

**TENDER FOR OPERATION AND**  
**MAINTENANCE OF**  
**ECO LINE SEWAGE TREATMENT PLANT AT**  
**LHENGYE DENSA, MOTITHANG**

ENGINEERING SERVICE DIVISION  
DEPARTMENT OF NATIONAL PROPERTIES, THIMPHU

## NOTICE INVITING TENDER

Tender No. FM/DNP/GP44/2016-2017/1445 dated 04-05-2017

Sealed tenders are invited from Firms/Agency/Contractors for Comprehensive Maintenance Contract of Eco Line Sewage Treatment Plant along with their allied accessories etc. installed in the Lhengye Densa campus as follows: -

Name of the Work	Cost of Tender Nu.	EMD Rs.	Security Deposit
Annual Operation and Maintenance of Sewage Treatment Plant	Nil	20,000	10% (of value quoted )

Tender Documents can be downloaded from the Web [www.mof.gov.bt](http://www.mof.gov.bt) for free of charges.

Last Date and time of receiving of Tenders: 5.6.2017 at 1230 hrs.

The Offtg. Director General,  
Department of National Properties,  
Ministry of Finance  
Doebum Lam. Post Box # 116  
Thimphu, Bhutan.

## 1. General Information

**Tender No. FM/DNP/GP44/2016-2017/1445 dated 04-05-2017**

**Sub: Comprehensive Annual Operation and Maintenance Contract for Eco Line Sewage Treatment Plant at Lhengye Densa, Motithang, Thimphu, Bhutan.**

Department of National Properties, Ministry of Finance invites sealed Tenders from reputed Person/ contractor / firm / Agency for Annual Operation & Maintenance Contract of Sewage Treatment Plant along with their allied accessories etc. installed in the Lhengye Densa as follows: -

<b>Tender No.</b>	<b>FM/DNP/GP44/2016-2017/1445 dated 04-05-2017</b>
<b>Last date of submission of tender</b>	<b>05.06.2017 by 1230 hrs.</b>
<b>Date of opening of technical bid</b>	<b>05.06.2017 at 1430 hrs.</b>

S No.	Particulars	Annexure
1	Certificate	I
2	Tender Status Form	II
3	Format for Price Bid	III
4	Price for the Spare parts and pump	IV
5	Form for Maintenance of the STP	V

### I Prequalification Criteria:

- i) Applicants shall submit EMD of Rs. 20,000 /- (at the time of submission of the document in the form of Demand Draft/Cash Warrant/Bank Guarantee in favor of Offtg. Director General, Department of National Properties, Ministry of Finance. The DD shall be put in an envelope and enclosed with the Technical bid. The EMD will be refunded to the unsuccessful bidder without interest on the finalization of the Contract with the successful bidder.
- ii) The bid shall remain valid for acceptance for a period of 2 months from the date of submission of the quote. If any bidder withdraws his quote before the said period or makes any modifications in the terms and conditions of the tender, then DNP, MoF has the liberty to forfeit the said EMD
- iii) The Contractor's rate must be firm and must include all taxes such as Sales Tax, Excise, VAT, Service Tax etc. The rates quoted by the Contractor shall be firm throughout the Contract period and there shall be no upward revision of the rates quoted by the Contractor for any reason whatsoever. It should be clearly understood that any claim for extra Sales Tax, Excise duty, construction tax or any additional tax etc. shall not be entertained in any case whatsoever once the bids are opened

## **II) METHOD OF SUBMISSION OF TENDER**

“Price Bid” will have following: -

- (a) write “**Tender for Annual Operation and Maintenance of STP**”.
- (b) Please fill up enclosed Price Bid Form (Annexure IV) and keep in the Second Envelope– Price Bid. The Price Bid must be signed by authorized representative with seal.
- (c) Alternatively, Company letterhead can also be used for submission of Price Bid but it has to be typed/ written in the manner/format shown in Annexure IV.

