



**GOVERNMENT OF KERALA**

**Abstract**

Planning and Economic Affairs (RKI) Department- Establishment of Septage Treatment Plant for Cherthala Municipality- Implementation- Administrative Sanction accorded- Orders issued.

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**PLANNING & ECONOMIC AFFAIRS (RKI) DEPARTMENT**

G.O.(Rt)No.286/2021/P&EA

Dated,Thiruvananthapuram, 06/07/2021

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- Read: 1. G.O. (P) No. 16/2018/P&EA dated 09/11/2018.  
2. G.O. (P) No. 19/2019/P&EA dated 23/05/2019.  
3. Minutes of 13th HLEC meeting held on 17/05/2021.  
4. G.O.(Ms)No.17/2021/P&EA dated 11/06/2021.  
5. Letter No.SPV-64/2020/LSGD/227 & 230 dated 15/06/2021 and 18/06/2021 of the Managing Director, IMPACT Kerala Ltd..

**ORDER**

In the aftermath of the flood of 2018, the Rebuild Kerala Initiative (RKI) has been entrusted with the task of planning and implementing a rebuilding strategy for the state as per the G.O. read as 1st paper above. As per the G.O. read as 2<sup>nd</sup> paper above, the Government had approved the Rebuild Kerala Development Programme (RKDP) which constitutes the State's strategic road map for a Green and Resilient Kerala.

2. The IMPACT-Kerala under the Local Self Government Department submitted a Detailed Project Report (DPR) for establishing of a Septage Treatment Plant of 250 kLD capacity at Cherthala Municipality, at an estimated cost of ₹5.25 crore, with an objective of scientific and efficient treatment of the septage collected through private septage trucks. The project is proposed to be implemented by IMPACT Kerala through Design-Build-Operate (DBO) model contract in such a way that the responsibility for continued O&M for a minimum of 5 years will be vested with the work contractor.

3. The High level Empowered Committee (HLEC), in its 13<sup>th</sup> meeting held on 17/05/2021, considered the DPR and recommended to take up the same under RKI, with the condition that the disbursement of funds shall be subject

to :- (i) production of documentary evidence for complete buy-in of the project  
(ii) production of the Municipality's resolution on land allocation.

4. The matter was placed before the Council of Ministers, and subsequently, as per G.O cited 4<sup>th</sup> above, in-principle approval was accorded to take up the project under the RKI at a total cost of ₹5.25 crore.

5. The Managing Director, IMPACT Kerala Ltd, as per letter read 5<sup>th</sup> above, informed that the estimated cost of the project is ₹4,98,95,924/- (rounded to ₹5 crore), including the tentative cost of the work, DPR preparation cost, overhead charges, GST and charges for statutory clearances, and requested to issue Administrative Sanction for the project. It was further clarified that the DPR preparation cost is sought from the RKI for subsequent reimbursement to the Municipality, which have already funded the DPR preparation.

6. In these circumstances, the Government are pleased to accord Administrative sanction for establishing a septage treatment plant in Cherthala Municipality under the RKI, at an estimated cost of **₹5 crore (Rupees Five crore only)**. The salient features of the project are attached as **Annexure** to this G.O. The expenditure in this regard will be debited to the head of account "5475-00-115-94-Post flood Projects under Rebuild Kerala Initiative (P)".

7. The disbursement of funds for the project shall be subject to the conditions laid out by the HLEC as mentioned in para 3 (i) and 3 (ii) above. The LSGD shall formulate an effective monitoring mechanism for the timely completion of the project. All mandatory clearances from relevant departments shall be obtained wherever applicable. All procurement as part of implementation of the work shall be done in a fair and transparent manner in accordance with the extant rules.

(By order of the Governor)  
**Rajesh Kumar Singh I A S**  
**Additional Chief Secretary**

To:

Additional Chief Secretary, Local Self Government Department.

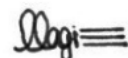
Managing Director, IMPACT Kerala Ltd.

The Principal Accountant General (A&E/Audit), Thiruvananthapuram.

