Project RoU Verification Report

2022

COVER PAGE				
RoU Project Verification Report Form (VR)				
BASIC INFORMATION				
Name of approved UWR Project Verifier / Reference No.	Enviance Services Private Limited			
Type of Accreditation	<ul> <li>RoU Accreditation UWR</li> <li>Water Audit/Water Footprint Expertise</li> </ul>			
Approved UWR RoU Scopes for Project Verification	RoU Scope 5: Conservation measures taken to recycle and/or reuse water, spent wash, wastewater etc. across or within specific industrial processes and systems, including wastewater recycled/ reused in a different process, but within the same site or location of the project activity. Recycled wastewater used in off- site landscaping, gardening or tree plantations/forests activity are also eligible under this Scope.			
Validity of UWR approval of Verifier	30/09/2027			
Completion date of this VR	12/06/2025			
Title of the project activity	Jeyavishnu Wastewater Recycle & Reuse Project, Tirupur			
<b>Project reference no.</b> (as provided by UWR RoU Program under Approved for Verification tab)	UWR ID: 521			
Name of Entity requesting verification service (can be Project Owners themselves or any Entity having authorization of Project Owners, example aggregator.)	Viviid Emissions Reductions Universal Pvt. Ltd.			
Contact details of the representative of the Entity, requesting verification service (Focal Point assigned for all communications)	Name: Lokesh Jain Email ID – lokesh.jain@viviidgreen.com			
Country where project is located	India			

Applied reference documents used for estimation	Water Data Guide
(approved water data and reference guides under the UWR Rou Standard used)	
Project Verification Criteria: Mandatory requirements to be assessed	<ul> <li>UWR Standard</li> <li>Applicable Approved Calculations</li> <li>Applicable Legal requirements /rules of host country</li> <li>Eligibility of the Project Type</li> <li>Start date of the Project activity</li> <li>Meet applicability conditions in the applied methodology</li> <li>Credible Water Data Sets</li> <li>Do No Harm Test</li> <li>RoU calculations</li> <li>PCNMR</li> <li>No Double Counting</li> <li>Others (please mention below)</li> </ul>
<b>Project Verification Criteria:</b> Optional requirements to be assessed	<ul> <li>Environmental Safeguards Standard and do-no-harm criteria</li> <li>Social Safeguards Standard do-no-harm criteria</li> </ul>
Project Verifier's Confirmation: The UWR Project Verifier has verified the UWR project activity and therefore confirms the following:	The UWR RoU Project Verifier [Enviance Services Private Limited], certifies the following with respect to the UWR Project Activity [Jeyavishnu Wastewater Recycle & Reuse Project, Tirupur]. The Project Owner has correctly described the Project Activity in the PCNMR (dated 31/03/2025) including the applicability of the guidance documents and water data as outlined in the UWR RoU Standard [RoU Scope 5: Conservation measures taken to recycle and/or reuse water, spent wash, wastewater etc. across or within specific industrial processes and systems, including wastewater recycled/ reused in a different process, but within the same site or location of the project activity

estimates correctly and rvatively.
ne Project Activity is likely to ate 48,10,911 RoUs as ted in the PCNMR, which are able with UWR rules
e Project Activity is not likely ause any net-harm to the onment and/or society
ne Project Activity complies Il the applicable UWR rules <sup>1</sup> herefore recommends UWR am to register the Project y with RoUs.
ation Report UWR Project 1
12-06-2025
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<sup>&</sup>lt;sup>1</sup>https://a23e347601d72166dcd6-16da518ed3035d35cf0439f1cdf449c9.ssl.cf2.rackcdn.com//Documents/UWRtermsandconditionsVer7\_290525201833453236.pdf

# **PROJECT VERIFICATION REPORT**

## **Executive summary**

The project activity is titled – "Jeyavishnu Wastewater Recycle & Reuse Project, Tirupur". The project is located at Patchankattupalayam, Karaipudur Village, Arulpuram, Tirupur, Tirupur District, Tamil Nadu State, India.

Company's Name	Plant Treatment Capacity (m³/d)	Commiss	ioning Date	Location	Geo co- ordinates of Location
Jeyavishnu Clothing Private Limited	Installed capacity = 3600 m <sup>3</sup> /d (3.6 MLD) Operational capacity = 2600 m <sup>3</sup> /d (2.6 MLD)	ETP	04/08/2013	Patchankattupalayam, Karaipudur Village, Arulpuram, Tirupur, Tirupur District, Tamil Nadu State, India	Latitude: 11.033248 Longitude: 77.326726

The project activity plant incorporates Jeyavishnu Clothing Effluent Treatment Plant (ETP). The primary purpose of this project is to effectively treat the effluent generated from their dyeing and printing processes.

Tirupur is an industrial town located about 450 kms Southwest of the city of Chennai, Tamil Nadu State. Tirupur is famous as one of the top knitwear exports centers of India. The primary purpose of this project is to effectively treat the effluent generated from their dyeing and printing processes.

The Jeyavishnu Effluent Treatment Plant, with an installed capacity of 3.6 MLD and an operational capacity of 2.6 MLD, was commissioned from August 4th, 2013 onwards and the ETP located at S.F. No:163/1B, Patchankattupalayam, Karaipudur Village, Arulpuram, Tirupur-641605, treats the raw effluent with complete biological oxidation process and reverse osmosis system with Installation of new MBR system in the year February'2023 before enabling the treated water to be effectively reused in the dyeing process. The primary objective of the water treatment process is to maintain Total Dissolved Solids (TDS) below 1500 ppm.

