

Replies to Queries

Supply, Installation and Commissioning of Automatic Irrigation System at 5MW Solar Power Plant, Neemrana at DMICDC Neemrana Solar Power Company Limited, Plot No.-80 & 81, Japanese Zone, RIICO Industrial Area, Neemrana, Distt. – Alwar, Rajasthan-301705

Sr. No.	RfP Reference	Queries	Response
1	Annexure- “B”, (2.1)	What is the designed discharge of the Pop-up Spray Nozzle in (LPH-Litre/hr)? In tender specification only Radius (m) and operating pressure (Kg/cm ²) is mentioned. Mainly In irrigation Nozzle Size of Spray pop-ups are always mentioned with their spacing Like 8A (8ft), 10A (10ft), 12A(12ft),15A(15ft) and 17A(ft). This also helps to check the pipe line sizes according to their water carrying capacity.	The bidder may acquaint himself with site condition and the general arrangement of solar panel installed at site. Accordingly the bidder may provide the automatic sprinkler system.
2	Annexure- “B”, (2.1.a)	Designed Operating Pressure of Spray Pop-up (Bar or Kg/cm ²)? It should be fixed whereas tender specification says between (1.7 – 2.5 kg/cm ²). This is required once we know the designed operating pressure; each nozzle has the characteristic to deliver the almost same amount of discharge of water (LPH).	The bidder may acquaint himself with site condition and the general arrangement of solar panel installed at site. Accordingly the bidder may provide the automatic sprinkler system.
3	Annexure- “B”, (2.1)	What is the spacing of Spray Pop-ups i.e. Pop-up to Pop-up in Row (m) & Row to Row in (m)? These parameter are required to arrive at the Precipitation rate of Sprinkler (mm/hr) from where we can further work out the duration of time the system has to be operated. In addition to this it will only able to confirm the Coverage of Landscape Area.	The bidder may acquaint himself with site condition and the general arrangement of solar panel installed at site. Accordingly the bidder may provide the automatic sprinkler system.

4	Annexure- “B”, (2.1)	As we understand irrigation is also required beneath the Solar Module Array and between the paths of Arrays, the trajectory of Nozzle selected is quite important otherwise Water sprays can hit at unwanted location which can damage the module structure and the junction from where cables outlet is there beneath the module. Please note designer need to define the trajectory of nozzle considered to avoid above situation.	The bidder is requested to do the detailed designing based on the actual site conditions in this regard.
5	Annexure- “B”, (2.1.a)	Whether they are designed on Full Circle (360 Deg) or Half Circle Basis (180 deg)? This is important to take into consideration for operating time of section of sprinkler and also to check the sectional (Valve) discharge of the system.	All sprinkler rotation is ideally considered as full circle. The specifications have already been mentioned in Annexure-“B”, (2.1.a). However the bidder is requested to do the detailed designing based on the actual site conditions.
6		What rate of Evapo-Transpiration rate (mm/Day) for peak period (Summer) is considered? The total operational time to irrigate entire area will depend on this value and precipitation rate of system (mm/hr).	The bidder may acquaint himself with site condition and the general arrangement of solar panel installed at site. Accordingly the bidder may provide the automatic sprinkler system. The bidder may consider as per their experience.
7		Total Hours of Operation considered for operation of system especially in peak summer.	The total irrigation time is considered as 6 Hrs (approx.)
8	Annexure- “B”, (6.2)	With 140 Nos. of Solenoid Valves of all 2”size in tender needs more clarification and each sectional discharge. If any valve sequence operation needs to be elaborated. System would have been designed on 3” Dia Solenoid valves, the Nos. of solenoid Valves would have reduced drastically and similarly the quantities of Cables, conduit and Valve Boxes got reduced. The size of Irrigation controller also would have reduced. This all helps	The condition in the RfP remains same.

		in reduction of cost and lesser maintenance in future.	
9	Annexure- “B”, (6.8, 6.9)	Controller recommended in Automation Specification is based on Multiple wire technology with 140 nos. of solenoid valves with consumption of approx 23.5KM of cables whereas the technology with 2WIRE Technology (Decoder Based Controller) available ,hardly 2.00KM of 2 Core cable would have been required.	The condition in the RfP remains same.
10	Annexure- “B”, (6.2)	Material of Construction of Solenoid Valve PVC or Nylon Reinforced material. Nylon reinforced material of construction is much better than PVC construction and has better strength towards operating pressure upto 14 Bar (Kg/cm2) and ambient temperature upto 70 Deg.	The condition in the RfP remains same.
11	Annexure- “B”, (2.1.a)	<u>Amendments in Makes of Products.</u> a) Item No 2.1 a : We request you to add K Rain USA in this product category as they are also best category brand of product. The catalogue of same is attached for your reference.	The condition in the RfP remains same.
	Annexure- “B”, (2.1.b)	b) Item No. 2.1 b : We request you to add AUTOMAT (HARIT) Brand as we ourselves manufacturing the same.	Item No. 2.1.b may be read as follows: 2.1) Providing, fixing, testing and commissioning of heavy duty Spray pop-up Sprinklers & its connecting assembly using flexible swing joint with PVC supply pipe inclusive of all fittings and complete in all respect. Sprinklers are mounted on PVC Service Saddles with help of Fexible Assembly (Make- Rainbird/Hunter/Toro/Automat/Jain) b) Connecting assemlly for Spray Pop-up sprinkler made up of