## **III) CORRECTIONS / OVERWRITINGS IN BIDS:-**

Corrections/overwriting must be avoided. The tenderer should invariably sign on all the pages of the tender document

Two separate sealed envelopes (i.e. ORIGINAL AND COPY) may be put in a master envelope super scribed with “**Tender for Annual Operation and Maintenance of STP**” and submitted on or before 1230 hrs. On **05.06.2017** and should be submitted at the following address: -

**The Offtg. Director General,  
Department of National Properties,  
Ministry of Finance  
Doebum Lam. Post Box # 116  
Thimphu, Bhutan.**

## **IV) QUALIFICATION CRITERIA OF BID:-**

Bid may be rejected, based on any one of the following reasons: -

1. Only single Envelope (ORIGINAL) is received.
2. If DD/Cash Warrant/Bank Guarantee is not submitted.
3. Tender /bid details received after specified date and time.
4. Unsigned and unsealed Offer.
5. If the offer submitted is Conditional.
6. If the tenderer has not quoted as per instruction mentioned.
7. The tenderer who do not submit the tender documents as per pre- qualification criteria and tender conditions, do have major deviations and do not submit proper EMD etc. then their tender will be treated as non-responsive.

## **V) PROCEDURE OF AWARD OF WORK:-**

- a) After the public opening of the bids, the information relating to the examination, clarification, evaluation and comparison of tenders and the recommendations concerning the award of Contract shall not be disclosed to the bidder and other persons not officially concerned with such process.
- b) Subject to DNP’s right to accept or reject any or all tenders, DNP will normally award the Contract to the lowest bidder whose bid has been determined to be substantially responsive to the quotation call, provided that the bidder has the capability and resources to carry out the Contract effectively.
- c) DNP will notify the successful bidder in writing that his quote has been accepted. This letter (hereinafter referred to as Work Order) shall name the sum (hereinafter called the Contract Price), which DNP will pay to the Contractor in consideration of the maintenance and guarantee of the work by the Contractor as specified in the Contract. This Work Order and

subsequent signing of Agreement will constitute the formation of a contract between DNP and the bidder

- d) Before commencing the work and within a week after issue of the Work Order, the bidder shall make a security deposit as per notice and furnish the same for the proper fulfillment of the Contract and shall execute an Agreement for the work as per PRR-2009
- e) If the bidder fails to execute the Agreement / furnish Security Deposit as stated above within the specified period, the Earnest Money Deposit shall be forfeited.
- f) Security deposit 10% of the total value of the contract to be submitted in the form of Demand Draft/Cash Warrant/bank Guarantee which will be free of interest and the same will be refunded to Contractor only after the satisfactory completion of the Contract and defect liability period.

**NOTE: DNP, MoF reserves the right to accept or reject or split or cancel, in part or whole, any or all tenders received without assigning any reasons whatsoever.**

Thimphu, Kannur  
Date: 04.05.2017

Offtg Director  
DNP, Thimphu

## 2. SPECIFICATIONS

### ANNUAL OPERATION AND MAINTENANCE CONTRACT FOR ECO LINE SEWAGE TREATMENT PLANT AT LHENGYE DENSA

#### S. No. Description

##### 1. Common Sewage Treatment plant:

Collection of sample Sewage from units at the point of discharge to dnp sewer, conducting tests on them to ascertain that these are within the standards fixed by National Environment Commission(NEC), informing DNP of the results and initiating remedial action

The treated wastewater should comply with the standards given in consent order by NEC standards with (not limited to) following parameters:

- a) pH Value 6.0 to 9.0
- b) BOD 250mg/l
- c) COD 500mg/l
- d) Total Suspended solids 400mg/l
- e) Total nitrogen as N 20 to 40 mg/l
- f) Total Phosphates as P 4 to 8 mg/l and etc.,
- g) Name and detailed description of chemicals to be used for treatment if required and their specification may be mentioned.

##### 3. Terms & Conditions: -

- a) Service should be offered round the clock, 365 days in one calendar year.
- b) Contractor should provide all Tools & Tackles as required for proper functioning of STP.
- c) All disciplinary rules and regulations as enforced are to be followed by the work force of the Contractor during their stay at the premises. Uniforms and safety kits etc. have to be provided to the staff by the successful firm/ contractor/agency.
- d) All the materials, spare parts, consumable such as oil, grease etc. will be arranged by successful firm/ contractor/agency.
- e) The Contractor should submit the preventive maintenance schedule for DNP approval and its implementation.
- f) The instruction/s given to the Contractor from time to time should be properly carried out and necessary records of action taken should be maintained in a Log Book.
- g) Any damages caused by the Contractor in existing facilities while carrying out the work shall be made good by the contractor to DNP entire satisfaction at their own risk and cost.
- h) The contractor should fulfill all statutory requirements pertaining to satisfactory performance of the job etc.
- i) No advance payment will be made to the Contractor. Monthly payment/s will be released after submission of bill after 30 days (one month) and satisfactory completion of job, which is to be certified by the Engineer In- charge, DNP, Lhengye Densa, Thimphu.
- j) Dismantled / replaced parts should be handed over to Lhengye Densa Engineer in-charge or its representative.
- k) The Contractor shall take necessary insurance to cover the entire workmen's compensation act and also in respect of any other person on account of accident at site.
- l) The contractor shall comply with all existing labour legislations and Acts, Provisions as applicable, such as Contract Labour Regulation Act, Workmen's' Compensation Act, Minimum Wages Act, Payment of Wages Act, Provident Fund Act, ESI Act etc. For any lapse or breach on the part of the contractor in respect of non-compliance of any labour

