

**GOVERNMENT OF MEGHALAYA
DIRECTORATE OF AGRICULTURE**

No. AE(M) 1910/ PDMC/ 2025-26 /159

Dated Shillong, the 6th April, 2026.

Notice Inviting Tender

The Directorate of Agriculture & Farmers Welfare, Meghalaya, Shillong invites sealed quotations under a two-bid system (Technical and Financial) for the empanelment of Firms for the supply and installation of Micro Irrigation Systems under the *Pradhan Mantri Krishi Sinchayee Yojana – Per Drop More Crop (PMKSY–PDMC) Scheme*. The quotations must be submitted with a non-refundable court fee stamp of ₹200/- (Rupees Two Hundred) only. Detailed terms & conditions, eligibility criteria, and instructions can be accessed and downloaded from the official website: www.megagriculture.gov.in.

The last date for submission of quotations is **11:00 AM on 22nd April, 2026**. The technical bids will be opened at **1:00 PM on the same day** at the Directorate of Agriculture, Cleve Colony, Shillong, Meghalaya – 793003, in the presence of the quotationers or their authorized representatives.

Quotations received after the stipulated deadline will be summarily rejected. The competent authority reserves the right to accept or reject any or all quotations without assigning any reason thereof.

The Tender Document may be collected from Room No. 410, Directorate of Agriculture & Farmers Welfare, Shillong during Office hour on payment of Rs.200/- only.

Sd/-

**Director of Agriculture
Meghalaya, Shillong.**

Memo. No. AE(M) 1910/ PDMC/ 2025-26 /159-A

Dated Shillong, the 6th April, 2026.

Copy forwarded to: -

1. The Director of Printing and Stationery, Meghalaya, Shillong for favour of information and he is requested to publish the same in the Meghalaya Gazette for wide Publicity.
2. The Joint Director of Agriculture, Tura, Garo Hills for information with a request to place in the notice Board for wide publicity.
3. The Superintendent Engineer-cum-Joint Director of Agriculture (Mech), Directorate of Agriculture, Shillong for information.
4. The Agriculture Information Officer, with a request to publish the same on the official website of the Department.
5. The District Agriculture Office, Shillong, Nongstoin, Mawkyrwat, Mairang, Nongpoh, Jowai, Khliehriat, Williamnagar, Resubelpara, Tura, Ampati & Baghmara with a request to place in the notice Board for wide publicity.
6. The District Horticulture Office, Shillong, Nongstoin, Mawkyrwat, Mairang, Nongpoh, Jowai, Khliehriat, Williamnagar, Resubelpara, Tura, Ampati & Baghmara with a request to place in the notice Board for wide publicity.
7. The Assistant Agriculture Engineer (Mech), Shillong, Nongstoin, Mawkyrwat, Mairang, Nongpoh, Jowai, Khliehriat, Williamnagar, Resubelpara, Tura, Ampati & Baghmara with a request to place in the notice Board for wide publicity.
8. The Assistant Director of Agriculture A.I.C.R.I.P, Directorate of Agriculture, Meghalaya, Shillong for favour of your kind information.
9. Office Copy.



**Director of Agriculture
Meghalaya, Shillong.**

Department of Agriculture and Farmers' Welfare



Tender for Empanelment for Supply and installation of Micro Irrigation System under Pradhan Mantri Krishi Sinchayee Yojana Per Drop More Crop (PMKSY —PDMC).

**Government of Meghalaya
Cleve Colony
Shillong – 793003
www.megagriculture.gov.in**

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Important Information to Manufacturers/Dealers

Sl. No.	Information	Details
1.	Tender No.	No. AE(M) 1910/ PDMC/ 2025-26/ 158
2.	Tender Publication Detail	The tender form can be seen and downloaded from the website www.megagriculture.gov.in
3.	Date of Commencement of Bid	8 th of April 2026
4.	Last Date and Time for Receipt of Bids	22 th of April 2026, 11.00 AM
5.	Date & Time of Opening of Technical Bids	22 th of April 2026, 1.00 PM
6.	Bid Validity Period	15 days from the date of floating the tender.
7.	EMD Amount	₹ 50,000/- in the form of DD on a Public Sector Bank in favor of the Director of Agriculture, Meghalaya, Shillong.
8.	Address For Communication / Pre-Bid / Submission/ Opening of Technical & Commercial Bid	Engineering Wing, Directorate of Agriculture Cleve Colony Shillong – 793003 East Khasi Hills, Meghalaya
9.	Contact person	Shri. N. M. L. Lyngdoh, Agriculture Executive Engineer.
10.	Contact email	Jda.mechanical@gmail.com
11.	Contact Phone No	8416023061/9856439765

SECTION – I

1. **Scope of Work:**

- 1.1. **Supply and installation:** To supply and install Micro Irrigation system to the selected beneficiaries/farmers to be linked with other Interventions (created under PMKSY-PDMC in earlier years or to be created during the current year/succeeding years).
- 1.2. **Service and repair:** the Manufacturers/Authorized dealer will provide free after sales service to the beneficiary for a period of at least **three years** from the date of installation of the system. If they fail to provide free after sales service, appropriate action as similar to other consumer products may be initiated.
- 1.3. The Manufacturers/Authorized dealer should make available to the farmers/beneficiaries the services and original spare parts for the Micro Irrigation system.
- 1.4. The installed components and materials should conform to BIS/IS standards with supporting documents.
- 1.5. All items specified below should have an onsite warranty of 3 (three) years.
- 1.6. The approval of manufacturers or their authorized dealers under the scheme will be for a period of 5 (Five) years. The approval will, however, be subject to satisfactory performance by the company/Dealer. In case of violations, penalty provisions have been specified in the guidelines. Repeated failures will lead to de-registration of the company with approval of SLSC.

2. **Eligibility Criteria:**

- 2.1. The Manufacturers/Authorized dealer should be financially sound having average annual turnover of ₹50,00,000 (Fifty Lakhs) during last 3 (three) financial years (FY 22-23, FY 23-24 and FY 24-25).
- 2.2. The Manufacturer/Dealer should provide up to date Income Tax return document and audited financial statement/Balance sheet for last 3 (three) financial years (FY 22-23, FY 23-24 and FY 24-25).
- 2.3. Manufacturer/Dealer should have local presence/representative in Shillong/any district in Meghalaya. Dealer should submit a proof for the same.
- 2.4. The Vendor should possess necessary documents from statutory bodies/organizations i.e., Copy of PAN, trading license, GST registration etc.
- 2.5. The supplier should not have been debarred or black listed by any State / Central Govt. /PSU.
- 2.6. The Manufacturer/Dealer should possess necessary GST registration from the competent authority and copy of same should be provided.
- 2.7. The Manufacturer/Dealer should have Professional Tax Certificate issued by concerned ADC.
- 2.8. The agency should possess Valid Trading License for Non - Tribal issued by concerned ADC.
- 2.9. The Bidder having experience of Supply and Installation of Micro Irrigation system in the Northeastern region and Hilly states particularly in Meghalaya shall be given preference.
- 2.10. Bidder should be a Manufacturer/Authorized Dealer and should conform to BIS/IS standards with supporting documents
- 2.11. Attach all documentary proofs without which the bid shall be rejected.

3. FEES:

3.1. Court fee stamp: = 200.00

3.2. Earnest Money Deposit (Refundable): Earnest Money amounting to ₹ 50,000 /- (Fifty Thousand Rupees) in the form of Demand Draft on a Public Sector Bank but not from Gramin/Cooperative Bank in favour of the **Director of Agriculture, Meghalaya, Shillong** is to be deposited. In case of MSME, submission of EMD is Exempted, However, a Notarized copy of MSME Document needs to be submitted. Unsuccessful bidder's Earnest Money will be discharged/ returned as soon as possible.

SECTION – II

4. Procedure for submission of bids:

The Bid shall be submitted in 2 (two) parts; part-I and part-II as under: -

PART-I: Pre-qualification/Technical Bid

The following documents should be arranged in the following sequential order and kept inside a single envelope and marked as “**Technical Bid**” and the envelope should be properly sealed. Following is the list of documents to be submitted:

Sl. No.	Name of the Documents
1.	Bid Proposal Sheet (as per format given in Annexure V)
2.	Suppliers Profile (as per format given in Annexure VI)
3.	Copy of payment receipt as tender fee of ₹ 200/- to be enclosed.
4.	Non-refundable Court Fee stamp of ₹ 200/-
5.	Earnest Money Deposit (EMD) of ₹ 50,000 /- (Exempted in case of MSME Bidders)
6.	Company Registration Certificate
7.	Factory License (for manufacturers)
8.	PAN card
9.	Financial Stability Certificate from any Recognized Bank.
10.	GST Registration certificates & up to date GST returns
11.	Dealership certificate (in case of Dealers)
12.	Manufacturer/Dealer Financial information (As per Annexure IV) along with Audited balance sheets for last three (3) Financial Years duly approved by registered Chartered Accountant
13.	Up to Date Income Tax return
14.	Up to date professional tax certificate issued by the District Council.
15.	Copy of the Trading License (In case of Non – Tribal)
16.	Schedule Tribe Certificate
17.	BIS/IS Certificate of the components manufactured by the company with validity dates (as per annexure VII)
18.	Self-Declaration (as per format given in Annexure III)
19.	Tender document which is signed by the manufacturer/Vendor in all the pages
20.	Other miscellaneous documents like Experience Certificates, Completion Certificates etc. or Letters / Documents of Registration/Approval/Empanelment in other States.

