

**GOVERNMENT OF ANDHRA PRADESH**

**W**ATER **R**ESOURCES **D**EPARTMENT

**Operation & Maintenance**

**for Pump Houses of**

**GKLI Stage-I & Stage-II**

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| **Name of the work::**  Annual Maintenance Estimate of Gandikota Lift Irrigation Scheme Stage-I & Stage-II Pump Houses for the Year FY:2023-24 in YSR District. |

**Estimate Amount Rs: 2.95 Crores**

Prepared & Submitted by

O/o The Executive Engineer,

GKLI Division, Pulivendula.

Report to accompany the estimate for “Annual Maintenance Estimate of Gandikota Lift Irrigation Scheme Stage-I & Stage-II Pump Houses for the Year FY:2023-24 in YSR District”.

**Estimate Amount Rs.2.950 Crores.**

**Preamble:**

Gandikota Lift Irrigation Scheme is Constructed as a part of GNSS Project to lift 6 TMC of Water from foreshore of Gandikota Reservoir to Paidipalem Reservoir with GKLI Stage-I Pump House near Kondapuram (v); contemplated to irrigate 47,500 Acres of direct ayacut in Simhadripuram, Thonduru and Kondapuram Mandals of Kadapa District and also to stabilize 41,000 acres of Ayacut under Pulivendula Branch Canal system with GKLI Stage-II Pump House near Himakuntla (v). The entire Ayacut is designed for Micro irrigation.

The GKLI scheme was proposed to create the irrigation facilities for the dry prone area of Pulivendula in Rayalaseema region to avoid public migration. In this connection, as per the request of public & public Representatives, initially the Government has accorded administrative approval for Rs.271.00Crores vide G.O. Ms.No.5 I&CAD (PW :Maj.Irri.VI)/2006-1 dated 11.01.2005 for system capacity of 3 TMC and direct ayacut of 5000 acres.

Further the Government has accorded revised administrative approval for Rs.837.00Crores vide G.O. Ms.No.222 I&CAD (PW:Maj.Irri.VI)/2006-1 dated 14.12.2006 duly revising the system capacity to 6 TMC and direct Ayacut of 47,500 acres.

The work was entrusted to M/S KBL-MCCl(JV), Pune vide Agreement No.5 SE/2004-05 dated:31.03.2005 on tender basis under EPC System. The total contract value of work is 727.40 Crores.

The construction of Pump House and Erection of Motors and Pumps with all Electrical and Mechanical components, 132/11KV Sub-station and Pressure mains for a length of Km.10.00 in two rows is completed And also the testing and commissioning of all motors and pumps is completed during Jan-Feb 2017 duly pumping about 1.00TMC of water. The Paidipalem Balancing Reservoir with gross capacity of 6TMC is also completed. The scheme is inaugurated by the then Hon’ble Chief Minister of Andhra Pradesh on 11.01.2017.

The Construction of stage-II Pump house and Erection of Motors and Pumps with all Electrical and Mechanical components, 33/6.6 KV Sub-station and Pressure mains for 1.525 Km length in three rows is completed for PBC system. Testing and commissioning of all motors and pump s is completed during Jan-Feb 2017 duly pumping about 0.34TMC of water in to PBC system.

From Commissioning day onwards the quantity of water lifted from Stage-1 and Stage-2 Pump Houses is as follows.

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| --- | --- | --- | --- | --- | --- | --- |
| Pumping Station | FY:2017-18 | FY:2018-19 | FY:2019-20 | FY:2020-21 | FY:2021-22 | FY:2022-23 |
| Stage I | 3.10 TMC | 3.30 TMC | 5.30 TMC | 5.60 TMC | 1.15 TMC | 1.58 TMC |
| Stage II | 1.64 TMC | 0.43 TMC | 0.50 TMC | 1.00 TMC | 0.20 TMC | 0.01 TMC |

In this regard the then Executive Engineer of GKLI Division, Pulivendula has issued the completion certificate to the agency to start the O&M activities during the defect liability Period to the extent of pumps and motors on 09.02.2018. The agency has completed two years O & M in Defect Liability Period as on 08.02.2020. Further the O & M has to be taken up by the department from 09-02-2020 onwards.

