the same.
- 13 At the expiry of the 3 years of AMC bidder will hand over the completed (In running /operational condition) system to BMC. In this case ownership of all equipments and systems will be transferred to BMC.

14 **Cost and Currency**

The offer must be made in Indian Rupees only. All Taxes, duty and other levies, as applicable shall be inclusive with the contract.

15 **Time Period:**

The Time Period for completion of the project after signing of the agreement shall be **90days**. This will include installation and testing and commissioning. The firm will be responsible for smooth operation of the system for a **period three year** after commissioning and any defect / replacement of the equipment will be at the cost of the company.

Time extension :

If for any reason beyond the control of Contractor, the work is not completed within the given time frame, the MD, MPUVN may consider grant of extension after having found the reasons to his satisfaction, submitted by contractor within the scheduled time.

16. Payment Terms

16.1 After successful Supply, installation and commissioning of the system, the firm will raise the bill for the devices and allied equipment along with the completion certificate from the **Committee** / designated authority. The Contract will for Turn-key amount, however all applicable taxes, duties and levies shall be shown separately in bills. (Installation charges shall be included in the quoted price). TDS as applicable will be deducted.

16.2 80% of bill amount will be released after successful completing of work & submission of the bill in triplicate and 20% till the end of the contract period /warranty period. (In three years time @ 6% each after end of first & second year & 8% after end of third year, after successful running of the plant) However this payment of AMC can be made against bank guarantee of equal amount for the entire AMC period.

If Participant, who's Rates, have been accepted, does not sign the Agreement along with CMC within two weeks from the date of Intimation, EMD shall be forfeited and their Proposal will be treated as cancelled.

Note:-

- a) **Commercial tax: It will be desirable for the participants to obtain registration from M.P. Commercial Tax Department (TIN). The details of the same are available at website www.mptax.nic else M.P.VAT and any other Tax / Duty if applicable shall be deducted at Source.**
- b) **Income tax shall be deducted at Source.**

16.3 Penalty

The firm/Solution Provider should deliver all the deliverables according to time line. Failure to do so will attract a penalty of 1% per week of the total project cost given. If the delay is more than 2 months then Managing Director MPUVN will be at liberty to terminate the contract by giving a written notice to the Solution Provider/Firm.

16.4 Performance Bank guarantee

Bidder have to submit the performance Bank guarantee at the time of contract signing for an amount of 10% of the total contract value which may be released on completion (commissioning of the system) of the work as per order / tender

16.5 Indemnity

Successful tenderer shall indemnify, protect and save OFFICER INCHARGE against all claims, losses, costs, damages, expenses, actions suits and other proceeding, resulting from infringement of any patent, trademark, copyright etc. or such other statutory infringements in respect of all the products and software supplied by him.

17 Resolution of Dispute :

Every effort should be made to resolve (any disagreement or dispute arising between the OFFICER INCHARGE and the successful tenderer under or in connection with the contract) amicably by direct informal negotiations. However, if the dispute cannot be resolved amicably within thirty days

of the commencement of such dispute/disagreement, the matter will be referred to the **Arbitrator**. The contract awarded will be interpreted under Indian Laws.

18 Risk Purchase Clause

In case the successful tenderer fails to execute the project as mentioned above, Managing Director MPUVN also reserves the right to procure the similar services from alternative source at the risk, cost and responsibility of the successful tenderer.

19 Legal jurisdiction

All disputes shall be subject to the jurisdiction of Courts of Bhopal

20 Force Majeure

Any failure or omission to carry out the provisions of this contract shall not give rise to any claim by OFFICER INCHARGE and the successful tenderer one against the other if such failure/omission arises from an act of God which shall include all acts of natural calamities such as fire, floods earthquakes, hurricanes or any pestilence of civil strikes compliances with any statute of regulations of Govt. lockouts, strikes, riots, embargoes or from any political or other reasons beyond the control of OFFICER INCHARGE or the successful tenderer including war (whether declared or not) civil war. However, force majeure clause shall not apply for the installation of the equipments, its repairs and maintenance by the company s engineer and the service contract after the expiry of the guarantee/warranty period.