21.	Complete technical details/ technical literature, data sheet and detail technical specification components quoted (Except the Financial Bid – Annexure II to be put inside separate envelop)
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PART - II: Financial Bid

Financial Bid will be considered for evaluation only for those Manufactures/Dealer who have cleared the technical bid. The Financial Bid should be kept inside a separate envelope, marked as **“Financial Bid”** as per the format in **Annexure – II**.

Both the envelopes (i.e. Technical Bid & Financial Bid) should be enclosed in a larger envelope duly sealed and marked as **“Quotation for Empanelment for supply and Installation of Micro irrigation System—PDMC)”** with title and reference number, and a statement **“To be opened by addressee only”** and the name and address of the Manufactures/Dealer to be submitted to the **Engineering Wing, Directorate of Agriculture, Meghalaya** latest by.....

5. Tender Preparation Cost:

The Manufactures/Dealer shall bear all costs associated with the preparation and submission of its bid, including the cost of presentation for the purpose of clarification of the bid, if so desired by the client and client will in no case be responsible or liable for those costs, regardless of the conduct, or outcome of the Tendering Process. Tender document can also be downloaded from **department website www.megagriculture.gov.in**

6. Amendment of Tender Document

- 6.1. At any time prior to the last date for receipt of bids, the client may for any reason, whether at its own initiative or in response to a clarification request by the prospective Manufactures/Dealer, modify the tender document by an amendment.
- 6.2. The amendment/Corrigendum if any will be notified in the department website (www.megagriculture.gov.in) and will be binding on the Manufactures/Dealer. The Manufactures/Dealer have to check the website regularly for any updates.
- 6.3. In order to afford prospective Manufactures/Dealer reasonable time in which to take the amendment into the account in preparing their bids, the Department may, at its discretion, extend the last date for the receipt of the Bids.

SECTION – III

GENERAL TERMS AND CONDITIONS

1. Only BIS/IS marked system/components conforming to minimum BIS standards/specification mentioned at Annexure-VII of the tender document can be supplied under the scheme. Approval of a bidder will be only for the products for which he has submitted the specification, valid BIS certificates and unit rate.
2. After sales service should be provided by the manufacturer/authorized dealers, free of cost for a period of three (3) years. The company shall repair or replace any components/instruments of the MI system free of cost within warranty period, if they are found to have manufacturing defects or workmanship defects.
3. In case the manufacturer/authorized dealer intends to supply imported components, it should obtain prior approval of DAC&FW subject to indigenize the manufacturing of component within a period of two years. In case of imported equipment, the techno- economic analysis report will be provided by NCPAH after proper examination and verification and submit report to DAC&FW for consideration.
4. Micro Irrigation (MI) manufacturing company brochure and samples of Drip/Sprinkler irrigation system to be submitted.
5. Approved firms will install and commission the MI system to the satisfaction of the beneficiaries and obtain certificate towards successful installation/commission duly verified by Department with photographic evidence. Payment will be subject to fulfilling this condition by the firm.
6. Unit rates of Micro Irrigation System and spare parts/items as indicated in the Bills of Quantity (BOQ) inclusive of all taxes, other charges, etc. F.O.R. (Freight on Road) Destination should be quoted clearly in rupees and at par or below as per the PDMC-2024 operational guidelines.
7. Necessary orientation and training are to be given to the beneficiary on the system maintenance and irrigating the crop with Drip/Sprinkle Irrigation.
8. The authority has the right to disengage the approval of the firm if found that the product supplied by the firm is not as per BIS standard and specification or its BIS certification gets invalid. The firm shall have to submit the renewed BIS certificate to the authority as and when the certificate gets invalid during the period of empanelment.
9. If at any point of time it is noticed that the manufacturer has supplied same component at a lower price in the open market during the period of this empanelment, the authority shall take suitable appropriate course of action against the empaneled system manufacturer.
10. If the interested firm/company back out or withdraw at any stage of the Bidding process it will become ineligible to participate in any such empanelment exercise to be carried out by the authority in future.
11. Sub-contracting installation of MI System to associate Sub dealer/distributor/other vendors is not allowed. Approval of Defaulters will be cancelled by authority.
12. The Department does not bestow Bidder the right for supply of the total requirement of Drip/sprinkler Irrigation System.
13. Suppliers are advised to study all commercial aspects, instructions, forms, terms and specifications carefully in the tender document. Failure to furnish all information required in the tender document or submission of a bid not substantially responsive to the tender document in every respect will be at the supplier's risk and may result in the rejection of the bid.
14. The bids should indicate that the rates are for Department only.
15. Financial bids of only technically qualified manufacturers/ dealer shall be evaluated.
16. The Dealers are required to attach the latest OEM Authorization/ Dealership certificate on their letter head indicating the Tender /Enquiry Ref. number and date. Authorization letter should also include commitment from the Original Manufacturer that they will stand by the Vendor to provide services during the entire warranty period. Without proper authorization letter, the offer will be REJECTED.
17. The Bidder should adhere with all seriousness to the time schedule provided by the Department.

18. The Area of work covers all 12 districts of Meghalaya.
19. No advance payment will be made on the supply of Drip/ Sprinkler Irrigation System.
20. No proposal may be withdrawn in the interval between the deadline for submission of proposals and the expiration of the validity period specified by the bidder on the proposal form. Entire EMD may be forfeited if any of the bidders withdraw their bid during the validity period.
21. Authorized dealers of any manufacturers if approved should ensure that the rates should be valid up to **5 (five) years** or throughout the validity period of the agreement from the date of Approval of Rates by the Departmental Purchase Board Committee.
22. Warranty: The equipment offered should be given onsite guaranty/ warranty for a period of **3 (three) years** from the date of acceptance of the items by Department.
23. In the event that multiple Manufacturers/ Dealer have quoted the same unit/component at the same rate, the lowest will be accepted and empaneled.
24. The undersigned reserves the right to accept or reject any tenders without assigning any reason thereof and is not bound to accept the lowest rate.
25. Acceptance/cancellation/Negotiations of the quotations will depend solely on the discretion of the undersigned and the undersigned is not bound to accept the lowest quotation if found unsuitable

PLEASE NOTE THAT THE TENDER COMMITTEE RESERVES THE RIGHT TO REJECT THE TENDER/QUOTATION IF IT FINDS INSUFFICIENT DOCUMENT. ALL XEROX DOCUMENTS SHOULD BE ATTESTED.



**Director of Agriculture
Meghalaya, Shillong.**

SECTION – IV

ANNEXURE - I

BOQ PER UNIT OF THE MI SYSTEM

Supply and installation of Micro Irrigation System under PMKSY-PDMC

The Manufacturer/Dealer should include all the components as mentioned at Annexure (IV (h-n), V, VI, VII, VIII, IX) of the Operational Guidelines of Per Drop More Crop (Micro Irrigation) Component of PMKSY 2024 and which as shown below as well. Non-compliant of the technical specification will lead to the rejection of the bids.