The Lifting of water from Gandikota Reservoir to Paidipalem Reservoir was successfully completed and stored for its full capacity of 6 TMC of water in Paidipalem Reservoir duly lifting of 5.60 TMC through Stage-I & 1.0 TMC through Stage-II from Himakuntla to PBC during the year 2020-21 and the Operation & Maintenance with all necessary spares parts was successfully completed by M/s Megha Engineering Infrastructure Limited, Hyderabad for the year 2020-21 and also continuing the Operation & Maintenance in the current Year 2021-22.

Further as per the proposals for *“Annual Operation and Maintenance of pumps and motors of GKLI Scheme (Stage-I & Stage-II) for the Year 2020-21”* received from the Chief Engineer(P), Kadapa, the Government had accorded administrative approval for an Amount of Rs.236.86 Lakhs vide G.O.RT. No. 145 (Water Resources (Projects.III) Department) Dated: 05-05-2021.

Later on the Government had accorded administrative approval for an Amount of Rs.470.72 Lakhs vide G.O.RT. No. 574 (Water Resources (Projects.III) Department) Dated: 22-04-2022for the year- 2021-22 duly including the liabilities for the year 2020-21**.**but the orders for entrustment of work to agency was not issued by the Government. For arranging payment to the agency; the Chief Engineer (P), Kadapa requested the Government for post facto permission from duly ratifying the Chief Engineer's action in having entrusted the work to M/s Megha Engineering Infrastructure Limited, Hyderabad vide his letter No.CE(P)/WRD/KDP/TS3/ GKLI/5731/2004, Dated:10-05-2022.

In response to the Chief Engineer (P), WRD, Kadapa letter, the Government has ratified the Chief Engineer’s action of Entrusting the work of “Annual Operation & Maintenance of GKLI Stage-I & II” for the years 2020-21 & 2021-22 respectively *to M/s Megha Engineering Infrastructure Limited, Hyderabad* vide Memo No.ICD01/1116/2021-PROJ-III(1492736) Dated:13-09-2022.

Meanwhile for continuing the Operations & maintenance for the year 2022-23, the department further opinioned to continue the agency M/s Megha Engineering Infrastructures Limited, Hyderabad. Because the present Operation & Maintenance year-2022-23 was started from 1st April-2022 onwards. In this connection for avoiding unnecessary future complications, the Operation & Maintenance estimate was prepared with SSR-2021-22 and worked out for a tune of Rs.2.70 Crores and submitted to the Government for permission for inviting tenders.

As per the proposals received from the Chief Engineer(P), Kadapa, for *“Operation and Maintenance of pumps and motors of GKLI Scheme (Stage-I & Stage-II) for the Year 2022-23”* the Government had accorded administrative approval for an Amount of *Rs.255.00 Lakhs vide G.O.RT. No.* 2055 *(Water Resources (Projects.III) Department) Dated:* 25-10-2022 *and receipt in this office* on 04-11-2022.

But the orders for entrustment of work to the agency were not issued by the Government. For arranging payment to the agency; the Chief Engineer (P), Kadapa requested the Government for post facto permission from duly ratifying the Chief Engineer's action in having entrusted the work to M/s Megha Engineering Infrastructure Limited, Hyderabad vide his letter No.CE(P)/WRD/KDP/TS3/ GKLI/5731/2004, Dated:24-11-2022.

In response to the Chief Engineer (P), WRD, Kadapa letter, the Government has ratified the Chief Engineer’s action of Entrusting the work of **“Annual Operation & Maintenance of GKLI Stage-I & II” for the year 2022-23 *to M/s Megha Engineering Infrastructure Limited, Hyderabad* vide G.O Rt.104 (Water Resources (Projects-III) Department, Dated:03-03-2023.**

Further it is to inform that, the Operation & Maintenance has to be take-up without delay from 01-04-2023 onwards. Because the valuable property has to be protected/safeguard and also regular maintenance has to be taken up and pumping has to start from July/August onwards. For avoiding time lapse and interruption for taking up the Operation & Maintenance for the year 2023-24, it is necessary of engage the agency on tender basis that who is having experience in the same field. Unless fixing up the agency or without support from any agency, department is unable to take up the Operation & Maintenance. Because Operation & Maintenance needs all type of technical in Civil/Mechanical/Electrical/Electronic field with ITI/Diploma/ Graduate/Team Leader qualifications. Also non Technical/crane Operator/ Drivers /Mazdoor etc., are required in three shifts daily during pumping & non Pumping periods as per Government O&M Manual & Government Orders. Operation & Maintenance also required lot of spare parts/ consumables/ accessories which will be damaged at the time of pumping are necessary for rectifying them immediately for avoiding delay in pumping. This includes with lot of expenditure. In this connection; it is necessary to entrust the Operation & Maintenance work to agency which is having similar type of experience in the Operation & Maintenance of Pumps & Motors.