The purpose of this ETP plant is to changing physical & mainly its chemical properties of effluent by removing undesirable suspended & dissolved impurities of both organic & inorganic nature. The dyeing and printing industry's effluent is characterized by a high concentration of various chemicals. The level of chemical dosing involved, and methods adopted for treatment are according to the end consumers requirement as well as the nature of composition of raw

water sources, which are all mainly from surface wells, lakes, rivers or from underground sources such as deep wells in some places from sea.

All Textile Plant in Tamil Nadu, They have a mandate to maintain the TDS below 1500 mg/L from the state government; however, they have installed Membrane Bioreactor (MBR) and Agitated Thin Film Dryer (ATFD), which serve as alternative solutions for the Effluent Treatment Plant (ETP). The installation and commissioning of multiple Reverse Osmosis (RO) streams was completed on March 10, 2023. Following commissioning, RO stream 1 A commenced successful operation on April 1, 2023, while RO stream 1 B and RO stream 2 began successful operation on March 12, 2023, and March 10, 2023, respectively. MBR is a new and innovating treatment technology which has been introduced on the market aimed to increase treatment process reliability and born through the combination of a membrane process like microfiltration or ultrafiltration with a biological wastewater treatment process, the activated sludge process. The MBR Plant has been commissioned in 9 Feb'23 with Plant A<B<C.

RO is used to remove dissolved solids, and MBR helps as membranes act as a physical barrier, effectively removing suspended solids, bacteria, and viruses. These systems are designed to reduce the TDS levels in the effluent.

Despite the installation of RO and MBR systems, the TDS level in the treated effluent remains much higher than the standards set by the Pollution Control Board (PCB). As a result, the JVCPL has installed a MEE (Multiple effect evaporator) & Zero Liquid Discharge (ZLD) system as an alternative method to ensure compliance with the regulatory requirements. The ZLD system helps in eliminating the discharge of liquid waste by treating all effluent and recovering water for reuse, thus effectively reducing the TDS concentration and achieving the desired standards.

The Project Proponent (PP) affirms that they meet all the requirements outlined in the management plan regarding ownership, legal rights, permits, and cost details for the successful implementation of the project. Specifically:

Water User Rights: The PP holds the necessary water user rights for the area within the project's boundary. These rights are legally secured and ensure that the PP has full entitlement to use the water resources required for the project's operations accredited By TNPCB.

Legal Land Title: The PP holds an uncontested legal land title for the entire project area within the project's boundary. The title is fully documented and free of any disputes, confirming the PP's legal right to utilize the land for project purposes.

Necessary Permits: The PP has obtained all the required permits for the implementation of the project. In cases where certain permits are pending, the PP has already applied for the necessary approval and is working in full compliance with the relevant regulatory requirements to ensure the timely commencement of the project.

Cost Details: The PP has thoroughly assessed and documented the cost details for project implementation. A detailed cost breakdown is available in the DPR, Capital Cost of project was RS. 60 Crores. covering all aspects of project development, including infrastructure, permits, equipment, and operational costs.

By meeting these criteria, the PP ensures that all legal and regulatory requirements for the project are satisfied, enabling the project to proceed without hindrance.

Nowadays, the treatment of water occupies a predominant place in modern industries. Moreover, treatment of water is required for various purposes, from potable use to industrial applications such as food, beverages, leather, textiles and heavy chemical industries. Also, the treatment of wastewater especially effluent from toxic disposals attracts attention nowadays due to increase global awareness of ecological & environmental protection.

Treatment of water implicitly means changing its physical & mainly its chemical properties by removing undesirable suspended & dissolved impurities of both organic & inorganic nature. The level of chemical dosing involved, and method adopted for treatment are according to the end consumers requirement as well as the nature of composition of raw water sources, which are all mainly from surface wells, lakes, rivers or from underground sources such as deep wells in some places from sea.

If the wastewater is released into the environment without proper treatment, it can cause severe pollution, affecting aquatic life, soil quality, and human health. Therefore, this project activity helps reduce the environmental impact by treating wastewater and recirculating it back to the textile industries which minimizes their dependency on fresh water sources, further promoting sustainability.

The project activity qualifies under the UWR RoU program since the PP has undertaken water conservation measures to recycle and reuse Industrial wastewater. Industrial Wastewater is a highly potential source of water for various purposes and is highly underutilized in the country. All the water quality reports are in line with the Tamil Nadu Pollution Control Board.

The current monitoring period is from 01/01/2014 to 31/12/2024 and the RoU's generated by the project activity in this monitoring period are 48,10,911 RoU's.

#### **Scope of Verification**

The scope of the services for the project is to perform Project Verification of concerned Project Activity. The scope of verification is to assess the claims and assumptions made in the Project Concept Note & Monitoring Report (PCNMR) against the UWR criteria, including but not limited to, UWR program verification guidance document, UWR Standard, UWR Program Manual, and related rules and guidelines established under Program process.

#### **Verification Process and Methodology**

The verification process was undertaken by a competent verification team and involved the following,

- Desk review of documents and evidence submitted in context of the reference rules and guidelines issued by UWR,
- Undertaking/conducting site visit/remote audit, interview or interactions with the representative of the project owners/representatives,
- Reporting audit findings with respect to clarifications and non-conformities and the closure of the findings, as appropriate and preparing a draft verification opinion based on the auditing findings and conclusions
- Finalization of the verification opinion (this report)

#### **Desk/Document review**

A detailed desk review of the PCNMR, Methodology and all other associated documentation and references took place in advance of the remote site visit, and additional documents that were not available for the desk review were requested for review during the remote site visit. Additional information can be required to complete the verification, which may be obtained from other public and reliable sources or through telephone and face to face interviews with key stakeholders (including the project developers and where necessary, government and NGO representatives in the host country).

