

BEFORE THE HON'BLE NATIONAL GREEN TRIBUNAL

SOUTHERN ZONE BENCH AT CHENNAI

Execution Application No.5 of 2024

In

Original Application No. 22 of 2022

INTHEMATTER OF:

Antony Clement Rubin
Chennai & others

...Applicants

-Vs-

Union of India through the
Secretary Ministry of Environment,
Forest and Climate Change,
Government of India
Indira Paryavaram Bhavan,
Jor Bagh,
New Delhi – 110003 and others

...Respondents

INDEX TO THE COMPLIANCE REPORT FILED BY THE 3RD RESPONDENT

S.I No.	Date	Description	Pg. No
1.	02.01.2026	Compliance Report Filed by the Bengaluru Solid Waste Management Limited Represented by Its Chief Engineer & Chief General Manager (TECH)	1 - 17



T.V.SEKAR, MS.No.143/1980
COUNSEL FOR THE 3RD
RESPONDENT Cell No.9381059010
E-Mail:sekarvallam@gmail.com

BEFORE THE NATIONAL GREEN TRIBUNAL (SZ) AT CHENNAI

Execution Application No. 05 of 2024(SZ)

In

Original Application No 22 of 2022

In the matter of

Antony Clement Rubin
Chennai and others

.....Applicants

Versus

Union of India through the
Secretary Ministry of Environment,
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New Delhi- 110003 and 24 others.

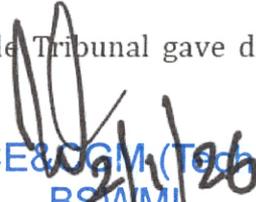
.....Respondents

**COMPLIANCE REPORT FILED BY THE BENGALURU SOLID WASTE
MANAGEMENT LIMITED REPRESENTED BY ITS CHIEF ENGINEER & CHIEF
GENERAL MANAGER (TECH) ON BEHALF OF THE BENGALURU
MAHANAGARA PALIKE THE THIRD RESPONDENT**

It is most respectfully submitted

1. In the above OA No 22 of 2022 this Hon'ble Tribunal had passed a Judgement on 10-08-2023 in and by which certain directions were given (Page 32, Paragraph 7) to the parties.
2. It is submitted that Clause (III) this Hon'ble Tribunal gave directions as follows.

DIRECTIONS:


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- 1) The Metropolitan local bodies like Bruhat Bengaluru Mahanagara Palike and others are directed to examine the facilities established in Puducherry and establish such facilities either on their own or in a public private partnership (PPP) mode.
- 2) The above corporations/local bodies shall file an action taken report within three months to this tribunal.

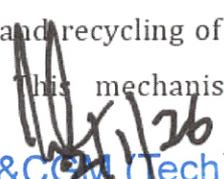
COMPLIANCE:

State Government of Karnataka has notified Greater Bengaluru Authority Act, 2024 replacing the Bruhat Bengaluru Mahanagara Palike Act, 2020. 5 Corporations – Bengaluru North, Bengaluru South, Bengaluru East, and Bengaluru West & Bengaluru Central have been formed with Greater Bengaluru Authority (GBA) as the apex body.

Bengaluru Solid Waste Management Limited, established exclusively for Collection, Transportation and processing of all types of Solid waste (Except Bio Medical Waste) in erstwhile BBMP is now responsible of the said activity (Collection, Transportation and processing of all types of Solid waste) in 5 corporations under GBA. Hence forth the word BBMP is replaced by Greater Bengaluru Authority (GBA).

The 5 corporations under GBA generates approximately 5800 Tonnes of Municipal Solid Waste every day. Bengaluru Solid Waste Management Limited (BSWML) in compliance with the Plastic Waste Management Rules, 2016 and subsequent amendments, and in accordance with the directions issued by the Ministry of Environment, Forest and Climate Change (MoEF&CC). The report addresses the provisions relating to recycling, reuse, and environmentally sound management of plastic waste under Rule 9, Rule 11, and the Extended Producer Responsibility (EPR) framework.

BSWML have empaneled authorized recycling partners under a Public-Private Partnership (PPP) model for the processing and recycling of segregated plastic waste collected from municipal sources. This mechanism ensures


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traceability, authorized processing, and compliant end-use of plastic waste strictly in accordance with the Plastic Waste Management Rules, 2016.

