

कार्यालय कार्यपालन यंत्री  
लोक स्वास्थ्य यांत्रिकीय खंड भोपाल  
पत्रकार कॉलोनी के सामने , मेनरोड नं. 3 , पंचशील नगर भोपाल – 462003, दूरभाष 0755-2556859

कं. तक/लो.स्वा.यां. विभाग/खण्ड भोपाल दिनांक

प्रति ,

संचालक,  
जनसंपर्क संचालन,  
बाणगंगा, भोपाल

विषय :- निविदा प्रकाशन बावत्।

संदर्भ :- निविदा कं.-87/2015-16/दिनांक 28.12.2015

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उपरोक्त विषयान्तर्गत लेख हैं कि इस कार्यालय की निविदा आमंत्रण सूचना क्रमांक-87/2015-16 दिनांक 28.12.2015 जो म.प्र. के जिले अनुपपुर, शहडोल, सिंगरोली एवं उमरिया के ग्रामों में सोलर पंप आधारित नलजल प्रदाय योजनाओं का क्रियान्वयन किया जाना हैं। डी.पी.आर. बनाये जाने हेतु सर्वेक्षण एवं इन्वेस्टिगेशन कार्य हेतु प्रपत्र " बी " पर निविदा आमंत्रित की गई हैं। निविदा की कुल लागत 115.00 लाख (एक सौ पंद्रह लाख मात्र) हैं।

निविदा से संबंधित समस्त जानकारी विभागीय बेबसाईट [www.mpphed.gov.in](http://www.mpphed.gov.in) पर उपलब्ध हैं।

उक्त निविदा की सात प्रतियां समाचार पत्रों में प्रकाशनार्थ आपकी ओर संलग्न कर श्री हनीफ खान, हेल्पर के साथ प्रेषित हैं।

कृपया निविदा का प्रकाशन जिला/संभाग के दैनिक समाचार पत्रों एवं रोजगार एवं निर्माण समाचार पत्र में करवाकर समाचार पत्रों की एक-एक प्रति इस कार्यालय को उपलब्ध कराने का कष्ट करें।

संलग्न : निविदा।

कार्यपालन यंत्री  
लोक स्वास्थ्य यांत्रिकी विभाग  
खण्ड भोपाल

पृ.कं. तक/लो.स्वा.यां. विभाग/खण्ड भोपाल दिनांक

प्रतिलिपि:-

1. प्रमुख अभियंता, लोक स्वास्थ्य यांत्रिकी विभाग भोपाल की ओर सूचनार्थ।
2. मुख्य अभियंता, लोक स्वास्थ्य यांत्रिकी विभाग परिक्षेत्र भोपाल/जबलपुर की ओर सूचनार्थ।
3. अधीक्षण यंत्री, लोक स्वास्थ्य यांत्रिकी विभाग मंडल भोपाल/जबलपुर/शहडोल/रीवां की ओर सूचनार्थ।
4. कार्यपालन यंत्री, लोक स्वास्थ्य यांत्रिकी विभाग अनुपपुर/शहडोल/सिंगरोली/ उमरिया की ओर सूचनार्थ।
5. जल निगम मर्यादित भोपाल में इमपेनल्ड कंसलटेंट श्री..... की ओर सूचनार्थ।

कार्यपालन यंत्री  
लोक स्वास्थ्य यांत्रिकी विभाग  
खण्ड भोपाल

## Government of Madhya Pradesh

### PUBLIC HEALTH ENGINEERING DEPARTMENT

#### Tender Document

#### Form 'B'

PREPARATION OF DETAILED PROJECT REPORTS FOR SOLAR PHOTO VOLTAIC (SPV) DC PUMPS BASED WATER SUPPLY SCHEME WITH SOURCE SUSTAINABILITY STRUCTURES TO SUPPLY DRINKING WATER WITH RATE OF SUPPLY OF 70 LPCD THROUGH TAP CONNECTIONS TO EACH HOUSEHOLD OF ALL VILLAGES AND HABITATIONS OF DISTRICT ANUPPUR, SHAHDOL, SINGRAULI & UMARIA WITH 20 YEARS OPERATION AND MAINTENANCE OF ENTIRE SCHEME INCLUDING SURVEY & INVESTIGATION, DESIGN, DRAWING AND PREPARATION OF ESTIMATES ETC. COMPLETE. SCHEME WISE DETAILS ARE GIVEN BELOW:

Group No.	District	Name of Scheme	Source	Total No. of villages /Habs
1	Anuppur	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Anuppur</b> Distt.	Tubewell / Dugwell	2350
2	Shahdol	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Shahdol</b> Distt.	Tubewell / Dugwell	4017
3	Singrauli	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Singrauli</b> Distt.	Tubewell / Dugwell	3535
4	Umaria	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Umaria</b> Distt.	Tubewell / Dugwell	1796

**NIT No- 87/2015-16 dt. 28.12.2015**

**Empanelled Consultants in M.P. Jal Nigam through  
EOI No. 11/TS/MPJNM/2014 Dated 14.07.2014**



**Office of the Executive Engineer  
Public Health Engineering Department  
Division Bhopal – 462001**

Phone No. :- 0755 2572889 e-mail: [eepbpl@nic.in](mailto:eepbpl@nic.in)

# I N D E X

S. No.	Content	Page No.	
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1.	Short notice inviting tender		
2.	Important points for guidance of the contractor		
3.	Detailed notice inviting tenders		
4.	Item rate tender (Form-B) and contract for works. General rules and directions for the guidance of contractors		
5.	Annexure 'A' Model rules relating to labour, water supply and Sanitation in labour camps		
6.	Annexure 'B', Contractor's labour regulations		
7.	Annexure 'C' Statement showing lead of materials		
8.	Annexure 'D' Form of certificate on income tax		
9.	Annexure 'E' Detailed technical specification		
10.	Annexure 'F' Manual for Preparation of Detailed Project Report for Rural Piped Water Supply Schemes		
11.	Annexure 'G' MNRE Guidelines for 2015-16		

**Office of the Executive Engineer  
Public Health Engineering Department  
Division Bhopal**

Phone No. :- 0755 2572889 e-mail: [eephbpl@nic.in](mailto:eephbpl@nic.in)  
Pin-462001

**NOTICE INVITING TENDER**

**NIT No- 87/2015-16; dated 28.12.2015**

1. The Executive Engineer, Public Health Engineering Department, Division Bhopal (M.P.) invites sealed Tenders on behalf of Governor of Madhya Pradesh in PWD Form 'B' from empanelled Consultants of MP JAL NIGAM MARYADIT through EOI No. 11/TS/MPJNM/2014 Dated 14.07.2014 for following work on or before 12.01.2016 (date) up to 03.00 pm. Tenders will be opened on 12.01.2016 at 4:30pm at the address given below. Tenderers or their authorized representatives may remain present during the opening of the tenders.

**Name of work:-** Preparation of Detailed Project Reports for of Solar Photo Voltaic (SPV) DC Pumps based Water Supply Scheme with source sustainability structures to supply drinking water with rate of supply of 70 lpcd through tap connections to each household of the all villages and habitations of District **Anuppur, Shahdol, Singrauli and Umaria** with 20 years Operation and Maintenance of entire scheme including Survey & Investigation, Designing, Drawing and Preparation of Estimates etc. complete. Scheme wise details are given below:

2. Proposed SPV DC Pumps based Water Supply Schemes:-

Group No.	District	Name of Scheme	Total No. of villages /Habs	Probable Amount of Contract	Cost of Tender Form in Rs. (in Figures)	EMD in Rs. (in Figures)
1	Anuppur	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Anuppur</b> Distt.	2350	22.00 Lakhs	5,000/-	44,000/-
2	Shahdol	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Shahdol</b> Distt.	4017	34.00 Lakhs	5,000/-	50,000/-
3	Singrauli	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Singrauli</b> Distt.	3535	38.00 Lakhs	5,000/-	50,000/-
4	Umaria	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Umaria</b> Distt.	1796	21.00 Lakhs	5,000/-	42,000/-

3. Period of completion: - 52 Days including rainy season

**Terms:-**

1. Detailed NIT for proposed work can be seen in the office hours 10.30.a.m. to 5.30 p.m.

2. EMD of required amount to be submitted in form of FDR, drawn in favour of "Executive Engineer, Public Health Engineering Division Bhopal (M.P.)" payable at Bhopal, is mandatory, otherwise tender will not be entertained.
3. This notice is also available at website <http://www.mpphed.gov.in>
4. A complete set of tender documents can be downloaded from the website <http://www.mpphed.gov.in> and the cost of tender document shall be deposited in the form of Demand Draft/Bankers cheque in favour of "Executive Engineer, Public Health Engineering Division Bhopal (M.P.)" payable at Bhopal.
5. Bids shall remain valid for a period of 180 Days (One Hundred Eighty Days) from the date of opening of financial bid. The Employer can reject a bid valid for a shorter period.
6. Any bid not accompanied by acceptable Cost of tender document and Earnest money as indicated in NIT as above will be rejected by the Employer as non-responsive.
7. Due to unforeseen condition, if any scheduled date is declared holiday, then in that case action on bids will be taken on next working day at the same time and place.
8. This office will not be responsible for any delay in receiving the Bid Documents.
9. Any effort by the Bidder to influence the Employer in the Employer's bid evaluation, bid comparison or contract award decisions may result in the rejection of the Bidders bid.
10. The Executive Engineer, Public Health Engineering Division Bhopal (M.P.) reserves the right to accept or reject any Bid, and to cancel the Bidding process and reject all Bids, at any time prior to the award of Contract, without thereby incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the Employer's action.

Address for Communication:

**Executive Engineer**

**Office of the Executive Engineer**

**Public Health Engineering Division Bhopal – 462001**

Phone No. :- 0755/ 2572889

e-mail: [eephbpl@nic.in](mailto:eephbpl@nic.in)

**Executive Engineer,  
PHE Dn. Bhopal**

### **Important points for guidance of the consultants**

1. The address for the submission of tender document is given on previous page.
2. The entire tendering process is for Preparation of DPR through the Consultant/Consultancy firm therefore, any mention of the term “Contractor” in the tender document is correspondingly read as “Consultant” in this particular tender.
3. Any mention of the term “Online” in the tender document is correspondingly read as “Off line” in this particular tender.
4. A complete set of tender documents can be downloaded from the website and the cost of tender document shall be deposited as mentioned above, in the form of Demand Draft/Bankers cheque in favour of “Executive Engineer, Public Health Engineering Division Bhopal (M.P.)” payable at Bhopal at the time of submission of tender document. If the cost of tender document is not deposited, the tender document will not be entertained and returned to the consultants, unopened.
5. On receiving the cost of tender document, the envelope of Earnest money will be opened, and if EMD found as per the NIT conditions, then only the envelope of Financial Bid shall be opened. Tenders not accompanied by either Cost of Tender document or Earnest money shall be liable for rejection.
6. **Selection Criteria** - The selection criteria for the consultants shall be as follows, on the basis of the rates offered by them:-
  - i. The consultant may offer the rates for each scheme/group of schemes, but the lowest rates of that scheme/group of schemes may be accepted, if found reasonable.
  - ii. Initially, one consultant will get work order for one scheme only, even if he is lowest in other scheme (s)/group of schemes(s) also, but it will be at the discretion of the Competent Authority to order more than one scheme/group of schemes to any consultant, if situation so arises.
  - iii. If any consultant has offered lowest rates in more than one scheme/group of schemes, then the consultant may opt to choose anyone scheme/group of schemes, out of only those schemes/group of schemes in which he has offered the lowest rates.
  - iv. The second lowest consultant, in above condition, will be negotiated to accept offer at the lowest offered rates of that scheme/group of schemes. If second lowest consultant doesn't accept, then the third lowest consultant will be negotiated and so on.
  - v. If in a scheme/group of schemes, more than one consultant has offered same lowest rates, then these consultants will be asked to give their offer (lower than the previous offer) in sealed envelope on such a date as decided by the Authority and the work shall be awarded to the lowest bidder . But if in second trial, the rates are found same, then this process will be continued until a clear-cut lowest offer is received.
7. All the rural Village/Habitations are to be covered in these schemes.
8. The consultants shall be responsible to prepare a sustainable and economical scheme by considering the cluster of nearby villages/habitations. The size of one cluster shall be based on the yield of source, geography and demography of the vicinity. Consultant has to justify his proposal for size of cluster.

10. The consultant is required to submit the DPR as per the following schedule-
- |   |                                      |   |   |
|---|--------------------------------------|---|---|
| 1 | Submission of Pre Feasibility Report | : | 15 day from the work order                                  |
| 2 | Submission of draft DPR              | : | 30 days from the date of approval of Pre Feasibility Report |
| 3 | Submission of Final DPR              | : | 07 days from the date of approval of draft DPR              |

11. The terms of payment shall be as follows-

- |   |   |   |   |
|---|---|---|---|
| 1 | After submission of Draft DPR                 | : | 50% of the fee payable, as derived on prorata basis from the offered rates on the basis of cost of draft DPR. |
| 2 | Submission of Final DPR                       | : | 30% of the fee payable, as derived from the offered rates on the basis of cost of final DPR.                  |
| 3 | Clearance/Approval of DPR from the Department | : | 20% of the fee payable, as derived from the offered rates on the basis of cost of Final DPR                   |

**Note: 1. The difference in the fee payable based on the costs of tender (estimated cost), approved draft and final DPRs shall be adjusted with the cost of “finally approved DPRs”.**

**2. The items having lump sum provisions and contingencies work like survey, investigation, supervision, POL, land acquisition, item for operation & maintenance of scheme etc. considered in the DPRs shall not be taken into account for the purpose of fee payable to Consultant.**

**3. Each scheme will be dealt separately. Schedule and terms of payments as defined above will be applicable individually on each scheme.**

12. Hydraulic design of the structures should be done to work out the estimated cost of works. Consultant has to submit general arrangement drawings along with drawings of each component of the scheme for estimation purpose only. The estimates should not be merely based on per MLD basis or per Liter basis.
13. Consultant has to collect the village population of previous decades and verify the census-2011 population & other data from the respective department.
14. Land acquisition will be done after the approval of the scheme by the department, but it will be the responsibility of the Consultant to identify the land required, and its area with location. The respective cost of the land acquisition for various sites may be worked out as per respective District Collector's rate.
15. The latest SORs can be downloaded from the respective Web sites of the concerned department or may be purchased by the consultant at his own cost, from the concerned agency/market, wherever it is available.

16. The payment of service tax shall be payable extra. The payment of service tax to the respective Govt. agency shall be done by the consultant and same shall be reimbursed to the consultant by the department on the production of payment receipt/challan.
17. All other deductions e.g. Income Tax, Security Deposit etc. as per Govt. rules and terms of NIT shall be deducted from the running bills of the consultants.
18. Taxes and duties paid by the consultant for this work, for which consultant was not responsible on the day of submission of his financial bid, will be reimbursed on production of proof of deposit of such claim on account of taxes.