A list of all documents reviewed or referred to in the course of this verification is included below in Appendix 3.

#### Follow up interviews/site visit

The verifier conducted remote audit and had requested for site photographs, short videos. A remote interview was conducted with the project owners and stakeholders.

#### Conclusion

Based on the work performed, the verifier concludes that in the project "Jeyavishnu Wastewater Recycle & Reuse Project, Tirupur", the information and data presented in the PCNMR dated 31/03/2025 meets all relevant requirements of the UWR for UWR project activities.

For the current monitoring period, verified RoU's achieved by the project activity were as below;

Start date of monitoring period	01/01/2014
End date of monitoring period	31/12/2024
RoU's achieved	48,10,911 RoU's

# Project Verification team, technical reviewer and approver

#### **Project Verification team**

No.	Role	Last	First	Affiliation	Involvement in		
		name	name	(e.g. name of central or other office of UWR Project Verifier or outsourced entity)	Document review	Off-Site inspection	Interviews
1.	Team Leader/ Technical Expert	Singh	Ritu	Enviance Services Private Limited	Yes	Yes	Yes
2.	Team Leader in Trainee	Mahajan	Swati	Enviance Services Private Limited	Yes	Yes	Yes
3.	Validator- Verifier/ Technical Expert in Trainee	Shastri	Prakhar	Enviance Services Private Limited	Yes	Yes	Yes

#### Technical reviewer and approver of the Project Verification report

No.	Role	Type of resourc e	Last name	First name	Affiliation (e.g. name of central or other office of UWR Project Verifier oroutsourced entity)
1.	Technical reviewer	Internal	Kumar	Mr. Pankaj	Enviance Services Private Limited
2.	Approver	Internal	Muralikrishna	Vidhya	Enviance Services Private Limited

# **Means of Project Verification**

#### **Desk/document review**

A detailed desk review of the PCNMR, methodology and all other associated documentation and references took place in advance of the remote audit, and additional documents that were not available for the desk review were requested for review during the remote audit. Additional information can be required to complete the verification, which may be obtained from other public and reliable sources or through telephone and face-to face interviews with key stakeholders (including the project developers and where necessary, Government and NGO representatives in the host country).

A list of all documents reviewed or referred to in the course of this verification is included in Appendix 3 below.

Da	ate of inspe 27/05/	off-site ction /2025		
No.		Activity performed Off-Site	Site location	Date
1.	a)	An assessment of the implementation and operation of the project activity as per the PCNMR and UWR requirements	Patchankattupalayam, Karaipudur Village, Arulpuram, Tirupur, Tirupur District, Tamil	27/05/2025
	b)	Verification of the project design, as documented is sound and reasonable, and meets the identifiedcriteria of UWR Standard Requirements and associated guidance	Nadu State, India	
	c)	Assessment to conformance with the certification criteria as laid out in the UWR Standards;		
	d)	Evaluation of the conformance with the certification scope, including the water project and baseline scenarios, additionality; scopes of water project; and the physical infrastructure, activities, technologies and processes of the water project to the requirements of the UWR;		
	e)	Evaluation of the calculation of RoU's, including the correctness and transparency of formulae and factors used; assumptions related to estimating RoU's.		
	f)	Review of information flows for generating, aggregating and reporting of the parameters to bemonitored		
	g)	To confirm that the operational and data collection procedures can be implemented in accordance with the Monitoring Plan		
	h)	Cross-check of information provided in the submitted documents and data from other sources available at site		
	i)	Review of calculations and assumptions made in determining RoU's, and an		

#### **Off-site inspection**

	identification of QA/QC procedures in place	
	to prevent, or identify and correct, any	
	errors or omissions in the reported	
	monitoring parameters	
j)	Interviews of local Stakeholders	

#### Interviews

No.		Interview			
	Last name	First name	Affiliation	Date	subject
1.	-	Ramesh	Jeyavishnu Clothing	27/05/2025	Project Implementation
2.	Balan	Воо			Monitoring plan,
3.	-	Devendra			Project Boundary,
4.	Mahanta	Sarashi	Viviid emissions reductions universal private Ltd		Eligibility criteria, Host country requirements, RoU
5.	Deventhran	S.	Local stakeholders		calculations Project
6.	Radhakrishnan	А.			monitoring Local
7.	Marimuthu	Κ.			stakeholder
8.	Arumugan	Sudhakar			consultation

# Clarification request (CLs), corrective action request (CARs) and forward action request (FARs) raised

Areas of Project Verification findings	No. of CL	No. of CAR	No. of FAR
Rainwater Offset Units or Water Cred	its (RoU)	•	
Identification and Eligibility of project type	-	-	-
General description of project activity	02	-	-
Application and selection of methodologies and standardized sets	-	-	-
<ul> <li>Application of RoU methodologies and standardized data sets</li> </ul>	-	-	-
<ul> <li>Deviation from methodology and/or methodological tool</li> </ul>	-	-	-
<ul> <li>Clarification on applicability of methodology, tool and/or standardized data sets</li> </ul>	02	-	-
<ul> <li>Project boundary and unutilized water sources</li> </ul>	-	-	-
<ul> <li>Likely scenario without RoU Project</li> </ul>	-	-	-
<ul> <li>Estimation of RoUs</li> </ul>	-	-	-
- PCNMR	01	01	-
Start date, crediting period and duration	-	-	-
Positive environmental impacts on water table and/or groundwater recharge and/or water security in the area	-	-	-
Project Owner- Identification and communication	-	-	-
Others (please specify)	01	-	-
Total	06	01	-