21 Agreement

The successful tenderer shall have to execute a formal agreement both for equipment and CMC within a period of 10 days from the date of communication of the acceptance of their tender. All expenses on account of stamps, registration and other related charges shall be borne by the successful tenderer. It will be the duty of the successful tenderer to impart training to traffic personnel regarding operation of traffic signal lights.

LIST OF 10 INTERSECTIONS, WHERE SOLAR-HYBRID TRAFFIC SIGNAL NEED TO BE INSTALLED IN THE FIRST INSTANCE:- (few Sites can be changed or added as per prevailing requirement) all below site are located in BHOPAL

1. Sindhi Chauraha
2. Ayodhya Nagar Chauraha
3. Nehru Nagar Chauraha
4. Chetak Bridge tiraha (ISBT Side)
5. Kali Mandir Tiraha (Sultania Hospital)
6. Anand Nagar Tiraha
7. Trilanga Market Tiraha
8. Manisha Market Tiraha
9. Vende Matram Chaouraha (near 10no stop)
10. Veer Savarker tiraha (near Bus stand)

For any clarifications on the sites, bidder can contact Mr. A. Nanda City Engineer BMC at 9844950262.

C: OTHER TERMS AND CONDITIONS OF THE TENDER

- Power of attorney to sign the agreement on behalf of bidder and partnership deed, memorandum of articles of association etc. should be enclosed along with documents if any.
- All pages of the document must be signed & Seal affixed by the authorized person on behalf of the bidder
- No Acknowledgement of the tenders received / submitted in the office, shall be issued by the Nigam.
- Copy of Registration Certificate with relevant Department of the State/Central Govt.
- Technical specifications of the systems whose rates have been quoted.
- Postal delays shall be no excuse for accepting tenders after stipulated date and time. No bid shall be accepted by Fax. Tenders received unsealed / open, shall not be considered.
- Conditional offer shall not be accepted.
- Direct or indirect canvassing on the part of the bidder or his/her representatives will lead to disqualification.
- The acceptance of the offer will rest with the competent authority of M.P. Urja Vikas Nigam Limited, Bhopal who does not bind him/herself to accept the lowest tender and may reject any or all tenders without assigning any reason thereof.
- No price escalation on account of any statutory increase in or fresh imposition of custom duty, excise duty, sales tax or duty etc. Levi able in respect of the goods/raw materials specified in the said acceptance of the tender shall be applicable.
- Bidder will have full responsibility for packing, forwarding, transportation, supply and responsibility of any type of breakages/losses etc. The goods will be delivered at the destination stores, installed and commissioned at site in the perfect conditions as ordered. The supplier may insure valuable goods against any loss by theft or damage by fire/flood etc. The insurance charges will have to be borne by the bidders only. The bidder must arrange to adequately and properly pack goods so as to ensure the safe delivery of the same.
- Supplier will be bound to put a name plate/ label/mark/Serial No. /Code No. etc. on the product.
- Octroi charges, if applicable, will have to be borne by the bidder.
- The complete literature, warranty card, operation and maintenance manual inclusive of “DOs and DON Ts” along with specifications of the materials offered must accompany the supplies. The bidder will have to supply operation and maintenance manual with Dos and Don ts and remedies of minor faults related to each system as per MNRE norms.
- The price shall remain constant during the currency of the contract.
- In case of some accident at site after installation and commissioning of the system the responsibility of repair lies with the bidder / contractor. However MD MPUVN will decide that who will bear the expenses based on the factual status of such accident / happening.

