


**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	<input checked="" type="checkbox"/> RoU Accreditation UWR <input type="checkbox"/> Water Audit/Water Footprint Expertise
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 version 2.0	14/10/2024
Title of the project activity	CETP Wastewater Treatment By RTETC, Tamil Nadu, India
Project reference no. (as provided by UWR RoU Program under Approved for Verification tab)	UWR ID: 453
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. Name: Lokesh Jain Email ID – lokesh.jain@viviidgreen.com
Contact details of the representative of the Entity, requesting verification service (Focal Point assigned for all communications)	Viviid Emissions Reductions Universal Pvt. Ltd. Name: Lokesh Jain Email ID – lokesh.jain@viviidgreen.com
Country where project is located	India

<p>Applied reference documents used for estimation (approved water data and reference guides under the UWR RoU Standard used)</p>	<p>Water Data Guide</p>
<p>Project Verification Criteria: Mandatory requirements to be assessed</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> UWR Standard <input checked="" type="checkbox"/> Applicable Approved Calculations <input checked="" type="checkbox"/> Applicable Legal requirements /rules of host country <input checked="" type="checkbox"/> Eligibility of the Project Type <input checked="" type="checkbox"/> Start date of the Project activity <input checked="" type="checkbox"/> Meet applicability conditions in the applied methodology <input checked="" type="checkbox"/> Credible Water Data Sets <input checked="" type="checkbox"/> Do No Harm Test <input checked="" type="checkbox"/> RoU calculations <input checked="" type="checkbox"/> PCNMR <input checked="" type="checkbox"/> No Double Counting <input type="checkbox"/> Others (please mention below)
<p>Project Verification Criteria: Optional requirements to be assessed</p>	<ul style="list-style-type: none"> <input checked="" type="checkbox"/> Environmental Safeguards Standard and do-no-harm criteria <input checked="" type="checkbox"/> Social Safeguards Standard do-no-harm criteria
<p>Project Verifier's Confirmation: The <i>UWR Project Verifier</i> has verified the UWR project activity and therefore confirms the following:</p>	<p>The UWR RoU Project Verifier [<i>Enviance Services Private Limited</i>], certifies the following with respect to the UWR Project Activity [<i>CETP Wastewater Treatment By RTETC, Tamil Nadu, India</i>].</p> <ul style="list-style-type: none"> <input checked="" type="checkbox"/> The Project Owner has correctly described the Project Activity in the PCNMR version 2.0 (dated 14/10/2024) including the applicability of the guidance documents and water data as outlined in the UWR RoU Standard [<i>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.</i>]

	<p><i>Recycled wastewater used in off-site landscaping, gardening or tree plantations/forests activity are also eligible under this Scope] and meets the applicability conditions and has achieved the estimated RoUs, complies with the monitoring methodology and has calculated RoU estimates correctly and conservatively.</i></p> <p><input checked="" type="checkbox"/> The Project Activity is likely to generate 1,347,907 RoUs as indicated in the PCNMR, which are applicable with UWR rules</p> <p><input checked="" type="checkbox"/> The Project Activity is not likely to cause any net-harm to the environment and/or society</p> <p><input checked="" type="checkbox"/> The Project Activity complies with all the applicable UWR rules¹ and therefore recommends UWR Program to register the Project activity with RoUs.</p>
<p>Project Verification Report, reference number and date of approval</p>	<p>Verification Report UCR Project ID: 453 Date: 14/10/2024</p>
<p>Name of the authorised personnel of UWR Project Verifier and his/her signature with date</p>	<p>Vidhya Murali Krishna</p>  <p>Quality Manager Date: 14/10/2024</p>

❖ PROJECT VERIFICATION REPORT

❖ Executive summary

The project activity is titled – “CETP Wastewater Treatment By RTETC, Tamil Nadu, India”. The project is located in Ranipet town, Tamil Nadu State, India.

Company's Name	Plant Treatment Capacity (m ³ /d)	Commissioning Date	Location	Geo co-ordinates of Location
Ranipet Effluent Treatment Company Limited	4500	05/06/1995	Village- Vannivedu, Taluka-Walajah, District- Ranipet, State- Tamil Nadu, India	12.921435 °N & 79.348994°E

The project activity includes Ranitec CETP, which is the largest CETP in tannery sector in Tamil Nadu with an installed treatment capacity of 4500 m³/d. It services 77 member tanneries in the region.

Ranipet Effluent Treatment Company Limited, a company established by the member tanners, is responsible for operation and maintenance of the CETP. It is managed by a Board of Directors comprised of elected member tanners. Mr. Ramesh Prasad, a tanner of the area, is currently the Chairman of the company.