# **Project Verification findings**

### Identification and eligibility of project type (Approved Project Activities (Positive List))

Means of Project Verification	The project is an effluent treatment plant with installed treatment capacity of 3600 m <sup>3</sup> /day (3.6 MLD). The operational capacity of the plant capacity is 2600 m <sup>3</sup> /day (2.6 MLD); however, due to operational variability, actual daily output may occasionally be lower. This is confirmed based on the commissioning certificate, operational capacity document and technical specifications. Since the project is a effluent treatment plant which recycles and reuses industrial wastewater it comes under scope 5 project as per UWR Rainwater (RoU) Standard, version 7.0 (https://a23e347601d72166dcd6- 16da518ed3035d35cf0439f1cdf449c9.ssl.cf2.rackcdn.com//Docum ents/RainWaterOffsetStandardver7 130824144129526582.pdf)
	The Project owner has used valid PCNMR form available at the UWR website for the preparation of PCNMR for the current project activity. The project has prepared PCNMR in line with UWR guidance and requirements
Findings	No findings raised.
Conclusion	The UWR-approved format is used for description and the project meets the requirement of the UWR RoU verification standard version 2.0 and UWR RoU standard version 7.0. UWR project communication agreement was submitted to the verifier and the same has been verified. Methodology referenced and applied appropriately describing the project type. The eligibility of the project aggregator is verified using the UWR communication agreement, project correctly applies the verification standard, UWR project standard, and UWR regulations. The project activity is overall meeting the requirements of the UWR Verification standard and UWR project standard.

# General description of project activity

Means of Project Verification	The project is an effluent treatment plant with installed treatment capacity of 3600 m <sup>3</sup> /day (3.6 MLD). The operational capacity of the plant is 2600 m <sup>3</sup> /day (2.6 MLD); however, due to operational variability, actual daily output may occasionally be lower and its commissioning date is verified through the commissioning certificate of the project. The documents confirm the treatment of wastewater from the textile units in this project. Assessment team conducted documentation review of the PCNMR against the UWR RoU verification standard version 2.0 and UWR RoU standard version 7.0 and the UWR-PCNMR-FORM Version 3.0. By checking the supporting documents, it is confirmed that the project is an effluent treatment plant, the project is located in Patchankattupalayam, Karaipudur Village, Arulpuram, Tirupur, Tirupur District, Tamil Nadu State, India The approximate geo-coordinates of the project locations are mentioned below.	
	Plant Treatment Capacity (m³/d)	Geo co-ordinates of Location
	Installed capacity = 3600 m³/d (3.6 MLD) Operational capacity = 2600 m³/d (2.6 MLD)	Latitude: 11.033248 Longitude: 77.326726
	Assessment team performed confirmed that the location des	an offsite inspection of project and cribed in the PCNMR are accurate.
Findings	CL 01 and CL 02 were rai information presented appendi	sed and closed successfully. More x below.
Conclusion	The description of the project the review of PCNMR, Co submitted documents.	activity is verified to be true based on ommissioning Certificate and other

# Application and selection of water data and calculation parameters

Means of Project Verification	Verification criteria are as per the requirements of UWR RoU program for the scope – 5. For applicability mentioned in the PCNMR, commissioning certificates, DPR, technical specifications, flow meter data were checked.
Findings	No findings raised.
Conclusion	The project has effectively implemented the water treatment unit following the guidelines of UWR RoU standards by recycling and reusing the industrial wastewater and has a positive impact of local hydrology and community water resources.

# Means of Project Verification The documents reviewed are ETP basics, ensuring proper operation of flow meters, RoU estimates by reviewing the flow details, UWR RoU standard, and UWR RoU Verification Standard. Findings CL 03 and CL 05 were raised and closed successfully. More information presented appendix below. Conclusion The verification team confirms that all the applicability criteria set by the UWR RoU standard are met. The relevant information against those criteria is also included in the PCNMR. The selected scope for the project activity is applicable.

#### Clarification on applicability of tool and/or RoU estimates

#### Project boundary, sources and RoUs

Means of Project Verification	Conducting remote inspections of the project site to assess the effluent treatment plant setup and its integration with the Jeyavishnu Effluent Treatment Plant Private Limited. Document Review: Examining the project's documentation, including permits, ownership documents, flow details.
Findings	No findings raised
Conclusion	The project boundary is correctly defined in the PCNMR. The ETP is the project boundary in this project which treats the industrial wastewater by enhancing the water conservation and sustainability of the local water reserves.

#### Baseline scenario of the water shed or activity prior to project commissioning

Means of Project Verification	As per the UWR scope 5 project the baseline scenario is as following: "The net quantity of treated ETP effluent / wastewater that would be discharged directly into the local drain/sewer without further being recycled and/or reused daily post treatment per year" Remote audit conducted and document review showed that in absence of the project activity, the waste water would have been directly discharged in the sewer without treating it and further contaminating the local water reserves.
Findings	No findings raised
Conclusion	The approved baseline methodology has been correctly applied to identify a realistic and credible baseline scenario, and the identified baseline scenario most reasonably represents what would occur in the absence of the proposed UWR project activity.
	All the assumption and data used by the project participants are listed in the PCNMR and/or supporting documents. All documentation relevant for establishing the baseline scenario are correctly quoted and interpreted in the PCNMR. Assumptions and data used in the identification of the baseline scenario are justified appropriately, supported by evidence and can be deemed reasonable.