**Executive Engineer**  
**Office of the Executive Engineer**  
**Public Health Engineering Division Bhopal – 462001**  
Phone No. :- 0755/ 2572889  
e-mail: [eephbpl@nic.in](mailto:eephbpl@nic.in)

APPENDIX 2.10

**DETAILED NOTICE INVITING TENDERS**

(in Form -B)

**Executive Engineer  
Office of the Executive Engineer  
Public Health Engineering Department  
Division Bhopal – 462001**

Phone No. :- 0755 /2572889, e-mail: eepbpl@nic.in

1. N.I.T form issued to .....
2. Tender invited from : Consultants empanelled in MP JAL NIGAM through EOI No. 11/TS/MPJNM/2014 Dated 14.07.2014
3. Due date of tender - 12.01.2016

Name of Work- Preparation of Detailed Project Reports for of Solar Photo Voltaic (SPV) DC Pumps based Water Supply Scheme with source sustainability structures to supply drinking water with rate of supply of 70 lpcd through tap connections to each household of the all villages and habitations of District **Anuppur, Shahdol, Singrauli and Umaria** with 20 years Operation and Maintenance of entire scheme including Survey & Investigation, Designing, Drawing and Preparation of Estimates etc. complete. Scheme wise details are given below:

4. Amount of estimate - Given in table below.
5. Probable Amount of contract - Given in table below.

<b>Group No.</b>	<b>District</b>	<b>Name of Scheme</b>	<b>Amount of Estimate</b>	<b>Probable Amount of Contract</b>
1	Anuppur	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Anuppur</b> Distt.	108.80 Crores	22.00 Lakhs
2	Shahdol	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Shahdol</b> Distt.	169.30 Crores	34.00 Lakhs
3	Singrauli	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Singrauli</b> Distt.	190.30 Crores	38.00 Lakhs
4	Umaria	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Umaria</b> Distt.	106.85 Crores	21.00 Lakhs

6. Amount of earnest money

Group No.	Name of Scheme	EMD in Rs. (in Figures)	EMD in Rs. (in Words)
1	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Anuppur Distt.	44,000/-	Rupees Forty Four thousand Only
2	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Shahdol Distt.	50,000/-	Rupees Fifty thousand Only
3	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Singrauli Distt.	50,000/-	Rupees Fifty thousand Only
4	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Umaria Distt.	42,000/-	Rupees Forty Two thousand Only

7. Cost of tender

Group No.	Name of Scheme	Cost of Tender Form in Rs. (in Figures)	Cost of Tender Form in Rs. (in Words)
1	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Anuppur Distt.	5,000/-	Rupees Five thousand Only
2	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Shahdol Distt.	5,000/-	Rupees Five thousand Only
3	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Singrauli Distt.	5,000/-	Rupees Five thousand Only
4	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Umaria Distt.	5,000/-	Rupees Five thousand Only

8. Time allowed for completion - 52 days including rainy season

9. Works to be done on schedule of rates issued by - Not Applicable -

10. Following materials will be supplied by the department: -

No material will be supplied by department

11. The following clauses of this N.I.T. are not applicable for this work –

as mentioned on respective page

Dated...28.12.2015

Signature of officer issuing N.I.T.

## APPENDIX 2.10

**Executive Engineer  
Office of the Executive Engineer,  
Public Health Engineering  
Division Bhopal (M.P.)**

### DETAILED NOTICE INVITING TENDERS

(IN FORM – B)

**Date of issue of N.I.T. : NIT No- 87/2015-16 dated 28.12.2015**

**Date of Receipt of Tender : 12.01.2016**

#### 1. INTRODUCTION

1.1 Sealed tenders are invited by Executive Engineer, Public Health Engineering Division Bhopal (M.P.) on behalf of the Governor, Madhya Pradesh for the following works in Form-B and will be received at the office of the Executive Engineer, Public Health Engineering Division Bhopal (M.P.) on or before 12.01.2016 up to 3.00 PM from empanelled Consultant of Jal Nigam Maryadit, M.P through EOI No. 11/TS/MPJNM/2014 Dated 14.07.2014.

**Name of work:-** Preparation of Detailed Project Reports for of Solar Photo Voltaic (SPV) DC Pumps based Water Supply Scheme with source sustainability structures to supply drinking water with rate of supply of 70 lpcd through tap connections to each household of the all villages and habitations of District **Anuppur, Shahdol, Singrauli and Umaria** with 20 years Operation and Maintenance of entire scheme including Survey & Investigation, Designing, Drawing and Preparation of Estimates etc. complete. Scheme wise details are given below:

Amount of estimate - Given in table below.

Probable Amount of contract - Given in table below.

Group No.	District	Name of Scheme	Amount of Estimate	Probable Amount of Contract
1	Anuppur	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Anuppur</b> Distt.	108.80 Crores	22.00 Lakhs
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4	Umaria	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Umaria</b> Distt.	106.85 Crores	21.00 Lakhs

**Note:** Detailed Project Reports shall comprise cluster wise schemes which will include all village/habitations of the district. List of villages/habitations is available in the office of the Executive Engineer, PHE Division Bhopal.

Earnest Money Deposit (EMD) :-

Group No.	Name of Scheme	EMD in Rs. (in Figures)	EMD in Rs. (in Words)
1	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Anuppur Distt.	44,000/-	Rupees Forty Four thousand Only
2	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Shahdol Distt.	50,000/-	Rupees Fifty thousand Only
3	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Singrauli Distt.	50,000/-	Rupees Fifty thousand Only
4	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Umaria Distt.	42,000/-	Rupees Forty Two thousand Only

- 1.2 Time allowed for completion will be 52 days including rainy season from date of written order to commence the work.
- 1.3 The electrical work shall be executed only through the contractors, who possess proper valid electric license from the ~~DELETED~~ Examiner to the Government. He should also attach a copy of the license.
- 1.4 Not more than one tender shall be submitted by a contractor or by a firm of contractors.
- 1.5 No two or more concerns in which an individual is interested as proprietor and/or partner shall tender for the execution of the same work if they do so all such tenders shall be liable for rejection.
- 1.6 The Executive Engineer, Public Health Engineering Division Bhopal (M.P.) or the Engineer/Officer authorized by him shall be accepting offer hereinafter referred to as such for the purpose of this contract.
- 1.7 Applications for issue of tender documents shall be submitted to Executive Engineer, Public Health Engineering Division Bhopal (M.P.) so as to reach this office not later than 12.01.2016 up to 4:00 pm.
- 1.8 Tender documents consisting of plans specifications of quantities of the various classes of works to be done, the conditions of the contract and other necessary documents, together with addressed envelopes to be used for return of forms and other documents, will be open for inspection and issued for sale on payment of Rs. 5000/- on or before 12.01.2016 up to 03.00 pm (As per NIT).
- 1.9 The copies of other drawings and documents pertaining to the work signed for the purpose of identification by the accepting officer ~~DELETED~~ his accredited representative and samples of

materials to be arranged by the contractor will be open for inspection by tenderers at the following office during working hours between the dates mentioned in clause-1.7 above.

## 2.0 RATES

2.1 The schedule of items: The schedule of main items of work to be executed is enclosed as Annexure (E).

2.2 Percentage rate tender in form "A".

2.2.1 In respect of percentage rate tenders, contractor should quote his separate tender percentage rate above or below the following schedule of rate.

(a) **Building Work** - The current schedule of rates issued by the ..... in force from ..... and its amendments ..... issued up to date of N.I.T.

(b) **Electric Fittings** - The current schedule of rates issued by the ..... in force with effect from ..... and its amendments ..... issued up to date of N.I.T.

(c) **Water Supply and Sanitation Fittings** - The current schedule for rates issued by the ..... in-force with effect from ..... and its amendments issued up to date of issue of N.I.T.

(d) **Road Work** - The current schedule for rates issued by the ..... in force with effect from ..... and its amendments issued up to date of issue of N.I.T.

2.2.2 (For Form - ..... ) The percentage of tender above/ below or at par with the relevant schedule rates including amendments and correction slips issued up to the date of the notice inviting tender should be expressed on the tender form itself both in words and figures in such a manner that interpolation is not possible and all over writings should be neatly scored out and rewritten and the corrections should be duly attested prior to the submission of tender. Tenders not specifying percentage in words will summarily be rejected. Any amendments to the schedule of rates after the date of issue of this tender notice or the date of issue of any amendments to the N.I.T. specifically notifying the said amendment to the current schedule of rates, shall not apply to this tender.

2.2.3 The percentage tendered by the contractor will apply to those rates which find place in the current schedule of rates mentioned in clause-2.2.1 or have been derived from the said current schedule of rates and not to other items of work.

2.2.4 The percentage quoted by the contractor shall not be altered by the contractor during the terms of contract. The deduction or addition as the case may be of percentage will be calculated on the amount of bill for the work done, after deducting the cost of materials supplied departmentally at rates specified in the agreement.

2.3 Items rate tender in form "B"

2.3.1. In respect of item rate tenders, contractor should quote his rates for the items mentioned in the schedule of item in **MEMORANDUM of APPENDIX 2.14** of this N.I.T. Only rate quoted shall be considered. The rates should be expressed in figures as well as words and

the unit should be as given by the Department. The contractor will not have the freedom to change the unit. No percentage above or below the schedule be quoted.

2.3.2. The rates quoted in the tender for the various items of work will not be altered by the contractor during the term of contract.

2.4 Lead and Lift of water - No lead and lift for carting of water will be paid.

2.5 **Lead and Lift of materials** - No lead and lift for carting of materials shall be payable to the contractor except in case of such items for which specific lead and lift are provided in the current schedule of rates mentioned in clause-2.2.1 of the NIT or in the schedule of items in respect of item rate tenders.

2.6 **Non-Schedule Items of Works** - During the execution of the work there is likelihood of such items of work, which do not find place in the current schedule of rates, referred to above in respect to percentage rate contracts or such items in respect of item rate contracts, which are given in the schedule of items in respect of item rate contracts, where contractor has not quoted his rates. Contractor will have to carry out these items of work.

Rates of such items of work which do not find place in the current schedule of rates referred to above, in respect of percentage rate contracts or such items in respect of item rate contracts shall be decided by the Executive Engineer, Public Health Engineering Division ..... and the decision of the Executive Engineer, Public Health Engineering Division ....., shall be binding on the contractor. The quantum of such work will not exceed 10% of amount of contract unless accepted by the department and the contractor.

### 3.0 SUBMISSION OF TENDER

3.1 **Earnest Money:** No tender will be received without deposit of earnest money of **Rs. \_\_,00/-** (AS PER NIT) which will be returned to the unsuccessful tenderers on rejection of their, tender or earlier as may be, decided by the competent authority and on producing of a certificate of Engineer-in-Charge, that all tender documents have been returned, and will be retained from the successful tenderers as part of the security deposit.

#### 3.2 Form of Earnest Money:

3.2.1 Where the amount of Earnest Money is more than Rs. 500/- the same shall be accepted only in the shape of Bank drafts or Bankers cheque or FDR in favour of **Executive Engineer, Public Health Engineering Division Bhopal (M.P.) payable at Bhopal.**

3.2.2 The intending tenderers from other state may remit E.M. in the form of the Bank draft / FDR of any schedule bank to the Executive Engineer, Public Health Engineering Division Bhopal (M.P.) payable at Bhopal.

3.3 **Earnest Money in separate cover:** The Earnest Money in one of the prescribed form should be kept in the Envelope 'A' in the outer covers containing the tender and if the earnest money is not found in accordance with the prescribed mode the tender will be returned unopened to the tenderer.

- 3.4 **Adjustment of Earnest Money:** Earnest Money which has been deposited for a particular work, will not, ordinarily be adjusted towards the earnest money for another work, but if the tender of contractor for a work in the office of Executive Engineer, Public Health Engineering Division Bhopal (M.P.) has been rejected and the earnest money has not been refunded to him due to any reason, it may be so adjusted by the Executive Engineer, Public Health Engineering Division Bhopal (M.P.) or by the Engineer authorized by him.
- 3.5 **Security Deposit :**
- (a) The Security Deposit shall be recovered from the running bills @ 5 percent as per clause 1 of the agreement.
  - (b) The amount of the E.M. shall not be adjusted when value of work done reaches the limit of the amount of contract or exceeds the probable amount of the contract.
- 3.6 **Implication of submission of Tender:** Tenderers are advised to visit sites sufficiently in advance of date fixed for submission of the tender. A tenderer shall be deemed to have full knowledge of the relevant documents samples, site, etc., whether he inspects them or not.
- 3.7 The submission of a tender by a contractor implies that he has read the notice conditions of tender and all other contract documents, and made himself aware of the standards and procedure in this respect laid down in the National Building Code of India/Indian Standards (latest). The scope and specification of the work to be done and the Conditions and rates at which stores, tools and plants etc. will be issued to him by the DEPTT, has seen the quarries with their approaches to site of work etc., and satisfied himself regarding the suitability and availability of site of work etc. and regarding the suitability and availability of the materials at the quarries. The responsibility of opening new quarries and construction and maintenance of approaches there shall lie wholly with the contractor.
- 3.8 **Income Tax Clearance Certificate** – A tenderer purchasing tender documents for the works exceeding Rs. 2.00 lakh shall submit for an Income Tax Clearance Certificate in form printed as Annexure-D or Certificate from the Income Tax Authority that the assessment is under consideration. Tender documents can be issued / sold to him unless such certificate is submitted.
- 3.9 **List of works in progress:** Tenders must be accompanied by a list of Contracts already held by the tenderer at the time of submitting the tender, in the Department and elsewhere showing there in:
- (i) The amount of each contract.
  - (ii) Balance of work remaining to be done and
  - (iii) The amount of agency - Certificate produced by him at the time of enrolment in the Department.
- 3.10 **Relationship :** The contractor shall not be permitted to tender for works in the Division (responsible for Execution of contracts) in which his near relative is posted as Divisional Accountant. He shall, intimate the names of his near relative working in M.P.P.H.E.D.

Secretariat and M.P.P.H.E.D. Division. He shall also intimate the name of persons who are working with him in any capacity or subsequently employed by him and who are near relatives to any gazetted officer in the P.H.E.D. Secretariat. Any breach of this condition by the contractor would render himself liable to be removed from the approved list of contractors of the M.P. P.H.E. Department.

**Note:** By the term near relative is meant, wife, husband, parent and son, grandson, brothers, sisters, brother in-laws, father in-law and mother in law.