This is one of the first CETPs to be commissioned in the state, the Ranitec CETP was commissioned in 05/06/1995. Subsequently, it has been receiving continual technical assistance and support from CLRI, NEERI and UNIDO. Many additional features were added to the original CETP.

These include two pre-settlers, tertiary treatment etc. Over a period, Ranitec CETP has been regarded as a model CETP. Technical personnel from neighboring countries such as Sri Lanka, Bangladesh, Pakistan, Nepal and Indonesia had come to Ranitec CETP for on-the-job training under the aegis of UNIDO.

The plant is designed to handle about 4500 cum/day of effluent, making it one of the largest Common Effluent Treatment Plant (CETP) for tannery wastewater in the country. CETP treats wastewater effluents by means of a collective effort mainly for a cluster of small-scale industrial units at reasonable cost.

The project activity qualifies under the UCR 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 (TNPCB).

The current monitoring period is from 01/01/2014 to 31/12/2023 and the RoU's generated by the project activity in this monitoring period are 1,347,907 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 the “CETP Wastewater Treatment By RTETC, Tamil Nadu, India”. The information and data presented in the PCNMR version 2.0 dated 14/10/2024 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	31/12/2023
RoU's achieved	1,347,907 RoU's

❖ Project Verification team, technical reviewer and approver

Project Verification team

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

Technical reviewer and approver of the Project Verification report

No.	Role	Type of resource	Last name	First name	Affiliation (e.g. name of central or other office of UWR Project Verifier or outsourced entity)
1.	Technical reviewer	Internal	-	Vijayanand	Contractual resource

❖ 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.

Off-site inspection

Date of off-site inspection: 13/08/2024			
No.	Activity performed Off-Site	Site location	Date
1.	<ul style="list-style-type: none"> a) An assessment of the implementation and operation of the project activity as per the PCNMR and UWR requirements b) Verification of the project design, as documented is sound and reasonable, and meets the identified criteria of UWR Standard Requirements and associated guidance 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 be monitored 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 identification of 	Village- Vannivedu, Taluka-Walajah, District- Ranipet, State- Tamil Nadu, India	13/08//2024

	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			Date	subject
	Last name	First name	Affiliation		
1.	-	D. SivaKumar	Ranipet Effluent Treatment Company Limited	13/08/2024	Project Implementation, Monitoring plan, Project Boundary, Eligibility criteria, Host country requirements, RoU calculations Project implementation, monitoring, Local stakeholder consultation
2.	-	N. Arvinthan			
3.	Younus	T. Mohammed			
4.	Mahanta	Sarashi	Vivid emissions reductions universal private Ltd.		
5.	Mehta	Agrah			
6.	Prasad	Ramesh	Local stakeholders		
7.	Zafrullah	Coffeyar Mohamed			
8.	Ramasamy	Perumal			
9.	Kareem	Abdul			
10.	-	Mubeenbasha			

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 Credits (RoU)			
Identification and Eligibility of project type	-	-	-
General description of project activity	02		
Application and selection of methodologies and standardized sets	-	-	-
- Application of RoU methodologies and standardized data sets	07		
- Deviation from methodology and/or methodological tool	-	-	-
- Clarification on applicability of methodology, tool and/or standardized data sets	01		
- Project boundary and unutilized water sources	-	-	-
- Likely scenario without RoU Project	01	-	-
- Estimation of RoUs	-	01	-
- PCNMR	-	03	-
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)	-	-	-
Total	11	04	

❖ Project Verification findings

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

Means of Project Verification	<p>The project is a common effluent treatment plant with installed treatment capacity of 4500m³/day. This is confirmed based on the commissioning certificate and technical specifications.</p> <p>Since the project is a common 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//Documents/RainWaterOffsetStandardver7_130824144129526582.pdf)</p> <p>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.</p>
Findings	No findings raised
Conclusion	<p>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.</p>