1. Drip Irrigation System:

NEH States-Drip Irrigation Technology - Indicative Bill of Quantities for 0.2 ha at farmer's field

SN	Component/ Lateral to Lateral x Dripper spacing (mxm)	Unit	12 x 12	10 x 10	9 x 9	8 x 8	6 x 6	5 x 5	4 x 4	3 x 3	2.5 x 2.5	2 x 2	1.5 x 1.5	2.5 x 0.6	1.8 x 0.6	1.5 x 0.6	1.2 x 0.6
	Control Unit																
1	Screen filter 10 m ³ /hr/ Disc filter	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
2	Ventury& manifold (1 1/2")	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
3	Air release Valve 1"	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
4	Non Return Valve - 1.5"	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
5	By-pass Assëmbly - 1.5"x1.5"	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
6	Field Unit																
7	HDPE Pipe 50 mm; 4 kg/cm ²	m	-	-	-	-	-	-	-	-	-	54	54	54	54	54	54
8	Lateral 12 mm, Class II ; 2.5 kg/cm ²	m	-	-	-	-	-	-	-	-	-	1010	1347	20	27	32	40
9	Emitting Pipe 12 mm; Class II;(0.2-0.3 m x 1 to 2-4 lph)	m	-	-	-	-	-	-	-	-	-	0	0	808	1122	1347	1683
10	Pressure regulating Emitter/ Dripper 2/ 4/ 8 lph	No.	-	-	-	-	-	-	-	-	-	1020	907	0	0	0	0
11	Control Valve 50 mm	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
12	Control Valve 63 mm	No.	-	-	-	-	-	-	-	-	-	1	1	0	0	0	0
13	Flush Valve 50 mm	No.	-	-	-	-	-	-	-	-	-	2	2	2	2	2	2
14	Throttle Valve - 1.5"	No.	-	-	-	-	-	-	-	-	-	1	1	1	1	1	1
15	Fittings/Installation & Accessories @5%	set	-	-	-	-	-	-	-	-	-	5%	5%	5%	5%	5%	5%

NEH States- Drip Irrigation Technology- Indicative Bill of Quantities for 0.4 ha at farmer's field

SN	Component/ Lateral to Lateral x Dripper spacing (mxm)	Unit															
			12 X 12	10 X 10	9x9	8X8	6 X 6	5 X 5	4 X 4	3 X 3	2.5 X 2.5	2 X 2	1.5 X 1.5	2.5 X 0.6	1.8 X 0.6	1.5 X 0.6	1.2 X 0.6
	Control Unit																
1	HDPE Pipe 50 mm; 4 kg/cm ²	m	104	104	104	104	104	104	104	104	104	104	104	104	104	104	104
2	HDPE Pipe 63 mm; 4 kg/cm ²	m	0	0	0	0	0	0	0	0	30	30	30	0	0	0	0
3	Lateral 12 mm, Class II ; 2.5 kg/cm ²	m	339	406	452	508	677	813	1016	1355	0	0	0	0	0	0	0
4	Lateral 16 mm, Class II; 2.5 kg/cm ²	m	0	0	0	0	0	0	0	0	1616	2020	2693	38	53	64	79
5	Emitting Pipe 16 mm; Class II: (0.2-0.3 m x 1 to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	1616	2245	2693	3367
6	Pressure regulating Emitter/ Dripper 2/ 4/ 8 lph	No.	113	163	201	255	453	490	765	1360	1306	2010	3627	0	0	0	0
7	Control Valve 50 mm	No.	6	6	6	6	6	6	6	6	6	6	6	4	4	4	4
8	Control Valve 63 mm	No.	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
9	Flush Valve 50 mm	No.	1	1	1	1	1	1	1	1	1	1	1	4	4	4	4
10	Air release Valve 1"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
11	Non Return Valve - 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
12	Throttle Valve - 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
13	Screen filter 10 m ³ / hr/ Disc filter	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	By-pass Assembly - 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Ventury& manifold - 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	Fittings/Installation& Accessories	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

NEH States - Drip Irrigation Technology- Indicative Bill of Quantities for 1.0 ha at farmer's field

SN	Component/ Lateral to Lateral x Dripper spacing (mxm)	Unit	12 X 12	10 X 10	9x9	8X8	6 X 6	5 X 5	4 X 4	3 X 3	2.5 X 2.5	2 X 2	1.5X 1.5	2.5X0.6	1.8X0.6	1.5 X 0.6	1.2X0.6
	Control Unit																
1	HDPE Pipe 40 mm; 6 kg/cm ²	m	172	172	172	172	112	0	0	0	0	0	0	0	0	0	0
2	HDPE Pipe 50 mm; 4 kg/cm ²	m	0	0	0	0	60	172	172	172	172	172	172	0	0	0	0
3	HDPE Pipe 63 mm; 4 kg/cm ²	m	0	0	0	0	0	0	0	60	60	60	60	118	118	118	118
4	HDPE Pipe 75 mm; 4 kg/cm ²	M	0	0	0	0	0	0	0	0	0	0	0	62	62	62	62
5	Lateral 12 mm, Class II ; 2.5 kg/cm ²	m	980	1150	1300	1400	1800	2000	2500	3333	0	0	0	0	0	0	0
6	Lateral 16 mm, Class II; 2.5 kg/cm ²	m	0	0	0	0	0	0	0	0	4040	5050	6733	60	83	100	125
7	Emitting Pipe 16 mm; Class II: (0.2-0.3 m x 1 to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	4040	5611	6733	8717
8	Pressure regulating Emitter/ Dripper 2/ 4/ 8 lph	No.	350	440	540	650	1150	1224	1913	3400	3232	5050	9067	0	0	0	0
9	Control Valve 40 mm	No.	10	10	10	10	0	0	0	0	7	7	7	0	0	0	0
10	Control Valve 50 mm	No.	0	0	0	0	10	10	10	0	3	3	3	4	4	4	4
11	Control Valve 63 mm	No.	0	0	0	0	0	0	0	10	0	0	0	1	1	1	1
12	Control Valve 75 mm	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
13	Flush Valve 50 mm	No.	1	1	1	1	1	0	0	0	1	1	1	4	4	4	4
14	Flush Valve 63 mm	No.	0	0	0	0	0	1	1	1	0	0	0	1	1	1	1
15	Air release Valve 1"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
16	Non Return Valve - 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Throttle Valve - 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
18	Screen filter 10 m3/ hr/ Disc filter	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
19	By-pass Assembly - 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	Ventury& manifold - 2"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	Fittings/Installation& Accessories	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

NEH States-Drip Irrigation Technology - Indicative Bill of Quantities for 2.0 ha at farmer's field

SN	Component Lateral to Lateral x Dripper spacing (mxm)	Unit															
			12x12	10x10	9x9	8x8	6x6	5x5	4x4	3x3	2.5x2.5	2x2	1.5x1.5	2.5x0.6	1.8x0.6	1.5 X 0.6	1.2x0.6
1	HDPE Pipe 50 mm; 4 kg/cm ²	m	165	165	165	165	165	165	165	165	165	165	165	120	120	120	120
2	HDPE Pipe 63mm; 4 kg/cm ²	m	88	88	88	88	88	88	88	88	88	88	88	80	80	80	80
3	HDPE Pipe 75mm; 4 kg/cm ²	m	0	0	0	0	0	0	0	0	0	0	0	90	90	90	90
4	Lateral 12 mm, Class II ; 2.5 kg/cm ²	m	1850	2130	2350	2600	3500	4200	5200	6900	0	0	0	0	0	0	0
5	Lateral 16 mm Class II, 2.5 kg/cm ²	m	0	0	0	0	0	0	0	0	8400	11400	14600	120	150	170	200
6	Emitting Pipe 16 mm; Class II: (0.2-0.3 m x 1 to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	8200	11500	13600	17000
7	Pressure regulating Emitter/ Dripper 2/ 4/ 8 lph	No.	600	800	1000	1300	2300	2448	3825	6800	6600	10400	18133	0	0	0	0
8	Control Valve 50 mm	No.	12	12	12	12	12	12	12	12	12	12	12	8	8	8	8
9	Control Valve 63 mm	No.	3	3	3	3	3	3	3	3	3	3	3	4	4	4	4
10	Control Valve 75 mm	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
11	Flush Valve 50 mm	No.	3	3	3	3	3	3	3	3	3	3	3	8	8	8	8
12	Flush Valve 63 mm	No.	1	1	1	1	1	1	1	1	1	1	1	4	4	4	4
13	Air Release Valve 1"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
14	Non Return Valve 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
15	Throttle Valve 1.5"	No.	1	1	1	1	0	0	0	0	1	1	1	1	1	1	1
16	Throttle Valve 2"	No.	0	0	0	0	1	1	1	1	0	0	0	0	0	0	0
17	Screen Filter 10 m ³ /hr/ Disc filter	No.	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
18	Screen Filter 30 m ³ /hr/ Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
19	By-pass Assembly-1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
20	Venturi & Manifold 2"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
21	Fittings/Installation & Accessories	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

NEH States- Drip Irrigation Technology- Indicative Bill of Quantities 3.0 ha at farmer's field