legislation in force during the validity of the contract, the contractor would be fully responsible and would indemnify the Institute, in case the Institute is held liable for the lapse if any, in this regard.

- m) The contractor shall have to make own arrangements for the accommodation of his staff.
- n) DNP shall not be responsible for the release of benefits, such as Provident Fund, ESI, Pensionary benefits or allowances to the staff employed by the contractor. Excess payment due to any changes in the Minimum Wages Act or in any other labour legislation/provisions or other statutory obligations during the validity period of the contract shall be the responsibility of the contractor.
- o) Work involves operation and maintenance of Sewage Treatment Plant, filtration Plant, Pump Set, spare and Electric Driven Pump Set etc.
- p) The tenderers are required to visit the plant site to see the actual installations themselves to assess the quantum of work involved before submitting the tender. Once the tender is submitted, it will be presumed that the tenderer has seen and understood the complete work involved for each of the system.
- q) Bid/s shall be opened in the office of DNP at DNP Conference hall, Thimphu, in the presence of tenderer who may wish to be present on the date mentioned in the NIT.
- r) The tenderer who do not submit the tender documents as per pre- qualification criteria and tender conditions, have major deviations, do not submit proper EMD etc. then their tender may be treated as non-responsive.
- s) The successful firms/ agencies/ contractors will be intimated and contract agreement will be entered into initially for a period of one year which may be extended depending on the performance of the contractor or till finalization of the next tender, whichever is earlier.
- t) Subletting - contract shall not be assigned or sublet to another party.
- u) An indemnity bond to be submitted. (As attached in Annexure -III).
- v) Tender document shall be page numbered and each page shall be seal and signed.
- w) The firm shall rectify any breakdown within 24 hours failing which penalty for nonperformance @ 0.5 % per week of delay subject to a maximum of 10% of the contract price will be imposed and in the event of any damage to the property or life or any machinery and installation in the STP arising out of non-performance or negligence of the workers, contractor will be solely responsible. The contractor shall be responsible for proper maintenance of decorum, punctuality, discipline and work out put etc.

**4. Taxes:-**

All Levy/Taxes payable by contractor - Sales Tax/ VAT or any other tax on material/s (as applicable) in respect of this contract shall be payable by the contractor and DNP shall not entertain any claim whatsoever in this respect.

**5. Applicable Law:-**

The contract shall be interpreted in accordance with the Laws of the Kingdom of Bhutan. Contractor shall be solely responsible for compliance of all labour laws, payment of fair wages/ salaries and allowances to his personnel that might become applicable under any new act, law or order of Government of State. DNP shall have no liability whatsoever in any manner.

Minimum wages at to be complied with - The contractor shall comply with all the provisions of the Minimum Wages Act 1994, and Labour and Employment Act, 2007, amended from time to time and rules framed hereunder and other labour laws affecting contract labour that may be brought into force from time to time.

Notwithstanding the provisions stated above, the service provider shall not be liable for forfeiture of its performance security, penalty or termination for default, if and to the extent that, its delay in performance or other failure to perform its obligations under the contract is the result of an event of force majeure.

**6. Force Majeure: -**

For purposes of this clause, "Force Majeure" means an event beyond the control of the service provider and not involving the contractor/service provider's fault or negligence and not foreseeable. Such events may include, but are not limited to, acts of the service provider either in its sovereign or contractual capacity, wars or revolutions, fires, floods, epidemics, quarantine restrictions and freight embargoes.