D: Scope of Work

1. The bidder shall preferably visit the all intersections of locations at Bhopal to understand and study the site as per the list of locations provided in the tender document, before submitting the bid.
2. The successful Bidder / contractor shall arrange to supply, erect and maintain the systems as per the Tender conditions.
3. The successful Bidder / contractor shall complete the RCC foundation works required for erecting the standard and cantilever poles. Care should be taken to construct the foundation work with bolts, to align the horizontal arm of the cantilever pole perpendicular to the road. The exact location of foundation works to be executed will be identified by BMC and informed to the successful Bidder / contractor at the time of confirm order.
4. Earthing using GI wire is to be provided at all pole locations.
5. Necessary excavation works in the footpath and island are to be carried out for laying cables through HDPE pipe. After the laying of cables, all excavation works shall be restored to original condition.
6. Standard pole and cantilever pole erection (with two coats of metal primer and one coat of enamel paint) and its alignment to be carried out by the Bidder / contractor.
7. The Bidder / contractor shall install the solar panel, battery (in battery box) and the lamp heads on the standard / cantilever poles
8. The physical installation of Controller (including Master, slaves, wireless module & police panel), vehicle detection unite and solar charge control unit on the standard/ cantilever poles to be done by the Bidder / contractor under the supervision of BMC n/ Urja Vikas Nigam any nominated agency.
9. All cables shall be drawn carefully inside the HDPE pipes and poles through cable entry holes and bend pipes. Care should be taken not to damage the cable insulation while pulling cables.
10. Road Cutting will Permitted 5MM For Stand By Power(230vAc) Cabling. However repairing will be done as per standards by Bidder / contractor
11. Painting of poles (second coat enamel paint) to be done when all erection and cabling works are completed.
12. One year warranty support and two year AMC support after the warranty period for the supplied items and work executed is to be provided from the date of commissioning of the system.
13. During the warranty and AMC period, Bidder / contractor shall replace/rectify all faulty items (supplied as per the BOM) like lamp heads, solar panel, batteries, wirings, etc at their own expense. The Bidder / contractor shall carry out the preventive maintenance of the solar panel (i.e. cleaning of dust on the panel on bi-monthly basis) during the warranty and AMC period. All service calls shall be attended within 24 hours of reporting.
14. Requirement of hydraulic ladder / winge ladder (for cleaning of systems), etc shall be under the scope of the Bidder / contractor during the entire contract period.
15. Contractor / bidder must make their own arrangement for AC power (grid power) connection for entire period of AMC. They will bear all expenses for the same.
16. At the expiry of the 3 years of AMC bidder will hand over the completed (In running /operational condition) system to BMC. In this case ownership of all equipments and systems will be transferred to BMC.
17. The contractor / bidder will insure the installation of system /solar panels to withstand the storm about 150Kmp/hr. and bad weather in the demographic area.
18. Bidder will insure to work under all statutory permissions.
19. Tentative pole drawings and SPV module mounting structure (adjustable) is attaché herewith for reference.

E: Bidder Technical Qualification Criteria

The bidder shall submit the following technical details for the technical evaluation of the bid.

1. The technical compliance sheet shall be filled and signed and sealed. Any deviation from the tender specifications, terms and conditions, project completion time, etc shall be clearly mentioned with the proposed alternatives. MPUVN reserves all the rights to accept or reject the proposed alternatives without assigning any reason whatsoever thereof.
2. The bidder shall submit a signed and sealed copy of General terms and conditions, Scope of work & Technical bid attachments, along with the technical bid, in order to comply with the tender conditions.
3. The bidder shall provide the week-wise project implementation schedule for the work completion (with macro and micro activities mentioned) of work.
4. Solar panel supplied with the system shall be from MNRE approved manufacturer and shall confirm the MNRE standards for off-grid applications.
5. Work includes the supply/ installation and commissioning of solar panel, LED aspects, poles, wiring & allied components etc. required for complete solar-hybrid traffic signals.