SN	Component Lateral to Lateral x Dripper spacing (mxm)	Unit															
			12x12	10x10	9x9	8x8	6x6	5x5	4x4	3x3	2.5x2.5	2x2	1.5x1.5	2.5x0.6	1.8x0.6	1.5 X 0.6	1.2x0.6
1	HDPE Pipe 90mm; 4 kg/cm ²	m	0	0	0	0	0	0	0	0	105	105	105	0	0	0	0
2	HDPE Pipe 75mm; 4 kg/cm ²	m	0	0	0	0	240	240	240	240	144	144	144	105	105	105	105
3	HDPE Pipe 63mm; 4 kg/cm ²	m	240	240	240	240	380	380	380	380	190	190	190	150	150	150	150
4	HDPE Pipe 50 mm; 4 kg/cm ²	m	380	380	380	380	0	0	0	0	0	0	0	200	200	200	200
5	Lateral 16 mm Class II, 2.5 kg/cm ²	m	0	0	0	0	0	0	0	0	12120	15150	20200	156	217	260	325
6	Lateral 12 mm, Class II ; 2.5 kg/cm ²	m	2500	3000	3333	3750	5000	6000	7500	10000	0	0	0	0	0	0	0
7	Emitting Pipe 16 mm; Class II: (0.2-0.3 m x 1 to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	12120	16833	20200	25250
8	Pressure regulating Emitter/ Dripper 2/4/ 8 lph	No.	833	1200	1481	1875	3333	3672	5738	10200	9696	15150	26933	0	0	0	0
9	Control Valve 90 mm	No	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
10	Control Valve 75 mm	No	3	3	3	3	3	3	3	3	5	5	5	1	1	1	1
11	Control Valve 63 mm	No.	8	8	8	8	8	8	8	8	8	8	8	2	2	2	2
12	Control Valve 50 mm	No.	0	0	0	0	0	0	0	0	0	0	0	8	8	8	8
13	Flush Valve 75mm	No.	3	3	3	3	3	3	3	3	5	5	5	0	0	0	0
14	Flush Valve 63mm	No.	8	8	8	8	8	8	8	8	8	8	8	1	1	1	1
15	Flush Valve 50mm	No.	0	0	0	0	0	0	0	0	0	0	0	4	4	4	4
16	Air Release Valve 1"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Non Return Valve 1.5"	No.	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
18	Non Return Valve 2"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
19	Throttle Valve 1.5"	No.	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
20	Throttle Valve 2"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
21	Screen Filter 30 m ³ /hr/ Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
22	Screen Filter 20/25 m ³ /hr/ Disc filter	No.	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0
23	Screen Filter 10 m ³ /hr/ Disc filter	No.	1	1	1	1	1	0	0	0	1	1	1	0	0	0	0
24	By-pass Assembly-2"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
25	Venturi & Manifold 2 "	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
26	Fittings/Installation & Accessories	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

NEH States- Drip Irrigation Technology- Indicative Bill of Quantities 4.0 ha at farmer's field

SN.	Component Lateral to Lateral x Dripper spacing (mxm)	Unit	12x 12	10x 10	9x9	8x8	6x6	5x5	4x4	3x3	2.5x 2.5	2x2	1.5x 1.5	2.5x 0.6	1.8x 0.6	1.5 X 0.6	1.2x 0.6
1	HDPE Pipe 90mm; 4 kg/cm ²	m	0	0	0	0	0	0	0	0	160	160	160	150	150	150	150
2	HDPE Pipe 75mm; 4 kg/cm ²	m	245	245	245	245	245	245	245	245	300	300	300	300	300	300	300
3	HDPE Pipe 63mm; 4 kg/cm ²	m	275	275	275	275	275	275	275	275	275	275	275	275	275	275	275
4	HDPE Pipe 50 mm; 4 kg/cm ²	m	167	167	167	167	167	167	167	167	167	167	167	167	167	167	167
5	Lateral 16 mm Class II, 2.5 kg/cm ²	m	0	0	0	0	0	0	0	0	16160	20200	26933	180	250	300	375
6	Emitting Pipe 16 mm; Class II; (0.2- 0.3 m x 1 to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	16000	22000	26670	33100
7	Lateral 12 mm, Class II ; 2.5 kg/cm ²	m	3400	4080	4533	5100	6800	8160	10200	13600	0	0	0	0	0	0	0
8	Pressure regulating Emitter/ Dripper 2/ 4/ 8 lph	No.	1133	1632	2015	2550	4533	4896	7700	13600	12800	20000	35911	0	0	0	0
9	Control Valve 90 mm	No.	0	2	0	0	0	0	0	0	2	2	2	2	2	2	2
10	Control Valve 75 mm	No.	0	0	0	0	3	3	3	3	3	3	3	2	2	2	2
11	Control Valve 63mm	No.	5	5	5	5	3	3	3	3	8	8	8	5	5	5	5
12	Control Valve 50mm	No.	3	3	3	3	2	2	2	2	4	4	4	3	3	3	3
13	Flush Valve 75mm	No.	3	3	3	3	3	3	3	3	3	3	3	1	1	1	1
14	Flush Valve 63mm	No.	5	5	5	5	5	5	5	5	5	5	4	4	4	4	4
15	Flush Valve 50mm	No.	3	3	3	3	3	3	3	3	3	3	2	2	2	2	2
16	Air Release Valve 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Non Return Valve 1.5"	No.	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
18	Non Return Valve 2"	No.	0	0	0	0	0	0	0	0	1	1	1	0	0	0	0
19	Non Return Valve 2.5"	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
20	Throttle Valve 1.5"	No.	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
21	Throttle Valve 2"	No.	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0
22	Throttle Valve 2.5"	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
23	Screen Filter 30 m ³ /hr/ Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
24	Screen Filter 20/25 m ³ /hr/ Disc filter	No.	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0
25	Screen Filter 10 m ³ /hr/ Disc filter	No.	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
26	By-pass Assembly-2"	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
27	By-pass Assembly-1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	0	0	0	0
28	Venturi & Manifold 2 "	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
29	Fittings/Installation & Accessories	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

NEH States- Drip Irrigation Technology- Indicative Bill of Quantities 5.0 ha at farmer's field

SN	Component Lateral to Lateral x Dripper spacing (mxm)	Unit															
			12x12	10x10	9x9	8x8	6x6	5x5	4x4	3x3	2.5x2.5	2x2	1.5x1.5	2.5x0.6	1.8x0.6	1.5 X 0.6	1.2x0.6
1	HDPE Pipe 30mm; 4 kg/cm ²	m	124	124	124	124	124	124	124	124	180	180	180	180	180	180	180
2	HDPE Pipe 75mm; 4 kg/cm ²	m	180	180	180	180	180	180	180	180	372	372	372	375	375	375	375
3	HDPE Pipe 33mm; 4 kg/cm ²	m	300	300	300	300	300	300	300	300	300	300	300	310	310	310	310
4	HDPE Pipe 50 mm; 4 kg/cm ²	m	212	212	212	212	212	212	212	212	212	212	212	200	200	200	200
5	Lateral 16 mm Class II, 2.5 kg/cm ²	m	0	0	0	0	0	0	0	0	20200	25250	33667	268	373	447	559
6	Emitting Pipe 16 mm; Class II: (0.2- 0.3 m x 1 to 2-4 lph)	m	0	0	0	0	0	0	0	0	0	0	0	20200	28056	33667	42083
7	Lateral 12 mm, Class II ; 2.5 kg/cm ²	m	4250	5100	5667	6375	8500	10200	12750	17000	0	0	0	0	0	0	0
8	Pressure regulating Emitter/ Dripper 2/ 4, 8 lph	No.	1417	2040	2519	3188	5667	6120	9563	17000	16610	25250	44889	0	0	0	0
9	Control Valve 90 mm	No.	2	2	2	0	0	0	0	0	0	0	0	2	2	2	2
10	Control Valve 75 mm	No.	4	4	4	4	4	4	4	4	4	4	4	2	2	2	2
11	Control Valve 63 mm	No.	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
12	Control Valve 50 mm	No.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
13	Flush Valve 75 mm	No.	2	2	2	2	2	2	2	2	2	2	2	1	1	1	1
14	Flush Valve 63 mm	No.	4	4	4	4	4	4	4	4	4	4	4	4	4	4	4
15	Flush Valve 50 mm	No.	2	2	2	2	2	2	2	2	2	2	2	2	2	2	2
16	Air Release Valve 1.5"	No.	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
17	Non Return valve 1.5"	No.	1	1	1	1	1	1	1	1	0	0	0	0	0	0	0
18	Non Return valve 2.5"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
19	Throttle Valve 1.5"	No.	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
20	Throttle Valve 2"	No.	0	0	0	0	0	1	1	1	0	0	0	0	0	0	0
21	Throttle Valve 2.5"	No.	0	0	0	0	0	0	0	0	1	1	1	1	1	1	1
22	Screen Filte- 30m ³ /hr/ Disc filter	No.	0	0	0	0	0	0	0	0	0	0	0	1	1	1	1
23	Screen Filte- 20/25 m ³ /hr/ Disc filter	No.	0	0	0	0	0	1	1	1	1	1	1	0	0	0	0
24	Screen Filte- 10 m ³ /hr/ Disc filter	No.	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
25	By-pass Assembly-2.5"	No.	1	1	1	0	0	0	0	0	0	0	0	1	1	1	1
26	By-pass Assembly-2"	No.	1	1	1	1	0	0	0	0	0	0	0	0	0	0	0
27	Venturi & Manifold 2 "	No.	1	1	1	1	1	0	0	0	0	0	0	0	0	0	0
28	Fittings/Installation & Accessories	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

