



### Abstract

Rural Development and Panchayat Raj Department- Announcement made by Hon'ble Chief Minister on the floor of the Tamil Nadu Legislative Assembly under rule 110 on 12.06.2018 – Installation of Reverse Osmosis (RO) Plants in rural areas during 2018-19 at a cost of Rs. 100 Crore from the State Finance Commission Devolution Grant for Panchayat Unions- permission accorded- orders issued.

### Rural Development and Panchayat Raj (SGS-3) Department

G.O.(Ms) No.83

Dated 02.07.2019

Read:

1. Announcement made by Hon'ble Chief Minister on the floor of the Tamil Nadu Legislative Assembly under rule 110 on 12.06.2018.
2. From the Director of Rural Development and Panchayat Raj letter No. 5732/2018/PRI 3-2, dated: 04.08.2018 & 25.06.2019

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### ORDER:

The Hon'ble Chief Minister of Tamil Nadu has made the following announcement under rule 110 of Tamil Nadu Legislative Assembly on 12.06.2018:-

“ஊரகப் பகுதிகளுக்கு குடிநீர் வழங்குவதில் ஆழ்துளை கிணறுகள் முக்கிய குடிநீர் ஆதாரங்களாக உள்ளன. உப்பு அல்லது கடின தன்மை மற்றும் குடிநீரில் காணப்படும் இதர குறைகளை சீர்செய்து, பாதுகாக்கப்பட்ட குடிநீரினை மக்களுக்கு வழங்க நடப்பாண்டில் 100 கோடி ரூபாய் மதிப்பீட்டில் குக்கிராமங்களில் எதிர் சவ்வூடு பரவல் குடிநீர் சுத்திகரிப்பு நிலையங்கள் அமைக்கப்படும்.”

2) Based on the above Announcement, the Director of Rural Development and Panchayat Raj has sent necessary proposal along with draft guidelines for installation of Reverse Osmosis plants at an estimate cost of Rs. 100 Crore during 2018-19 in rural areas and proposed that the amount required for undertaking installation of Reverse Osmosis Plants may be met out from State Finance Commission (SFC) Devolution Grant of Panchayat Unions. The Director of Rural Development and Panchayat Raj in

his proposal has stated that according to section 110 of the Tamil Nadu Panchayats Act, 1994, one of the basic and statutory duties of Village Panchayats is provision of drinking water supply in rural areas. Hand pumps, Power pumps and Combined Water Supply schemes (CWSS) are the major sources of water supply in rural areas. The Government have taken all steps to provide potable drinking water to the rural people. However, there are few areas in the State where quality of water supplied is of concern, due to the nature of ground water in the area. In order to mitigate water quality issues, Village Panchayats are installing Reverse Osmosis plants as reliable systems in Villages where water is salty/brackish and not potable.

3) The Director of Rural Development and Panchayat Raj has also enclosed the District wise allocation of funds for installation of RO Plants and the tentative list of habitations identified by the Districts for installation of RO plants. Therefore the Director of Rural Development and Panchayat Raj has requested the Government to issue necessary orders for installation of Reverse Osmosis plants at an estimate cost of Rs.100 Crore during 2018-19 in rural areas in the required locations based on the above guidelines and the amount required for installation of Reverse Osmosis (RO) Plants may be met out from the State Finance Commission Devolution Grant for Panchayat Unions.

4) The Government have examined the proposal of the Director of Rural Development and Panchayat Raj in detail and decided to accept the same and hereby permits the Director of Rural Development and Panchayat Raj to undertake installation of Reverse Osmosis (RO) Plants in rural areas in the required locations based on the guidelines, during 2018-19 at a cost of Rs. 100 Crore from the State Finance Commission Devolution Grant for Panchayat Unions.

5) The detailed guidelines for installation of Reverse Osmosis (RO) Plants and the District wise allocation of funds are annexed to this order.

6) This order issues with the concurrence of Finance Department vide its U.O.No. 29603 / (AK)SS / 2019, Dated: 26.06.2019.

(BY ORDER OF THE GOVERNOR)

HANS RAJ VERMA  
ADDITIONAL CHIEF SECRETARY TO GOVERNMENT

**To**

The Director of Rural Development and  
Panchayat Raj, Chennai-15.