3.11 The tender for the works shall be witnessed by a contractor. Failure to observe this condition shall render the tender of the contractor liable to rejection.

#### **4.0 OPENING AND ACCEPTANCE OF TENDER**

4.1 **Place and Time of Opening :** The tenders shall be opened at time and place stated in para – 1 of NIT by the Executive Engineer, Public Health Engineering Division Bhopal (M.P.) in the presence of the tenderers or their duly authorised agent who may choose to attend. The Superintending Engineer, under unavoidable circumstances may depute another officer in his absence to receive and open tenders on his behalf.

4.2 **Powers of Executive Engineer -** He does not bind himself to accept or recommend for the acceptance the lowest or any tender or to give any reasons for his decision.

4.3 **Conditional Tender:** Conditional tenders are liable to be rejected.

4.4 **Canvassing:** Canvassing for support in any form for the acceptance of any tender is strictly prohibited any tenderer doing so will tender himself liable to penalties which may include removal of his name from the register of approved contractors or penal action under section 8 of the M.P. Vinirdistha Bhrasta Acharan Nivaran Adhiniyam 1982.

4.5 **Unsealed Tender :** The tenders shall be rejected, if not properly sealed.

4.6 **Authority of Executive Engineer :** The Authority competent to accept a tender, reserve the right of accepting the tender for the whole works or for a district part of it or by distributing the work between one or more tenders.

4.7 **Validity of Offer :** Tender shall remain valid up to 180 days from the date of receipt of Tender and in the event of the tenderer withdrawing the offer before the aforesaid date, for any reason whatsoever, earnest money deposited with tender shall be forfeited by the Executive Engineer, Public Health Engineering Division Bhopal (M.P.)

#### **5.0 SPECIFICATION**

5.1 **Brief Specification:** A brief note on construction and specifications of the work is enclosed as Annexure-E.

5.2 **Material of Construction :** The materials of construction to be used in the work shall be Governed by the provision of part-V of the National Building Code of India, 1970 and the relevant Indian Standard specification with amendments and revisions issued upto the date of tender notice.

5.3 **Workman-Ship:** The work shall be carried out in according to the specification referred to hereinafter and according to sound engineering practice. The decision of the Executive Engineer, in respect of workmanship will be final.

5.4 **Specification for Building Works:** (Including water supply and sanitary fittings).

5.4.1 The contractor shall execute the work strictly in conformity with the standards and procedure Laid down in the National Building Code of India 1970 and as per Central P.W.D. specification or specifications in force or special specification whenever enclosed separately, and in accordance with the approved drawings.

5.4.2 **Concrete :** All concrete shall be mixed in concrete mixer and compacted by mechanical vibrators slump test shall be carried out during concreting. Sample test cubes prepared and tested in due course. The testing will be carried out by the contractor at his own cost.

The results of tests shall conform with required standards and if the Engineer-in-Charge considers that a structural test is necessary, the same shall be carried out-as instructed by the Engineer-in-Charge at the contractors expense and should if the result of this be unsatisfactory the contractor will be bound to reconstruct the particular, portion of work which has given unsatisfactory test results.

5.4.3 **Bricks :** The contractor should use Bricks manufactured on the metric measures as far as possible.

5.4.4 All timber used in the work for all new works as must be properly seasoned in case of important building mechanical seasoning should be done in good seasoning plant. In case the contractor does not procure good seasoned wood he may be asked to get it seasoned in plant at his own expense but no certificate is required where no additional rate is paid.

5.4.5 DELETED.

## 5.5 Specification of Electrical Works

5.5.1 The work will be carried out as per the approved drawing and as directed by the Engineer-in-charge. The work will be governed by "General Specifications" for the Electrical Works in Government buildings in Madhya Pradesh in force from 1972.

5.5.2 All samples of Electrical accessories should be got approved from the Engineer-in-charge. Contractor will have to arrange and provide all facilities for their inspection and rectify the defects pointed out by them. A list of accessories is enclosed as Annexure-E.

5.5.3 The period of testing and retention deposit will be 6 months after completion of work.

5.5.4 In case of supply of ceiling fan, table fan, exhaust fan, cabin fan, tube light fixtures will be made by the ISI or as mentioned in the C.S.R. As such labour rates only as per C.S.R. will be paid for fitting such items in position as per C.S.R.

5.5.5 The contractor should submit wiring diagram on tracing cloth showing the point position of switch length of point, position of D.B. and main switch circuit No. in which points fall at

the time of final bill. Otherwise deduction of ½ percent (Half percent) will be made from the bill.

## 5.6 Specification for Works

(Excluding bridges and culverts)

The road works and collection of material and works shall be carried out according to Maharashtra P.W.D. specifications adopted for Madhya Pradesh or specifications in force, or special specifications which are enclosed separately, of the relevant specifications published by the Indian Road Congress 5.6.

5.7 **Contradictions or Amendments:** In the event of contradictions between the stipulations of the schedule of rates (vide part of this N.I.T.) and aforesaid specification (vide part of this N.I.T.). The stipulations of the schedule of rates shall gain precedence. In the event to contradiction, if any between different specifications and or code of practice referred to above, the decision of the Executive Engineer, Public Health Engineering Division Bhopal (M.P.) shall be final subject of appeal in case of dispute before the **Chief Engineer** of that Zone of the department for this particular tender within one months of Executive Engineer's decision.

6.0 **SUPPLY OF MATERIALS:** DELETED.

6.1 (a) DELETED.

6.1.1 DELETED.

6.2 DELETED.

6.3 DELETED.

6.4 DELETED.

6.5 Delay in Supply: DELETED.

7.0 **MISCELLANEOUS CONDITIONS :**

7.1 **Subletting :** The contractor shall not, without the prior approval of the competent authority (Executive Engineer) in writing sublet or assign to any other party or parties, the whole or any portion of the work under the contract. Where such approval is granted, the contractor shall not be relieved of any obligation or duty or responsibility which he undertakes under the contract.

7.2 **Taxes :** All dues regarding taxes including the sales tax other duties etc. levied in the contractors work by the Government and local bodies or private individuals will be payable by the contractor. The Executive Engineer, Public Health Engineering Division ..... will grant a certificate for the quantities actually used on the work but will not entertain any claim on this account.

7.3 Deleted.

- 7.4 **Rules of Labour Camps :** The contractor will be bound to follow the Madhya Pradesh Model Rule relating to layout, water supply and sanitation on labour camps (vide Annexure-A) and the provisions of the national Building Code of India, in regard to constructions and safety.
- 7.5 **Fair wages :** The contractor shall pay not less than fair wages to labourers engaged by him on the works (rules enclosed vide Annexure-B).
- 7.6 **Works in the Vicinity :** The Executive Engineer reserves the right to take up departmental work or to award work on contract in the vicinity without prejudice to the terms of contract.
- 7.7 **Best quality of construction materials:** Materials of the best quality will be used as approved by the Executive Deleted r.
- 7.8 **Removal of undesired persons :** The contractor shall on receipt of the requisition from the Engineer-in-charge at once remove any person employed by him on the work who, if in the opinion of the Executive Engineer is unsuitable or undesirable.
- 7.9 **Amount due from Contractor :** Any amount due to Executive Engineer, Public Health Engineering Division BHOPAL from the contractor on any account concerning work may be recovered from him as arrear of land revenue.
- 7.10 **Tools and Plants :** The contractor shall arrange at his own cost tools and plant required for the proper execution of the work.
- 7.11 **Right to increase or decrease work :** The Competent Authority reserves the right to increase or decrease work.
- The competent authority reserves the right to increase or decrease any item of the work during the execution of the contract and the contractor will be bound to comply with the order of the competent authority without any claim for compensation.
- 7.12 **Time Schedule :** The work shall be done by the contractor according to the time schedule fixed by the competent authority.
- 7.13 **Time of Contract :** Time allowed for carrying out the work as entered in the N.I.T. shall be strictly observed by the contractor and shall be reckoned from the date of work order to commence the work.
- 7.14 **Payment by Cheques :** The payment will be made by cheques or by e-payment only . No Bank commission charges on realizing such payments will be borne by the Department.
- 7.15 **Transport of Material :** The contractor shall make his own arrangement for transport of all materials. The department is not bound to arrange for priority in getting wagon or any other materials though all possible assistance by way of recommendation will be given if it is found necessary in the operation by the Engineer-in-Charge if it proves to be in effective the contractor shall have no claim for any compensation on that account.

## 8.0 SPECIAL CONDITIONS:

## 8.1 Agreement :

- 8.1.1 **Execution of Agreement** : The tenderer whose tender has been accepted herein after referred to as the contractor, shall produce appropriate solvency certificate, if so required by the Executive Engineer or Officer Authorized by him and will execute the agreement in the prescribed form within a fortnight of the date of communication of the acceptance of his tender by competent authority. Failure to do so will result in the earnest money being forfeited to Department and tender being cancelled.
- 8.1.2 (a) The contractor shall employ the following Technical staff during the Execution of work :
- (i) One Graduate Engineer when the work to be executed is more than Rs. 5 Lakhs.
  - (ii) One Diploma Holder, Sub-Engineer when the cost of work to be executed is from Rs. 2 Lakhs or more but not more than Rs. 5 Lakhs.
- (b) The Technical staff should be available at site whenever required by the Engineer-in-charge to take instructions.
- (c) In case the contractor fails to employ the technical staff as aforesaid the Engineer shall have the right to take suitable remedial measures.
- (d) The contractor should give the names and other detail of the Graduate Engineer/Diploma Holder, Sub-Engineer whom he intends to employ or who is under employment on the work at the time he commences the work.
- (e) The contractor should give certificate to the effect that the Engineer/Diploma Holder Sub-Engineer is exclusively in his employment.

### **Provided that:**

- (i) A Graduate Engineer or Sub-Engineer may look after more than one work in the same locality but the total value of such work under him should not exceed Rs. 25 lakhs in the case of an Engineer and Rs. 5 lakhs in the case of Sub-Engineer.
- (ii) It is not necessary of the contractor's partner in case of firm/company, who is himself an Engineer, Sub-Engineer to employ another Engineer, Sub-Engineer for the supervision of work.
- (iii) The Retired Sub-engineer who is holding a Diploma may be treated at par with a Graduate for the operation of the above clause.

In case the contractor fails to employ the Technical staff as proposed in the bid he shall be liable to replace the person of equivalent qualification (Educational and experience) with the permission of Executive Engineer, Public Health Engineering Division Bhopal (M.P.).

- 8.2 **Conditions applicable for contract** : All the conditions of tender notice will be binding on the contractors in addition to the conditions of the contract in the prescribed form:

Following document annexed with this N.I.T. shall form a part of the contract.

- Annexure "A"            Model Rules relating to labour water supply etc.  
Annexure "B"            Contractor's labour regulations.  
Annexure "C"            Statement showing the lead of materials.  
Annexure "D"            Form of Income Tax Clearance Certificate.  
Annexure-"E":           Detailed technical specifications.

Executive Engineer,  
Office of the Executive Engineer,  
Public Health Engineering  
Division Bhopal (M.P.)

#### **APPENDIX 2.14**

**Office of the Executive Engineer  
Public Health Engineering Department  
Division Bhopal – 462 \_\_\_\_\_**

Phone No. :- 0755 \_/2572889 Fax:- 0755 e-mail: eepbpl@nic.in

**DETAILED NOTICE INVITING TENDERS**

**(IN FORM - B)**

Issued to Shri/Mr/Ms. ....

1. Name of Work- Preparation of Detailed Project Reports for of Solar Photo Voltaic (SPV) DC Pumps based Water Supply Scheme with source sustainability structures to supply drinking water with rate of supply of 70 lpcd through tap connections to each household of the all villages and habitations of District **Anuppur, Shahdol, Singrauli and Umaria** with 20 years Operation and Maintenance of entire scheme including Survey & Investigation, Designing, Drawing and Preparation of Estimates etc. complete. Scheme wise details are given below:

2. Proposed SPV DC Pumps based Water Supply Schemes and Probable Amount of contract :-

Group No.	District	Name of Scheme	Source	Total No. of villages /Habs	Amount of Estimate	Probable Amount of Contract
1	Anuppur	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Anuppur</b> Distt.	Tubewell / Dugwell	2350	108.80 Crores	22.00 Lakhs
2	Shahdol	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Shahdol</b> Distt.	Tubewell / Dugwell	4017	169.30 Crores	34.00 Lakhs
3	Singrauli	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Singrauli</b> Distt.	Tubewell / Dugwell	3535	190.30 Crores	38.00 Lakhs
4	Umaria	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Umaria</b> Distt.	Tubewell / Dugwell	1796	106.85 Crores	21.00 Lakhs

**Note:** Detailed Project Reports shall comprise cluster wise schemes which will include all village/habitations of the district. List of villages/habitations is available in the office of the Executive Engineer, PHE Division Bhopal.

3. Amount of earnest money

Group No.	Name of Scheme	EMD in Rs. (in Figures)	EMD in Rs. (in Words)
1	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Anuppur</b> Distt.	44,000/-	Rupees Forty Four thousand Only
2	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Shahdol</b> Distt.	50,000/-	Rupees Fifty thousand Only
3	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Singrauli</b> Distt.	50,000/-	Rupees Fifty thousand Only
4	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Umaria</b> Distt.	42,000/-	Rupees Forty Two thousand Only

4. Cost of tender

<b>Group No.</b>	<b>Name of Scheme</b>	<b>Cost of Tender Form in Rs. (in Figures)</b>	<b>Cost of Tender Form in Rs. (in Words)</b>
1	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Anuppur Distt.	5,000/-	Rupees Five thousand Only
2	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Shahdol Distt.	5,000/-	Rupees Five thousand Only
3	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Singrauli Distt.	5,000/-	Rupees Five thousand Only
4	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Umaria Distt.	5,000/-	Rupees Five thousand Only

5. Time allowed for completion - 52 days including rainy season

6. Cost of Tender Form- Rs. 5,000/- Vide M.R. No. & Date .....

7. Time allowed for completion- 52 DAYS including rainy season

8. Date of Opening Tender - 12.01.2016 (4.30 PM)

**Office of the Executive Engineer  
Public Health Engineering Department  
Division Bhopal – 462001**

Phone No. :- 0755 \_/2572889 Fax:- 0755 e-mail: eepbpl@nic.in

**ITEM RATE TENDER AND CONTRACT FOR WORKS**

**General Rules and Direction for the Guidance Contractors**

1. The agreement of work will be signed between Executive Engineer, Public Health Engineering Division Bhopal (M.P.) or his authorized representative and successful bidder or his authorized representative.

