

**Government of Telangana**  
**Irrigation & Command Area Development Department**  
**Office of the Engineer-in-Chief, Irrigation**  
**Jalasoudha, Errum manzil, Hyderabad- 500082**  
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**Website: www.irrigation.telangana.gov.in**

**Expression of Interest**

**Assignment:** Irrigation & CAD Department – Information for calling expression of interest for formulation of Pumping Station Monitoring Centre (PSMC) at Jalasoudha.

Government of Telangana has taken up many large Lift Irrigation Projects spread over the entire state with different capacities of pumps and motors. In order to monitor the functioning of these pumping systems round the clock it is proposed to establish a Pumping Station Monitoring Centre (PSMC). In this regard the following is invited.

Proposals are invited for establishing Pumping Station Monitoring Centre (PSMC) at Jalasoudha building in 4<sup>th</sup> floor, to monitor continuously the following data of each pumping station of Lift Irrigation schemes of Telangana state. 1. Status of pumps (Running/ OFF/ Trip), 2. Discharges of each pump, 3. Input power of each pump 4. Total discharge of pumping station, 5. Total power input of pumping stations, 6. Input voltages of Pumping stations (132KV/ 220KV/ 400KV), 7. Surge pool/ Fore bay water levels, 8. Cistern water levels, 9. Intake reservoir water levels, 10. Cistern reservoir water levels, 11. Main canals water discharges, 12. Main canals water levels, 13. Energy consumption of each pumping stations, 14. Quantity of water pumped at each pumping station.

The Government of Telangana intends to engage reputed and experienced consulting organizations for establishing the Pumping Station Monitoring Centre (PSMC). Expressions of interest (EOI) from eligible Consultant organizations are invited for the above assignment, **Pumping Station wise** which may be submitted in the **O/o the Engineer-in-Chief, Irrigation 2<sup>nd</sup> Floor, Jalasoudha Building, Erramanzil, Hyderabad- 500082, Telangana.**

**Proposal for EOI must be submitted in a sealed cover super scribing "Expression of Interest for Establishment of Pumping Station Monitoring Centre (PSMC) at Jalasoudha building" before 27 .04.2019, 15:00 hrs.**

**Sealed covers will be opened at 16:00 hrs on 29.04.2019 in the Conference Hall, 5<sup>th</sup> Floor, Jalasoudha** by the Engineer-in-Chief (Irrigation) or by any other officer on his behalf.

The Government reserves the right to delete any project proposal without assigning any reasons.

**Note: Changes if any will be updated in website.**

The Pumping Station Monitoring Centre (PSMC) is proposed to be located in 4<sup>th</sup> floor of Jalasoudha building, ErrumManzil, Hyderabad 500081.

For the above, information is to be collected from

- i) pumping station with collective rating more than 30MW.
- ii) for pumps with individual rating of more than 10 MW even if collective rating is less than 30 MW.
- iii) Pumping stations which are being fed by 132KV and above voltage substation at the pumping station by TSTRANSCO in Telangana state.

There are about 89 pumping stations in Godavari and Krishna basins.

Initially it is proposed to have monitoring system and in future it is to be made suitable for control system to pumps of each pumping station. Hence offer shall cover both monitoring system and control system.

The bidder shall furnish the company profile with experience in the field of providing systems like load dispatch centers in power grid organizations for clarity of experience and clearly indicate in the bid document of expression of interest.

Bid document shall cover the details about whether they will be quoting the equipment/ material other than the manufactured items and if any, they shall furnish the details of supplier name, experience, original country name.

All the equipment like transducers, RTU's etc., are to be provided at each pumping station and at PSMC station in Jalasoudha for proper and reliable communication of data are to be covered in scope of supply of the bidder.

A mimic picture on LVS system(12'\*8') is to be provided in PSMC with display mimic of pumping stations and the data of each pump of pumping stations or total number of pumps of each pumping station.

Data transmission system proposed by the bidder shall be clearly specified.

I&CAD Dept. proposes to use TSTRANSCO 132KV/ 220KV/400KV lines to the extent possible, if possible and data has to be taken from TSTRANSCO load dispatch centre located in 6<sup>th</sup> floor at Vidyut soudha, Somajiguda, Hyderabad.