One of the major initiatives implemented is the “Swachha Re-Tile” project, executed by Bengaluru Solid Waste Management Limited in collaboration with M/s Swachha Eco Solutions Pvt. Ltd. Under this project, interlocking construction tiles branded as “Swachha Re-Tile” are manufactured using post-consumer plastic waste, including polypropylene (PP), multi-layer plastic (MLP), and other segregated plastic waste such as bottles and food containers. These tiles are utilized for pavements, walkways, flooring, wall cladding, and other public infrastructure works. The tiles are lightweight, non-porous, anti-skid, fire-retardant, flexible, durable, and require no adhesive due to their interlocking design. Approximately 3 to 4 tonnes of plastic waste are utilized for every 10,000 tiles produced, thereby diverting plastic waste from landfills and contributing to sustainable urban development. The plastic waste is sourced through BBMP and BSWML collection systems and waste aggregation centres and processed at authorized recycling facilities. Photos are attached in **Annexure-A**.

Further, multi-layer plastic waste is being utilized for road construction through the development of a polymer mixture known as “Repolymix,” implemented by Bengaluru Solid Waste Management Limited in association with M/s Swachha Eco Solutions Pvt. Ltd. Under this initiative, multi-layer plastic waste is shredded and processed into a polymer compound intended for use in road construction. The product is presently under testing and validation for application in minor roads in Bengaluru, with the objective of improving road durability while enabling bulk utilization of plastic waste.

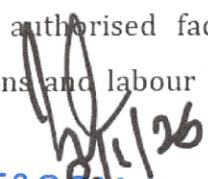
Plastic road construction technology has been implemented in collaboration with M/s KK Plastic Waste Management since 2002. Under this technology, waste plastic is collected, cleaned, shredded, and mixed in the proportion of 8 parts plastic to 100 parts bitumen, resulting in improved binding strength and durability of road surfaces. This technology has been tested and

validated by the Central Road Research Institute (CRRRI), IIT Chennai, and IIT Kharagpur, and directions have been issued by the Public Works Department (PWD) for its adoption. Approximately 40 tonnes of polymer compound are generated from 100 to 120 tonnes of plastic waste. It is estimated that around 9,022 tonnes of such compound would be required for complete road overlay works across Bengaluru. To date, approximately 2,000 kilometres of arterial and sub-arterial roads, including Bellary Road and G.C. Road, have been completed using plastic waste-based road construction technology. Photos are attached in **Annexure-B**.

BSWML has established waste (RDF) to energy plant at Bidadi, Ramanagara District in collaboration with M/s. KPCL. The plant commenced on trial basis since July-2024 and operation started from December - 2024. The plant generate 11.5 MW of electricity from 600 TPD RDF waste. Approximately 66 TPD of MLP are being sent to waste (RDF) to energy plant. MOU copy is attached in **Annexure-C** and photos are attached in **Annexure-C1**.

BSWML is sending on an average 200 TPD of LVP/ MLP to cement factory in which approximately 22 TPD of MLP is included. BSWML is in the process of receiving EPR credits from this end life cycle step. Photos are attached in **Annexure-D**.

BSWML has entered into a Memorandum of Understanding with Saahas Zero Waste under the Kasa Rasa initiative in 2019 for the scientific and compliant management of plastic waste, including multi-layered plastic (MLP), in accordance with the Plastic Waste Management Rules, 2016 and the Extended Producer Responsibility (EPR) framework. Considering the limited recyclability of MLP, the collected material was channelized for authorised co-processing in cement kilns, which is a recognised environmentally sound disposal method under the applicable rules. The implementation ensured traceability across the reverse supply chain, with collection, aggregation, compaction, transportation, and final processing being carried out through authorised facilities and a workforce compliant with environmental regulations and labour laws, thereby


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supporting landfill diversion and statutory compliance within the jurisdiction of Bengaluru. Photos are attached in **Annexure-E**.

BSWML has planned to establish Integrated Solid Waste Management (ISWM) at 2 different locations, a comprehensive approach to process and dispose Municipal Solid Waste for 30 years. This also includes addressing issues of solution to plastic waste. At present, ISWM is in the tender process.