Information & Public Relations (Web & New Media) Department (for publishing in Government website)

Stock File/Office Copy [F.No.RKI1/28/2021-PLGEA]

Forwarded /By order



Section Officer

## **SALIENT FEATURES OF THE PROJECT**

### **I. Need of the project**

- Onsite sanitation system is prevalent in the district, which requires frequent desludging due to the high water table.
- No septage management facilities available in the district.
- Water bodies get contaminated due to the improper disposal of Septage, resulting in high public health risk owing to a very high density of population.
- Establishing a Septage Treatment Plant at Cherthala can cater to the demands of the same in the neighbouring districts of Ernakulam as well as Kottayam.

### **II. Engineering Details**

Capacity : 250 kLD

#### **Treatment technology:**

- Primary treatment - Bar Screen, Grit Chamber
- Secondary treatment - Upflow Anaerobic Sludge Blanket Reactor, Moving Bed Bio Reactor in series along with Anoxic Tank for Biological Nitrogen Removal.
- Tertiary treatment - Pressure Sand Filter, Activated Carbon Filter and Soaking Trench
- Sludge Treatment - Multi Disc Sludge Dewatering Screw Press and sludge drying beds.

### **III. Revenue Streams**

There shall be two possible revenue sources for the Septage Treatment Plant at Cherthala.

- Revenue from the user/tipping fees to be levied from the septage trucks.
- Revenue from the selling of the dried sludge as a soil conditioner.

### **IV. Environment Management Plan**

There shall be an Environment Management Plan for the plant consisting of all mitigation measures for each item wise activity to be undertaken during the construction, operation and the entire life cycle to minimize adverse environmental impacts as a result of the activities of the project. It would also delineate an environmental monitoring plan for compliance of various environmental regulations.

## V. Measures for Risk mitigation & Sustainability

In order to ensure Risk mitigation and Sustainability regarding the plant, following precautions shall be adopted;

- The Septage Treatment Plant is sited at a minimum of 25.0m from all the adjacent buildings including hospitals and residential buildings.
- The combination of anaerobic treatment followed by aerobic treatment increases the treatment efficiency and reduces the overall operating cost.
- The Soaking Trench with Vetiver plants will ensure the effective reuse of the treated wastewater as well as the sludge.
- Sludge will be converted to value added product.
- An odour control system to avoid the generation of foul smell shall be incorporated.
- A greenbelt of 7.5 m thickness is recommended to be developed around the Septage Treatment Plant, which will act as a noise and odour barrier, in addition to increasing the aesthetics of the site.

## VI. Implementation Schedule

Time schedule for the execution of the project shall be as follows;

- a) Construction period : Four months
- b) Electro-mechanical equipment supply : Two months
- c) Startup, trial run and commissioning : Two months

## VII. Quality Management Plan

The plant shall have an effective Quality Management Plan for both, the construction phase as well as the operation phase.

## VIII. Operations & Maintenance (O&M) plan

The Septage Treatment Plant shall have an effective Operations & Maintenance Plan with the O&M responsibilities being entrusted to the contractor for a minimum of 5 years from the commissioning of the plant.

## IX. Cost Estimate

Item	Amount (inclusive of GST) (₹)
<b>A. Project Cost(inclusive of GST@12%</b>	
i. Electro Mechanical Works	2,53,17,279.68
ii. Civil Works	1,93,47,572.70
iii. Piping Works	2,08,717.95
iv. Electrical Works	7,70,878.53
<b>Total (i+ii+iii+iv)</b>	<b>4,56,44,448.90</b>
Rounded off to:	<b>4,60,00,000</b>

<b>B. DPR preparation cost @ 2.33% of the project cost (including GST@18%)</b>	<b>12,64,724</b>
<b>C. Overhead charges to IKL including supervisory charges@ 4% of project cost (including GST@18%)</b>	<b>21,71,200</b>
<b>D. Amount for statutory clearances @ 1% of the project cost</b>	<b>4,60,000</b>
<b>Grand total (A+B+C+D)</b>	<b>4,98,95,924</b>
<b>Rounded off to:</b>	<b>5,00,00,000 (Rupees Five crore only)</b>

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