General description of project activity

Means of Project Verification	<p>The project is a common effluent treatment plant with installed treatment capacity of 4500m³/day and its commissioning date is verified through the commissioning certificate of the project. The DPR confirms the involvement of 77 tanneries 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.</p> <p>By checking the supporting documents, it is confirmed that the project is a common effluent treatment plant, the project is located in Ranipet district in Tamil Nadu state of India. The approximate geo-coordinates of the project locations are mentioned below.</p> <table border="1" data-bbox="616 719 1401 913"> <thead> <tr> <th data-bbox="616 719 1027 786">Plant Treatment Capacity (m³/d)</th> <th data-bbox="1032 719 1401 786">Geo co-ordinates of Location</th> </tr> </thead> <tbody> <tr> <td data-bbox="616 792 1027 913">4500</td> <td data-bbox="1032 792 1401 913">12.921435 °N & 79.348994 °E</td> </tr> </tbody> </table> <p>Assessment team performed an offsite inspection of project and confirmed that the location described in the PCNMR are accurate.</p>	Plant Treatment Capacity (m ³ /d)	Geo co-ordinates of Location	4500	12.921435 °N & 79.348994 °E
Plant Treatment Capacity (m ³ /d)	Geo co-ordinates of Location				
4500	12.921435 °N & 79.348994 °E				
Findings	CL 01, CL 02 were raised and closed successfully. More information presented appendix below.				
Conclusion	The description of the project activity is verified to be true based on the review of PCNMR, Commissioning Certificate and DPR.				

Application and selection of water data and calculation parameters

Means of Project Verification	<p>Verification criteria is as per the requirements of UWR RoU program for the scope – 5.</p> <p>For applicability mentioned in the PCNMR, commissioning certificates, DPR, technical specifications, flow meter data were checked.</p>
Findings	CL 03, CL 04, CL 05, CL 06, CL 08, CL 09, were raised and closed successfully. More information presented appendix below.
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.

Clarification on applicability of tool and/or RoU estimates

Means of Project Verification	The documents reviewed are CETP basics, ensuring proper operation of flow meters, RoU estimates by reviewing the flow details, UWR RoU standard, and UWR RoU Verification Standard.
Findings	CL 11 was 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.

Project boundary, sources and RoUs

Means of Project Verification	<p>Conducting remote inspections of the project site to assess the common effluent treatment plant setup and its integration with the local tanneries.</p> <p>Document Review: Examining the project's documentation, including permits, ownership documents, flow details.</p>
Findings	No findings raised
Conclusion	The project boundary is correctly defined in the PCNMR. The CETP 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	<p>As per the UWR scope 5 project the baseline scenario is as following:</p> <p>"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"</p> <p>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.</p>
Findings	No findings raised
Conclusion	<p>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.</p> <p>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.</p>

Implementation Benefits to Water Security

Means of Project Verification	<p>Examining the PCNMR, commissioning certificate, legal documentation and any other relevant documentation.</p> <p>By conducting interviews with the project proponent, owners. By assessing the water quality reports, as well as the impact of untreated water on local water reserves and quality testing was conducted by analyzing the quality of water post treatment.</p>
Findings	CL 10 was raised and closed successfully. More information presented appendix below.
Conclusion	<p>The Implementation Benefits to Water Security emphasizes the significant positive impact in safeguarding aquatic ecosystem in Palam river and soil health. The project successfully significantly reduces the reliance on groundwater, a precious natural resource. By minimizing the demand for fresh water, tanneries 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.</p>

❖ **Estimation of RoUs or net water saved/recycled/reused**

<p>Means of Project Verification</p>	<p>Remote inspection of the CETP 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.</p> <p>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 & reused.</p> <p>RoU's achieved during the first monitoring period as per the Project Activity:</p> <table border="1" data-bbox="735 734 1307 1290"> <thead> <tr> <th>Year</th> <th>Total ROUs (1000 liters)/yr UCR Cap(1 million RoUs/yr</th> </tr> </thead> <tbody> <tr><td>2014</td><td>137202</td></tr> <tr><td>2015</td><td>118360</td></tr> <tr><td>2016</td><td>125860</td></tr> <tr><td>2017</td><td>160681</td></tr> <tr><td>2018</td><td>164008</td></tr> <tr><td>2019</td><td>178185</td></tr> <tr><td>2020</td><td>106175</td></tr> <tr><td>2021</td><td>103486</td></tr> <tr><td>2022</td><td>115690</td></tr> <tr><td>2023</td><td>138260</td></tr> <tr> <td>Total RoUs</td> <td>1,347,907</td> </tr> </tbody> </table> <p>The project is an ETP plant means the water budget component is surface inflow. According to the RoU Standard ver 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.</p>	Year	Total ROUs (1000 liters)/yr UCR Cap(1 million RoUs/yr	2014	137202	2015	118360	2016	125860	2017	160681	2018	164008	2019	178185	2020	106175	2021	103486	2022	115690	2023	138260	Total RoUs	1,347,907
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<p>Findings</p>	<p>CAR 04 was raised and closed successfully. More information presented appendix below.</p>																								
<p>Conclusion</p>	<p>In summary, the calculation of RoU's was correctly demonstrated by the PP.</p> <p>It is confirmed by the assessment team that:</p> <p>For the estimation of Rainwater Offset Units (RoUs) or net water saved/recycled/reused at Ranipet CETP, 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 1,347,907 RoUs (1000 liters each) were collected over the monitoring period from 01/01/2014 to 31/12/2023. This initiative not only treated a significant amount of wastewater that would have otherwise gone untreated but also contributed to the improvement of Palam river 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</p>																								