This form will state the work to be carried out as well as the date for submitting and opening tenders and the time allowed for carrying out the work, also the amount of earnest money to be deposited with the tender and the amount of the security deposit to be deposited by the successful tenderer and the percentage if any, to be deducted from bills. It will also state whether refund of quarry fees. Royalty, octrai, duties and ground rents will be granted. Copies of the specifications, drawing and schedule of quantities and rates of the various descriptions of work and any other documents required in connection with the work signed for the purpose of identification by the Sub-Divisional Officer / Divisional Officer shall also be open for inspection by the contractor at the office of the Sub-Divisional Officer/ Divisional Officer during office hours.

2. In the event of the tender being submitted by a firm it must be signed separately by each member thereof, or in the event of the absence of any partner, it must signed on his behalf by a person holding a power of attorney authorizing him to do so. Such power of attorney should be produced with the tender and it must disclose that the firm is duly registered under the Indian partnership Act.
3. Any person who submits a tender shall fill up the usual printed form stating at what rate he is willing to undertake each items of work. Tender which propose any alteration in the work specified, in the said form of invitation to tender or in the time allowed for carrying out the work, or which contain any other conditions of any sort will be liable to rejection no single tender shall include more than one work, but contractors, who wish to tender for two or more works shall submit a separate tender for each. Tender shall have the name and number of the work to which they refer written outside the envelope.
4. Divisional Officer/Sub-Divisional Officer or his duly authorized assistant, will open tenders in the presence of any intending contractors who may be present at the time and will enter the amount of the several tenders in a comparative statement in a suitable form. Receipts for earnest money will be given to all tenderers except those whose tenders are rejected, and whose earnest money is refunded on the day the tenders are opened.
5. The Officer competent to dispose of the tenders shall have the right rejecting all or any of the tenders.
6. The receipt of a clerk for any money paid by the contractor will not be considered as any acknowledgement of payment to Sub-Divisional Officer / Divisional Officer and the

contractor shall be responsible for seeing that he procures a receipt signed by the Sub-Divisional Officer / Divisional Officer or any other person duly authorized by him.

7. The memorandum of work tendered for the schedule of materials to be supplied by the Department and their issue rates shall be filled in and completed in the office of the Sub-Divisional Officer / Divisional Officer before the tender form is issued. If a form is issued to an intending tenderer without having been so filled in and completed he shall request the office to have this done before he completes and delivers his tender.

### TENDER FOR WORKS

I/We hereby tender for the execution for the Governor of Madhya Pradesh of the Works specified in the underwritten memorandum within the time specified in such memorandum at the rate specified therein and in accordance in all respect with specifications, designs, drawings, and instructions in writing referred to in rule 1 hereof and in clause 12 of the annexed conditions, and with such materials as are provided for by an in all other respect in accordance with such conditions as far as applicable.

### MEMORANDUM

- (a) 1. Name of Work- Preparation of Detailed Project Reports for of Solar Photo Voltaic (SPV) DC Pumps based Water Supply Scheme to supply drinking water with rate of supply of 70 lpcd through tap connections to each household of the all villages and habitations of District **Anuppur, Shahdol, Singrauli and Umaria** with 20 years Operation and Maintenance of entire scheme including Survey & Investigation, Designing, Drawing and Preparation of Estimates etc. complete. Scheme wise details are given below:

2. Proposed SPV DC Pumps based Water Supply Schemes and Probable Amount of contract :-

Group No.	District	Name of Scheme	Source	Total No. of villages /Habs	Amount of Estimate	Probable Amount of Contract
1	Anuppur	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of <b>Anuppur</b> Distt.	Tubewell / Dugwell	2350	108.80 Crores	22.00 Lakhs
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**Note:** Detailed Project Reports shall comprise cluster wise schemes which will include all village/habitations of the district. List of villages/habitations is available in the office of the Executive Engineer, PHE Division Bhopal.

3. Amount of earnest money

Group No.	Name of Scheme	EMD in Rs. (in Figures)	EMD in Rs. (in Words)
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3	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Singrauli Distt.	50,000/-	Rupees Fifty thousand Only
4	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Umaria Distt.	42,000/-	Rupees Forty Two thousand Only

- (d) Security Deposit (including earnest money) - 5%
- (e) Percentage if any to be deducted from bills - Taxes etc as per rules
- (f) Time allowed for the work from the date of written order- 52 days including rainy season

Group No.	Name of Scheme	Approximate Estimated cost	Tendered Rate in percent of cost of finally approved DPR	
		(Rs. in Lakh)	in Figures	in Words
1	Preparation of Detailed Project Reports for of Solar Photo Voltaic (SPV) DC Pumps based Water Supply Scheme with source sustainability structures to supply drinking water with rate of supply of 70 lpcd through tap connections to each household of the all villages and habitations of District Anuppur with 20 years Operation and Maintenance of entire scheme including Survey & Investigation, Designing, Drawing and Preparation of Estimates etc. complete.	22.00		
2.	Preparation of Detailed Project Reports for of Solar Photo Voltaic (SPV) DC Pumps based Water Supply Scheme with source sustainability structures to supply drinking water with rate of supply of 70 lpcd through tap connections to each household of the all villages and habitations of District Shahdol with 20 years	34.00		

	Operation and Maintenance of entire scheme including Survey & Investigation, Designing, Drawing and Preparation of Estimates etc. complete.			
<b>3</b>	Preparation of Detailed Project Reports for of Solar Photo Voltaic (SPV) DC Pumps based Water Supply Scheme with source sustainability structures to supply drinking water with rate of supply of 70 lpcd through tap connections to each household of the all villages and habitations of District <b>Singrauli</b> with 20 years Operation and Maintenance of entire scheme including Survey & Investigation, Designing, Drawing and Preparation of Estimates etc. complete.	<b>38.00</b>		
<b>4</b>	Preparation of Detailed Project Reports for of Solar Photo Voltaic (SPV) DC Pumps based Water Supply Scheme with source sustainability structures to supply drinking water with rate of supply of 70 lpcd through tap connections to each household of the all villages and habitations of District <b>Umaria</b> with 20 years Operation and Maintenance of entire scheme including Survey & Investigation, Designing, Drawing and Preparation of Estimates etc. complete.	<b>21.00</b>		

Should this tender be accepted. I/We hereby agree to abide by and fulfill all the terms and provisions of the said conditions of contract annexed here to so far as applicable or in default thereof to forfeit and pay to the Governor of the Madhya Pradesh or his successors in office the sum of money mentioned in the said conditions.

The sum of Rs. \_\_, \_\_00.00 (AS PER NIT) is herewith, forwarded in currency notes as earnest money (a) 2 the full value of which is to be absolutely forfeited to the Governor of Madhya

Pradesh or his successors in office, should I/We not deposit the full amount of security deposit specified in the above memorandum, in accordance with clause 1 of the said condition of contract, otherwise the sum of Rs. .... shall be retained by Government as of account such security deposit as aforesaid, or full value of which shall be retained by the Government on account of the security deposit specified in clause 1 of the said conditions of the contract.

Dated the.....day of .....20....

**Signature of contractor  
before submission of Tender**

Name and Address .....

Witness .....

Occupation .....

Address .....

The above tender is hereby accepted by me on behalf of the Governor of Madhya Pradesh

Dated the ..... day of ..... 20....

**Signature of Officer by whom accepted**

## CONDITIONS OF CONTRACT

### Security Deposit

**Clause 1 :** The person/persons whose tender may be accepted (here in after called the contractor which expression shall unless excluded by or repugnant to the contract include his heirs, executors, administrators, representatives and assigns ) shall permit government at the time of making any payment to him of work done under the contract to deduct such sum as will ( with the earnest money deposited by him ) amount to FIVE percent of all moneys so payable, such deductions, be held by Government by way of security deposit, provided always that in the event of the contractor depositing a lump sum by way of security deposit as contemplated above, then and in such case if the sum so deposited shall not amount to 5 percent of the total estimated cost of the work, it shall be lawful for Government at the time of making any payment to the contractor for work done under the contract to make up the full percentage of 5% percent by deducting a sufficient sum from every such payment as last aforesaid. All compensation or other sums of money payable by the contractor to Government under the terms of this contract may be deducted from or paid by the sale of a sufficient part of his security deposit, or from the interest arising there from, or from any sums which may be due or may come due to the contractor by Executive Engineer, Public Health Engineering Division BHOPAL on any account whatsoever, and in the event of his security deposit being reduced by reason of any such deduction or sale as aforesaid. The contractor shall within ten days thereafter make good in cash or Government securities endorsed as aforesaid any sum or sums which may have been deducted from or raised by sale of his security deposit or any part thereof. The security deposit referred to, when paid in cash, may, at the cost of the depositor, be converted into interest bearing securities provided that the depositor has expressly desired this in writing.

The security deposit would also be converted in the shape of Bank Guarantee in recognized form with prior approval of the authority sanctioning the contract.

### Compensation for Delay

**Clause 2 :** The time allowed for carrying out the work, as entered in the tender shall be strictly observed by the contractor and shall be reckoned from the date on which the order to commence work is given to the contractor. The work shall throughout the stipulated period of the contract be proceed with all due diligence (time being deemed to be of the essence of the contract on the part of contractor) and the contractor shall pay as compensation an amount equal to one percent or such smaller amount as the engineer may decide, on the amount of the estimated cost of the whole work as shown by the tender for every day that the work remains un-commenced, or unfinished after the proper dates. And further, to ensure good progress during the execution of the work, the contractor shall be bound in all cases in which the time allowed for any work exceeds one month, to complete one fourth of the whole of work before one fourth of the whole time allowed under the contract has elapsed one half of the work, before one half of such time has elapsed and three fourth of work before three fourth of such time has elapsed. In the event of the contractor failing to comply with this condition he shall be liable to pay compensation an amount equal to one percent or such small amount as the Executive Engineer/Superintending Engineer may decide on the said estimated cost of the whole work for every day that the due quantity of work remains incomplete provided always that the entire amount of compensation be paid under the provisions of the clause shall not exceed eight percent on the estimated cost of the work as shown in the tender.

### **Action when the contractors become liable for levy Penalty**

**Clause 3 :** In any case in which under any clause or clauses of this contract the contractor shall have rendered himself liable to pay compensation amounting to the whole of security deposit (whether paid in one sum or deducted by installments) or committed a breach of any terms contained in clause 24 or in the case of abandonment of the work owing to the serious illness or death of the contractor or any other cause Divisional Officer on behalf of Governor of Madhya Pradesh shall have power to adopt any one of the following courses, as he may deem best suited to the interest of the government

- (a) To rescind the contract (of which recession notice in writing to the contractor under the hand of the Executive Engineer shall be conclusive) and in which case the security deposit of the contractor shall stand forfeited and be absolutely at the disposal of government.
- (b) The employ labour paid in P.W.D./W.R.D./PHED. Department or by employing departmental machinery and to supply materials to carry out work or any part of the work debiting the contractor with the cost of the labour or hire charge of departmental machinery and price of materials (of the amount of which cost and price a certificate of the Divisional Officer shall be final and conclusive against the contractor) and crediting him with the value of the work done, in all respects in the same manner and at the same rates as if had been carried out by the contractor under the terms of this contract or the cost of the labour and the price of the materials as certified by the Divisional Officer, whichever is less. The certificate of the Divisional Officer as to the value of the work done shall be final and conclusive against the contractor. This does not qualify the contractor to any refund if the work is carried out at lower rates than the rates quoted by the contractor. Saving if any will go to the government.
- (c) To measure up the work of the contractor and to take such part there of as shall be unexecuted out of his hands and to give it to another contractor to complete in which case any expenses which may be incurred in completion of the sum which would have been paid to the original contractor, if the whole or part had been executed by him (of the amount of which excess certificate in writing by the Divisional Officer shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by government under the contract or otherwise or from his security deposit or the proceeds of the sale thereof, or sufficient part thereof if the work is carried out at lower rates the contractor shall not be entitled for any refund, on the account saving, if any which shall go to the government.

In the event any of the above courses being adopted by the Divisional Officer the contractor shall have no claim to compensation for any loss sustained by him reason of his having purchased or procured any materials or entered into any agreements or made any advance on account of or with a view to the execution of the work or the performance of the contract And in case the contract shall be rescinded under the provision aforesaid, the contractor shall not be entitled to recover or to be paid any sum for any work there to for actually performed under this contract unless and until the Sub-Divisional Officer / Divisional Officer will have certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value so certified.

### **Contractor remains liable to pay compensation if action not taken clause 3**

**Clause 4 :** In any case in which any of the powers conferred upon the Divisional Officer by clause 3 hereof shall have become exercisable and the same shall not constitute a waiver of any of conditions hereof and such power shall notwithstanding be exercisable in the event of any further case of default by the contractor for which by any clause or clauses here of he is declared liable to pay compensation amounting to the whole of his security deposit, and the liability of the contractor for past and future compensation shall remain unaffected.

In the event of Divisional Officer putting in force either of the power under clause (a) or (c) vested in him under the preceding clause he may, if he so desires, take possession of all or any tools, plant materials, and stores in or upon the work or the site thereof, or belonging to the contractor or procured by him and intended to be used for the execution of the work or any part there of paying or allowing for the same in account at the contract rates, or in case of these not being applicable; at current market rates, to be certified by the Divisional Officer, whose certificate thereof shall be final otherwise he may by notice in writing to the contractor or his clerk of the works, foreman or other authorized agent require him to remove such tools, plant, materials or stores from the premises (within a time to be specified in such notice).

**Clause 5 :** Extension of time : If the contractor shall desire an extension of the time for completion of the work on the grounds of his having been unavoidably hindered in its execution or any other ground, he shall apply in writing to the Sub-Divisional Officer / Divisional Officer within thirty days of the date of the hindrance on account of which he desires such extension as aforesaid, and the Divisional Officer / Sub-Divisional Officer shall, if in his opinion (which shall be final) reasonable grounds be shown therefore, authorize such extension for a period not exceeding one month any further extension of time shall be subjected to the previous sanction of the Superintending Engineer.