Technical Specifications

1. LED Traffic Signal Aspects

GENERAL SPECIFICATIONS

Bright LED s suitable for road traffic signaling

Input Voltage	12 VDC +20% -10%
Protection	Built in regulated power supply with cc & cv regulation
Operating Temperature:	0° Degree Celsius to 55°
Relative Humidity	95% non-condensing
Diameter	300 mm dia +/-10%
Housing	dust & water proof Polycarbonate housing / confirming to IP – 65 Standards

VEHICULAR (RED) LED ASPECT

LED Viewing Angle	23°
LED Forward Current	20mA
Total Number of LED's	175 Numbers (Minimum)
Current at 12 V +20% - 10%	750mA Constant
Total Power Consumption	9W +/- 5% on 12vdc
PWM input for on/off or dimming	

VEHICULAR (AMBER) LED ASPECT

LED Viewing Angle	23°
LED Forward Current	20mA
Total Number of LED's	175 Numbers (Minimum)
Current at 12 V +20% - 10%	750ma Constant
Total Power Consumption	9W +/- 5% on 12vdc
PWM input for on/off or dimming	

VEHICULAR (GREEN ARROW) LED ASPECT

LED Viewing Angle	23°
LED Forward Current	20mA
Total Number of LED's	60 Numbers (Minimum)
Current at 12 V +20% - 10%	400ma Constant
Total Power Consumption	5W +/- 5% on 12vdc
PWM input for on/off or dimming	

PEDESTRIAN (RED) LED ASPECT (Standing Human Symbol with CDT)

Count Up to	99
LED Viewing Angle	23°
LED Forward Current	20mA
Total Number of LED's	175 Numbers (Minimum)
Current at 12 V +20% - 10%	750ma Constant
Total Power Consumption	9W +/- 5% on 12vdc
PWM input for on/off or dimming	

PEDESTRIAN (GREEN) LED ASPECT (Walking Human Symbol)

LED Viewing Angle	23°
LED Forward Current	20mA
Total Number of LED's	175 Numbers (Minimum)
Current at 12 V +20% - 10%	750ma Constant
Total Power Consumption	9W +/- 5% on 12vdc
PWM input for on/off or dimming	

Solar Photo Voltaic Cell (SPV) - mono or polycrystalline silicon type

- 1, 200 Watts for Cantilever Pole
- 2, 100 Watts for Standard Pole
- 3, 20 Watts for Pedestrian Pole

Battery

(Including Battery Box with all fitting arrangements and suitable weather protection)

1. 12V 75AH X 2 Cantilever Pole (Sealed Maintenance Free Battery)
2. 12V 50AH X 2 Standard Pole (Sealed Maintenance Free Battery)
3. 12v 10AH Pedestrian Pole (Sealed Maintenance Free Battery)

Charge Controller

- 1, Microcontroller Based (programmable)
- 2, charging Current 25AH, load current 15AH
- 3, RX232 Communication Port (to communicate Master/Slave Controller Battery Information s)
- 4, Low battery, over charge cut off
- 5, Automatic Change over 230VAC

Traffic controller (wireless) – CPU

Technical Specification wireless Traffic Controller

- * Solar Power Compatible
- * Micro controller Based
- * Display 20 X 4 LCD
- * Special function for VIP / Rescue Operations
- * Master Slave Controllers wireless Communication
- * Compatible for GPS, GSM, VAS, Ext.
- * Programmer 103key / Rf Remote / GSM
- * Memory NVRAM / SREEPROM
- * Aspect out Put 48.
- * one year can be programmed
- * Communication Ports Rx232, Networking with Any other manufactures controller.
(Giving Protocol)
- * Facility for Synchronization through RX 232 bus and/or Cable less synchronization using Global Positioning System.
- * Power ON checks for software & data validity.
- * Conditional phase transition
- * Remote Police Control Panel with Function off:-
 - . 2 ½ X 4 - 7seg display for Road running time (All road) .
 - . Running Time Increment and Decrement and CDT time update.
 - . VIP / Rescue Operations.
 - . Auto / Manual / Next.
 - . Forced Signal / Blinker.
 - . All Red / all off.