All District Collectors. (except Chennai)

All Project Directors, District Rural Development Agencies

(Thro' Director of Rural Development & Panchayat Raj, Chennai-15)

The Accountant General, Chennai-9/18/35.  
The Pay and Accounts Officer, Chennai-35.  
The Pay and Accounts Officer, Madurai.  
All District Treasury Officers  
National Informatics Centre, Chennai-9.

**Copy to:**

The Hon'ble Chief Minister's office, Chennai-9.  
The Senior Personal Assistant to the Hon'ble Minister for Municipal Administration and  
Rural Development &  
Spl. Programme Implementation, Secretariat, Chennai-9.  
The Private Secretary to Chief Secretary, Secretariat, Chennai-9.  
Finance (RD) Department, Chennai-9.  
SF/SC

//Forwarded by order//

  
SECTION OFFICER

**ANNEXURE – I**  
**G.O.(Ms) No. 83, RURAL DEVELOPMENT AND PANCHAYAT RAJ (SGS-III)**  
**DEPARTMENT, DATED :02.07.2019**  
**Guidelines for Installation of Reverse Osmosis (RO) Plants in**  
**rural areas during 2018-19**

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**1. Introduction**

The Hon'ble Chief Minister of Tamil Nadu had announced in the floor of Tamil Nadu Legislative Assembly under rule 110 that Reverse Osmosis Plants will be installed at an estimate cost of Rs.100 Crore during 2018-19 in rural areas.

According to section 110 of the Tamil Nadu Panchayats Act, 1994, one of the basic and statutory duties of Village Panchayats is provision of drinking water supply in rural areas. Hand pumps, Power pumps and Combined Water Supply Schemes are the major sources of water supply in rural areas. The Government have taken all steps to provide potable drinking water to the rural people. However, there are few areas in the State where quality of water supplied is of concern due to the nature of ground water in the area. In order to mitigate water quality issues, Village Panchayats are installing Reverse Osmosis plants as reliable systems in Villages where water is salty/brackish and not potable.

**2. Implementation Agency**

Installation of Reverse Osmosis Plants will be carried out by District Rural Development Agencies and subsequently handed over to the concerned Village Panchayats for further operation and maintenance and providing potable drinking water to rural people. Technical guidance for installation and maintenance of Reverse Osmosis plants shall be provided by the technical officials of Rural Development and Panchayat Raj Department.

**3. Allocation of Fund**

The amount Rs.100 Crore required for undertaking installation of R.O. plants will be met out from State Finance Commission devolution grant for Panchayat Unions. The district wise allocation of fund is annexed along with the guidelines

**4. Selection of locations / areas for installation of Reverse Osmosis plants:**

- i) Habitations in which the quality of drinking water supplied is not up to the IS 10500-2012 standards is eligible for installation of Reverse Osmosis plants
- ii) Priority should be given to Coastal habitations and the Village Panchayats which have TDS (Total Dissolved Solids) of water in the range of 2000 to 2500 mg/litre.
- iii) Habitations with more than 2500 mg/litre TDS (Total Dissolved Solids) should not be taken up.
- iv) The habitation/source should have sufficient water to supply to the RO Plant. If the present water supply is not adequate those areas also should not be considered.
- v) Habitations with more density of population should be given priority.

- vi) At least 30% allocation should be given to SC/ST habitations at the district level.
- vii) If potable water is available more than the required quantity in the particular habitations, those villages should not be selected under this scheme
- viii) Based on the fund allocated to the districts, the District Collectors shall finalise the number villages in which the RO plants are to be installed based on the above priorities.
- ix) The RO plants can be established utilizing existing Bore well and other water supply systems or if required, bore well and other water supply system can be created under this project.