### **Final Certificate**

**Clause 6 :** On completion of the work the contractor shall be furnished with a certificate by Sub-Divisional Officer (hereinafter called the Engineer in charge) of such completion but no such certificate shall be given, nor shall the work be considered to be completed until the contractor shall have removed from the premises on which the work shall be executed all scaffolding surplus materials and rubbish and cleaned of the dirt from all wood work, doors, windows, walls, floors or other part of any building or structure in upon or about which the work is to be executed or of which he may have had possession for the purpose of the execution thereof nor until the work shall have been measured by the Engineer-in-charge/ Executive Engineer whose measurements shall be binding and conclusive against the contractor if the contractor shall fail to comply with the requirements of this clause as to removal of scaffolding surplus material and rubbish and cleaning of dirt on or before the date fixed for the completion of the work the Engineer-in-charge may at the expense of the contractor remove such scaffolding, surplus materials and rubbish and dispose of the same as he thinks fit and clean off such dirt as aforesaid, and the contractor shall forthwith pay the amount of all expenses so incurred and shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

### **Payment of Intermediate Certificate to be Regarded as Advances**

**Clause 7 :** No payment shall ordinarily be made for work estimated to cost less than Rs. 1,000 (Rs. One thousand) till after the whole of the works shall have been completed and a certificate of completion given but it intermediate payment during the course of the execution of works is considered desirable in the interest of works the contractor may be paid at the discretion of the Engineer-in-charge. But in the case of works estimated to cost more than rupees one thousand the contractor shall on submitting the bills therefore be entitled to receive a monthly payment proportionate to the part thereof then approved and passed by the Engineer-in-Charge, whose certificate of such approval and passing of the sum so payable be final and conclusive against the contractor But all such intermediate payments shall be regarded as payments by way of advance against the final payments only and not as payments for work actually done and completed and shall not preclude the requiring of bad, unsound and imperfect or unskillful work, to be removed and taken away and reconstructed or re-erected, or be considered as an admission of the due performance of the contract, or any part thereof in, any respect or the accruing of any claim, nor shall it conclude determine, or effect in any way the powers of the Engineer-in-Charge under these conditions or any them as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or affect the contract. The final bill shall be submitted by the contractor within one month of the date fixed for completion of the work otherwise the Engineer-in-Charge certificate of the measurement and of the total amount payable for the work, accordingly shall be final and binding on all parties.

### **Bill to be Submitted Monthly**

**Clause 8 :** A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer-in-Charge for all work executed in the previous month and the Engineer-in-Charge shall take or cause, to be taken the requisite measurement for the purpose of having the same verified and the claim, as for as admissible, adjusted if possible before expiry of ten day from the presentation of the bill, if the contractor does not submit the bill within the time fixed as aforesaid the Engineer-in-charge may depute a subordinate to measure up the said work in the presence of the contractor whose countersignature to the measurement list, will be sufficient warrant and the Engineer-in-Charge may prepared a bill from such list which shall be binding on the contractor in all respects.

### **Bill to be in Printed Forms**

**Clause 9 :** The contractor shall submit all bills on printed form to be had on application at the office of the Engineer-in-Charge and the charges in the bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions and not mentioned or provided for in the tender at the rates hereinafter provided for such work.

### **Receipt to be signed by Partners or Persons having Authority to do so**

**Clause 10 :** Receipts for payments made on account of a work when executed by a firm must also be signed by the several partners, except where the contractors are described in their tender as a firm in which case the receipts must be signed in the name of the firm by one of the partners or by some other person having authority to give effectual receipts for firm.

### **Stores Supplied by Government**

**Clause 11 :** If the specification or estimate of the work provides for the use of any special description of materials to be supplied from the Engineer-in-Charge store or if it is required that the contractor shall use certain stores to be provided by the Engineer-in-Charge (Such materials and stores and the prices to be charged therefore as hereinafter mentioned being so far as practicable for the convenience of the contractor but not so as in any way to control the meaning or effect of this contract specified in the schedule of memorandum hereto annexed) the contractor shall be supplied with such materials and stores as required for time to time to be used by him for the purpose of the contract or work and the value of the full quantity of materials and stores so supplied at the rates specified in the said schedule or memorandum may be set off or deducted from any sums then due or thereafter to become due to the contractor under the contract or otherwise, or against or from the security deposit or the proceeds of sale thereof, if the same is held in Government securities the same or sufficient portion thereof being in this case sold for purpose.

All materials supplied to the contractor shall remain the absolute property of the government and shall not on any account be removed from the site of the work, and shall at all times be open to inspection by the Engineer-in-Charge. Any such materials unused and imperfectly good condition at the time of the completion or determination of the contract shall be returned to the Engineer-in-Charge's store if by a notice in writing under his hands he shall so require, but the contractor shall not be entitled to claim any such material so supplied to him as aforesaid being unused by him, or for any wastage in or damage to any such materials.

### **Works to be Executed in Accordance with Specifications, Drawings Orders etc.**

**Clause 12 :** The contractor shall execute the whole and every part of the work in the most substantial and workman like manner and both as regards materials and otherwise in every respect in strict accordance with the specifications. The contractor shall also conform exactly fully and faithfully to the designs, drawings and instructions in writing relating to the work signed by the Engineer-in-Charge and lodged in his office and to which the contractor shall be entitled to have access at such office or the site of the work for the purpose of inspection of during office hours and the contractor shall if he so requires be entitled at his own expense to make or cause to be made copies of the specifications, and of all such designs, drawings instruction as aforesaid.

### **Alteration in Specification and Designs**

**Clause 13 :** The Engineer-in-Charge shall have power to make any alterations in omissions from additions to or substitutions for the original specifications, drawing, designs and instructions that may appear to him to be necessary or advisable during the progress of the work and the contractor shall be bound to carry out work in accordance with any instructions which may be given to him in writing signed by the Engineer-in-Charge and such alteration omissions additions, or substitutions shall not invalidate the contract and any altered additional or substituted work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work and at the same rates as per specified in the tender for the main work.

### **Extension of Time in Consequence of Alterations**

The time for the completion of the work shall be extended in the proportion that the altered, additional or substituted work bears to the original contract work and the certificate of the Engineer-in-Charge shall be conclusive as to such proportion.

### **Rates for works not in estimate of schedule of rate to the district**

All if the altered additional or substituted work includes any class of work for which no rate is specified in this contract, then such class of work shall be carried out at the rates entered in the schedule of rates of the district which was in force at the date of acceptance of the contract, and if such class of work is not entered in the said schedule then the contractor shall within seven days of the date of his receipt of the order to carry out such work inform the Engineer-in-Charge of the rate which it is his intention to apply to such class of work, and if the Engineer-in-Charge does not agree to the rate so proposed then the contractor shall be at liberty to cancel his order to carry out as he may consider proper. It is always that if contractor shall commence work or incur any expenditure in regard to the work before the rates have been determined as lastly herein before mentioned then and in any case he shall only be entitled to be paid in respect of the work carried out on expenditure incurred by him prior to the date of the determination of the rates as aforesaid according to such rate or rates as shall be fixed by the Engineer-in-Charge in the event of a dispute the decision of the S.E. of the circle shall be final.

### **No Claim to Any Payment or Compensation for Alteration in or Restriction of Work**

**Clause 14 :** If at any time after execution of the contract documents the Engineer-in-Charge shall for any reason whatsoever require the whole or any part of the work as specified in the tender to be stopped for any period or shall not require the whole or part of the work to be carried out at all or to be carried out by the contractor, he shall give notice in writing of the fact to the contractor who shall there upon suspend or stop the work totally, or partially, as the case may be, in any such case, except as provided hereunder the contractor shall have no claim to any payment or compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not so derive in consequence of the full amount of the work not having been carried out or on account of any profit or advantage which he might have derived from the execution of the work in full but which he did not so derive in consequence of the full amount of the work not having been carried out or on account of any loss that he may be put to on account of materials purchased or agreed to be purchased or for unemployment of labour recruited by him. He shall not also have any claim for compensation by reason of any alterations having been made in the original specifications, drawings, designs and instructions, which may involve any curtailment of the work as originally contemplated. Where, however materials have already been purchased or agreed to be purchased by the contractor before receipt by him of the said notice the contractor shall be paid for such materials at the rates determined by the Engineer-in-Charge, provided they are not in excess of requirements and are of approved quality and/or shall be compensated for the loss if any. That he may be put to in respect of materials agreed to be purchased by him the amount of such compensation to be determined by the Engineer-in-Charge whose decision shall be final if the contractor suffers any loss on account of his having to pay labour charges during the period during which the stoppage of work has been ordered under this clause the contractor shall, on application be entitled to such compensation on account of labour

charges as the Engineer-in-Charge. Whose decision shall be final may consider reasonable provided that the contractor shall not be entitled to any compensation on account of labour charges. If in the opinion of the Engineer-in-Charge the labour could have been employed by the contractor elsewhere for the whole or part of the period during which the stoppage of the work has been ordered as aforesaid.

### **Time Limit for Unforeseen Claims**

**Clause 15 :** Under no circumstance whatsoever shall be contractor be entitled to any compensation from Government on any account unless the contractor shall have submitted a claim in writing to the Engineer-in-Charge within one month of the cause of such claim occurring.

### **Action and Compensation Payable in Case of Bad Work**

**Clause 16 :** If at any time before the security is refunded to the contractor it shall appear to the Engineer-in-Charge or his subordinate in charge or work that any work has been executed with unsound imperfect, or unskillful workmanship or with materials of interior quality or that any materials or articles provided by him for the execution of the work are unsound, or of a quality interior to the contractor for or are otherwise not in accordance with the contractor it shall be lawful for the Engineer-in-Charge to intimate this fact in writing to the contractor and then notwithstanding the fact that the work, materials or articles complained of may have been inadvertently passed certified and paid for the contractor shall be bound forthwith to rectify remove and reconstruct the works so specified in whole or in part as the case may required or if so required, shall remove the materials or articles so specified and provide other proper and suitable materials or articles at his own proper charge and cost, and in the event of his failing to do so within a period to be specified by the Engineer-in-Charge in the written intimation aforesaid the contractor shall be liable to pay compensation at the rate of one percent. On the amount of the estimate for every day not exceeding ten days, during which the failure so continues and in the case of any such failure the Engineer-in-Charge may rectify or remove and re-execute the work or remove and replace the materials articles complained of as the case may be at the risk and expense in all respects of the contractor should the Engineer-in-Charge consider that any such interior work or materials as described above may be accepted or made use of it shall be within his discretion to accept the same at such reduced rates as he may fix thereof.

### **Contractor liable for damage done and for imperfections for three months after Certificate**

**Clause 17 :** If the contractor or his work people or servants shall break, deface, injure or destroy any part of building in which they may be working or any building and curbs fences enclosures, water pipes, cables, drains, electric or telephone posts or wires, trees, grass or grass-land or cultivated ground contiguous, the premises on which the work is being executed or if any damage shall happen to the months (six months in the case of the road work) after a certificate final or otherwise or its completion shall have been given by the Engineer-in-Charge as aforesaid the contractor shall make the same good at his own expense or in default the Engineer-in-Charge may cause the same to be made good by other work-men and deduct, the expense (of which the certificate of the Engineer-in-Charge shall be final) from any sums that may be then or at any time thereafter may become, due to the contractor or from his security deposit of the proceeds of sale thereof or of a sufficient portion thereof.

The contractor hereby also covenants that the shall be his responsibility to see that the buildings constructed under this contract do not leak during the period of to consecutive rainy seasons after its (their completion) and if any defects are pointed out to him by the Engineer-in-Charge during the said periods the same shall be removed by him at his own expenses or in default the Engineer-in-Charge may get them removed and deduct the expenses there of from any sum that may be then due or may become due to the contractor or from the security deposit or the contractor an amount equal to 20% cost of the roof shall not withstanding anything contained in this clause be retained till the roofs are tested during two consecutive rainy seasons as aforesaid and the defects are fully removed if any amount still remains due to this account after making deductions as aforesaid the same may be recovered from him in arrear of land revenue/cash security. The security deposit of the contractor to the extent of 50% shall be refunded on his getting the completion certificate provided that all the recoveries outstanding against him or realized 25% of the amount shall be refunded on maintenance period being over even if the final bill is not passed balance 25% shall be refunded after the final bill is passed.

### **Works to be open for inspection Contractor or Responsible Agent to be present**

**Clause 18 :** All works under or in course of executed or execution in pursuance of the contract shall at all time open to the inspection and supervision of the Engineer-in-Charge and his subordinates and they shall at all times during the usual working hours and at all other time at which reasonable notice of the intention of the Engineer-in-Charge or his subordinate to visit the works shall have been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing percent for that purpose. Orders given to the contractors agent shall be considered to have the same force as if they had been, given to the contractor himself.

### **Notice to be given before works is Covered Up**

**Clause 19 :** The contractor shall given not less than five days notice in writing to the Engineer-in-Charge or his subordinate in-Charge of the works before covering up or otherwise placing beyond the reach of measurement, any work in order that the same may be measured and correct dimensions thereof be taken before the same is covered up placed beyond the reach of measurement, any work without the consent in writing of the Engineer-in-Charge or his subordinate in charge of the work and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or consent obtained, the same shall be uncovered at the contractor's expenses or in default thereof no payment or allowance shall be made for such work or the materials with which the same was executed.

### **Contractor to Supply Plant Ladders, Scaffolding Etc.**

**Clause 20 :** The contractor shall supply at his own cost materials (except such/special materials if any as may in accordance with the contract be supplied from the Engineer-in-Charge's Stores) plant, tools, appliances, implements, ladders, cordage tackle scaffolding and temporary works, requisite of the proper execution of the work, whether original altered or substitute, and whether including in the specification or other documents forming part of the contract, referred to in these conditions or not or which may be necessary for the purpose of satisfying or complying with the requirement of the Engineer-in-Charge as to any matter as to which under these conditions he is entitled to be satisfied or which he is entitled to require together with carriage therefore to and from the work. The contractor shall also supply without charge requisite number of persons with

the means and materials necessary for the purpose of setting out works and counting, weighting and assisting in the measurement or examination at any time and from time to time of the work, or materials. Failing his so doing the same may be provided by the Engineer-in-Charge at the expense of the contractor and the expenses may be deducted from the money due to the contractor under the contract, under the contract, or from his security deposit or the proceeds of sale thereof, or of a sufficient portion thereof.

### **Compensation under Section 12 Sub-Section (1) of the workman's Compensation Act, 1923**

**Clause 21 :** In every case in which by virtue of the provisions of section 12, Subsection (1) of the workman's compensation Act, 1923 Government is obliged to pay compensation to a workman employed by the contractor in execution of the works. Government will recover from the contractor the amount of compensation so paid and without prejudice to the rights of Government under section (1) subsection (2) of the said Act, Government shall be at liberty to recover the amount or any sum due by Government to the contractor whether under this contract or otherwise government may not be bound to contest any claim made against them under section 12 subsection (1) of the said Act except on the written requisite of the contractor and upon his giving to Government full security for all cases for which Government might become liable in consequence contesting such claim.