CDT Dual Color 11" Countdown Timer

- * 12vDC operated
- * Rx232 For Communicate Controller to CDT (Time Display Start Very First Round)
- * Hi Bright LED
- * Count up to 199 (Red and Green)
- * Data Communication
- * Rust and rain proof

Other Details

System Operation	
Operation	14 hours operation and 10 hours blinking per day
Auto / Manual	Fully automatic operation with facility for manual operation
Power Source	Hybrid Power source, integrating Solar and Grid Power, with auto change-over from Solar to Grid and vice-versa.
Source preference	First preference to Solar
Percentage of Power Sharing	50% Solar and 50% Grid
Back-up	System can operate for 10 hrs form a fully charged battery.
System Controller	
System voltage	12 V DC
Controller	PLC / Microcontroller
Networking	Compatible for GPS/ GSM! RS 422 interface
Programmability	Programmable Timing with on-site modification
Operating hours	14 hours operation and 10 hours blinking per day
Future Upgrades	Capability for Synchronization, remote monitoring & control
System Up-time	Greater than 90%
Signals	
LED Array	Ultra bright, suitable for daylight viewing
LED design life-cycle	10 Years
Enclosures / Housing	IP – 65 Standards
Pole structure	M.S tubular structure
Visibility	500 meters and above
Signal Head	Modular with Tilt and Rotate feature
Count Down Timers	Timer for residual time for green signal
Pedestrian / Free left signals	Composite Red / Green LED signal
Solar Array Capacity	200 Wp per pole as per details given (MNRE approved mono/poly crystalline silicon)
Solar Charge Controller	12 Volts / 25 Amps
Battery Bank	
Type	Sealed Maintenance Free
Terminal voltage	12 V DC
Max. depth of discharge	80 %
Grid power	
Grid Input	230 V AC / 50 Hz / Single Phase
Grid Changer	12 V / 5 Amps

- **Technical Specifications for Solar Blinkers
(With one pole & one aspect)**

VEHICULAR (AMBER) LED ASPECT

With inbuilt flashing unit (Flashing schedule: 1sec on : 1 sec off, with adjustable arrangement)

LED Viewing Angle	23°
LED Forward Current	20mA
Total Number of LED's	175 Numbers (Minimum)
Current at 12 V +20% - 10%	750ma Constant
Total Power Consumption	9W +/- 5% on 12vdc
PWM input for on/off or dimming	

Solar Panel : Minimum 50Wp (MNRE approved Mono/poly crystalline silicon type only)
 Battery (Including Battery Box with all fitting arrangements and weather protection)
 : 12V/24Ah (Sealed Maintenance Free Battery)

Pole drawings are attached however bidders have to submit the site specific plan for blinkers.

- **Technical Specifications for Solar Blinkers
(With one pole & two aspects)**

VEHICULAR (AMBER) LED ASPECT

With inbuilt flashing unit (Flashing schedule: 1sec on : 1 sec off, with adjustable arrangement)

(Per aspect)

LED Viewing Angle	23°
LED Forward Current	20mA
Total Number of LED's	175 Numbers (Minimum)
Current at 12 V +20% - 10%	750ma Constant
Total Power Consumption	9W +/- 5% on 12vdc
PWM input for on/off or dimming	

Solar Panel : Minimum 100Wp (MNRE approved Mono/poly crystalline silicon type only)
 Battery (Including Battery Box with all fitting arrangements and weather protection)
 : 12V/40Ah (Sealed Maintenance Free Battery)

Pole drawings are attached however bidders have to submit the site specific plan for blinkers.

- **Technical Specifications for Solar Blinkers
(With one pole & three aspects)**

VEHICULAR (AMBER) LED ASPECT

With inbuilt flashing unit (Flashing schedule: 1sec on : 1 sec off, with adjustable arrangement)

(Per aspect)

LED Viewing Angle	23°
LED Forward Current	20mA
Total Number of LED's	175 Numbers (Minimum)
Current at 12 V +20% - 10%	750ma Constant
Total Power Consumption	9W +/- 5% on 12vdc

PWM input for on/off or dimming

Solar Panel : Minimum 150Wp (MNRE approved Mono/poly crystalline silicon type only)
 Battery (Including Battery Box with all fitting arrangements and weather protection)
 : 12V/60Ah (Sealed Maintenance Free Battery)

Pole drawings are attached however bidders have to submit the site specific plan for blinkers.