2. Portable Sprinkler Irrigation System:

Indicative Bill of Quantities (BoQ) for Portable Sprinkler Irrigation System								
Using 63 mm coupler								
SN	Components/ Area (Ha)	Unit	0.4	1	2	3	4	5
1	HDPE Pipes with Quick coupled (Pipe of Class II; 3.2 kg/cm ² IS:17425:2020 63 mm diameter & 6m long)	No	18	30	41	NA	NA	NA
2	Quick coupled HDPE 63mm Foot batten Assembly;	No	3	5	9	NA	NA	NA
3	GI/PP/ PVC Riser Pipe 3/4" diameter x 75 cm long	No	3	5	9	NA	NA	NA
4	Sprinkler Nozzles (1.7 to 2.8 kg/cm ²); IS 12232 Part I Brass/Plastic	No	3	5	9	NA	NA	NA
5	Quick coupled HDPE Bend with Coupler 90 ^o (63/50 mm) ;	No	1	1	1	NA	NA	NA
6	Quick coupled HDPE Pump Connecting Nipple 63 mm;	No	1	1	1	NA	NA	NA
7	Quick coupled HDPE End Plug (63 mm);	No	1	2	2	NA	NA	NA
8	Quick coupled HDPE Tee with Coupler (63mm) ;	No	1	1	1	NA	NA	NA
Using 75 mm coupler								
SN	Components/ Area (Ha)	Unit	0.4	1	2	3	4	5
1	HDPE Pipes with Quick coupled (Pipe of Class I; 2.5 kg/cm ² IS:17425:2020, 75 mm diameter & 6m long)	No	NA	30	41	NA	NA	NA
2	Quick coupled HDPE 75mm Foot batten Assembly;	No	NA	5	9	NA	NA	NA
3	GI/PP/ PVC Riser Pipe 3/4" diameter x 75 cm long	No	NA	5	9	NA	NA	NA
4	Sprinkler Nozzles (1.7 to 2.8 kg/cm ²); IS 12232 Part I Brass/Plastic	No	NA	5	9	NA	NA	NA
5	Quick coupled HDPE Bend with Coupler 90 ^o (75 mm) ;	No	NA	1	1	NA	NA	NA
6	Quick coupled HDPE Pump Connecting Nipple, 75 mm;	No	NA	1	1	NA	NA	NA
7	Quick coupled HDPE End Plug (75 mm);	No	NA	2	2	NA	NA	NA
8	Quick coupled HDPE Tee with Coupler (75 mm);	No	NA	1	1	NA	NA	NA
Using 90 mm coupler								
SN	Components/ Area (Ha)	Unit	0.4	1	2	3	4	5
1	HDPE Pipes with Quick coupled (Pipe of Class I; 2.5 kg/cm ² ; IS:17425:2020, 90 mm diameter & 6m long)	No	NA	NA	NA	41	52	58
2	Quick coupled HDPE 90mm Foot batten Assembly;	No	NA	NA	NA	11	14	16
3	GI/PP/ PVC Riser Pipe 3/4" diameter x 75 cm long	No	NA	NA	NA	11	14	16
4	Sprinkler Nozzles (1.7 to 2.8 kg/cm ²); IS 12232 Part I Brass/Plastic	No	NA	NA	NA	11	14	16
5	Quick coupled HDPE Bend with Coupler 90 ^o (90 mm) ;	No	NA	NA	NA	2	2	4
6	Quick coupled HDPE Pump Connecting Nipple, 90 mm;	No	NA	NA	NA	1	1	1
7	Quick coupled HDPE End Plug (90 mm);	No	NA	NA	NA	2	2	2
8	Quick coupled HDPE Tee with Coupler (90 mm);	No	NA	NA	NA	1	1	2

3. Micro Sprinkler Irrigation System:

Indicative Bill of Quantities (BoQ) for Micro Sprinkler Irrigation System

SN	Components/ Area (Ha)	5mx5m							3m x 3m					
		Unit	0.4	1.0	2.0	3.0	4.0	5.0	0.4	1.0	2.0	3.0	4.0	5.0
1	PVC Pipe 90 mm, class-II; 4 kg/cm ²	m	0	0	0	0	0	160	0	0	0	0	0	150
2	PVC Pipe 75 mm, class-II; 4 kg/cm ²	m	30	54	80	100	252	600	30	54	100	140	220	520
3	PVC Pipe 63 mm, class-II; 4 kg/cm ²	m	66	102	150	180	402	0	66	102	150	180	380	0
4	20 mm LLDPE plain laterals, Class II; 2.5 kg/cm ²	m	0	2000	4000	6000	8000	10000	0	3350	6660	10000	13330	16600
5	Lateral 16 mm, Class II; 2.5 kg/cm ²	m	800	0	0	0	0	0	1336	0	0	0	0	0
6	Micro sprinkler Set	No.	160	400	800	1200	1600	2000	444	1111	2222	3333	4444	5556
7	Control Valve 90 mm	No.	0	0	0	0	2	2	0	0	0	0	0	1
8	Control Valve 75 mm	No.	1	1	1	1	4	4	1	1	1	1	4	4
9	Control Valve 63 mm	No.	1	1	4	4	0	0	1	1	4	4	0	0
10	Flush Valve 75 mm	No.	0	0	0	0	4	6	0	0	0	0	4	4
11	Flush Valve 63 mm	No.	1	1	1	1	0	0	1	1	1	1	0	0
12	Flush Valve 50 mm	No.	2	0	0	0	0	0	0	0	0	0	0	0
13	Air release Valve - 1"	No.	1	1	1	1	1	1	1	1	1	1	1	1
14	Non-Return Valve - 2"	No.	1	1	0	0	0	0	1	1	1	1	1	1
15	Non-Return Valve - 2.5"	No.	0	0	1	1	1	1	0	0	0	0	0	0
16	Throttle Valve - 2"	No.	1	1	0	0	0	0	1	1	1	1	1	1
17	Throttle Valve - 2.5"	No.	0	0	1	1	1	1	0	0	0	0	0	0
18	Screen filter 30 m ³ / hr	No.	0	1	1	1	1	1	0	1	1	1	1	1
19	Screen filter 20/25 m ³ / hr	No.	1	0	0	0	0	0	1	0	0	0	0	0
20	By-pass Assembly - 2.5"x2"	No.	0	0	1	0	0	0	0	0	0	0	0	0
21	By-pass Assembly - 2"x1.5"	No.	1	1	0	1	1	1	1	1	1	1	1	1
22	Venturi & manifold - 2"	No.	1	1	1	1	1	1	1	1	1	1	1	1
23	Fittings/Installation & Accessories		5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

4. Mini Sprinkler Irrigation System:

Indicative Bill of Quantities (BOQ) for Mini Sprinkler Irrigation System

SN	Components/ Area (Ha)	Unit	10x10						8x8					
			0.4	1.0	2.0	3.0	4.0	5.0	0.4	1.0	2.0	3.0	4.0	5.0
1	PVC Pipe 90 mm, class-II; 4 kg/cm ²	m	0	0	80	210	235	310	0	0	80	210	235	310
2	PVC Pipe 75 mm, class-II; 4 kg/cm ²	m	30	60	150	320	420	480	30	60	150	320	420	480
3	PVC Pipe 63 mm, class-II; 4 kg/cm ²	m	66	110	0	0	0	0	66	110	0	0	0	0
4	25/32 mm LLDPE plain laterals, 2.5 kg/cm ² - Class II	m	400	1000	2000	3000	4000	5000	500	1250	2500	3750	5000	6250
5	Mini Sprinkler Head/ Nozzle	No.	40	100	220	300	400	500	63	156	312	470	625	780
6	Riser Assembly (MS/Plastic)	No.	40	100	220	300	400	500	63	156	313	470	625	781
7	Control Valve 90 mm	No.	0	0	0	0	2	2	0	0	0	0	2	2
8	Control Valve 75 mm	No.	0	1	1	1	4	4	0	1	2	4	4	4
9	Control Valve 63 mm	No.	1	1	2	0	0	0	1	1	2	0	0	0
10	Control Valve 32 mm	No.	0	20	34	52	68	84	0	24	36	54	72	90
11	Flush Valve 75 mm	No.	0	0	1	4	4	4	0	1	2	4	4	4
12	Flush Valve 63 mm	No.	1	1	0	0	0	0	1	0	0	0	0	0
13	Air release Valve - 1"	No.	1	1	1	1	1	1	1	1	1	1	1	1
14	Non Return Valve - 2.5"	No.	0	1	1	1	1	1	0	1	1	1	1	1
15	Non Return Valve - 2"	No.	1	0	0	0	0	0	1	0	0	0	0	0
16	Throttle Valve 3"	No.	0	0	0	0	1	1	0	0	0	0	1	1
17	Throttle Valve - 2.5"	No.	0	1	1	1	0	0	0	1	1	1	0	0
18	Throttle Valve - 2"	No.	1	0	0	0	0	0	1	0	0	0	0	0
19	Screen filter 30 m ³ / hr	No.	0	0	1	1	1	1	0	0	1	1	1	1
20	Screen filter 20/25 m ³ /hr	No.	1	1	0	0	0	0	1	1	0	0	0	0
21	By-pass Assembly - 2"x1.5"	No.	0	0	0	0	0	1	0	0	0	0	0	1
22	By-pass Assembly - 1.5"x1.5"	No.	1	1	1	1	1	0	1	1	1	1	1	0
23	Venturi & manifold - 2"	No.	1	1	1	1	1	1	1	1	1	1	1	1
24	Fittings/Installation & Accessories	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%	5%