#### 5. District Level Committee:

A Committee at the District level under the District Collector with the following members will finalize habitations and the type of Reverse Osmosis plant with respect to the site conditions for installation of Reverse Osmosis plants under this scheme. The District level Committee consists of:

1.	District Collectors	:	Chairperson
2.	Project Director, District Rural Development Agency	:	Member
3.	Executive Engineer (RD)	:	Member
4.	Executive Engineer- RWS (TWAD)	:	Member
5.	Assistant Director (Panchayats)	:	Convenor

#### 6. Specification:

The Executive Engineer, Rural Development will finalize the technical specification for the installation of Reverse Osmosis plant in a particular habitation/ area as per field requirement in consultation with Superintending Engineer, Rural Development. The technical details should include the type of Reverse Osmosis plants, their capacity, type of treatment required, and the solution of membranes depending on the quantity and quality of the feed water, population served etc. All machineries and equipments in the plant except consumables should have a minimum of 2 year comprehensive replacement guarantee. Selection of the type of Reverse Osmosis plant with respect to the site conditions shall be finalized on case-to-case basis by the District level committee. Latest technology RO Plant with inbuilt ATM for distribution of water alone should be installed.

#### 7. Tender Procedure:

Though, the operation and maintenance of Reverse Osmosis plants are done by the Village Panchayats, they are not capable to call for tender for installation of Reverse Osmosis plants. Hence, considering the size of procurement and the technicality involved, tender will be called at District level for the allocation made to the District. District Rural Development Agency will be the implementing agency for this scheme. The Project Director, District Rural Development Agency will be the tender inviting authority. The District Collector will be the tender accepting authority.

## **8. Issue of work order:**

After finalization of tender and identification of Agency for installation of Reverse Osmosis plants, work order will be issued by the District Collector and agreement should be executed by the Agency for installation of Reverse Osmosis plants within the time limit and for operation and maintenance of plants up to a minimum period of 3 months. The Contractor should train and certify one or two Self Help Group members identified by the Panchayat Level Federation / Self Help Group which has been identified by the Village Panchayat for further operation and maintenance of plants.

## **9. Reject Water Management:**

Reverse Osmosis is a water purification technology which separates dissolved solids from water by forcing the water through a semi permeable membrane. Smaller salt molecules along with the water molecules pass through the membrane. Larger molecules are retained by the membrane along with some water that does not pass through the membrane. This concentrated stream of water which does not pass through the membrane, called RO Reject and it can be anywhere between 20% - 50% depending on the quality of water and type of membrane used.

The reject concentrate water should be used for irrigating salt tolerant species of plants, shrubs, trees or any other form of vegetation in and around the RO plant or in common place or may be utilized for cleaning purpose in community toilets.

Where ever feasible a recharge well should be created and the reject water of RO plant should be harvested to replenish the sub soil water. Otherwise, community soak pit maybe created around the plant by using MGNREGS fund.

## **10. Operation and Maintenance of RO systems:**

### **10.1. Location of RO Plant:**

1. The plant and the distribution point should be always located inside the habitation and should not be located outside or away from the habitation.
2. Priority should be given to areas where the poor people live.
3. Minimum 30% of the plants should be located in SC/ST habitation at the district level.
4. It should not be located closer to sanitary complexes or any other sewage related structures or closer to crematorium.

### **10.2. Operation of RO systems:**

- i) On completion of the moratorium period for maintenance by the contractor, the Reverse Osmosis plant has to be handed over to the Village Panchayat concerned. The RO plant should be entered in asset register of Village Panchayat.
- ii) The Village Panchayat should enter into an agreement with Village Poverty Reduction committee (VPRC) / Panchayat Level Federation (PLF)/ Self Help Groups (SHGs) for day to day operation and maintenance.
- iii) The SHG/PLF should engage one or two of its members, trained by the contractor, as full time operators who will be responsible for operation and maintenance of the Plant and judicious distribution of RO treated water to all the