Tentative bill of material for proposed Solar-Hybrid traffic systems

Sl. No.	Place of Installation	CLP	SP	RA	AA	GA	PR	PG	CDT	SPV	BTRY	MC	SC
1	Sindhi Colony Square	4	4	16	16	48	8	8	4			1	4
2	Ayodhya Nagar Square	4	4	16	16	48	8	8	4			1	4
3	Nehru Nagar Square	4	4	16	16	48	8	8	4			1	4
4	Chetak Bridge (ISBT)	3	4	11	11	20	6	6	3			1	4
5	Kali Mandir Square	4	8	16	16	48	8	8	4			1	4
6	Anand Nagar Raisen RD	3	4	11	11	20	6	6	3			1	4
7	Trilanga Market Triangle	3	4	11	11	20	6	6	3			1	4
8	Manisha Market Triangle	3	4	11	11	20	6	6	3			1	4
9	Vande Matram Square	4	8	16	16	48	8	8	4			1	4
10	Veer Savarkar Triangale	3	4	11	11	20	6	6	3			1	4
		35	48	135	135	340	70	70	35			10	40

CLP: CENTILEVER POLE, SP: STANDARD POLE, RA: RED ASPECT,
 AA: AMBER ASPECT, GA: GREEN ASPECT, PR: PEDESTIAN RED ASPECT
 PG: PEDESTIAN GREEN ASPECT, CDT: COUNT DOWN TIMER
 MC: MASTER CONTROLLER, SC: SLEVE CONTROLER

(SCHEDULE OF RATES)

Rates for survey, design, supply, installation, commissioning and three years warrantee with comprehensive annual maintenance at site of solar traffic Blinker as below:
(Bidders are required to make separate quote for all types of Blinkers)

S.No	Item Description	Unit Rate in Rs. (Both in numbers and Words) –Rs. / set
1	For survey, design, supply, installation, commissioning and three years warrantee with comprehensive annual maintenance at site of solar traffic Blinker- one aspect in Bhopal municipal corporation area.	
2	For survey, design, supply, installation, commissioning and three years warrantee with comprehensive annual maintenance at site of solar traffic Blinker- Two aspect in Bhopal municipal corporation area.	
3	For survey, design, supply, installation, commissioning and three years warrantee with comprehensive annual maintenance at site of solar traffic Blinker- three aspect in Bhopal municipal corporation area.	

Conditional offer will not be considered. The Locations of the blinkers are attached herewith.
These rates will be inclusive of all taxes at site.

Rates shall be applicable for one year from date of tender opening.

Rates quoted must be Firm and Fixed for Design, Supply, Installation and Commissioning, all inclusive of Site Visits, Packaging, Forwarding, Spare-parts, Insurance and Taxes including Duties FOR Site (s) mentioned in the Document. No price escalation will be allowed. It shall be essential to quote rates inclusive of CMC or else the Proposal shall not be accepted.

If participant does not want to quote price/rate for any category, the field (space) for the same should be filled in as 0 (zero in numerical form) which would be considered as “not quoted”.

Date:

(sign)

Name of the authorized representative of Bidder with seal

(SCHEDULE OF RATES)

Rates for survey, design, supply, installation, commissioning and three years warrantee with comprehensive annual maintenance at site of solar-Hybrid traffic signals as below:

(Bidders are required to make single quote for all 10 sites, separate quote will not be entertained)

S.No	Item Description	Rate in Rs.
1	For survey, design, supply, installation, commissioning and three years warrantee with comprehensive annual maintenance at site of solar –hybrid traffic signals in Bhopal municipal corporation area. (as per detailed scope of work) No of signals 10 as per list attached.	
	Rate In words:	

These rates will be inclusive of all taxes at site.

Rates shall be applicable for one year from date of tender opening.

Conditional offer will not be considered.