If a Force Majeure situation arises, the contractor/ service provider shall promptly notify the DNP in writing of such conditions and the cause thereof. Unless otherwise directed by the employer in writing, the service provider shall continue to perform its obligations under the contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the force majeure event.

### **3. DUTIES AND OBLIGATIONS**

**1. Duties of Operators & Staff Employed:**

The Contractor should submit the names of the persons engaged for the work and they have to report to the Engineer-In-Charge on day-to-day basis. Persons employed should not be changed frequently and every person employed for the work has to obtain proper Gate Pass from Royal Bhutan Police, Lhengye Densa.

Operation and the maintenance of STP system comprising of various pumps, motors, blowers, pipelines, setting tanks, filter unit, etc. together with the electrical panels and connections. Operators employed should have knowledge of Dzongkha, & English. The Contractor has to keep the area of plant neat and clean.

**2. Repairs:**

The Contractor has to do all minor repairs, for which no additional labour charges will be paid. However, for any spares/materials replaced, actual charges will be paid as per the bills from the authorized/dealers after ascertaining the rates on submission of original bills (except damage caused to any machinery/plant due to negligence of contractor), and such materials to be checked-in through Security Department as evidence being materials brought in. Under no circumstances plant should remain under breakdown for more than 03 hours. In the event of breakdown/shut down the onus of attending to the problem in the shortest possible time will rest on the Contractor failing which Engineering Service Division, DNP is empowered to get the breakdown/shut down any defect rectified from any outside agency at the risk and cost of the Contractor and make necessary deductions from their bills. The Contractor has to keep all the area and surroundings at the site neat and clean and dump the scrapped materials at the scrap yard.

It will be Contractor's responsibility to maintain STP, Plant in healthy state all the time, to plan and undertake preventive maintenance of STP at regular intervals and attend routine maintenance activity every day. Contractor should make a service report for all the maintenance jobs carried out and get it counter signed by the Engineer-in-charge. The register is attached with the documents.



The Contractor has to carry out necessary treatment to the sewage so as to get the following:

S No.	Parameters	Maintenance Standard of PCB
1	pH Value	6.0 to 9
2	BOD	250mg/l
3	COD not to exceed	500mg/l
4	Total Suspended solids	400mg/l
5	Total nitrogen as N	20 to 40 mg/l
6	Total phosphates as P	4 to 8 mg/l

Contractor has to carry out testing of water at the regular interval of every month and whenever felt necessary as instructed to do so by the DNP and furnish the test reports to the Engineer-In-charge on priority. The Contractor will also provide a Tests Certificate every month of effluent water before and after treatment and certificate have to be obtained from the National Environment Commission. contractor should maintain logbook, on site test reports etc. upto date as per standard .

It will be the responsibility of Contractor to remove excess sludge from sludge holding tank. In addition Contractor shall also carryout cleaning of Grease/Sludge holding Tanks periodically, and disposal of grease / sludge outside the premises on own cost.

#### Motors & Pumps

- Cleaning and tightening of all screw connections and terminals on controllers.
- Examining of fuse contacts and terminals for cleanliness and tightness.
- Checking the pump immediately after starting the motor, to see if the pump is generating the rated head, by reading the pressure gauge.
- Checking for any undue vibration of stuffing boxes.
- Checking of glands for overheating and leakage. Gland packing around the pump set is adjusted to permit only a slight leakage of droplets of water to cool and lubricate the shaft.
- Checking if the voltage fluctuation is within the permissible limit of 420-440 V.
- Checking of current rating and actual loading of motor to prevent overloading, by frequently monitoring the ammeter reading.
- Ensuring that the water level in the water source does not drop more than 1 meter above foot valve and water at the receiving end is not wasted by overflow.
- Checking the bearings of the pump periodically and applying grease sufficiently.
- Checking the gland packing once in two months.
- Checking the valves and pressure gauges and tightening the gland at closer intervals when too much leak of water occurs.
- Checking the exhaust pump, its auxiliaries and impeller periodically.
- Operating of submersible pump once a week, and its maintenance.

## Other Duties

Daily entries will be recorded in the logbook as per DNP's requirement and get verified by the Engineer-in-charge of NIFT KANNUR.

Any complaint noticed shall be reported to Engineer-in-charge.

IN ADDITION TO THE ABOVE THE CONTRACTOR SHALL CARRY OUT ALL REQUIRED DUTIES MENTIONED IN THE O & M MANUAL.