### **Labour**

**Clause 22 :** No female labour shall be employed within the limits of a cantonment.

### **Labourers below the Age of Twelve Years**

**Clause 23 :** No labourer below the age of eighteen years shall be employed on the work.

### **Fair Wages**

**Clause 24 :** The contractor shall pay not less than fair wage to labours engaged by him on the work :

### **Explanation**

- (a) "Fair Wage" means wage whether for time or piece work notified at the time of inviting tenders for the work and where such wages have not been so notified, the wages prescribed by the work Department for the division in which the work is done.
- (b) The Contractor shall notwithstanding the provisions of any contract to the contrary cause to be paid a fair, wage to labourers indirectly engaged on the work including any labour engaged by his subcontractor in connection with the said works, as if the labourers had been immediately employed by him.
- (c) In respect of labour directly or indirectly employed on the work for the performance of the contractor's part of this agreement the contractor shall comply with or cause to be complied with the labour Act in-force.
- (d) The Sub-Divisional Officer / Divisional Officer shall have the right to deduct, from the moneys due to the contractor, any sum required or estimated to be required for making

good the loss suffered by a worker or workers by reasons of non-fulfillment to the conditions of the contract, for the benefit of the workers, nonpayment of wages or deductions made from his or their wages, which are not justified by the terms of the contract or non-observance of the regulations.

- (e) The contractor shall be primarily liable for all payments to be made under and for the observance of the regulations aforesaid without prejudice to his right to claim indemnity from his subcontractors.
- (f) The regulations aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.

#### **Work not to be sublet**

**Clause 25 :** The contractor shall not assign or sublet without the written approval of the Divisional Officer. And if the contractor shall assign or sublet his contract, or attempt, so to do, or become insolvent commence any insolvency proceedings or make any composition with his creditors, or attempt so to do, or if any bribe, gratuity, gift, loan, perquisite, reward of advantage pecuniary or otherwise, shall either directly or indirectly be given, promised or offered by the contractor, or any of his servants or agents to any public officer or person in the employ of Government any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Divisional Officer may thereupon by notice in writing rescind the contract, and the security deposit of contractor shall thereupon stand forfeited and be absolutely at the disposal of government and same consequences shall ensue as if the contract had been rescinded under clause 3 hereof, and in addition the contractor shall not be entitled to recover or be paid for any work therefor actually performed under the contract.

#### **Sum Payable by Way of Compensation to be Considered as Reasonable Compensation without Reference to Actual Loss**

**Clause 26 :** All sums payable by way of compensation under any of these conditions shall be considered as reasonable compensation to be applied to the use of Government without reference to the actual loss or damage sustained and whether or not any damage shall have been sustained.

#### **Changes in the Constitution of Firm**

**Clause 27 :** In the case of a tender by partners any change in the constitution of the firm shall be forthwith notified by the contractor to the Engineer-in-Charge for his information.

#### **Work to be under the Direction of Executive Engineer /Superintending Engineer**

**Clause 28 :** All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the Executive Engineer /S.E. of the division/Circle for the time being who shall be entitled to direct at what point or points and in what manner they are to be commenced and from time to time carried on.

#### **Disputes Relating to Specifications, Designs etc.**

**Clause 29 :** Except where otherwise specified in the contract the decision of the Superintending Engineer for time being shall be final, conclusive and binding on all parties to the contract upon all question relating to the meaning of the specifications, designs, drawings and instructions here in before mentioned and as to the quality of workmanship or materials used on the work or as to any other question, claim, right matter, or thing whatsoever in any way arising out of or relating to the contract, designs, drawings, specifications, estimates, instructions, orders or these conditions or otherwise concerning the works or the execution of failure to execute the same whether arising during the progress of the work or after the completion or abandonment thereof provided that the Superintending Engineer shall before giving the decision in the matter give an opportunity of being heard to the contractors.

### **Stores of European or American Manufacture to be Obtained from Government**

**Clause 30 :** The contractor shall obtain from the stores of the Engineer-in-Charge all stores and articles of European or American manufacture which may be required for the work or any part thereof or in making up articles required therefore or in connection therewith unless he has obtained permission in writing from the Engineer-in-Charge to obtain such stores and articles elsewhere. The value of such stores and articles as may be supplied to the contractor by the Engineer-in-Charge will be debited to the contractor in his account at the rates shown in the schedule attached to the contract and if they are not entered in the schedule, they will be debited at cost price which for the purpose of this contract shall include the cost of carriage and all other expense whatsoever, which shall have been incurred in obtaining delivery of the same at the stores aforesaid.

### **Lump Sums in Estimate**

**Clause 31 :** When the estimate on which a tender is made includes lump sums in respect of parts of the work, the contractor shall be entitled to payment in full of the items of work involved or the part of the work in question at the same rates as are payable under this contract for such items, or if the part of the work in question is not in the opinion of the Engineer-in-charge capable of measurement. The Engineer-in-charge at his discretion may pay the lump sum amount entered in the estimates and the rates at in writing of the Engineer-in-Charge shall be final and conclusive against the contractor regard to any sum or sums payable to him under the provisions of this clause.

### **Action where no Specification**

**Clause 32 :** In the case of any class of work for which there is no such specification as in mentioned in Rule, such work shall be carried out in accordance with the specification approved by Superintending Engineer/Chief Engineer, for application to works in the district and in the event of there being no such specification then in such case the work shall be carried out in all respects in accordance with the instructions and requirement of Engineer-in-Charge.

### **Definition of work**

**Clause 33 :** The expression work or works where used in these conditions, shall, unless there be something either in the subject or context repugnant to such construction, be construed and taken to mean the works by or by virtue of the contract contracted to be executed, whether temporary or permanent and whether original altered, substituted or additional.

### **Claim for Quantities Entered in the Tender or Estimate :**

**Clause 34 :** Quantities shown in the tender are approximate and no claim shall be entertained for quantities of work executed being either more or less than those entered in the tender or estimates.

**Clause 35 :** No compensation shall be allowed for any delay caused in the Starting of the work on account of acquisition of land, or in the case of clearance works, on account of any delay in according sanction to estimates.

### **Employment of Scarcity Labour**

**Clause 36 :** If Government declare a state of scarcity of famine to exist in any village situated within 16 km. of the work the contractor, shall employ upon such parts of the work, as are suitable for unskilled labour, any person certified to him by the Executive Engineer or by any person to whom the Executive Engineer may have delegated this duty in writing to be in need of relief and shall be bound to pay such person wages not below the minimum which Government may have fixed in this behalf. Any dispute which may arise in connection with the implementation of this clause shall be decided by the Executive Engineer whose decision shall be final and binding on the contractor.

### **Refund of Quarry Fees and Royalties**

**Clause 37 :** All quarry fees, royalties, octroi and ground rent for stacking materials, if any should be paid by the contractor, who will be entitled to a refund of such of the charges as are permissible under the rules, by submitting a certificate from the Engineer-in-Charge that the materials were required for use of government work.

### **Royalty for Breach of Contract**

**Clause 38 :** On the breach of any term or conditions of this contract by the contractor the Governor shall be entitled to forfeit the security deposit or the balance thereof that may at that time be remaining, and realize and retain the same as damages and compensation for the said breach, but without prejudice to the right of the Governor to recover any further sum as damages, from any sums due or which may become due to the contractor by government or otherwise howsoever.

**Note:** If there is any difference between the amount of words and figures written in the tender forms by the contractor the lesser amount will be treated as valid if the contractor is not ready to accept the amount so fixed in the above manner and declines to do the work earnest money deposit of the contractor shall be forfeited.

**Notice to the Contractor to Start work**

Your contract for the ..... has been accepted by me/ Superintending Engineer/ Chief Engineer on behalf of the Governor of Madhya Pradesh on the ..... day of ..... 20..... and you are hereby ordered to commence the work.

Executive Engineer,  
Public Health Engineering  
Division Bhopal (M.P.)

The notice to the contractor(s) to start work from the ..... date of ..... 20..... was issued vide this office memorandum no. .... date ..... 20.....

**COMPLETION CERTIFICATE**

In pursuance of clause 6 of the agreement in Form B dated the ..... between the contractor Shri ..... and the Governor of Madhya Pradesh. It is hereby Certified that the said Contractor has duly completed the execution of the work undertaken by him the tender on the ..... day of .....

**Signature of Contractor**

**Signature of Engineer-in-Charge**

### SCHEDULE

Showing (approximately) materials to be supplied by the Department under clauses 11 and 30 for works contracted to be executed at the rates at which they are to be charged for.

Particulars	Rates at which the materials will be charged to the Contractor	Place of Delivery
(1)	(2)	(3)
<i>Not Applicable</i>		

**Note:** The person or firm submitting the tender should see that the rates in the above schedule, filled up by the Engineer-in-Charge on the issue of the form prior to the submission of the tender.

**Signature of Contractor**

**Signature of Sub-Divisional Officer /  
Divisional Officer**

## ANNEXURE-“A”

### Model Rules relating to Labour, Water Supply and Sanitation in Labour Camps

**Note.-** These model rules are intended primarily for labour camps which are not of a permanent nature. They lay down the minimum desirable standard which should be adhered to. Standards in permanent or semi permanent labour camps should not obviously be lower than those for temporary camps.

1. **Location.-** The camp should be located in elevated and well drained ground in the locality.
2. **Labour huts** to be constructed for one family of 5 persons each. The lay out to be shown in the prescribed sketch.
3. **Hutting.-** The huts to be built of local materials. Each hut should provide at least 20 sq. metres of living space.
4. **Sanitary facilities.-** Latrines and urinals shall be provided at least 15 metres away from the nearest quarters separately for men and women and specially so marked on the following scale.
5. **Latrine.-** Pit provided at the rate of 10 users or two families per seat, separate urinals as required as the privy can also be used for this purpose.
6. **Drinking water.-** Adequate arrangements shall be made for the supply of drinking water. If practicable filtered and chlorinated supplies shall be arranged, when supplies are from intermittent sources overhead storage tank shall be provided with a capacity of five litres a person per day. where the supply is to be made from a well it shall conform to the sanitary standard laid down in the report of the Rural Sanitation Committee. The well should be at least 30 metres away from any latrine or other source of pollution. If possible hand pump should be installed for drawing the water from well. The well should be effectively disinfected once every month and the quality of the water should be got tested at the Public Health Institution between each work of disinfecting.
7. **Bathing and washing.-** Separate bathing and washing place shall be provided for men and women for every 25 persons in the camp. There shall be one gap and space of 2 sq. metres for washing and bathing. Proper drainage for the waste water should be provided.
8. **Waste disposal.-** Dustbin shall be provided at suitable places in camp and the residents shall be directed to throw all rubbish into those dustbins. The Dustbins shall be provided with cover. The contents shall be removed every day and disposed off by trenching.
9. **Medical facilities.-**
  - (A) Every camp where 1,000 or more persons reside shall be provided with whole time doctor and dispensary. If there are women in the camp a whole time nurse shall be employed.
  - (B) Every camp where less than 1,000, but more than 250 persons reside shall be provided with a dispensary and a part time nurse/midwife.
  - (C) If there are less than 250 persons in any camp a first aid kit shall be maintained in charge of whole time persons, trained in first aid. All the medical facilities mentioned above shall be for all residents in the camp including a dependent of the worker, if any, free of cost.

**Sanitary Staff.-** For each labour camp there should be qualified sanitary inspector and sweepers should be provided in the following scales:-

- (1) For camps with strength over 200 but not exceeding 500 persons-one sweeper for every 75 persons above the first 200 for which 3 sweepers shall be provided.
- (2) For camps with a strength over 500 persons one sweeper for every 100 persons above first 500 for which 6 sweepers should be provided.

## ANNEXURE-“B”

### Contractor’s Labour Regulations

The Contractor shall pay not less than fair wage to labourers engaged by him in the work.

#### **Explanation.-**

- (a) “Fair wages” means wages whether for time or piece work as notified on the date of inviting tenders and where such wages have not been so notified the wages prescribed by the labour department for the division in which the work is done.
- (b) The contractor shall, notwithstanding the provisions of any contract to the contrary, cause to be paid a fair wage to labourers indirectly engaged on the work including any labour engaged by his sub-contractors in connection with the said work as if labourers had been immediately employed by him.
- (c) In respect of all labour directly or indirectly Employed on the works or the performance of his contract, the contractor shall comply with or cause to be complied with the Labour Act in-force.
- (d) The Sub-Divisional Officer / Divisional Officer shall have the right to deduct from the money due to the contractor any sum required or estimated to be required for making good the loss suffered by a worker or workers by reason of non-fulfillment of the condition of the contract for the benefit of the workers, non- payment of wages or of deductions made from his or their wages which are not justified by their terms of the contract or non-observance of regulations.
- (e) The contractor shall be primarily liable for all payments to be made under and for the observance of the regulations aforesaid without prejudice to his right to claim indemnity from his sub-contractors.
- (f) The regulations aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.
- (g) The contractor shall obtain a valid licence under the Contract (Regulation and Abolition) Act, in force and rules made there under by the competent authority from time to time before commencement of work, and continue to have a valid licence until the completion of the work.

Any failure to fulfil this requirement shall attract the penal provisions of this contract arising out of the resulted non-execution of the work assigned to the Contractor.

**ANNEXURE-“C”**

***Statement Showing the Lead of Materials***

S.No.	Description	Lead
1.	.....	
2.	.....	
3.	.....Not applicable.....	
4.	.....	
5.	.....	

**Note.-** This statement is only for guidance of the contractor. The tenderer should satisfy himself regarding availability of the required quality and quantity of materials.

Not Applicable

**ANNEXURE “D”**

**Form of Certificate on Income Tax to be Submitted by Contractor Tendering for Works  
Costing Rs. 2.00 lakhs or more.**

- (i) Name and style (of the company, firm, H.U.F. or individual) in which the applicant assessed to income tax and address for purposes of assessment.
- (ii) The Income Tax Circle/Ward/District in which the applicant is assessed to income-tax.
- (iii) Following particulars concerning the last income tax assessment made:
- (a) Reference No. (Or G.I.R. No.) of the assessment.
  - (b) Assessment year and accounting year.
  - (c) Amount of total income assessed.
  - (d) Amount of tax assessed I.T., S.T., E.P.T.
  - (e) Amount of tax paid I.T., S.T., E.P.T.
  - (f) Balance being tax not yet paid and interest for such arrears.
  - (g) Whether any attachment or legal proceedings pending in respect of the arrears.
  - (h) Whether the company or firm or H.U.F. on which the assessment was made has been or is being liquidated, wound up, dissolved, partitioned or being declared insolvent, as the case may be.
  - (i) The position of past assessments namely, whether returns submitted under section 22 (1) or (2) of the income-tax act and whether tax paid under section 18-A of the act and the amount of tax so paid or in arrears.
  - (iv) In case there has been no income tax assessment at all in the past, whether returns submitted under section 21 (1) or (2) and 18-A (3) and if so, the amount of income tax returned or tax paid and the income tax circle/ ward/District concerned.
  - (v) The name and address of branch (es) verified the particulars set out above and found correct subject to the following remarks.

Dated .....