5. Semi-Permanent Sprinkler Irrigation System

Indicative Bill of Quantities (BoQ) for Semi Permanent Sprinkler Irrigation System

SN	Particulars/ ha area	0.4	1	2	3	4	5
1	PVC Pipe 90 mm, class-II; 4 kg/cm ²	0	0	0	0	0	173
2	PVC Pipe 75 mm, class-II; 4 kg/cm ²	0	0	110	135	156	0
3	PVC Pipe 63 mm, class-II; 4 kg/cm ²	96	154	273	340	395	440
4	PVC Pipe 25 mm Class-V; 10 Kg/cm ²	350	950	1904	0	0	0
5	32 mm LLDPE plain laterals, 2.5 kg/cm ² - Class II	0	0	0	3006	4000	5014
6	Control Valve 63 mm	1	1	2	2	2	2
7	By-pass Assembly - 2 .5" x 2"	1	1	1	1	1	1
8	Control Valve 25 mm	12	20	42	51	80	88
9	Sprinkler Nozzles (1.7 to 2.8 kg/cm ²); IS 12232 Part I Brass/Plastic	12	12	12	12	12	12
10	Screen filter 20/25 m ³ /hr	1	1	1	1	1	1
11	Fittings/Installation & Accessories	5%	5%	5%	5%	5%	5%

6. Large Volume Sprinklers (Rain-gun):

Indicative Bill of Quantities (BoQ) for Rain-gun Sprinkler Irrigation System						
Using 63 mm coupler						
SN	Components/ Area (ha)	1	2	3	4	5
1	HDPE Pipes with Quick coupled (Pipe of Class 3; 4 kg/cm ² IS:17425:2020 63 mm diameter & 6m long)	30	NA	NA	NA	NA
2	Rain Gun Sprinkler 1.25" female threaded connection	1	N.A	N.A	N.A	N.A
3	Tripod Stand with adapter to feeder line 1.25"x1.5 m	1	N.A	N.A	N.A	N.A
4	Quick coupled HDPE Bend with Coupler 90° (63/50 mm) ;	1	N.A	N.A	N.A	N.A
5	Quick coupled HDPE Pump Connecting Nipple 63 mm;	1	N.A	N.A	N.A	N.A
6	Quick coupled HDPE End Plug (63 mm) ;	1	N.A	N.A	N.A	N.A
7	Quick coupled HDPE Tee with Coupler (63mm) ;	1	N.A	N.A	N.A	N.A
8	Screen filter 20/25 m3/hr	1	N.A	N.A	N.A	N.A
9	By-pass Assembly - 2"x1,5"	1	N.A	N.A	N.A	N.A
Using 75 mm coupler						
SN	Components/ Area (ha)	1	2	3	4	5
1	HDPE Pipes with Quick coupled (Pipe of Class 3; 4 kg/cm ² IS:17425:2020 75 mm diameter & 6m long)	30	42	NA	NA	NA
2	Rain Gun Sprinkler 1.25" female threaded connection	1	1	N.A	N.A	N.A
3	Tripod Stand with adapter to feeder line 1.25"x1.5 m	1	1	N.A	N.A	N.A
4	Quick coupled HDPE Bend with Coupler 90° (75 mm) ;	1	1	N.A	N.A	N.A
5	Quick coupled HDPE Pump Connecting Nipple , 75 mm;	1	1	N.A	N.A	N.A
6	Quick coupled HDPE End Plug (75 mm) ;	1	1	N.A	N.A	N.A
7	Quick coupled HDPE Tee with Coupler (75 mm);	1	1	N.A	N.A	N.A
8	Screen filter 20/25 m3/hr	1	1	N.A	N.A	N.A
9	By-pass Assembly - 2"x1,5"	1	1	N.A	N.A	N.A
Using 90 mm coupler						
SN	Components/ Area (ha)	1	2	3	4	5
1	HDPE Pipes with Quick coupled (Pipe of Class 3; 4 kg/cm ² IS:17425:2020 90 mm diameter & 6m long)	NA	NA	45	52	60
2	Rain Gun Sprinkler 1.5" female threaded connection	N.A	N.A	1	1	1
3	Tripod Stand with adapter to feeder line 1.5"x1.5 m	N.A	N.A	1	1	1
4	Quick coupled HDPE Bend with Coupler 90° (90 mm);	N.A	N.A	1	1	1
5	Quick coupled HDPE Pump Connecting Nipple, 90 mm;	N.A	N.A	1	1	1
6	Quick coupled HDPE End Plug (90 mm) ;	N.A	N.A	1	1	1
7	Quick coupled HDPE Tee with Coupler (90 mm);	N.A	N.A	1	1	1
8	Screen filter 30 m3/ hr	N.A	N.A	0	1	1
9	Screen filter 20/25 m3/hr	N.A	N.A	1	0	0
10	By-pass Assembly - 2"x1,5"	N.A	N.A	1	0	0
11	By-pass Assembly - 2 .5"x2"	N.A	N.A	0	1	1

7. OPTIONAL PDMC COMPONENTS:

Indicative Price of Optional Components	
SN	Optional Component
1	Sand Filter with back wash assembly IS 14606
a	10 m ³ /hr x 1.5"
b	20 m ³ /hr x 2"
c	25 m ³ /hr x 2"
d	30 m ³ /hr x 2.5"
2	Hydro cyclone Filter IS 14743
a	20 m ³ /hr x 2"
b	25 m ³ /hr x 2"
c	30 m ³ /hr x 2.5"
3	Fertilizer Tank with Assembly IS 14483 - Part III
a	30 liters
b	60 liters
4	Winder
a	Drip Line Winder
5	Pipes
A	PVC Pipes IS4985-2021 type B
I.	50mm, 6kg/cm ²
II.	63mm, 4kg/cm ²
III.	75mm, 4kg/cm ²
IV.	90mm, 4kg/cm ²
B	HDPE Pipe IS: 17425:2020
I.	50mm, 4kg/cm ²
II.	63mm, 4kg/cm ²
III.	75mm, 4kg/cm ²
IV.	90mm, 4kg/cm ²
C	Oval Hose Flexible Pipe
I.	75mm, 1.45kg/cm ²
II.	90mm, 1.45 kg/cm ²

7. Water Storage Tanks:

SN.	Equipment	Capacity	Detail Specification
1	Collapsible Geo Lined tanks	10,000Ltrs	<p>Complete set: <u>Including civil works along with Drawings and planning, ground preparation, excavation and installation.</u> <u>main frame –</u></p> <ul style="list-style-type: none"> • wire mesh with anti-rust coating (zinc) • steel angle post for support • pre-coated galvanized iron (PPGI) profile Sheets • monofilament geotextile layering
		20,000Ltrs	<p><u>Waterproof Lining –</u></p> <ul style="list-style-type: none"> • Laminated HDPE waven Geomembrane <p><u>Covering material –</u></p> <ul style="list-style-type: none"> • Anti algae woven polypropylene <p><u>Fasteners & Accessories –</u></p> <ul style="list-style-type: none"> • CPVC gate valve, tank nipple, nut bolt, MS Clamp, Cable tie etc. and other necessary repair kit
2	Zincalume steel tank	10,000Ltrs	<p>Complete set: <u>Including civil works along with Drawings and planning, ground preparation, excavation and installation.</u> <u>Roof structure –</u></p> <ul style="list-style-type: none"> • Self-supported dome type, Hot Dip Galvanised/painted
		20,000Ltrs	<p><u>Tank wall Sheet material –</u></p> <ul style="list-style-type: none"> • Galvanized Zincalume material <p><u>Inner liner –</u></p> <ul style="list-style-type: none"> • High tenacity Polyester filament yarn • Anti algae stabilized • Both side PVC food grade <p><u>Accessories –</u></p> <ul style="list-style-type: none"> • Manual level indicator, aluminum internal rope ladder, GI studs anchor fasteners, Galvanized Hold down brackets, heavy duty external ladder. And other accessories as per requirement. <p><u>Nozzle-</u></p> <ul style="list-style-type: none"> • Hot Dip Galvanized inlet, outlet, overflow and wall mounted drain flange type nozzle as per requirement.