Time period for completion shall be clearly indicated in the bid document of the bidder. Preferred completion of the proposal of the system shall be 6 months from the date of signing of contract.

This document is only for obtaining expression of interest for establishing Pumping Station Monitoring Centre (PSMC) at 4<sup>th</sup> floor of Jalasoudha building, Errum Manzil, Hyderabad 500081.

**“The interested consulting agencies may visit the grid control room of TSGENCO at Vidyut Soudha, Hyderabad for broad guidance as similar arrangement with different parameters is anticipated for Pumping Station Monitoring Centre (PSMC).”**

The statement showing the details of basin wise total no. of pumps along with existing load and also expected load on completion of projects is as follows:

<b>Sl. No.</b>	<b>Item</b>	<b>No. of pumps</b>	<b>Total connected load of pumping station in MW</b>
<b>1</b>	<b>Existing loads of pumps already in service</b>		
	a) By Pumping stations on Krishna river	47	790.00
	b) By Pumping stations on Godavari river	79	530.95
	<b>Total load of pumping stations which are already in service</b>	<b>126</b>	<b>1320.95</b>
<b>2</b>	<b>Expected load on completion of projects under Execution</b>		
	a) By Pumping stations on Krishna river	37	4822.50
	b) By Pumping stations on Godavari river	148	6108.68
	<b>Total load of pumping stations which are under execution</b>	<b>185</b>	<b>109321.18</b>
	<b>Total load expected on power grid on both rivers</b>	<b>311</b>	<b>12252.13</b>

**POWER REQUIRED IN MW (Megawatt) Note :One MW= 1000 KW (Kilowatt)**

**PUMPING STATIONS ON KRISHNA RIVER IN TELANGANA STATE**

<b>A Pumping stations already in service on krishna river</b>				
<b>Sl.No</b>	<b>Name of Pumping Station</b>	<b>Rating of each Motor in MW</b>	<b>No. of pumps</b>	<b>Total connected load of pumping station in MW</b>
<b>I</b>	<b>Kalwakurth Lift Irrigation Scheme</b>			
1	Stage-1 Pumping station	30.00	5	150.00
2	Stage-2 Pumping station	30.00	5	150.00
3	Stage-3 Pumping station	30.00	5	150.00
<b>II</b>	<b>Bheema Lift-1 Irrigation Scheme</b>			
4	Stage-1 Pumping station	12.00	3	36.00
5	Stage-2 Pumping station	4.00	3	12.00
<b>III</b>	<b>Bheema Lift-2 Irrigation Scheme</b>			
6	Stage-1 Pumping station	12.00	3	36.00
7	Stage-2 Pumping station	4.00	3	12.00
<b>IV</b>	<b>Nettampad Lift Irrigation Scheme</b>			
8	Stage-1 Pumping station	17.00	4	68.00
9	Stage-2 Pumping station	17.00	3	51.00
<b>V</b>	<b>Koilsagar Lift Irrigation Scheme</b>			
10	Stage-1 Pumping station	7.50	2	15.00
11	Stage-2 Pumping station	7.50	2	15.00
12	AMR Lift irrigation scheme	18.00	4	72.00
13	AMR Low Level Canal lift irrigation scheme (3 x 4 MW)	4.00	3.00	12.00
	Thumilla pumping station in Mahabunagar district			
14	Phase 1	5.50	2	11.00
	<b>Total</b>	<b>198.50</b>	<b>47.00</b>	<b>790.00</b>

**Projects under Execution on krishna river**

<b>Sl.No</b>	<b>Name of Pumping Station</b>	<b>Rating of each Motor in MW</b>	<b>No. of pumps</b>	<b>Total connected load of pumping station in MW</b>
1	Pumps at Udayasamudram Lift Scheme pump 1 & 2 in Nalgonda district	16.00	2	32.00
	Thumilla pumping station in Mahabunagar district			
2	Phase 2	10.50	1	10.50
	<b>Palamur ranga Reddy lift irrigation Scheme</b>			
3	Stage-1 Pumping Station at Anjanagiri Reservoir in Mahaboobnagar District	145.00	8	1160.00
4	Stage-2 Pumping Station at Venkatadri Reservoir in Mahaboobnagar District	145.00	9	1305.00
5	Stage-3 Pumping Station at Vatterem Reservoir in Mahaboobnagar District	145.00	9	1305.00
6	Stage -4 pumping station at Udandapur in Mahaboobnagar district	145.00	5	725.00
7	Stage -5 pumping station at KP Lakshmidvipally in R.R district	95.00	3	285.00
	<b>Total</b>	<b>701.50</b>	<b>37</b>	<b>4822.50</b>