Signature of I.T.O.  
Circle/ward/District

## ANNEXURE "E"

### Detailed Technical Specification

1. **Name of work:-** Preparation of Detailed Project Reports for of Solar Photo Voltaic (SPV) DC Pumps based Water Supply Scheme to supply drinking water with rate of supply of 70 lpcd through tap connections to each household of the all villages and habitations of District Anuppur, Shahdol, Singrauli and Umaria with 20 years Operation and Maintenance of entire scheme including Survey & Investigation, Designing, Drawing and Preparation of Estimates etc. complete. Scheme wise details are given below:

Group No.	District	Name of Scheme	Source	Total No. of villages /Habs
1	Anuppur	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Anuppur Distt.	Tubewell / Dugwell	2350
2	Shahdol	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Shahdol Distt.	Tubewell / Dugwell	4017
3	Singrauli	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Singrauli Distt.	Tubewell / Dugwell	3535
4	Umaria	SPV DC Pump based PWSS with source sustainability structures for all Villages & Habitations of Umaria Distt.	Tubewell / Dugwell	1796

**Note:** Detailed Project Reports shall comprise cluster wise schemes which will include all village/habitations of the district. List of villages/habitations is available in the office of the Executive Engineer, PHE Division Bhopal.

#### 1.0 Scope of Work –

All the Villages/habitations of the Anuppur, Shahdol, Singrauli and Umaria Districts of Madhya Pradesh have been identified for which Detailed Project Report comprising cluster wise schemes is to be prepared. In this scheme, it is proposed to take required raw water from Tubewell/Dugwell, from where, it is proposed to pump raw water to the OHT/GSR of the village/habitation either by pumping or gravity flow depending upon the topography of the area. Village wise schemes shall be designed and prepared separately and estimation of the village wise scheme covering OHT/GSR, distribution network, house hold connections shall be done. Water will be supplied from the scheme through OHT/GSRs to be proposed OR existing for storage of water at village. It is suggested that the storage capacity of Tank shall not be less than 50 KL, a cluster of nearby habitations may be selected to meet the norms of capacity of these tanks. The list

of villages proposed to be covered and their population as per Census 2011 may be taken from the Engineer-in-charge.

### **1.1 Brief scope of work for Preparation of Detailed Project Report (DPR) is as under:**

- Cluster wise schemes has to be prepared which will form part of DPR
- Population forecasting considering base year as 2017.
- Water Demand for next 30 years.
- Design of all components of the scheme.
- Sustainability structures for each source of scheme and its operation & maintenance
- Survey of Water Source of the scheme, calculation of service reservoir capacity.
- House service connection
- Consultant has to submit general layout/arrangement drawings along with drawings of each component of the scheme alongwith distribution network..
- Survey for Tubewell and sustainability structures using HGM maps, selection of site for tubewell/dugwell and sustainability structures in consultation with MPCOST & Hydrogeologist of the department, SPV DC pumps, Rising Main, Over Head Tank, Clear Water conveyance Mains, Distribution system in villages to be covered under the scheme.
- Soil investigation work
- Hydraulic designs of all components of the schemes i.e. Storage Reservoir, conveyance mains, required SPV DC pumps.
- Calculation of required PV panels and design with cables, starter panels, manual or auto tracking system and feeder mains.
- Preparation of detailed coloured computerized drawings of the structures, L-section with plan of pumping/conveyance mains and distribution system, detailed quantity and abstract estimates, CPM/Pert Charts, Operation and Maintenance estimate along with proposal of revenue generation.
- SCADA system
- Social Survey to assess the socio-economic aspects of the villagers.
- O&M of entire scheme including source sustainability structures for 20 years

## **2.0 Detailed Scope of Work:**

### **2.1 Prefeasibility Report:**

Consultant has to prepare a pre-feasibility report covering brief scope of work, proposed alignment of pipeline, suggested sites for various structures after visiting the area and villages to be covered under the scheme. Consultant shall visit the area with the Executive Engineer or his representative to have fair idea of the vicinity. A presentation after preparation of pre feasibility report has to be made as per direction of the Engineer-in-Charge before the department.

### **2.2 Design Criteria:**

Design of all the components of the scheme shall be carried out as per guidelines and norms given in the "Latest Specifications for Solar Pump and PV panels" published by Ministry of New and Renewable Energy (MNRE), GoI, Latest IE rules for DC/AC

Cables, Starter, Panel Boards to be attached with proposed SPV DC Pumps, “Manual for Preparation of Detailed Project Report for Rural Piped Water Supply Schemes” published in February 2013 by Ministry of Drinking Water Supply and Sanitation, Govt. of India and latest Manual of Water Supply and Treatment Published by CPHEEO and other designs shall be carried out on the basis of the relevant IS codes. In case of any ambiguity in the document, the decision of the Superintending Engineer, Public Health Engineering Department Bhopal Circle Bhopal (M.P.) shall be final and binding to contractor/consultant.

### **2.3 Population forecasting:**

The design population will have to be estimated as per the methods given in “Manual for Preparation of Detailed Project Report for Rural Piped Water Supply Schemes published in February 2013” by Ministry of Drinking Water and Sanitation, Govt. of India annexed as Annexure of this tender document. The design population will have to be estimated with due regard to the entire factors governing the future growth and development of the project area. Special factor causing sudden emigration or influx of population should also be foreseen to the extent possible. Lag period shall be considered 1-3 years depending on the project. A judgment based on these factors would help in selecting the most suitable method of deriving the probable trend of the population and shall be adopted accordingly. This design population figures should then be used to calculate water demand for the proposed water supply scheme.

The Base year is to be considered as 2017, Intermediate years as 2027, 2037 and the Ultimate year as 2047. Water demand shall be taken as recommended by Ministry of Drinking Water and Sanitation, Govt. of India for villages and towns.

### **2.4 Water Demand:**

Per day per capita rate of water supply for the villages and urban areas has to be taken as 70 (as per circular of O/o The E in C, MPPHED no. 8217/Moni dt. 03/08/2013) & 135 respectively. The rate of supply is considered to be supplied at the door step of the end user. Other losses shall be considered in the water demand as per latest revised guidelines given in “Manual for Preparation of Detailed Project Report for Rural Piped Water Supply Schemes published in February 2013” by Ministry of Drinking Water and Sanitation, Govt. of India. The existing drinking water sources may be utilized to meet other demands like live stock demand etc.

### **2.5 Design period of various components of the scheme:**

Water Supply Projects shall be designed for specified design period after their completion. The different components shall be designed as per “Manual for Preparation of Detailed Project Report for Rural Piped Water Supply Schemes” published in February 2013 by Ministry of Drinking Water and Sanitation, Govt. of India:

Surface Source (Civil works)	:	30 Years
Raw/Clear Water Motor &Pumps	:	10 Years
Raw/Clear Water Pump House	:	20 Years
Raw Water Rising Main	:	20 Years

Clear Water Conveyance Main	:	20 Years
OHT/GSR	:	20 Years
Distribution System	:	20 Years

## 2.6 Survey & Investigation Works:

Field survey and leveling work to be carried out in connection with development of sources, site of SPV DC Pump, various components of PV panels, Fencing of PV Panels, location of service reservoir and its capacity and elevation, alignment and longitudinal sections of conveyance main and distribution lines. Detailed maps of all villages showing location of houses, schools, markets, hospitals, important public buildings and industries and other institutions etc should be given.

Carrying out necessary detailed survey for Source, SPV DC Panel Location, Over Head tank and etc, topographical survey for conveyance main (gravity), village map, village distribution system etc. and soil strata details for all components of DPR.

The survey and investigation part shall therefore, consists of detailed survey, close investigations and other aspects as under -

Survey would consist of chain and compass, Theodolite survey and levelling by Total Station at an interval of every 30m and at horizontal/vertical bend locations. Additional levels should also be taken where important features like humps, dips, obstacles, crossing, roads, railways, rivers, etc. are met with, and as directed, with the help of Total station, theodolite, auto level and other survey instruments.

The results of the actual survey including L-Section of the pumping/conveyance mains, L & X- Section for approach road are to be plotted on drawings to a suitable scale as approved by the Engineer-in-Charge. The drawings should also show the important existing nearby structures/geographical features, if any, which are required to be located from the estimation point of view.

Department may ask for survey book or soft copy (as may be the case) as proof of the actual survey carried out by the consultant.

The levels are required to be co-related to MSL, Permanent, as well as Temporary Bench Marks will have to be established at places as specified by Engineer-in-charge during surveying and these details should be made available in writing to Executive Engineer, Public Health Engineering Division of respective district or as directed by Engineer-in-Charge. The consultants are requested to keep Engineer-in-Charge informed as regards to the survey activities being carried out at different locations so as to get themselves acquainted with the work being carried out and make suggestions, while the survey is being carried out.

At each of the stage, the consultants, before starting the work should consult with the Engineer-in-charge and obtain his consent for the site, route and methodology of the survey. The detailing and further work should be carried only after such approval in respect of survey, quantification, schedule of rates, estimates and preparation of drawings, etc. After the initial works is carried out and got approved from Engineer-in-charge, further detailing should be done, this requirement applied to be aspect of land acquisition also and only after it is established that no difficulties are anticipated in respect of land acquisition, further detailing should be done.

Consultant shall install Bench Marks on permanent plinths of the structures as per direction of Engineer in charge, on which chainage and RL shall be painted with red paint. The consultant shall submit list of benchmarks so prepared.

Trial Pits for soil investigation shall be taken as per standard procedure at OHT/GSR site and appropriate interval along the proposed pipe line alignment to clearly define the soil strata which will result to accurate calculation/estimation of the excavation item w.r.t. soil strata. The core shall be taken from the sufficient depth to define the strata required for estimation of excavation work. Consultant has to prepare strata chart and enclose with the DPR. Estimation for excavation and refilling shall be done according to the available strata to derive true picture of the terrain. For OHT/GSR at least one core from the depth which is suitable for the foundation of the proposed structure shall be taken.

Detailed survey shall be carried out for the electric feeder line alignment and alignment drawing with levels shall be enclosed with DPR.

## **2.2 Hydraulic Design of Components of the Scheme:**

Hydraulic designs of all components i.e. Storage/service reservoir, Economical size of pumping mains, clear water conveyance/feeder mains, SPV DC pumps, OHTs, GSRs, distribution system, feeder mains, disinfection devices etc. shall be as per “Manual for Preparation of Detailed Project Report for Rural Piped Water Supply Schemes” published in February 2013 by Ministry of Drinking Water and Sanitation, Govt. of India and the components not covered in this manual shall have to be designed as per Latest CPHEEO Manual on Water Supply and Treatment by the consultant.

## **2.3 Drawings of all Components of the Scheme:**

Detailed colored computerized drawings such as Index map showing area under consideration along with major proposed works, schematic diagram, detailed village map showing existing and proposed works along with main features of villages. Consultant has to submit general arrangement drawings along with drawings of each component of the scheme for estimation purpose only. Hydraulics/Design/Drawings as applicable for PV Panels for SPV DC Pumps (As per Latest Specifications for Solar Pump and PV panels" published by Ministry of New and Renewable Energy, GoI, Latest IE rules for DC/AC Cables, Starter, Panel Boards to be attached with proposed SPV DC Pumps), OHTs, GSRs, Fencing Work, boundary wall of OHTs, GSRs, pump houses, have to be prepared by the consultant along with L-Section drawings with plan of pumping/conveyance mains and distribution system on village maps indicating existing pipelines, if any. The Consultant shall submit the Khasra number and Map of the land required with the location of unit on that particular Khasra Map.

## **2.4 Preparation of Cost Estimates & DPR:**

Detailed Project Report (DPR) shall be prepared according to the “Manual for Preparation of Detailed Project Report for Rural Piped Water Supply Schemes” published in February 2013 by Ministry of Drinking Water and Sanitation, Govt. of India. Preparation of detailed quantity and abstract estimates, report and CPM network for execution like SPV DC pumps, Electrical Cables/mains, Conveyance mains (pumping/gravity) with appurtenances, Pillars, Thrust block etc., Over Head Tank, Distribution systems, Over

Head Tanks/Ground Level Service reservoir/GSRs, Pump houses & Other components of schemes, Land acquisition, Operation and Maintenance Estimate along with proposal of revenue generation, writing technical report, Preparation of CPM/Pert Chart, Compilation of Design, Drawing, Estimates etc. & submission of 5 copies of DPR along with soft copies.

Detailed estimates for each component of the scheme shall be prepared in accordance with design and drawing. Life Cycle cost Approach (LCCA) of each component in integrated manner of proposed water supply scheme based on techno-economical feasibility over the design period to ensure sustainability may be followed.

The detailed estimates are to be prepared on 1. For SPV DC Pumps : On the current rates of Madhya Pradesh Urja Vikas Nigam Ltd., and 2. For other items : As per latest SOR's of MPUADD, M.P. PWD, M.P. WRD & M.P.V.V. CO. Ltd. etc. However, the Executive Engineer should be consulted regarding applicability of the USoRs before preparation of the cost estimates.

## **2.5 Scheme Components:**

List of Villages and Habitations to be included in the SPV DC Pump based Water Supply Scheme and its latest census population and present anticipated population can be seen in the O/o the Executive Engineer for reference purpose. From feasibility point of view, at the time of survey addition, alteration and omission in proposed villages/habitations may be possible, in such condition consultant is required to justify its inclusion or exclusion with proper reasoning.

The SPV DC Pump based water supply scheme would be based on tubewell/dugwell source only. The site to take off water from source selected should be such that it has sufficient water in peak summer or has sufficient flow to meet the water requirement of designed period of the scheme and quality of water should be as per norms desired for drinking water supply scheme.

The various components of the scheme shall be designed as per norms and guidelines given in the “Manual for Preparation of Detailed Project Report for Rural Piped Water Supply Schemes” published in February 2013 by Ministry of Drinking Water and Sanitation, Govt. of India. In case any criteria/provision for designing is not given in the “Manual for Preparation of Detailed Project for Rural Piped Water Supply Schemes” then criteria of Latest CPHEEO Manual on Water Supply and Treatment shall be taken.

### **2.5.1 Source:**

The source/sources may be selected from the existing tubewell/dugwell in the village or nearby location which is /are having sufficient yield to cater the designed population of the scheme. In case existing tubewell/dugwell in the village or nearby location which is /are not having sufficient yield to cater the designed population of the scheme, then new source may be proposed at site selected using HGM in consultation with MPCOST & Hydro-geologist of the department. Sustainability structure near to source should be proposed in consultation with MPCOST & Hydro-geologist of the department.

Guidelines of “Manual for Preparation of Detailed Project Report for Rural Piped Water Supply Schemes” published in February 2013 by Ministry of Drinking Water and Sanitation, Govt. of India shall be followed. In case any criteria/provision for designing is not given in the “Manual for Preparation of Detailed Project for Rural Piped Water Supply Schemes” then criteria of Latest CPHEEO Manual on Water Supply and Treatment shall be taken.