The Contractor shall supervise and maintain the Sewage Treatment Plant maintenance work every day and maintain a logbook as per guidelines of the Operation Manual. Security deposit of 10% of the total value of the contract to be submitted in the form of Demand Draft which will be free of interest and the same will be refunded to Contractor only after the satisfactory completion of the Contract and defect liability period of one year whichever is earlier.

The short listed contractor will submit a monthly maintenance schedule of all equipment's for approval before commencing operating of the system. Sump Pump required to be maintained by the Contractor installed in the Effluent Treatment Plant.

All matters will be under jurisdiction of Bhutan only.

### **3. Liquidated Damages:**

- a) A penalty of Rs.600/- per 8 hours shift will be deducted from the bill for each 8 hours shift when the skilled Technician/ operator is not provided.

### **4. TERMINATION CLAUSE:**

One year after handing over the STP site or 30 days written Notice from each side and subject to renewal.

### **5. GENERAL CONDITIONS:**

- i. The rates at any stage once quoted shall not be withdrawn. No advance payment will be made at any circumstances. However, payment of RA bills will be released within a reasonable period from the date of receipt of the bills along with certified copies of monthly service reports, log sheets, work done as per the scope of work mentioned in the tender/contract duly certified by the Concerned in charge.
- ii. No addition / alteration / deletion in the tender document is allowed.
- iii. Late tenders/ unsigned quotations will be rejected.
- iv. No correspondence will be entertained in this regard unless otherwise sought from tenderer by this office.
- v. In case of a local firm/agency/ contractor, they may deliver/ submit the tender personally in DNP on or before the due date and time. Postal delay for tender submitted by post/courier shall also not be considered and all tender submitted in time only would be considered.
- vi. The services required are initially for one year. The contract may be extended on mutual consent subsequently for maximum two years. The contract may be terminated at any stage solely at the option of DNP with an advance notice of one month without assigning any reason.

- vii. Precaution against any fire hazards or other damages to Plant and equipment shall be arranged by the firm/ agency / contractor. DNP shall remain indemnified by the contractor from any encumbrances /loss on this account.
- viii. The firm/ agency/ contractor shall fulfill the requirement of various law enforcing agencies /local authorities, by taking their approvals as required.
- ix. The firm/ agency/ contractor will be responsible for the safety of their deputed staff during the performance of their duty at DNP site.
- x. In case any of staff is not found up to mark and not able to do work properly, he will have to be changed as per the instruction of DNP.
- xi. In case of any problem with the equipment, the firm/agency/contractor shall inform DNP immediately.
- xii. All disputes are subject to Bhutan Jurisdiction only.
- xiii. The firm/ agency/ contractor shall keep the equipment well maintained, neat and clean and adhere to the maintenance schedule of various equipment's. Upon placement of work order they will prepare the maintenance schedule and discuss the same with the Institute's engineer for its implementation. This may be revised from time to time as per the requirement.
- xiv. The tender shall be kept valid for acceptance for a period of 60 days from the date of opening.
- xv. Rates quoted shall be inclusive of all taxes.
- xvi. Any statutory tax as applicable will be deducted from the bill/s of the contractor

**5. ARBITRATION: -**

If any dispute or difference of any kind what so ever shall arise between the parties in connection with or arising out of this work or out of the breach termination or invalidity of this work thereof, the parties shall resolve them by resorting to the following: -

- Party shall attempt within a period of 30 days, after receipt of notice by the other party of the existence of a dispute, to settle such dispute in the first instance by mutual discussions between the parties.
- If the dispute cannot be settled by mutual discussion within 30 days as provided herein, the dispute shall be resolved by recourse to Arbitration to be held in accordance with the provisions of the Alternative Dispute Resolution Bills of Bhutan, 2011 or any statutory modification or re-enactment thereof.
- Each party shall appoint one arbitrator and the two arbitrators shall appoint the third arbitrator who shall act as the Presiding Officer. These three together shall constitute arbitral tribunal. The decision of this arbitral tribunal shall be final and binding on both the parties. The parties to the dispute shall share equally the cost of arbitration as intimated by the arbitral tribunal.
- The arbitration proceeding shall be conducted in the English Language and shall be held at Thimphu.

ON TENDERER'S LETTER HEAD

CERTIFICATE

To,

The Offtg. Director General,  
Department of National Properties,  
Ministry of Finance  
Doebum Lam. Post Box # 116  
Thimphu, Bhutan.