DATED ON THIS 2ND DAY OF JANUARY 2026

Counsel for Third Respondent


Dr. Raghavendra Prasad B.G.
Chief Engineer &
Chief General Manager (Tech), BSWML
CE&CGM (Tech)
BSWML

Photos showing Plastic to Swachha Re-Tile Project



[Handwritten Signature]
21/2026
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Photos of Plastic used in Road Construction Technology




CE&COM (Tech) 2026
BSWML

WHEREAS BBMP and KPCL has entered into MoU on 01.01.2019 to implement 5MW Waste to Energy plant at Bidadi site on BBMP commitment to provide RDF free of cost at site for power generation.

WHEREAS BBMP has agreed to certain additional obligations of the First Party as requested by the Second Party.

Now this addendum to the Memorandum of Understanding Dated.01.01.2019 witnesseth as follows:

1.00 Obligations of the First party: (to be inserted after clause No. 1.04 of the MoU Dated. 01.01.2019)

"1.05 RDF below 1500kCal/kg can be rejected by KPCL and BBMP would be responsible for taking it back.

1.06 BBMP has to make arrangements for taking back residual inert matter at regular intervals on weekly basis. "

All other terms and conditions indicated in the MoU Dated.01.01.2019 shall remain unaltered.

<u>For BBMP</u>	<u>For KPCL</u>
Chief Engineer (Solid Waste Management)	Chief Engineer (GSW)
#305, 3 rd floor, Annexe-2 Building, BBMP Head Office premises, N.R Square, Kittur Rani Chennamma Circle, Bengaluru – 560 002	Karnataka Power Corporation Limited, YCCPP, Doddaballapur Road, Singanayakanahalli, Yelahanka, Bengaluru 560 064.
Email: ceswm1@gmail.com	Email: cegswkpcl@gmail.com cegsw@karnatakapower.com

In witness whereof, the parties herein hereto have set their respective hands on the day, month and year above mentioned

For Bruhat Bengaluru Mahanagara Palike.,


(P. Vishwanath)
Chief Engineer (SWM)
Chief Engineer
S.W.M.
B.B.M.P.

Witness:

- 
M. LOKESH
SE, SWM, BBMP
-

For Karnataka Power Corporation Ltd.,


(Chandrakanth Dondiba) 11/09/2019
Chief Engineer (GSW)
Chief Engineer (GSW)
Karnataka Power Corporation Ltd,
YCCPP, Doddabailapura
Yelahanka, Bengaluru - 5

Witness:

- 
H. M. UMESH
EE (Bidadi) / KPCL
-

MEMORANDUM OF UNDERSTANDING

BETWEEN

BRUHAT BENGALURU MAHANAGARA PALIKE

AND

KARNATAKA POWER CORPORATION LIMITED

**FOR ESTABLISHING 5MW
WASTE TO ENERGY PROJECT.**



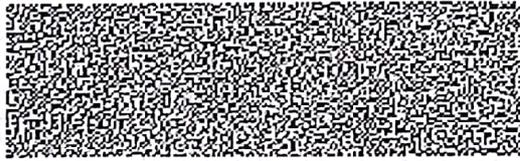
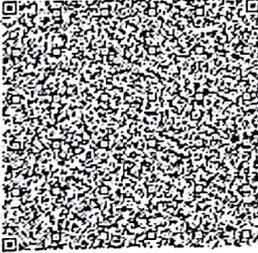
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INDIA NON JUDICIAL

Government of Karnataka

e-Stamp

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 Account Reference : NONACC (FI)/ kaksfcl08/ GANDHINAGAR/ KA-BA
 Unique Doc. Reference : SUBIN-KAKAKSFCL0870355603902769Q
 Purchased by : KARNATAKA POWER CORPORATION LTD
 Description of Document : Article 37 Note or Memorandum
 Description : M O U
 Consideration Price (Rs.) : 0
 (Zero)
 First Party : BRUHAT BENGALURU MAHANAGARA PALIKE
 Second Party : KARNATAKA POWER CORPORATION LTD
 Stamp Duty Paid By : KARNATAKA POWER CORPORATION LTD
 Stamp Duty Amount(Rs.) : 400
 (Four Hundred only)



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MEMORANDUM OF UNDERSTANDING

This Memorandum of Understanding (MoU) is entered into on this 1st day of January 2019
 between

Bruhat Bengaluru Mahanagara Palike ("BBMP", which expression shall unless repugnant to the context or meaning thereof mean and include all its successors, permitted assign and representative) a municipal corporation of Bengaluru city established as per Karnataka Municipal Corporation Act, 1976 of Karnataka State having its office at N R Square, Bengaluru-560002 represented by Sri. P. Vishwanth, Chief Engineer (Solid Waste Management), hereinafter referred to as First Party.