Rates quoted must be Firm and Fixed for Design, Supply, Installation and Commissioning, all inclusive of Site Visits, Packaging, Forwarding, Spare-parts, Insurance and Taxes including Duties FOR Site (s) mentioned in the Document. No price escalation will be allowed. It shall be essential to quote rates inclusive of CMC or else the Proposal shall not be accepted.

If participant does not want to quote price/rate for any category, the field (space) for the same should be filled in as 0 (zero in numerical form) which would be considered as “not quoted”.

Date:

(sign)

Name of the authorized representative of Bidder with seal

**Format for Furnishing Information to Assess the Competency of the Manufacturer/Dealer
(To be submitted on the official letter-head of the company)**

S NO.	Name of Departments	Purchase order no. & date	Model	Type of systems	Supply Quantities	Pending orders/quantity, if any
2010-11						
2011-12						
2012-13						

Annual Production Capacity of Various Systems

S NO.	Name of system	Annual Production Capacity (in Nos.)
1		
2		
3		
4		

(Authorized Signatory)Name & Designation

Company seal

Please submit legible photocopies of purchase orders mentioned above..

2 Please submit legible photocopies of certificates of satisfactory performance issued by the concerned departments .

PERFORMANCE / SECURITY GUARANTEE BOND

- BANK GUARANTEE NO,.....
 Amount of Guarantee Rs..... Rs.....
 Bank Guarantee covers from.....to.....This deed of
 guarantee made onday.of.....2013 between
- (hereinafter called the guarantor) on the one part on behalf of
 M/s.....(hereinafter called supplier/contractor) and in favour of
 M.P.Urja Vikas Nigam Ltd. (hereinafter called the Nigam) on the following terms
 and conditions:-
1. Whereas the supplier/contractor having agreed into agreement onwith the Nigam (a copy of said agreement has been received by us) and supplier/contractor having agreed to security of Rs.....(Rupees.....) in favour of the Nigam in form of bank guarantee, in token of design, supply, installation/commissioning of.....vide order No.....dated.....to the satisfaction of Managing Director of the Nigam formonths/years against the said contract.
 2. Whereas the guarantors further agree that the Managing Director of the Nigam is competent to decide whether the design, supply, installation/commissioning of are in good proper working condition, his decision shall be binding on us.
 3. Whereas the guarantors further agree to pay immediately the amount guaranteed within a period of one week of the same being demanded by the Nigam, with intimation to the contractor/supplier.
 4. This guarantee shall remain enforced and shall continue to be enforceable till.....and
 - i) shall be extended on receiving instructions from the Nigam, with intimation to the contractor/supplier.
 - ii) however the Bank guarantee shall stand automatically enforceable for a period of further six months unless discharged by the Nigam, under intimation to the Nigam by the Bank immediately.
 5. Whereas the guarantors further agree that their liability under this guarantee shall not be affected by reason if any change in the agreement or the terms and conditions between the supplier/contractor and the Nigam or without the consent or knowledge of the guarantor.
 6. Whereas the guarantors further agree that Managing Director's decision whether supplier/contractor has committed any breach or non-observance of the terms and conditions of the said contract shall be final and enough for us to make payment to the Nigam.
 7. Whereas the guarantor further agree that the amount due or amounts of damage or loss caused to or suffered by the Nigam are binding on us and undertaking to pay the amount guaranteed hereby, or part there of as required, within one week of the demand made by the Nigam.
 8. Whereas the guarantors hereby undertake not to revoke this guarantee bond during its currency period except with the previous consent of the Nigam in writing. However unless a demand or claim is made in writing on or before the expiry of this guarantee as mentioned in clause No.4 (i & ii) the guarantor shall be released and discharged from all liabilities there under.

Notwithstanding anything contained in foregoing our liability under this guarantee is restricted to Rs..... (Rs.....) our guarantee shall remain in force up to six months from the date of expiry of currency/extended period of the Bank guarantee.

Bank Officer

1)_
ForBank ()

Witnesses:
.....
2).....

Witnesses:

For & on behalf of the bidder

1).....