Sir,

It is certified that we have studied, understood and agreed the terms and conditions of the tender for Annual Operation and Maintenance of Sewage Treatment Plant at NIFT campus.

There are no hidden costs to NIFT over and above that indicated in the Annexure-IV (Price Bid Format).

The benefit of reduction in statutory taxes/ levies, if any, arising during the term of the contract, if awarded in our favour, would be passed on to NIFT.

I / We agree to carry out the above works as detailed in the scope of work, at the quoted rates, for a period of one year from the date of award of work to us. Further, I / We agree to abide by all the terms and conditions of this bid.

AUTHORISED SIGNATORY WITH SEAL

Place :

Date :

## Tenderer's Status form

S No.	Particulars	Details
1	Name of Contract	Annual Operation & Maintenance Contract for STP
2	Name of the Tenderer	
3	Address	
4	Telephone No. / Mobile No.	
5	Fax No.	
6	Email ID	
7	Name of Contact Person	
8	Attach photo copy of latest Income Tax Filing	
9	TPN Number	

AUTHORISED SIGNATORY &  
COMPANY SEAL

**PRICE BID**  
**AMC for Sewage Treatment Plant 200 Users at Lhengye Densa**

S No.	Description	Units	Frequency	Rate		Amount(Nu.)	
				In Figure	In Words	In Figure	In Words
1	Annual Operation and Maintenance Contract of Sewage Treatment Plant having capacity 200 user including following: -	Month.	12 times				
2	De-sludging	Each	Twice				
11	Any Discount						
12	Grand Total						

**NOTE: -**

- 1) Any alterations/corrections made by the bidder in figure or word need to be counter signed by the bidder
- 2) Grand total amount shall include all existing taxes of the Central or State Government taxes i.e. contract tax, VAT, Excise and other costs due to packing, Transportation, handling, insurance and installation, service Tax. etc.
- 3) The tenderers are advised to ensure that the prices and other details are filled in correctly and completely in the above format. Submission of incorrect or incomplete information, and / or submission of the above format with arithmetical errors in compilation of the data would be at the tenderer's sole risk and the decision of DNP in such cases would be final and binding.

SIGNATURE WITH SEAL

Name .....

Designation .....

Mobile No:.....

## PRICE FOR THE SPARE PARTS AND PUMPS

SN	DESCRIPTIONS	UNITS	RATE (Nu.)	Remarks
1	Pump housing complete kp250	Nos.		
2	Strainer unilift kp150/250/spare	Nos.		
3	Kit,shaft w/rotor cpl.kp250	Nos.		
4	Motor cable---a5m	Nos.		
5	Motor cable---m	Nos.		
6	Kit,---m plug 10m	Nos.		
7	Motor cable---a sch 3m	Nos.		
8	Bearing plate, kp 150/250	Nos.		
9	Kit, kp250 impeller 50 hz	Nos.		
10	PUMP KP 150 1X220V	Set		
11	Kit, bearing comp,6201---4 mg 71--80	Nos.		
12	Kit, shaft seal HQQV sm cr	Nos.		
13	Kit,gasket fkm cr1//3/5	Nos.		
14	Kit, CR/I/NI/1/3 19 (SIC)	Nos.		
15	PUMP CNR	Set.		
16	APZ submersible pump	Set.		
17	Mechanical seal	Nos.		
18	Impeller	Nos.		
19	Shaft cover	Nos.		
20	Oil---turbine oil VG32--- 1 LTR	Nos.		
21	Shaft wire	Nos.		
22	Ring lock	Nos.		
23	FLOAT switch sensor	Nos.		
24	Trip connector	Nos.		
25	Relay	Nos.		
26	Fuse distributor	Nos.		
27	Float switch trip	Nos.		
28	Control Panel	Nos.		
29	Fuse distributor	Nos.		
30	Fuse relay	Nos.		
31	Float switch fuse	Nos.		