**POWER REQUIREMENT OF PUMPING STATIONS ON GODAVARI RIVER  
IN TELANGANA STATE**

<b>A Pumping stations already in service on Godavari river</b>				
<b>Sl. No.</b>	<b>Name of Pumping station</b>	<b>Rating of each Motor in MW</b>	<b>No. of pumps</b>	<b>Total connected load of pumping station in MW</b>
	<b>Devadula lift scheme</b>			
<b>I</b>	<b>Intake pump house Gangaram, Bhupalpally district</b>			
1	In Phase-I to pump water to Bhimghnpur P.S	8.50	2	17.00
2	In Phase-II to pump water to Bhimghnpur P.S	12.80	2	25.60
3	In Phase-III to pump water to Bhimghnpur P.S	16.00	6	96.00
<b>II</b>	<b>BHIMGHANPUR Pumping station, Bhupalpally district</b>			
4	In Phase-I to pump water to pulkurthy p.s	8.50	2	17.00
5	In Phase-II to pump water to shalivagu P.S	11.75	2	23.50
6	Pulakurthy Pumping station in warangal district In Phase-1 to pump water to Dharmasagar P.S	6.00	2	12.00
7	Shalivagu Pumping station in warangal district In Phase-II to pump water to Dharmasagar P.S	12.50	2	25.00
8	In Phase-I to pump water to R.S ghanpur P.S	3.00	2	6.00
9	In Phase-II to pump water to Gandiramaram P.S	13.00	2	26.00

<b>Sl. No.</b>	<b>Name of Pumping station</b>	<b>Rating of each Motor in MW</b>	<b>No. of pumps</b>	<b>Total connected load of pumping station in MW</b>
10	R.S ghanpur Pumping station in Waranagal district In Phase-II to pump water to Aswaraopally tank	3.50	2	7.00
11	Gandiramaram Pumping station in Waranagal district In Phase-II to pump water to Bommakur P.S	4.00	2	8.00
12	Bhommukur Pumping station in Waranagal district In Phase-II to pump water to Tapaspally tank	3.25	2	6.50
13	Bhommukur Pumping station in Waranagal district In Phase-III to pump water to Tapaspally tank	7.82	2	15.64
	<b>TOTAL</b>	<b>115.43</b>	<b>32.00</b>	<b>294.86</b>
	<b>Yellampally lift scheme</b>			
14	Vemunur pumping station in Karimnagar district	10.50	4	42.00
15	Medaram pumping station in Karimnagar district	15.95	4	63.80
16	Gangadhara pumping station in Karimnagar district	6.88	4	27.52
17	Kadam pumping station Adilabad dist...	4.10	2	8.20
<b>III</b>	<b>Manthani pumping station in Karimnagar district</b>			
18	Stage-1 pumping station	2.00	2	4.00
19	Stage-2 pumping station	2.00	2	4.00
20	NTPC pumping station in Karimnagar dist.	3.40	4	13.60
21	Rajanarsimha ( Singur) lift Scheme Pumping station in Medak district	0.40	4	1.60



Sl. No.	Name of Pumping station	Rating of each Motor in MW	No. of pumps	Total connected load of pumping station in MW
<b>IV</b>	<b>Muktheswaer Pumping station near kaleswaram in Karim nagar district</b>			
22	Phase-1, Stag-1 pumping station	2.20	1	2.20
23	Phase-1, Stag-2 pumping station	8.50	2	17.00
24	Phase-2, lift-1 pumping station	0.30	1	0.30
25	Phase-2, lift-2 pumping station	2.20	1	2.20
26	Phase-2, lift-3 pumping station	2.90	1	2.90
27	Phase-2, lift-4 pumping station	1.65	1	1.65
28	<b>Bhaktha Ramadas Pumping station</b>	10.50	2	21.00
<b>V</b>	<b>Alisagar Lift irrigation scheme</b>			
29	Stage-1 pumping station	2.30	2	4.60
30	Stage-2 pumping station	2.85	2	5.70
31	Stage-3 pumping station	1.20	2	2.40
<b>VI</b>	<b>Guthpa Lift irrigation scheme</b>			
32	Stage-1 pumping station	2.25	2	4.50
33	Stage-2 pumping station	1.73	2	3.46
34	Stage-3 pumping station	1.73	2	3.46
	<b>Total</b>	<b>200.97</b>	<b>79.00</b>	<b>530.95</b>