- families who want to avail the facility. The operator should be paid monthly wages by the SHG/PLF from the revenue generated by operating the plant.
- iv) Village Panchayat Secretary and Deputy Block Development officer should visit and monitor the functioning of the RO plant frequently. The overseer, the Assistant Engineer and the Block Development officer of the concerned block should monitor the functioning of RO plant at least once in every fortnight.
  - v) SHG/ PLF may nominally charge certain amount for the quantity of water supplied to the general public. The Nominal fee should not exceed Rs.5 per 25 Litres at the rate of Rs. 0.20 per litre. The nominal cost can be fixed by the SHG/ PLF in consultation with the Village Panchayat with the approval of Grama sabha. The day to day expenditure on RO plant maintenance should be met out from the above collected fund.
  - vi) All families who want to collect water from the plant should be given an ATM card with recharge facility to avail RO water from the plant.
  - vii) The SHG / PLF should operate a Bank Account for maintaining this amount. This account should be attached to the ATM cards of the Users.
  - viii) In case of any major expenditure to be incurred for effective functioning of RO plant, it should be met out from the concerned Village Panchayat Fund.
  - ix) The SHG/ PLF should make the project self sustaining and should generate sufficient revenue to run the project properly. However, the Village Panchayat will meet the gap if any between the operational cost and the actual revenue from the operation of the plant for the first six months from the date of taking.
  - x) The surplus amount generated from the plant over and above the operation cost including the wages to operator, will be shared between the Village Panchayat and the PLF/SHG/VPRC on 75:25 ratio
  - xi) The Panchayat should utilize the entire amount generated from this project only to undertake water harvesting structure and improve the subsoil water in the Village Panchayat area.
  - xii) The SHG/PLF should maintain the premises clean and dry.

### **10.3. Distribution of RO Water:**

- i) Anyone can get RO treated water from the plant on payment of the nominal rate.
- ii) The RO treated water is meant for domestic consumption purpose and should not be sold / Distributed in huge quantity to any commercial or other purposes. For this purpose the Village Panchayat shall decide the maximum quantity of water that can be distributed to each family.

### **10.4. Maintenance and monitoring of RO system:**

A high-quality reverse osmosis drinking water system will last for many years if it is properly maintained. To make Reverse Osmosis system last longer, the filter membrane and other components should be maintained, cleaned, serviced and replaced properly as per the prescribed norms.

## **11. Monitoring:**

The District Collector will review the progress of installation of Reverse Osmosis plants at District level. The Project Director, District Rural Development Agency and Executive Engineer, RD will be responsible for the installation of Reverse Osmosis plants and expenditure at District level. The Block Development Officer (Village Panchayats) will be responsible for monitoring the installation of Reverse Osmosis plants at Block level.

The District collectors of all Districts except The Nilgris District have tentatively identified 1239 locations after detailed field assessment through technical personnel for installation of RO Plants under this project. The locations have the (Total Dissolved Solids) TDS in the range of 500 to 2500. The habitations having more than 2500 TDS have not been included in this list. All these villages have surplus water supply for feeding RO plant.

12. The Reverse Osmosis (RO) processing level should be fixed at appropriate level to ensure availability of sufficient minerals in drinking water.

13. The Additional Chief Secretary to Government, Rural Development and Panchayat Raj Department is empowered to modify the guidelines issued for this Scheme whenever necessary in consultation with the Director of Rural Development and Panchayat Raj.

**HANS RAJ VERMA**  
**ADDITIONAL CHIEF SECRETARY TO GOVERNMENT**

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**ANNEXURE – II**  
**G.O.(Ms) No.83, RURAL DEVELOPMENT AND PANCHAYAT RAJ DEPARTMENT**  
**(SGS-III) DEPARTMENT, DATED : 02.07.2019**

District wise allocation of fund for Installation of Reverse Osmosis Plants.		
Sl.No	Districts	Allocation (Rs.in Crores)
1	Kancheepuram	7.55
2	Thiruvallur	6.43
3	Cuddalore	7.30
4	Thanjavur	6.76
5	Nagapattinam	5.11
6	Pudukkottai	5.44
7	Thiruvarur	4.08
8	Ramanathapuram	4.09
9	Tirunelveli	6.67
10	Thoothukkudi	3.94
11	Kanniyakumari	2.62
12	Dharmapuri	2.46
13	Krishnagiri	2.79
14	Salem	3.72
15	Erode	2.15
16	Tiruppur	2.67
17	Coimbatore	3.44
18	Namakkal	2.07
19	Karur	1.27
20	Perambalur	0.89
21	Ariyalur	1.28
22	Virudhunagar	2.45
23	Sivaganga	1.81
24	Viluppuram	2.48
25	Vellore	2.47
26	Tiruvannamalai	1.94
27	The Nilgiris	0.37
28	Tiruchirappalli	1.76
29	Madurai	1.55
30	Theni	0.69
31	Dindigul	1.74
	<b>Total</b>	<b>100.00</b>

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**ADDITIONAL CHIEF SECRETARY TO GOVERNMENT**

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