32	Main connector	Nos.		
33	Pump controller timer	Nos.		
34	HYDROTECH DRUM	Set		
35	Microns PE PPW HDE filter element - set	Nos.		
36	Rubber seal 8m – set	Nos.		
37	Rubber seal 3 m- set	Nos.		
38	Nozzel tip Teejet, 6505 ceramic/plastic- set	Nos.		
39	Nozzle gasket Teejet,EPR-std-set	Nos.		
40	Nozzel nut Teejet blue,Bayonet socket-set	Nos.		
41	Nut,M&M,A4- panel strap- set	Nos.		
42	Flush screw MSK6SS M8x 50,A4-set	Nos.		
43	Support wheel type 5 complete with AIS1304 ball b-set	Nos.		
44	Shaft seal radial 32 x50 x 8 with steel spring-drum shaft- set	Nos.		
45	Retaining collar,D 32 mm-set	Nos.		
46	Cartridge for rinse water filter-set	Nos.		
47	Time relay,PC2R1 24 VDC/24-240VAC- set	Nos.		
48	<b>BUSCH WN0050 AP</b>	Nos.		
49	Blower-	Nos.		
50	Belt drive XPZ 987-2 pc	Nos.		
51	Multigrade oil S 75W90-1pc(recommended )	Nos.		
52	Air intake filters-1pc	Nos.		
53	Time relay for the motor	Nos.		
54	Oil 1 ltr( specific oil recommended)	Nos.		
55	Aeration Filters/diffusers	Nos.		
56	Drum motor 0.25 kW	Nos.		
57	Drum gear-Rossi	Nos.		
58	Drum grease	Nos.		
59	Main Switch	Nos.		
60	Main switch assembly	Nos.		
61	Switch relay	Nos.		
62	Switch nut	Nos.		



**AECeco-line®**

Maintenance form: 4N

	Every week	Every 2 week	Every month	Every 3 months	Every 6 months	Every 12 months
<b>Inlet 2 dose pump unit.</b>						
Checking the function	X					
Checking the sensors	X					
Change oil					X	
<b>Sludge storage tank</b>						
Sludge removal				X		
Sludge check			X			
<b>Wastewater treatment plant</b>						
Checking the aeration	X					
Sluicing the filter elements close & open.	X					
Cover and steel profiles					X	
<b>Blower</b>						
Differential pressure	X					
Temperature	X					
Oil change (1 time after 500 hours) OR 6 months.					X	
Lubrication (Greasing)					X	
<b>Drum filter</b>						
Checking the nozzles	X					
Cleaning the level control	X					
Lubrication of bearings					X	
Checking the filter element		X				
Checking the rubber packings					X	
Checking the bearings					X	
Replacing the nozzles						2yrs
Oil change, gearbox						2yrs
<b>Cleaning the filter- weekly</b>						
Checking the flow meter	X					
<b>Cleaning the inlet IP</b>						
Cleaning the IP.	X					
Cleaning the air filter				X		

General inspection	X					
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**ARTICLES OF AGREEMENT**

This Agreement made on the .....nd day of ..... between..... for the time being shall include its assignees, successors etc. herein after called the “Contractor” on the first part and Department of National Properties (DNP), Thimphu, represented by its Offtg. Director General, for the time being and include its successors, assignees etc. hereinafter called DNP, THIMPHU on the second part.

WHEREAS DNP Thimphu invited offer for Operation and Maintenance of the Eco Line Sewage Treatment Plant (STP) at its Lhengye Densa (hereinafter called DNP) as per quotation notice no. FM/DNP/GP-44/2016-2017/1445 dated May 4, 2016

AND WHEREAS ....., hereinafter called the “Contractor” having its office at ....., have submitted their offer for providing the services, as described under “Duties and Obligations” of the Contract.

Now the Agreement witnesses as under:

The Contractor agrees to perform all such works required for the Operation and Maintenance of the Eco Line at Lhengye Densa as detailed in the Scope of Work subjected to general conditions of Contract, specific requirements and conditions, duties and obligations of the contractor, notice inviting quotations and other terms of Contract attached to the bid documents and DNP in consideration of the said services rendered by the Contractor agree to pay the Contractor the fee for such services at such accepted rates and in such accepted manner as incorporated in the “TERMS OF PAYMENT” quoted.

This Contract is governed by all and every one of the Clause in the scope of work, duties and obligations of Contractor, general conditions of contract and other terms of contract and terms of payment, annexed to this Agreement and the Contractor and DNP hereby agree to abide by these terms.

In witness thereof the parties of this Agreement, viz., the Contractor and DNP have herein got their hands this ..... day of .....

For DNP

For Contractor

OFFTG. DIRECTOR GENERAL

Witness: 1.

Witness: 1.