 Chief Engineer
 S.W.M.
 BBMP

Statutory Alert:

1. The authenticity of the e-Stamp Certificate should be verified at www.shoiesstamp.com. Any discrepancy in the details on this Certificate renders it invalid.
2. The onus of checking the authenticity is on the users of the certificate.
3. In case of any discrepancy, please inform the Competent Authority.

Page 1 of 1



KPCL

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and

Karnataka Power Corporation Limited ("KPCL", which expression shall unless repugnant to the context or meaning thereof mean and include all its successors, assign and representative), corporate office at # 82, Shakthi Bhavan, Race Course road, Bengaluru-560 001 represented by **Sri I.S. Haveri, Chief Engineer (Gas Solar Wind)**, hereinafter referred to as **Second Party**

First Party and Second Party shall hereinafter together be referred to as "parties".

WHEREAS as per Karnataka Municipal Corporation act 1976, it is obligatory on the part of BBMP to collect and process the municipal waste in accordance with Municipal Solid waste management rules 2016. In order to ensure proper processing and management of municipal solid waste generated in BBMP's limits of Bengaluru city, it is required to establish waste processing facility for proper disposal of waste. In this regard BBMP has already established 7 plants of 1700 MT per day capacity to process wet waste and produce compost. In order to process dry waste, it is required to establish waste to energy plant.

WHEREAS a request was made by BBMP to KPCL to design, procure, build and operate the power plant in the land owned by KPCL nearby Bidadi town.

WHEREAS KPCL Board in its meeting on 25.10.2018 authorised the Managing Director to initiate steps to implement a waste to energy plant at Bidadi site on BBMP commitment to provide RDF free of cost at site for power generation.

Now this Memorandum of Understanding witnesseth as follows:

1.00 Obligations of the First party:

- 1.01 First Party shall make a total capital grant of 50% of the total investment after deducting government of India subsidy/grant that would be available. The remaining 50% will be borne by the second party towards the capital cost of setting up of a waste to energy plant at Bidadi Site belonging to the Second party with an initial capacity of 5MW. The said grant shall be increased as the availability of RDF from the First Party increases and the Second party is in a position to increase the capacity upto 15 MW.
- 1.02 Adequate RDF (preferably in pelletization form) shall be provided to the second party from the processing plants of the First Party at all times free of cost during the period of 30 years of operation of the waste to energy plant to be established by the Second Party. A minimum of 150 to 200 MT per day shall be supplied for the initial 5MW project at the plant site. When the daily supply of RDF increases to 400MT, the Second Party shall increase the power generation capacity upto 15MW in all.
- 1.03 Water required for the power plant shall be supplied from the nearest treated water source. Second party shall intimate the requirement well in advance to facilitate the said arrangement.
- 1.04 All subsisting agreements for setting up similar Waste to Energy plants shall be the responsibility of First party and the Second Party shall be indemnified against all claims.


(P. Vishwanath)
Chief Engineer (SWM)
Chief Engineer
S.W.M.-
B.B.M.P.


(I.S. Haveri)
Chief Engineer (GSW)

Page 2 of 4

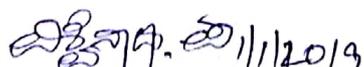


2.00 Obligations of the Second party:

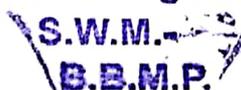
- 2.01 An area of 15 acres shall be earmarked for setting up the plant at Bidadi site located in Billakempanahalli & Banandur Villages after ensuring adequate space for establishing a gas based power plant in future.
- 2.02 The waste to Energy plant shall be established after obtaining all necessary approvals, permits and licenses from the competent authorities. Necessary financing arrangements may be made for meeting capital and revenue expenses taking into account the capital grant to be provided by the First party
- 2.03 The power plant with a capacity of 5MW shall be established initially and scaled upto 15 MW based on the corresponding supply of RDF free of cost by the First Party. The Plant shall be designed to run for a period of 30 years