ANNEXURE – II

FINANCIAL BID (UNIT RATES)

Supply and installation of Micro Irrigation System under PMKSY-PDMC

Name of the Micro Irrigation Company/authorized dealers with address: _____

Contact no : _____

Email : _____

Quotation of rates: The rates should be quoted as per the unit cost for NEH States mentioned at Table 3, 4, 5, 6, 7 and 9 of the Operational Guidelines of Per Drop More Crop (Micro Irrigation) Component of PMKSY 2024 (Government of India Ministry of Agriculture & Farmers Welfare Department of Agriculture and which should include all the components mentioned in the Indicative Bill of Quantities (BOQ) mentioned in Annexure-I for the aforementioned MI System with specifications, Rates quoted should be inclusive of taxes applicable and F.O.R. Destination.

SYSTEM WITH SPECIFICATION:

1. Drip Irrigation System:

i. Area: 0.2Ha

Sl No.	Spacing (mxm)	Unit cost as per PDMC-2024 Guidelines	Rate F.O.R Destination		Remarks
			In Figure (Rupees)	In Words (Rupees)	
1.	(12x12)	13157			
2.	(10x10)	13567			
3.	(9x9)	13864			
4.	(8x8)	14163			
5.	(6x6)	15500			
6.	(5x5)	16430			
7.	(4x4)	18252			
8.	(3x3)	19740			
9.	(2.5x2.5)	24395			
10.	(2x2)	29915			
11.	(1.5x1.5)	35132			
12.	(2.5x0.6)	25251			
13.	(1.8x0.6)	30712			
14.	(1.5x0.6)	35003			
15.	(1.2x0.6)	39295			

ii. Area: 0.4 Ha

Sl No.	Spacing (mxm)	Unit cost as per PDMC-2024 Guidelines	Rate F.O.R Destination		Remarks
			In Figure (Rupees)	In Words (Rupees)	
1.	(12x12)	22511			
2.	(10x10)	23315			
3.	(9x9)	23893			
4.	(8x8)	24638			
5.	(6x6)	27116			
6.	(5x5)	29357			
7.	(4x4)	30408			
8.	(3x3)	32738			
9.	(2.5x2.5)	44242			
10.	(2x2)	51628			
11.	(1.5x1.5)	58744			
12.	(2.5x0.6)	43750			
13.	(1.8x0.6)	53740			
14.	(1.5x0.6)	62645			
15.	(1.2x0.6)	71551			

iii. Area:1.0 Ha

Sl No.	Spacing (mxm)	Unit cost as per PDMC-2024 Guidelines	Rate F.O.R Destination		Remarks
			In Figure (Rupees)	In Words (Rupees)	
1.	(12x12)	30733			
2.	(10x10)	32727			
3.	(9x9)	34130			
4.	(8x8)	35971			
5.	(6x6)	43358			
6.	(5x5)	49223			
7.	(4x4)	51918			
8.	(3x3)	59688			
9.	(2.5x2.5)	85292			
10.	(2x2)	103856			
11.	(1.5x1.5)	121556			
12.	(2.5x0.6)	89666			
13.	(1.8x0.6)	114451			
14.	(1.5x0.6)	136914			
15.	(1.2x0.6)	159377			

iv. Area: 2.0 Ha

Sl No.	Spacing (mxm)	Unit cost as per PDMC-2024 Guidelines	Rate F.O.R Destination		Remarks
			In Figure (Rupees)	In Words (Rupees)	
1.	(12x12)	48872			
2.	(10x10)	52783			
3.	(9x9)	55586			
4.	(8x8)	59143			
5.	(6x6)	72484			
6.	(5x5)	83999			
7.	(4x4)	90999			
8.	(3x3)	103318			
9.	(2.5x2.5)	155270			
10.	(2x2)	201579			
11.	(1.5x1.5)	231655			
12.	(2.5x0.6)	164780			
13.	(1.8x0.6)	216622			
14.	(1.5x0.6)	259825			
15.	(1.2x0.6)	303028			

v. Area:3.0 Ha

Sl No.	Spacing (mxm)	Unit cost as per PDMC-2024 Guidelines	Rate F.O.R Destination (Rupees)		Remarks
			In Figure	In Words	
1.	(12x12)	75881			
2.	(10x10)	81859			
3.	(9x9)	86066			
4.	(8x8)	91590			
5.	(6x6)	117110			
6.	(5x5)	121387			
7.	(4x4)	141950			
8.	(3x3)	159132			
9.	(2.5x2.5)	237156			
10.	(2x2)	292849			
11.	(1.5x1.5)	345959			
12.	(2.5x0.6)	251830			
13.	(1.8x0.6)	326085			
14.	(1.5x0.6)	392386			
15.	(1.2x0.6)	458687			

vi. Area:4.0 Ha

Sl No.	Spacing (mxm)	Unit cost as per PDMC-2024 Guidelines	Rate F.O.R Destination (Rupees)		Remarks
			In Figure	In Words	
1.	(12x12)	94402			
2.	(10x10)	102531			
3.	(9x9)	108258			
4.	(8x8)	115768			
5.	(6x6)	142023			
6.	(5x5)	154262			
7.	(4x4)	185855			
8.	(3x3)	200129			
9.	(2.5x2.5)	332842			
10.	(2x2)	406836			
11.	(1.5x1.5)	477807			
12.	(2.5x0.6)	349712			
13.	(1.8x0.6)	444153			
14.	(1.5x0.6)	531486			
15.	(1.2x0.6)	618819			

vii. Area:5.0 Ha

Sl No.	Spacing (mxm)	Unit cost as per PDMC-2024 Guidelines	Rate F.O.R destination (Rupees)		Remarks
			In Figure	In Words	
1.	(12x12)	120207			
2.	(10x10)	130365			
3.	(9x9)	137530			
4.	(8x8)	146912			
5.	(6x6)	178207			
6.	(5x5)	207269			
7.	(4x4)	221205			
8.	(3x3)	250569			
9.	(2.5x2.5)	406542			
10.	(2x2)	499367			
11.	(1.5x1.5)	587883			
12.	(2.5x0.6)	429292			
13.	(1.8x0.6)	553106			
14.	(1.5x0.6)	663631			
15.	(1.2x0.6)	774157			

2. Portable Sprinkler Irrigation System:

SI No.	Area	Pipe Diameter (mm)	Unit cost as per PDMC-2024 Guidelines	Rate F.O.R Destination (Rupees)		Remarks
				In Figure	In Words	
1.	Upto 0.4 Ha	63	16513.75			
2.	Upto 1 Ha	i) 63	26985			
		ii)75	30242.5			
3.	Upto 2 Ha	i) 63	38958.75			
		ii)75	43321.25			
4.	Upto 3 Ha	90	58473.75			
5.	Upto 4 Ha	90	73743.75			
6.	Upto 5 Ha	90	83486.25			

3. Micro Sprinkler Irrigation System:

SI No.	Area (Ha)	Spacing (mxm)	Unit cost as per PDMC-2024 Guidelines	Rate F.O.R destination (Rupees)		Remarks
				In Figure	In Words	
1.	0.4	i) 5x5	40891.25			
		ii) 3x3	47828.75			
2.	1.0	i) 5x5	81377.5			
		ii) 3x3	92823.75			
3.	2.0	i) 5x5	143032.5			
		ii) 3x3	167276.3			
4.	3.0	i) 5x5	206171.3			
		ii) 3x3	238847.5			
5.	4.0	i) 5x5	278401.3			
		ii) 3x3	329815			
6.	5.0	i) 5x5	351946.3			
		ii) 3x3	401827.5			

4. Mini Sprinkler Irrigation System:

SI No.	Area (Ha)	Spacing (mxm)	Unit cost as per PDMC-2024 Guidelines	Rate F.O.R Destination (Rupees)		Remarks
				In Figure	In Words	
1.	0.4	i) 10x10	57117.5			
		ii) 8x8	59410			
2.	1.0	i) 10x10	117667.5			
		ii) 8x8	129841.3			
3.	2.0	i) 10x10	220957.5			
		ii) 8x8	234911.3			
4.	3.0	i) 10x10	335527.5			
		ii) 8x8	363668.8			
5.	4.0	i) 10x10	431871.3			
		ii) 8x8	475038.8			
6.	5.0	i) 10x10	529045			
		ii) 8x8	587362.5			