### **2.5.2 Sustainability Structures:**

In order to maintain the sustainability of the source proposed to be used as source of the scheme, a suitable recharging structure/arrangement as per guide line of the department has to be provided in the scheme. The provision of type of structure shall be justified by the consultant in the scheme. Estimates of O&M for a period of 20yrs for sustainability structures shall be prepared which will be part of DPR. A proposal shall be made for suitable arrangement for ground water monitoring i.e. variation in water level w.r.t. time shall be provided in the scheme. This arrangement shall be automatic.

### **2.5.3 Pumps:**

Design applicable for PV Panels for SPV DC Pumps must be as per Latest Specifications for Solar Pump and PV panels published by Ministry of New and Renewable Energy, GoI, and latest IE rules for DC/AC Cables, Starter, Panel Boards to be attached with proposed SPV DC Pumps should be adhered to.

### **2.5.4 Water Conveyance Main:**

The most economical size for conveying mains (Raw water & Clear water pipe line) should be based on a proper analysis of the following factor -

- (a) The period of design considered for the project and the quantities of water to be conveyed during different phase of such period.
- (b) The different pipe sizes against different hydraulic slopes, which can be considered for the quantity of water to be conveyed.
- (c) The different pipe materials which can be used for the purpose and their relative costs as laid in position.
- (d) The duty, capacity and installed cost of the pump sets required against the corresponding sizes of the pipelines under consideration.
- (e) The recurring costs shall be assessed on the basis of:
  - (i) Energy charges (Nil)
  - (ii) Staff for operation of the pump sets,
  - (iii) Cost of repairs and renewals of the pump sets,
  - (iv) Cost of miscellaneous consumable stores, and
  - (v) Cost of replacement of the pump sets installed to meet the immediate requirements, by new sets at an intermediate stage of design period.
  - (vi) Rate of interest may be taken as 10.5% p.a.

The material of the pipe/conduit is to be selected keeping in view the total cost, the nature of terrain to be traverse and pressure in the pipelines. Suitable/ required appurtenances, flow meters, thrust blocks, supporting pillars, valves, and valve chambers should be designed and proposed accordingly. Valves shall be provided keeping in view of maintenance.

Type of valves, its number shall be precisely calculated and shall be shown in the L-section drawing of the conveyance/feeder main.

Guidelines of “Manual for Preparation of Detailed Project Report for Rural Piped Water Supply Schemes” published in February 2013 by Ministry of Drinking Water and Sanitation, Govt. of India shall be followed while designing the scheme. In case any criteria/provision for designing is not given in the “Manual for Preparation of Detailed Project for Rural Piped Water Supply Schemes” then criteria of Latest CPHEEO Manual on Water Supply and Treatment shall be taken.

### **2.5.5 Service Reservoirs:**

The capacity of the service reservoir shall be at least 50% of total designed demand based on 20 years of design period. Reservoirs shall be RCC framed structure. If topography permits Ground Level Service Reservoirs (GSRs) shall be preferred over the OHTs. Minimum residual pressure shall be maintained at consumer end as per norms.

Guidelines of “Manual for Preparation of Detailed Project Report for Rural Piped Water Supply Schemes” published in February 2013 by Ministry of Drinking Water and Sanitation, Govt. of India shall be followed. In case any criteria/provision for designing is not given in the “Manual for Preparation of Detailed Project for Rural Piped Water Supply Schemes” then criteria of Latest CPHEEO Manual on Water Supply and Treatment shall be taken.

Each reservoir shall be provided with steel wire fencing.

### **2.5.6 Water Distribution Network:**

In the design of water supply distribution system, demand/consumption varies with the season, month, day and hour. As far as the design of distribution system is concerned, it is the hourly variation in consumption that matters. The fluctuation in consumption is accounted for, by considering the peak rate of consumption at rate of flow in the design of distribution system. A peak factor of 3 is recommended for design of distribution system with a minimum residual pressure as per norms. Now a days, most of the villages are having CC roads or rocky strata, where deep excavation of the trenches and restoration of such roads is not feasible in such places metallic (GI/DI) pipes may be provided in such a way that pipeline at least embedded in the pavement and the riding surface is restored. In other cases, HDPE pipes (PE-100) of minimum 8 kg/cm<sup>2</sup> pressure up to 200 mm outer diameter and above 200 mm diameter DI class K-7 pipes should be proposed and minimum diameter shall be as per Guidelines of “Manual for Preparation of Detailed Project Report for Rural Piped Water Supply Schemes” published in February 2013 by Ministry of Drinking Water and Sanitation, Govt. of India shall be followed. In case any criteria/provision for designing is not given in the “Manual for Preparation of Detailed Project for Rural Piped Water Supply Schemes” then criteria of Latest CPHEEO Manual on Water Supply and Treatment shall be taken. The HDPE pipe joints shall be joined with the electro- fusion couplings and not the butt welded. In case of rocky or hilly area, GI/DI pipes should be provided.

In case a village or town, now covered in the water supply scheme is already having an individual existing water supply scheme, water from new scheme shall be connected to the

existing GSR/OHT and the other component if required shall also be modified as per design requirement.

The OHT/GSR shall be augmented as required. Departmental engineer will give the details of existing distribution system to the successful consultants. In case the distribution system is old and its useful life is expired, it shall be discarded and designed afresh. In other cases, the distribution system shall be designed for additional requirement.

Provision of house hold connections shall be made in the estimates for 100% families. The house hold connection shall be provided with 15 mm dia. GI/CPVC/MDPE pipes through the ferrule in the distribution network. Maximum length of 15 mm dia. pipe for individual house hold connection shall be kept 6m or up to the boundary of the house. Operating valves and valve chambers should be designed and proposed accordingly. Valves shall be provided keeping in view of maintenance.

**2.5.7 Disinfection :** Appropriate online system prior to the distribution of water shall be proposed after consultation with Engineer in Charge.

### **3.0 Operation and Maintenance:**

Operation & Maintenance (O&M) manual will be prepared by the consultant covering the staff, chemical and their cost etc. To meet out the Operation & Maintenance cost, consultant shall derive the tariff charges after social survey depending up on the paying capacity of the consumers. Provision for O&M of the scheme by the contractor for 20 years after commissioning of the scheme shall be made in the DPR. Conditions for O&M shall be clearly defined in the tender document. Proper rate analysis to derive the annual O&M for next 20 years on annual basis shall be given in the DPR. The responsibilities (Scope of work) of the contractor during O&M should also be clearly defined in the DPR.

Consultant will suggest the suitable mechanism for O&M of the scheme. The mechanism shall include formation of committees, tariff, and collection of tariff, management of financial, material and labour resources.

While preparing the O&M manual, Guidelines of “Manual for Preparation of Detailed Project Report for Rural Piped Water Supply Schemes” published in February 2013 by Ministry of Drinking Water and Sanitation, Govt. of India shall be followed. In case any criteria/provision for designing is not given in the “Manual for Preparation of Detailed Project for Rural Piped Water Supply Schemes” then criteria of Latest CPHEEO Manual on Water Supply and Treatment shall be taken.

### **4.0 SCADA:**

Provision of SCADA for SPV DC Pumps has to be made in the scheme so that the operation of all pumps can be controlled from the control room. GSM based SCADA is preferred.

### **5.0 Land Acquisition:**

After the location of SPV DC Pumps and PV panels, GSR or ESR, Conveyance Mains, Distribution system etc. are decided, the Consultants should work out the extent of land required to be acquired at specified places.

Having finalized the locations of various works, these details should be shown on the drawing showing the widths of strips of land proposed to be acquired. The consultant should furnish these details, so that department can proceed with the work of land acquisition.

While proposing the locations and various components and alignments, reservations under various Acts shall be verified by the consultants. The consultants shall contact Revenue Deptt./Forest Deptt./Jila Panchayat/Village Panchayat or any concerning department for their concurrence for the availability of land and its transfer to the department. Consultant should proceed with the design and estimate of various components after obtaining such concurrence.

## **6.0 Important Terms & Conditions:**

- As detailed above, the DPR should be prepared for SPV DC Pump based water supply schemes for villages and towns of proposed district. At the time of preparation of DPR, there is possibility of addition, alteration and omission of villages and towns due to non-feasibility.
- The skeleton of the scheme as a whole shall be such that it could be easily manageable for Operation and Maintenance. As far as possible, alignment of pipes shall be avoided through forest land. Alignment of pipelines should be proposed along the road or approach road of the village/habitation.
- The consultant is required to submit two copies of draft DPR to Executive Engineer, Public Health Engineering Department, Division Bhopal (M.P.), and he has to make presentation before the Executive Engineer, Public Health Engineering Department, Division Bhopal (M.P.) to justify the components taken in the DPR. The changes/suggestions, if any, shall be incorporated and included in the final DPR by the consultant.
- The final report of the project shall be submitted as per NIT invariably and shall be got approved from competent authority.
- Material of pipe proposed in the scope of work is indicative and it will be superseded by the "State Pipe Policy". Final decision on pipe material will be taken by the department depending up on the techno-economic and cost analysis of different pipe material submitted by the consultant.
- The Detailed Project Report shall be prepared as per Guidelines of "Latest Specifications for Solar Pump and PV panels" published by Ministry of New and Renewable Energy, GoI, Latest IE rules for DC/AC Cables, Starter, Panel Boards to be attached with proposed SPV DC Pumps and "Manual for Preparation of Detailed Project Report for Rural Piped Water Supply Schemes" published in February 2013 by Ministry of Drinking Water and Sanitation, Govt. of India. In case any criteria/provision for designing is not given in the

“Manual for Preparation of Detailed Project for Rural Piped Water Supply Schemes” then criteria of Latest CPHEEO Manual on Water Supply and Treatment shall be taken.

- Cluster wise schemes covering all villages/habitations shall be designed and prepared separately and estimation of the scheme covering OHT/GSR, distribution network, house hold connections shall be done.
- The consultants shall compile, prepare and submit the Detailed Project Report to Executive Engineer, Public Health Engineering Department, Division Bhopal (M.P.) in a period of 52 days. The consultants should be in touch with the officers of the Public Health Engineering Division of respective district and Executive Engineer, Public Health Engineering Department, Division Bhopal (M.P.) during preparation and compilation of the report and should discuss with them from time to time, the main features of the project, before finalizing the report, so as to complete the report within a period of **52 days**. The consultants shall collect and compile data required for the project from respective Govt. authorities, and M.P. PHED. Available data has been given in Annexure. Additional data required will have to be collected /generated by the consultants by contacting agencies where such data is available.
- The Detailed Project Report is to be prepared with such accuracy that actual execution to be taken after wards should not suffer from:
  - Inaccurate and inadequate survey and investigation.
  - Change in the location of various components.
  - Major changes in designs and type of work involved.
  - Inadequate survey, quantification, estimation, acquaintance with site conditions.
- Detailed estimate of SPV DC Pumps shall be prepared on the current rates of Madhya Pradesh Urja Vikas Nigam Ltd., detailed estimates of pipelines shall be prepared on latest respective SOR of PHED/UADD, estimates of all the building and road works shall be prepared on the latest SOR/CSR of Public Works Department MP, estimates of electric works be prepared on latest SOR/CSR of MPVV Co. Ltd and estimates of all the rest components shall be prepared on the respective latest SOR/CSR of Public Works Department MP. Provision for components like motor, pumps, generator sets, pipes, valves, SCADA and other appurtenances etc., which are not available in any SOR, should be taken on basis on current prevailing rates of manufacturer / suppliers. Detailed analysis should be done for such items and be finalized and approved by department.
- Study therefore, be carried out with more details, so that the working estimates framed by the Consultants and the quantities mentioned therein shall fairly tally with the actual

execution within 5% of the provisions made in the detailed project report. The estimate to be prepared should be in detail.

- The proper design of various components is expected in the Detailed Project Report so as to provide realistic cost in DPR. Submission of contour maps shall be the essential feature of the Project Report. The site conditions are therefore, required to be observed and studied carefully as regards their suitability and adequacy and any other specific problems such as land development, foundation condition etc.
- Restoration of damaged roads and services after providing and laying pipelines shall also have to be taken into account and accordingly estimates of pipe line laying to be prepared.
- Selection of sites and location of various sub works should be such that there would not be any major difficulty in acquiring the lands and there would not be any need to shift sites or locations of various components of the scheme. The consultants should take cognizance of site conditions, so as to present true picture. Due consideration is to be given to encroachment, if any.
- The consultants should provide a certificate in the Detailed Project Report that their authorized representative has walked over the streets, at the location of various works and along the alignment of all mains, etc and are fully conversant with the site conditions in order to ensure that the proposals made in the report can be practically implemented. The investigations include information about all conditions, water table, pipelines and cables, etc. Consultants, during the stage of compilation of report should keep Executive Engineer of Public Health Engineering Division of respective district or as directed by Engineer-in-Charge informed.
- Since the total provision for price escalation is based on the project implementation schedule, the consultants should first prepare the implementation schedule and finalize the same after concurrence from Engineer-in-Charge. The implementation should provide reasonable time for activities such as land acquisition, tendering, evaluation of offers and their proper construction period. The various agencies responsible for taking the decision in this respect will also to be identified.
- In the implementation chart/works programme, specific mention for the works/decision/permission related to other departments/agencies should be clearly indicated.
- Also, the specific time period, in which, these activities are incorporated and should be completed should be indicated, so as to ensure timely completion of the project.
- The details of the villages and towns with its present scenario of water supply should also be included in the DPR.

- Operation & Maintenance Estimate should also be prepared and submitted along with DPR. Proposal for maintenance cost recovery or Revenue Generation should also be prepared and submitted with the DPR.
- Consultant shall be responsible for Clearance/Approval of DPR from the department.
- Rates quoted by the firm shall include the cost of all scope of work as stipulated in annexure-E “Detailed Technical Specification” in the tender and soil investigation work

### **7.0 Social Survey:**

The consultant should conduct a social survey which will highlight the present scenario of the water supply in these villages, the hardship being faced by the villagers especially women, children and peoples of economically weaker section of the village in fetching enough water for the daily use.

Survey should not be limited to the physical/engineering parameters only; it should also include the demographic parameters such as occupation of the people, their income, age, education, sex and destitute etc. On the basis of this data, maintenance plan and tariff structure shall be decided. Social Survey report shall be prepared and submitted with the DPR.

**Executive Engineer**  
**Public Health Engineering Department**  
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**Annexure 'F'**  
**Manual for Preparation of**  
**Detailed Project Report for**  
**Rural Piped Water Supply Schemes**

**Annexure 'G'**  
**MNRE GUIDELINES FOR SPV PUMPS FOR 2015-16**