			LLDPE having 4 Swing Elbows of 1/2" dia BSP Male Threaded Black in colour mounted on PVC service saddle of required size to provide coussion to sprinkler against vertical load.
Annexure- "B", (3.a)	c)	Item No. 3a : We request you to add KELBA BRAND (India) as they are selling SAND FILTERS as per BIS Standard to most of the irrigation companies in India and rated as the best manufacturer in this segment.	The condition in the RfP remains same.
Annexure- "B", (3.b)	d)	Item No. 3b : We request you to add AUTOMAT (HARIT) Brand as we are manufacturing them as per BIS Standard/BIS License and supplying to 80% of irrigation industry in India.	Item No. 3.b may be read as follows: Providing, installing, testing and commissioning of metallic Hydro-Cyclone / Spin Clean Filter of 25 m3/hr having 2" inlet & outlet with manual flushing arrangement with all required fittings & accessories & foundation (Make-Azud/Jain/Netafim/Automat)
Annexure- "B", (3.c)	e)	Item No. 3c : We request you to add AUTOMAT (HARIT) Brand as we are manufacturing them as per BIS Standard/BIS License and supplying to 80% of irrigation industry in India.	The same is already present in Item No. 3.c.
Annexure- "B", (6.1)	f)	Item no 6.1: We request you to add K Rain, USA / HIT, USA as they are the best rated product in their category. The catalogue is attached for your reference.	Item No. 6.1 may be read as follows: 6.1-Providing, fixing, testing and commissioning of programmable controller including extension cards, communication adaptor, HMI application for software and controller etc. (Make-Rainbird/Hunter/Gavish-Spirit Pro)-1 Set

	Annexure- "B", (6.2)	g) Item no 6.2: We request you to add RAIN SPA ITALY/ K RAIN USA as they are the best rated product in their category. The catalogue is attached for your reference.	Item No. 6.2 may be read as follows: Providing, fixing, testing and commissioning of Solenoid Valve Plastic 2" (Make- Rainbird/Hunter/Toro/Rain SPA Italy/K Rain USA/Raphel)-140 No.s
12	Annexure- "B", (1)	Pipe suggested in BOQ for dia 110 mm, 90mm and 75 mm is of 6 kg/cm2. However as per general practices, it is recommended to use 10kg/cm2 pressure rating pipe when we are using 60 meter head of pump to avoid any pipe breakage due to water hammering/excess pressure. Please reconsider this and make necessary amendments in the BOQ.	The condition in the RfP remains same.
13	Annexure- "B", (1)	As per standard practices, fitting's pressure rating should be more than the pipe pressure rating to be used. However, herein we are suggested to use same pressure rating of fittings as well (i.e.6kg/cm2). Please reconsider this and make necessary amendments in the BOQ.	Item No. 1 may be read as follows: Providing, laying and jointing in position with Earth Work and back filling (Trench work for Mainline-2 Feets,Submainline/Lateral Line-1.5 Feets) of UPVC pipe conforming to IS:4985:2000 class III (6Kg/Cm2) and suitable for respective working pressure of 6 bar with all 10 bar fittings and specials e.g. couplings, Tees, Bends, Reducers, Screwed Adapters, flanged Tail Pieces UPVC flange etc. (Make Supreme/Finolex/Jain).
14	Annexure- "B", (4.1, 4.2)	Item no 4.1/4.2 says required "civil work" please clarify in detail what civil work is required to be done and share the civil drawings if applicable to make adequate costing.	Civil Work in 4.1 – Construction of appropriate size of Brick masonry chamber with Lid for Isolation Valves Civil Work in 4.2 – Appropriate Grouting of Plastic Hydrant up to its base so that it will be fixed firmly
15	Annexure- "B", (4.1.a, 4.1.b, 4.1.c)	In Item no 4.1(a) and (b), we can use jumbo valve boxes same as we are using round valve box for item No 4.1(c). Please review and confirm.	The same can be used without impacting the quality of total system.