#### Implementation Benefits to Water Security

Means of Project Verification	Examining	the	PCNMR,	commissioning	certificate,	legal
-	documentatio	on and	any other re	elevant document	ation.	-
	By conductir	ng inte	erviews with	n the project pro	ponent, ownei	s. By
	assessing th	ne wa	ter quality	reports, as well	as the impa	act of

	untreated water on local water reserves and quality testing was conducted by analyzing the quality of water post treatment.
Findings	No findings raised.
Conclusion	The Implementation Benefits to Water Security emphasizes the significant positive impact in safeguarding aquatic ecosystem in Noyyal River Basin and soil health. The project successfully significantly reduces the reliance on groundwater, a precious natural resource. By minimizing the demand for fresh water, Initiative for waste water recycle and reuse by Jeyavishnu Wastewater Recycle & Reuse Project can contribute to water conservation efforts and alleviate pressure on depleting aquifers. Overall, the project demonstrates effective strategies for reducing captive water consumption and responsibly managing groundwater, the project hopes to foster a broader adoption of environmentally responsible approaches within the industry.

# Estimation of RoUs or net water saved/recycled/reused

Means of Project Verification	<ul> <li>Remote inspection of the ETP unit to ensure it matches the project documentation. Examination of PCNMR, Commissioning Certificate, Project plan was carried out and other relevant documentation provided by the project proponent. Measurement Verification was carried out by checking the flow details.</li> <li>The net quantity of treated water used is measured via flow meters installed at the site. RoUs are calculated based on total quantity of treated water being recycled &amp; reused.</li> <li>RoU's achieved during the first monitoring period which is from 01/01/2014 to 31/12/2024 as per the Project Activity:</li> </ul>			
		Vear	Total ROUs	
		i eai	(1000 liters)/yr	
			UCR Cap (1 million RoUs/yr	
		2014	202450	
	2015 276828			
	2016 301964			
	2017 425387			
		2018	455678	
		2019	506963	
		2020	400638	
		2021	495842	
		2022	481352	
		2023	539776	
		2024	724033	
		Total RoUs	4810911	

	The project is an ETP plant means the water budget component is surface inflow. According to the RoU Standard version 7, PP has accounted 1% each as the uncertainty factor in inflow and outflow volumes to remain conservative. Therefore, an uncertainty factor of 0.98 is applied to all ROUs.
Findings	No findings raised.
Conclusion	In summary, the calculation of RoU's was correctly demonstrated by the PP.
	It is confirmed by the assessment team that:
	For the estimation of Rainwater Offset Units (RoUs) or net water saved/recycled/reused at Initiative for waste water recycle and reuse by Jeyavishnu Wastewater Recycle & Reuse Project, would highlight the successful implementation of a project activity that has effectively treated the industrial wastewater. The quantification tools and calculations detailed in the document indicate a total of 48,10,911 RoUs (1000 liters each) were collected over the monitoring period from 01/01/2014 to 31/12/2024. This initiative not only treated a significant amount of wastewater that would have otherwise gone untreated but also contributed to the improvement of Noyyal River Basin water quality, demonstrating the project's positive impact on water security and sustainability in the region. The project serves as a model for similar industrial areas, showcasing the benefits of treating wastewater in enhancing in safeguarding the water quality of local water reserves.

### **PCN+Monitoring Report**

Means of Project Verification	Conducting off-site audit to verify the implementation and operation of the ETP. Examining all relevant documents, such as permits, ownership papers, and maintenance records of the ETP. Talking to the project proponent about the operation of the unit. Checking the accuracy of reported data, such as the flow details, flow meter details, treated water details and by evaluating the design and technical aspects of the ETP to ensure it aligns with the UWR RoU Standard principles.
Findings	CL 06 and CAR 01 were raised and closed successfully. More information presented appendix below.
Conclusion	The verification team is convinced of compliance of the monitoring plan. During the remote audit assessment, the verification team interviewed the PP that the monitoring arrangements described in the monitoring plan are feasible within the project design. The monitoring parameter reported in PCNMR adequately represents the parameters relevant to RoU calculation. The calibration report ensures the accuracy of the data reported. The number of RoU's generation is calculated based on this accurately reported data. The calculation was done using an excel sheet where all the parameters were reported. In the PCNMR RoU calculations
	requirements of UWR project verification requirements.

### National Water Security Index

Means of Project Verification	As per UWR RoU standard version 7.0 all projects RoU methodology are ideally below the NWS score of 60 and NWSI equal or lower than 2 (NWSI ≤ 2). India's NWS score is below 60. This index is considered in establishing and implementing policies for sustainable water and groundwater development. As mentioned in the PCNMR, commissioning certificate and DPR this project is not a groundwater restoration project. It is an effluent treatment unit.
Findings	No findings raised
Conclusion	The verification team on assessment concluded that the project is an industrial wastewater recycle and reuse project and not a groundwater restoration project. Hence, national water security index is not applicable in this project.

#### Start date, crediting period and duration

Means of Project Verification	The start date and crediting period of project activity was checked based on the commissioning certificate, PCNMR and other documents provided.
Findings	No findings raised.
Conclusion	The project has chosen crediting period start date as 01/01/2014.
	The crediting period is chosen as 01/01/2014 to 31/12/2024.

### **Positive Environmental impacts**

Means of Project Verification	PP has not claimed any separate positive environmental impact. The project being industrial wastewater treatment unit will reduce the further contamination of the local water reserves.
Findings	No findings raised
Conclusion	The project is a wastewater recycle/reuse project and reduces the further contamination of groundwater and local water reserves.