3.00 Other terms and conditions:

- 3.01 In the event of breach of agreement by either party, the matter shall be mutually resolved failing which the same shall be referred to the head of the Departments of Energy and Municipal Administration, Govt. of Karnataka.
- 3.02 **Assignment:** Neither Party shall assign or otherwise transfer any of its rights nor shall obligations under this MoU to any third party without the prior written consent of the other Party and any attempted assignment or transfer without such prior written consent shall be null and void.
- 3.03 **Severability:** The invalidity or unenforceability of any provisions of this MoU shall not affect the validity or enforceability of any other provision of this MoU, which shall remain in full force and effect.
- 3.04 **Waiver:** The failure of the either Party, at any time, to require performance and/or enforcement of any provision of this MoU shall not be construed as a waiver of the requiring Party of its rights under this MoU, nor shall the failure of the requiring Party to take action affect its rights, at some later date, to enforce these rights under this MoU for breach of any of the provisions of this MoU.
- 3.05 The MoU shall be signed by the parties in two separate counter parts each of which shall be deemed to be an original with the same effect as if the signature thereto and hereto whereupon the same instrument and both of which when taken together shall constitute one and the same instrument.
- 3.06 **Indemnity:** Each party shall indemnify the other party and hold harmless against any claim, liabilities and costs incurred as a result of breach, act/omission committed by that Party or any other party acting on its behalf in the course of undertaking activities envisaged under this MoU.
- 3.07 **Survival:** Clauses No.3.04, 3.06 and 3.07 shall survive any expiration and or termination of this MoU. Further, any provision of this MoU, which expressly or by implications from its nature is intended to survive the termination or expiration of this MoU and any right arising on termination or expiration, shall survive.
- 3.08 **Amendment:** Any amendment to this MoU must be made in writing and shall be signed on behalf of the parties.


(P. Vishwanath)

Chief Engineer (SWM)
Chief Engineer


S.W.M.
B.B.M.P.


(I.S. Haveri)

Chief Engineer (GSW)

Page 3 of 4



4.0 **Notice:** Any notice or other information given pursuant to this MoU may be given either by hand or sent to by courier, pre-paid post, telex, cable, Facsimile transmission or E-Mail or comparable means of communication addressed to such addressees and address as shown below or to such other representative or address as may from time to time be designated by one party and informed to the other party in writing:

For BBMP	For KPCL
Chief Engineer (Solid Waste Management)	Chief Engineer (GSW)
#305, 3 rd floor, Annexe-2 Building, BBMP Head Office premises, N.R Square, Kittur Rani Chennamma Circle, Bengaluru – 560 002	Karnataka Power Corporation Limited, YCCPP, Doddaballapur Road, Singanayakanahalli, Yelahanka, Bengaluru 560 064.
Email: ceswm1@gmail.com	Email: cegswkpcl@gmail.com cegsw@karnatakapower.com

In witness whereof, the parties herein hereto have set their respective hands on the day, month and year above mentioned

For Bruhat Bengaluru Mahanagara Palike.,

For Karnataka Power Corporation Ltd.,

(Signature) 11/01/2019
 (P. Vishwanath)
 Chief Engineer (SWM)
 Chief Engineer
 S.W.M.
 BBMP

Witness:
 1. *(Signature)*
 2. *(Signature)* (Sreenidhi, AEC-SWM (B&R))

(Signature) (S.P. Ranganatha, SE (MDP))

(Signature) 11/1/19
 (I.S. Haveri)
 Chief Engineer (GSW)
 Chief Engineer (GSW)
 Karnataka Power Corporation
 YCCPP, Doddaballapura Ro
 Yelahanka, Bengaluru - 560 064

Witness:
 1. *(Signature)*
 2. *(Signature)* (LINGESHA.T) KPCL
 EEM
(Signature) Vasudeva M.R. SE(GSW)
 KPCL



Photos of 11.5 MW Waste to Energy Plant at Bidadi



[Signature]
CE&COM (Tech)
BSWML

Kasa Rasa initiative - collection, aggregation, compaction, transportation of MLPs



W
21/1/2026
CE&COM (Tech)
BSWML

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COUNSEL FOR THE 3RD
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E-Mail:sekarvallam@gmail.com**