<b>B Projects under Execution on Godavari River</b>				
<b>Sl.No.</b>	<b>Name of Pumping Station</b>	<b>Rating of each Motor in MW</b>	<b>No. of pumps</b>	<b>Total connected load of pumping station in MW</b>
<b>I</b>	Devadula Lift scheme pumping stations phase 3 in warangal district			
1	At Bheemghanpur P.S	22.00	3	66.00
<b>II</b>	At Dharmasagar P.S			
2	Phase 1	32.00	3	96.00
3	Phase 2	8.00	2	16.00
4	Goravelli ( Totapalli) lift scheme in Karimnagar district	32.00	3	96.00
<b>III</b>	Kanne pally lift irrigation scheme in karimnagar district			
5	Lift-1	2.20	1	2.20
6	Lift 2	8.50	2	17.00
<b>IV</b>	Chanaka-Korata Lift Irrigation scheme in Adilabad District			
7	Phase 1	12.00	3	36.00
8	Phase 2	5.50	3	16.50
9	Medigadda Pumping Station in Karimnagar District	40.00	11	440.00
10	Annaram Pumping Station in Karimnagar District	40.00	8	320.00
11	Sundilla Pumping Station in Karimnagar District	40.00	9	360.00
12	Medaram Pumping Station (Pkg-06) in Karimnagar District	124.40	7	870.80
13	Ramadugu Pumping Station (Pkg-08) in Karimnagar District	139.00	7	973.00
<b>V</b>	Dharmaram Pumping Station (Pkg-09) Karimnagar District			
14	Lift 1	30.00	2	60.00
15	Lift 2	2.25	2	4.50
16	Ananthagiri Pumping Station (Pkg-10) at Thippapur P.S	106.00	4	424.00
17	Ranganayak sagar Pumping Station (Pkg-11) at Chandiapur P.S	134.50	4	538.00
18	Komerelli Mallannasagar P.S (Pkg-12) at Thukkapur P.S	43.00	8	344.00

Sl.No.	Name of Pumping Station	Rating of each Motor in MW	No. of pumps	Total connected load of pumping station in MW
19	Palamulaparthu pumping Station (Pkg-14) Stag-1, Akkaram in Karimnagar District	27.00	6	162
20	Paamulaparthu pumping Station (Pkg-14) Stage-2, Markook in Karimnagar District	34.00	6	204.00
21	Pumping Station at Sarangapur (Pkg-20) in Nizamabad District	30.00	3	90.00
22	Pumping Station at Manchippa (Pkg-21) in Nizamabad District	31.00	2	62.00
23	Pumping station (Pkg-22) Lift-1 with in Karimnagar district	30.00	3	90
24	Pumping station (Pkg-22) Lift-2 with in Karimnagar district	1.95	1	1.95
25	Pumping station (Pkg-28) Lift-1 with in Karimnagar district	7.50	1	7.5
26	Pumping station (Pkg-28) Lift-2 with in Karimnagar district	5.23	1	5.23
	SRSP FFC Pumping stations			
27	Stg-1, pumping station	6.50	8	52.00
28	Stg-2, pumping station	6.50	8	52.00
29	Stg-3, pumping station at	6.50	8	52.00
	Sita Rama Lift Irrigation in Khammam district			
30	Pumping station at Kothurtu	25.00	6	150.00
31	Pumping station at Koyagutta	40.00	6	240.00
32	Pumping station at Sattupalli			
33	Phase 1	40.00	5	200.00
34	Phase 2	30.00	2	60.00
	<b>Total</b>	<b>1142.53</b>	<b>148</b>	<b>6108.68</b>