### **Project Owner- Identification and communication**

Means of Project Verification	PCNMR, communication agreement, commissioning certificate.		
Findings	No findings raised		
Conclusion	The project owner was identified through a communication agreement signed between project owner and project aggregator. Commissioning certificate was also verified and they clearly establish the project ownership. The identification and communication correctly meet the requirement of project verification and UWR project standard.		

# Positive Social Impact/Ecological Aspects/Recharge Aspects

Means of Project Verification	Project has provided temporary employment to local people during		
	its installation and commissioning. Also post commissioning some of		
	people have employed permanently and local people were engaged		
	leading to social financial benefit to surrounding. Overall social		
	impact of project implementation is positive on the surrounding area.		

	Also, The PP has showcased the successful wastewater treatment of		
	industrial effluent, thus saving millions of liters of wastewater from		
	the textile units		
	The project activity showcases best-in-class wastewater treatment		
	The project activity showcases best-in-class wastewater treatment		
	technology that can replace the equivalent freshwater and industrial		
	demand in different sectors for nonportable purposes while reducing		
	the proportion of untreated wastewater and substantially increasing		
	recycling and safe reuse in India.		
Findings	CL 04 was raised and closed successfully. More information		
	presented appendix below.		
Conclusion	Project has overall social positive impact and ecological positive		
	impact		

# Sustainable development aspects

Means of Project Verification	PP has claimed SDG Goals 3, 4, 6, 8, 13 and 15
-	SDG 3 (3.9) is good health and well-being and it is verified during
	remote audit. PP showcases how recycling and reusing wastewater
	can prevent depletion of natural water reserves and prevent water
	scarcity during droughts. The hazardous impact of industrial
	wastewater is avoided due to this project. This ensures water
	availability in water-scarce zones that help promotes healthy lives
	and well-being in the region.
	SDG 4 (4.2) is quality education and it was verified during remote
	audit and by assessing provided supporting documents.
	PP has provided school amenities to 500 children in Government
	Higher secondary school, Koduvai to ensure child development & Care.
	SDG 6 (6.3) is clean water and sanitation and is verified during remote audit.
	The project has showcased recycling and safe reuse of
	approximately 48,10,911 litres within the industry during this
	monitoring period and the same was verified by the assessment
	team.
	SDG 8 (8.5) is decent work & economic growth and this was verified
	by the supporting document of employment details provided. This
	project activity resulted in the creation of jobs and provided training
	SDG 13 (13.2) is climate action. This was verified during the remote
	audit PP recycles and reuses the industrial wastewater Recycling
	and reusing wastewater are an effective solution for climate change
	adaptation because it helps mitigate the impacts of droughts floods
	and other extreme weather events that are becoming increasingly
	common due to climate change due to water scarcity.
	SDG 15 (15.2.1) is Progress towards sustainable forest
	management. This was verified during remote audit and by assessing
	provided supporting documents. The PP has implemented a
	reforestation project in
	1. 3 acres land Planted 5,000 trees in Ponnapuram village
	(species- Pungai, Vembu, Soram, Kondrai) to ensure
	Positive ecosystem.
	2. 25 Acres land Planted 20,000 trees in Various Public areas
	(species- Pungai, Vembu, Soram, Kondrai).

Findings	No findings raised.
Conclusion	The project has the capability to address SDG 3, 4, 6, 8, 13 and 15.

# Internal quality control

The verifier confirms that,

- Due professional care has been taken while reviewing the submitted document.
- There is no conflict of interest as the verifier has no other engagement with either the aggregatoror project owner directly or indirectly.
- Verification team consists of experienced personnel.

# **Project Verification opinion**

Assessment team conducted documentation review the PCNMR against the UWR RoU verification standard version 2.0 and UWR RoU standard version 7.0 and the UWR-PCNMR FORM Version 3.0.

It is confirmed that the project activity is an industrial effluent treatment plant, that is located in Patchankattupalayam, Karaipudur Village, Arulpuram, Tirupur, Tirupur District, Tamil Nadu State, India.

The geo co-ordinates of the plant have been mentioned in sections above. Assessment team performed an offsite audit and confirmed that the location described in the PCNMR is accurate. The verification was performed on the basis of UWR requirements, and host country criteria, as well as criteria given to provide for consistent project operations, monitoring and reporting.

The verification consisted of the following three phases:

- i) Desk review of the PCNMR and additional background documents;
- ii) Follow-up interviews with project stakeholders;
- iii) Resolution of outstanding issues and the issuance of the final verification report and opinion.

The project correctly applies the approved baseline and monitoring methodology.

The monitoring plan provides for the monitoring of the project's Rainwater Offset Unit (RoU) calculations. The monitoring arrangements described in the monitoring plan are feasible within the project design, and the project participants are able to implement the monitoring plan. Given that the project is implemented and maintained as designed, the project has achieved the RoU's of 48,10,911 RoU during the monitoring period i.e. from 01/01/2014 to 31/12/2024.

The review of the project design documentation and the subsequent follow-up interviews have provided assessment team with sufficient evidence to determine the fulfilment of stated criteria. In our opinion, the project meets all applicable UWR requirements. Assessment team thus requests the registration of the proposed UWR project activity.