5. Semi-Permanent Sprinkler System:

SI No.	Area	Unit cost as per PDMC-2024 Guidelines	Rate F.O.R Destination (Rupees)		Remarks
			In Figure	In Words	
1.	0.4 Ha	31148.75			
2.	1 Ha	50550			
3.	2 Ha	96391.25			
4.	3 Ha	130103.8			
5.	4 Ha	166246.3			
6.	5 Ha	201681.3			

6. Large Volume Sprinklers (Rain-gun):

Sl No.	Area	Pipe Diameter (mm)	Rate F.O.R Destination (Rupees)		Remarks
			In Figure	In Words	
7.	1 Ha	i) 63	39605		
		ii)75	47658.75		
8.	2 Ha	75	60462.5		
9.	Upto 3 Ha	90	78458.75		
10.	Upto 4 Ha	90	90938.75		
11.	Upto 5 Ha	90	99867.5		

7. Optional components:

SN	Optional Component	Appr. Price (Rs) as per PDMC guidelines 2024	Rate F.O.R destination (Rupees)		Remarks
			In Figure	In Words	
1	Sand Filter with back wash assembly IS 14606				
a	10 m ³ /hr x 1.5"	9775			
b	20 m ³ /hr x 2"	13225			
c	25 m ³ /hr x 2"	16100			
d	30 m ³ /hr x 2.5"	18400			
2	Hydro cyclone Filter IS 14743				
a	20 m ³ /hr x 2"	4025			
b	25 m ³ /hr x 2"	4600			
c	30 m ³ /hr x 2.5"	6325			
3	Fertilizer Tank with Assembly IS 14483 - Part III				
a	30 litres	3220			
b	60 litres	5750			
4	Winder				
	Drip Line Winder	2000			
5	Pipes (Rate per meter)				
A	PVC Pipes IS4985-2021 type B				
I.	50mm, 6kg/cm ²	-			
II.	63mm, 4kg/cm ²	-			
III.	75mm, 4kg/cm ²	-			
IV.	90mm, 4kg/cm ²	-			
B	HDPE Pipe IS: 17425:2020				
I.	50mm, 4kg/cm ²	-			
II.	63mm, 4kg/cm ²	-			
III.	75mm, 4kg/cm ²	-			
IV.	90mm, 4kg/cm ²	-			
C	Oval Hose Flexible Pipe				
I.	75mm, 1.45kg/cm ²	-			
II.	90mm, 1.45 kg/cm ²	-			

8. Water storage Components:

SN.	Equipment	Specification	Rate F.O.R Destination (Rupees)		Remarks
			In Figure	In Words	
1	Collapsible Geo Lined tanks	10,000Ltrs,			
		20,000Ltrs			
2	Zincalume steel tank	10,000Ltrs,			
		20,000Ltrs			

ANNEXURE - III

FORMAT FOR SELF – DECLARATION

(To be put on the FIRM'S/SUPPLIER'S LETTER HEAD)

SELF – DECLARATION

Sir/Madam

With reference to tender No.

We/I, hereby declared that:

- 1) We have carefully gone through the Detailed Tender Document mentioned thereon and hereby certify that We have clearly understood and agree to abide by the Terms and Conditions of the Tender Document.
- 2) All the prices mentioned in our Financial Bid are in accordance with the terms as specified in the Tender documents.
- 3) We hereby confirm that our prices include all taxes.
- 4) We hereby commit to providing assurance to free of cost After sales service for a period of three 3 (Three) years from the date of installation.
- 5) Our Financial Proposal shall be binding upon us subject to the modifications resulting from Contract negotiations, up to expiration of the validity period of the Proposal.
- 6) We hereby declare that our tender proposal is made in good faith, without collusion or fraud and the information contained in the Tender is true and correct to the best of our knowledge and belief.
- 7) We understand that our tender proposal is binding on us and that you are not bound to accept a Tender you receive.
- 8) We have never been blacklisted or there were no debaring actions against us for any default or misdeed by any State Government, Central Government or any other Public Sector Undertaking or a Corporation or any other Autonomous Organization of Central or State Government as on Tender submission date. In the event of any such information pertaining to the aforesaid matter found at any given point of time prior or during the course of the timeline of work, our Empanelment/Work Order may be immediately terminated/ cancelled without any notice and action as deemed suitable may be taken.
- 9) We certify that all information provided is true and correct and if at any point of time the information is found to be incorrect, My/Our BID will be liable for rejection by the Director of Agriculture.

Date:

Yours faithfully,

Place:

**Authorized Signatory of the Company/authorized dealer
(Name, Seal and Signature)**

ANNEXURE - IV

FORMAT FOR FINANCIAL INFORMATION

Tender Name: Empanelment for Supply and Installation of Micro Irrigation System under Pradhan Mantri Krishi Sinchayee Yojana — Per Drop More Crops (PMKSY — PDMC).

Name of the Manufacturers/Dealer	Turn Over (₹ In Lakhs)			
	FY 22-23	FY 23-24	FY 24-25	Average of 3(three) Financial Years

ANNEXURE - V

BID PROPOSAL APPLICATION

(To be put on the FIRM'S/SUPPLIER'S LETTER HEAD)

To,

The Director of Agriculture,
Meghalaya, Shillong.

Subject: Submission of Tender for Empanelment for Supply and Installation of Micro irrigation System under Pradhan Mantri Krishi Sinchayee Yojana — Per Drop More Crops (PMKSY — PDMC).

Reference: Advertisement No.

Sir/Madam,

In inviting a reference to the letter no on the subject quoted above, I have the honour to submit herewith the Tender for Empanelment for Supply and Installation of Micro irrigation System under Pradhan Mantri Krishi Sinchayee Yojana — Per Drop More Crops (PMKSY — PDMC) along with relevant documents mentioned below for favour of your kind consideration.

We, the undersigned, have read and examined in detail the general terms and conditions, the specifications and the entire Tender document.

Yours faithfully,

Encl: As stated.

**Authorized Signatory of the Company/authorized dealer
(Name, Seal and Signature)**

ANNEXURE - VI**MANUFACTURERS/DEALERS PROFILE**

Sl. No.	General information	
1.	Name of the Manufacturers/Dealers	
2.	Year of establishment	
3.	Date of Registration	
4.	Address	
5.	Local Address	
6.	Name of the Contact Person	
7.	Mobile	
8.	Telephone No.	
9.	Email	
10.	Fax No.	

Annexure - VII

List of BIS Standards		
SN	Component Description	BIS
1	Polyethylene pipes for Irrigation- Laterals with amendment number 6	IS 12786: 1989 (reaffirmed 2009)
2	Irrigation Equipment-Emitters- Specification	IS 13487: 1992 (reaffirmed 2009)
3	Irrigation Equipment-Emitting pipes system- Specification (first revision)	IS 13488: 2008 (reaffirmed 2014)
4	Irrigation Equipment-Strainer type filters Specification (first revision)	IS 12785: 1994 (reaffirmed 2011)
5	Irrigation equipment rotating sprinkler Part I, Design and Operational requirements (1st revision)	IS 12232 (Part I) -1996 (reaffirmed 2011)
6	Irrigation equipment rotating sprinkler Part 2, Test method for uniformity of distribution (1st revision)	IS 12232 (Part 2) -1995 (reaffirmed 2011)
7	Fertilizer and Chemicals Injection system Part I Venturi Injector	IS 14483 (Part 1) 1997 (reaffirmed 2009)
8	Irrigation Equipment-Media Filters- Specification	IS 14606: 2022
9	Irrigation Equipment-Hydro cyclone filter-Specification	IS 14743: 1999 (reaffirmed 2009)
10	Unplasticized PVC pipes for agriculture - Specifications	IS 4985 – 2021 TYPE B
11	Irrigation Equipment –Quick Coupled Polyethylene Pipes and Fittings for Sprinkler Irrigation Systems.	IS 17425:2020
12	High Density Polyethylene Pipes for water supply- Specification (fourth revision)	IS 4984 : 2016
13	Fertilizer & Chemical Injector System- Part 2 Water Driven Chemical Injector Pump	IS:14483 Part 2 – 2002
14	Fertilizer & Chemical Injector System- Part 3 Fertilizer Tank	IS:14483 Part 3 – 2018
15	Irrigation equipments- Micro sprayers-Specifications	IS:14605:1998
16	Agricultural Irrigation equipment- Manually operated serviceable plastic valves- Specifications	IS: 18286 :2023
17	Injection Moulded PVC Socket Fittings with solvent Cement Joints	IS:7834:1987 (Part1 to Part7)
18	Fabricated PVC-U fittings	IS:10124:2009 (Part1 to Part13)
19	Injection moulded/machined polyethylene fittings	IS:8008:2022
20	Fabricated Polyethylene fittings	IS:8360:2022
21	Geo lined tanks components	IS 15351:2015
		Chlorine certification
		National Sanitation Foundation (NSF) Certification
22	Zincalume steel tank	IS 800:2007