16	Annexure- “B”, (5.a)	Please confirm working parameter of pump (i.e. 1 working + 1 stand by or both working). Please review and confirm.	Both Pumps are working at a time (there is no standby pump)
17	Annexure- “B”, (6.1)	Item no 6.1 does not include “Hunter” as a specified brand which should be there. Also, spirit pro is not available in the market. We would request you to kindly approve Hunter for the particular item.	Item No. 6.1 may be read as follows: 6.1-Providing, fixing, testing and commissioning of programmable controller including extension cards, communication adaptor, HMI application for software and controller etc. (Make- Rainbird/Hunter/Gavish-Spirit Pro)- 1 Set
18	Annexure- “B”, (6.2, 6.8, 6.9)	Since we are having 137 zones to be controlled automatically, it is suggested to opt for two wire decoder based system (instead of multiwire conventional automation) which will reduce the quantity of wires and reduce the maintenance cost later, if required we can come over to explain working and benefit of decoder automation. Please review and confirm.	The condition in the RfP remains same.
19	Annexure- “B”, (6.1)	Item no 6.1 says it requires „software“. Does it mean „central control“ which is based out of computer software. Please review and confirm.	Yes it is central control Software for automatic irrigation system (without PC)
20	Clause No.13	We would like to make a request to eliminate the need of EMD being a Corporate tender.	The condition remains unchanged.
21	Clause No. 40, Payment	For smooth working of project in timely manner, we request to kindly revise payment terms as under; i. 50% advance along with PO. ii. 40% against delivery of material. iii. 10% after successful commissioning of the system.	The condition remains unchanged.
22	Annexure- “B”, (2.1.a)	Item no 2.1(a) –NaanDan Jain Irrigation Ltd is oldest irrigation	The condition in the RfP remains unchanged.

		company having business across the Globe & the products are High Standard Quality and are being used widely in Many Countries. Kindly approve make / Brand for Sprinklers	
23	Annexure- “B”, (2.1.b)	Item no 2.1(b) –Swing Joints of Jain Make are being used since over 20 Years in the country. The same are used in number of Golf Courses like Chandigarh Golf Course, DDA Golf Golf Course at Bhalsawa, Gulmarg Golf Course, Air Force Golf Course at Hindon, Gurgaon, Race Course New Delhi, Delhi International Airport (DIAL, GMR), IOCL Faridabad etc. and all the projects are working satisfactorily. Kindly approve Jain Make Swing Joint	Item No. 2.1.b may be read as follows: 2.1) Providing, fixing, testing and commissioning of heavy duty Spray pop-up Sprinklers & its connecting assembly using flexible swing joint with PVC supply pipe inclusive of all fittings and complete in all respect. Sprinklers are mounted on PVC Service Saddles with help of Fexible Assembly (Make- Rainbird/Hunter/Toro/Automat/Jain) b) Connecting assemlly for Spray Pop-up sprinkler made up of LLDPE having 4 Swing Elbows of 1/2" dia BSP Male Threaded Black in colour mounted on PVC service saddle of required size to provide coussion to sprinkler against vertical load.
24	Annexure- “B”, (6.2)	Item no 6.2 – Solenoid valves of Raphel, Israel is an International Brand and the product is widely used in Irrigation. Kindly approve Solenoid Valve of Raphel, Israel make.	Item No. 6.2 may be read as follows: Providing, fixing, testing and commissioning of Solenoid Valve Plastic 2" (Make- Rainbird/Hunter/Toro/Rain SPA Italy/K Rain USA/Raphel)-140 No.s
25	Annexure- “B”, (3.a)	Item No. 3 : Automatic Backwash of Sand Filter is asked in tender, but not for other filters (Hydrocyclone and plastic screen filter). Automation for all filters or all manual is recommended.	The condition in the RfP remains unchanged.
26	Annexure- “B”, (4.6)	Item No. 4.6: 10” Round Valve box will not be sufficient to cover manual & solenoid valve both, at least 12” Rectangular valve box would be required.	Item No. 4.6 may be read as follows: Providing and fixing of Round reinforced plastic valve boxes of at least 12" top cover with green

			covers for PVC control Valves.-137 No.s
27	Annexure- “B”, (4.8)	Item No. 6.8: 1.5sqmm Single core multi std wire would not be recommended for automation. 1.5sqmm Single core single std wire would be recommended to avoid voltage drop.	The condition in the RfP remains unchanged.
28	Annexure- “B”, (4.9)	Item No. 6.9: 2.5sqmm Single core multi std wire would not be recommended for automation. 2.5sqmm Single core single std wire would be recommended to avoid voltage drop.	The condition in the RfP remains unchanged.