# Appendix 1. Abbreviations

Abbreviations	Full texts
UWR	Universal Water Registry
PCNMR	Project Concept Note and Monitoring Report
NGO	Non-Governmental Organization
CAR	Corrective Action Request
CL	Clarification Request
ETP	Effluent Treatment Plant
CETP	Common Effluent Treatment Plant
RoU	Rainwater Offset Unit
DPR	Detailed Project Report

### Appendix 2. Competence of team members and technical reviewers

Ms. Ritu Singh has done Masters in Environmental Science from Central University of South Bihar, Gaya and bachelor of Science in Zoology from Magadh Mahila College, Patna University, India. She has done Masters' research focused on solid waste management during and post covid-19 pandemic and conducted a survey in Medical Colleges of Bihar to study the trends of waste management. She has more than 2 year working experience in True Quality Certifications Pvt. Ltd. (An outsource entity for LGAI Technological Center, S.A. (Spain) "Applus+ Certification") and has been involved in supporting Audit teams for Validation and Verifications of Project Activities (Renewable and non-Renewable projects) under CDM/VCS/GS4GG/GCC programs. Currently, Ritu is engaged as an internal resource with Enviance Services Private Limited, where she is accredited as a Lead Auditor, Validator, Verifier, and Technical Expert for Sectoral Scope/Technical Area 1.2 by Enviance.

✤ Ms. Swati Mahajan is graduate in Environmental Engineering from Shivaji University, India and previously worked as an Environment Engineer at Eco Designs India Private Ltd., Pune. She is adept in designing of landfill sites for solid waste management. She also has hands on experience in cost benefit analysis and preparation of DPRs for SWM projects. She also has done a certified course in carbon capture and storage from Edinburg University. Currently working as GHG assessor for projects under various GHG mechanisms like GCC, ICR, UCR and VERRA.

\* Mr. Pankaj Kumar worked as team leader – Bihar for South Asia Climate Proofing and Growth Development (CPGD) - Climate Change Innovation Programme (CCIP) supported by DFID that seeks to mainstream climate change resilience into planning and budgeting at the national and sub-national level in India, Pakistan, Nepal, and Afghanistan. Pankaj Kumar has worked previously with IL&FS Infrastructure Development Corporation and BUIDCO (Bihar Urban Infrastructure Development Corporation), Govt. of Bihar as Environmental Specialist for WB & ADB funded projects. Prior to this, he worked with Carbon Check (UNFCCC accredited DoE), Johannesburg, RSA, Applus certification as Team Leader for validation, verification of around 100 GHG projects in Asia, Africa, USA, Asia Pacific & Americas. Pankaj is accredited Lead Auditor, Validator, Verifier and Technical Expert for Sectoral Scope/Technical Area - 1.1, 1.2, 3.1, 4.1, 13.1 by Enviance. He is also member of task force on climate change & human health, Health Department, GoB and on roster of UNICEF's WASH experts. He is an experienced, gualified and result oriented Environment Professional having more than 14 yrs. of relevant experience in Climate Change (Mitigation & Adaptation), Environmental Due Diligence, Disaster Risk Reduction, Validation and Verification of GHG project under CDM, Verified Carbon Standard, Gold Standard & Social Carbon Standard, Brazil. He provides technical support for environmental investigative, consultative and remedial projects involving air, water and soil, Waste management, EIA, Environmental Compliance, ISO 14001, OHSAS 18001, GHG accounting (ISO 14064) and Carbon foot printing. Pankaj Kumar is Masters in Environment Management from Forest Research Institute (University), I.C.F.R.E, Dehradun, which is Centre of Excellence in South East Asia for Forestry education & research and PGDEL from National Law School of India University, Bangalore (India).

✤ Mr. Prakhar Shastri has done Bachelor of Technology in Electronic Communication Engineering from Medicaps University, Indore. Currently, He is working in Enviance Services Private Limited and has been involved in supporting Audit teams for Verifications of Project Activities (Renewable and non-Renewable projects) under various registries like GCC.

No.	Author	Title	References tothe document	Provider
1	NA	Communication agreement		Project Owner
2	NA	Project Concept Note and Monitoring Report		Aggregator
3	NA	RoU Calculation sheet		Aggregator
4	NA	Declaration on avoidance of doublecounting		Aggregator
5	NA	Commissioning Certificates for the ETP		Aggregator
6	NA	Water flow details/log book details for thecomplete monitoring period		Aggregator
7	NA	Calibration certificates for water meters		Aggregator
8	UWR	UWR RoU Program manual version 2.0 UWR RoU standard version 7.0 UWR RoU Verification standard version 2 UWR terms and conditions version 7.0		Universal Water Registry

# Appendix 3. Document reviewed or referenced

# Clarification request, corrective action request and forward action request

### Table 1. CLs from this Project Verification

Classification		SAR	Number:	01
Raised by:	Ms. Ritu Singh		Document Reference	PCNMR
Finding Desc	ription		Date:	30/05/2025
1. In sec	ion A.2 of the PCNMR, PP to pro	ovide the land docur	nent for the project activi	ty.
2. PP to	provide the document for detailed	l cost breakdown fo	r the project activity.	
Client/Respo	sible Party/Project Proponent	Response	Date:	09/06/2025
<ol> <li>PP wants to clarify that the Land documents is not available at their side. However, PP has shared all necessary consent order for operate ETP plant.</li> <li>PP has Submitted Financial Documents for the project.</li> </ol>				
Validation/Ve	rification Team Assessment		Date:	11/06/2025
1. As the opera projec	land documents are not available e ETP. On verification, the conse t activity.	e with the client, PP ent order was found	has submitted the conse to be appropriate and re	ent order to lated to the
<ol> <li>PP has submitted the detailed cost breakdown of the project activity and same was verified by the assessment team and found to appropriate with the project activity.</li> </ol>				verified by
Hence, Cl	01 is closed.			