In this regard, the department was opined that it is necessary to invite tenders for the work “Annual Maintenance Estimate of Gandikota Lift Irrigation Scheme Stage-I & Stage-II Pump Houses for the Year FY:2023-24 in YSR District” for proper maintenance and successful operation of Lifts with expertise technical, non-technical and their supporting staff during Pumping & Non-pumping periods for regular Maintenance of GKLI Scheme (Stage-I & Stage-II); for smoothly completing the pumping of water from Gandikota Reservoir to Paidipalem Reservoir & for PBC system for securing the crops and livelihood of the public under the project ayacut, it is necessary for fixing the agency on tender basis.

For Arriving the estimate amount, the non SOR Items such as electrical & Mechanical items; rates are considered as per the previous quotations/ Materials utilized during the years-2020-21 & 2021-22. The item rates may vary (Increase/Decrease) at the time of supply in the year 2023-24. Hence the present proposed item rates are tentative and considered for estimate purpose only. During the time of execution in 2023-24; the original quotations/Invoices will be invited & considered and prepared the revised estimate and obtain approval from competent authority for payment purpose.

In this connection, the present estimate is prepared for a period of one year (2023-24) of Maintenance as per the Go.Ms.No.33 (Irrigation) dated 12-07-2017 of Telangana Government as per SSR-2022-23 rates and worked out for an amount of **Rs.2.950 Crores**. So for taking up the Operation & Maintenance of GKLI Scheme (Stage-I & Stage-II) for smoothly completing the pumping of water from Gandikota Reservoir to Paidipalem Reservoir & for PBC system for securing the crops and livelihood of the public under the project ayacut, it is necessary for fixing the agency on tender basis.

In the previous sanctioned estimates, GST is provided at 12% for Materials & 18% for Labour. But the Government vide G.O.Ms.196, (Finance, (FMU-WR-I) Department), Dated:23-09-2022, enhance the GST rates from 5% as 12% and 12% & 18% rates as 18% on ECV. In this connection, the present Estimate, GST is proposed at 18% on all working items. So the Estimate amount is increased.

The following provisions are made in the present estimate:

**Part-A:**

1. Shift duty Personnel for running period (Pumping period).
2. Maintenance Staff (Non-pumping period).
3. Provision towards Consumable items for maintenance.
4. Provision towards Repairs of small spare parts costing up to Rs.5000/-.
5. Provision towards replacement/ Repairs of major Spare parts costing more than Rs.5000/-.

**Part-B:**

1. Provision for GST @ 18%.
2. Provision for NAC @ 0.1%.
3. Provision for Price Variation
4. Provision for Tender Charges & Misc.

The estimate amount for the year 2023-24 is prepared with Common Schedule of Rates of **Water Resources Department** for all the Engineering Departments with **SSR-2022-23** &for non SSR items (Materials –Electrical & Mechanical); previous quotations of year 2020 -2022 were considered and the estimate is worked out for a tune of **Rs.295.00 Lakhs**. The O&M Estimate is prepared as perthe Operation and Maintenance Policy Vide Go.Ms.No.33 (Irrigation) dated 12-07-2017 of Government of Telanganaand the administrative approvals for Annual Maintenance accorded from the Government vide *G.O.RT. No.* 2055 *(Water Resources (Projects.III) Department) Dated:* 25-10-2022*and receipt in this office* on 04-11-2022 with increased Current SSR 2022-23 Rates.

The Expenditure is dubitable to “2700-Capital Outlay on Major Irrigation -01 Major Irrigation MH-800-Other Expenditure SH 22-Project Establishment -270 Minor Works-272 Maintenance.