Classification	CAR CL/CR FAR	Number:	02		
Raised by:	Ms. Ritu Singh	Document	PCNMR		
		Reference			
Finding Descri	ption	Date:	30/05/2025		
As per UWR Ro	DU program manual version 2.0, PP shall submit a	an undertaking for no dou	ble counting for		
current monitori	ng period and for project activity has neither beer	n registered nor seeking re	egistration		
under any other	water registry or sustainable development progra	ams.			
Client/Respons	Client/Responsible Party/Project Proponent Response Date: 09/06/2025				
PP has submitte	ed Double counting declaration for current monito	ring period and for projec	t activity has		
neither been red	neither been registered nor seeking registration under any other water registry or sustainable				
development pr	ograms.	3			
Validation/Veri	fication Team Assessment	Date:	11/06/2025		
PP has submitted the no double certificate for the current monitoring period. During verification it was					
verified that the project activity has neither been registered nor seeking registration under any other water					
registry or sustainable development programs and there is no double counting of water credits for the					
current monitoring period.					
Hence CL 02 is	closed				

Classification	CAR CL/CR FAR	Number:	03
Raised by:	Ms. Ritu Singh	Document Reference	PCNMR
Finding Descri	ption	Date:	30/05/2025
PP shall submit PCNMR.	t the technical specifications of RO and its membra	anes and the same shall l	be added in
Client/Respons	Client/Responsible Party/Project Proponent Response Date: 09/06/2025		
PP has submitted Technical Specification of RO membrane & MBR.			
Validation/Veri	fication Team Assessment	Date:	11/06/2025
PP has submitte PCNMR. During	ed the technical specifications of RO and its memb verification, all the RO specifications mentioned in	oranes and the same has n PCNMR were found to	been added in be consistent

Classification	CAR CL/CR FAR	Number:	04		
Raised by:	Ms. Ritu Singh	Document	PCNMR		
		Reference			
Finding Descri	Finding DescriptionDate:30/05/2025				
PP shall submit the list of names of local stakeholder.					
Client/Responsible Party/Project Proponent Response Date: 09/06/2025					
PP has submitted Local Stakeholder Name.					
Validation/Veri	fication Team Assessment	Date:	11/06/2025		

PP has submitted the names of local stakeholders and the same has been assessed by the assessment team.

Hence, CL 04 is closed.

Classification		Number:	05	
Raised by:	Ms. Ritu Singh	Document Reference	PCNMR	
Finding Descr	ption	Date:	30/05/2025	
<ol> <li>PP sha serial n</li> <li>PP to ir</li> </ol>	Il submit the meter calibration certificates and shall umber is clearly visible. nclude the meter calibration details in the PCNMR.	submit the meter photog	raphs in which	
Client/Respon	sible Party/Project Proponent Response	Date:	09/06/2025	
1. PP has	submitted Calibration certificates for each EMFM.			
2. PP has	2. PP has included meter calibration details in PCNMR.			
Validation/Ver	fication Team Assessment	Date:	11/06/2025	
<ol> <li>PP has submitted the meter calibration certificates and during assessment, the calibration certificates were found to be consistent with the meter photographs. It was concluded that all the meters are timely calibrated and there was no delay in meter calibration.</li> </ol>				
2. PP has included meter details in PCNMR and the same was verified in updated PCNMR.			NMR.	
Hence, CL	05 is closed.			

Classification		Number:	06			
Raised by:	Ms. Ritu Singh	Document	PCNMR			
	-	Reference				
Finding Descri	ption	Date:	30/05/2025			
In section A.1 of PCNMR, PP shall explain the purpose of project activity in detail.						
Client/Respons	sible Party/Project Proponent Response	Date:	09/06/2025			
PP has explained Purpose of the project activity in detail.						
Validation/Veri	fication Team Assessment	Date:	11/06/2025			
PP has explained the purpose of project activity in detail in section A.1 of PCNMR. During verification it						
was verified in updated PCNMR.						
Hence, CL 06 is closed.						

### Table 2. CARs from this Project Verification

Classif	fication		CL/CR	FAR	Number:	01	
Raised by:		Ms. Ritu Singl	า		Document Reference	PCNMR	
Finding Description				Date:	30/05/2025		
1. In Section A.8 of the PCNMR, the PP to include commissioning dates of RO and MBR units.							
2. PP shall mention details of by-products of this treatment unit and also its disposal method.							
Client/Responsible Party/Project Proponent Response Date: 09/06/202					09/06/2025		
1.	1. PP has mentioned commissioning dates of RO and MBR units in section A.8						
2.	2. PP has mentioned details of byproducts of this treatment unit and also its disposal of the dry sludge.						
Validation/Verification Team Assessment			Date:	11/06/2025			
<ol> <li>In section A.8 of PCMR, PP has mentioned commissioning dates of RO and MBR units. During verification it was ensured that the dated mentioned are consistent with the supporting documents.</li> </ol>							
2.	PP has mentioned details of by-products of this treatment unit and has also mentioned the disposal of sludge. During verification, it was verified in updated PCNMR.						
Hence, CAR 01 is closed.							

# Table 3. FARs from this Project Verification

FAR ID	XX	Section no.		Date: DD/MM/YYYY			
Description of FAR							
Project Owner's response			Date: DD/MM/YYYY				
Documentation provided by Project Owner							
UWR Project Verifier assessment			Date: DD/MM/YYYY				