	wastewater in enhancing in safeguarding the water quality of local water reserves.
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PCN+Monitoring Report

Means of Project Verification	Conducting off-site audit to verify the implementation and operation of the CETP. Examining all relevant documents, such as permits, ownership papers, and maintenance records of the CETP. 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 CETP to ensure it aligns with the UWR RoU Standard principles.
Findings	CAR 01, CAR 02, CAR 03 were raised and closed successfully. More information presented appendix below.
Conclusion	<p>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.</p> <p>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 are correctly calculated and reported. The PCNMR meets the requirements of UWR project verification requirements.</p>

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 ($NWSI \leq 2$). 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 31/12/2023.

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	<p>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.</p> <p>Project owner: Ranipet Effluent Treatment Company Limited</p>

Positive Social Impact/Ecological Aspects/Recharge Aspects

Means of Project Verification	<p>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.</p> <p>Also, The PP has showcased the successful wastewater treatment of industrial effluent, thus saving millions of liters of wastewater for the production of Leather.</p> <p>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.</p>
Findings	No findings raised
Conclusion	Project has overall social positive impact and ecological positive impact

Sustainable development aspects

Means of Project Verification	<p>PP has claimed SDG Goals 3,6, 8 & 13.</p> <p>SDG 3 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.</p> <p>SDG 6 is sustainable development and is verified during remote audit. The project has showcased recycling and safe reuse of 4500 million litres within the industry during this monitoring period and the same was verified by the</p>
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	<p>assessment team.</p> <p>SDG 8 is decent work & economic growth and this was verified by the supporting document of employment details provided.</p> <p>SDG 13 is climate action. This was verified during the remote audit. PP recycles and reuses the industrial wastewater. Recycling and reusing wastewater is 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.</p>
Findings	CL 07 was raised and closed successfully. More information presented appendix below.
Conclusion	The project has the capability to address SDG 3, 6, 8 and 13.

❖ 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 aggregator or 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 a Common effluent treatment plant, that is located in Ranipet district in the state of Tamil Nadu, 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 1,347,907 RoU during the monitoring period i.e. from 01/01/2014 to 31/12/2023.

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
CETP	Common Effluent Treatment Plant
RoU	Rainwater Offset Unit
DPR	Detailed Project Report

Appendix 2. Competence of team members and technical reviewers

❖ 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, qualified 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).

❖ Vipul holds Bachelor of Technology from VIT University Vellore in 2020. He has gained valuable work experience as a site engineer at Light House Energy Developers, where he was employed from May 2020 to August 2022. Vipul holds an IRCA certification as an ISO 9001 Lead Auditor, demonstrating his expertise in quality management systems. He is well-versed in ISO 14064-1, ISO 14064-2, and ISO 14064-3, which are standards for greenhouse gas accounting and reporting. Furthermore, Vipul has received training in ISO 17029 and ISO 14065, highlighting his proficiency in environmental auditing and conformity assessment. He has also completed Clean Fuel Regulation training from Environment and Climate Change Canada, demonstrating his expertise in environmental management and sustainability.

❖ 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. Currently working as GHG assessor for projects under various GHG mechanisms like GCC, ICR, UCR and VERRA.

❖ Mr. Vijayanand is an experienced professional, a strategic HSE expert with 16 years of leadership in environmental consulting, audit, and regulatory compliance. He has successfully implemented HSE/ESG rules across Asia and Europe, managing corporate and site-level HSE functions. His roles have involved EIA, waste management, and policy development. He is leading HSE and ESG efforts at Hero Future Energies, demonstrating budgeting, due diligence, and international standard implementation skills. He has contributed to impactful projects like ESIA, renewable energy initiatives, and audits. He is also having accreditation as a Lead Auditor in CDM and Verra by various DOEs/VVBs, he is qualified by Enviance as a TL, TR and Technical expert in Section 1.2, 3.1, 14.1.

Appendix 3. Document reviewed or referenced

No.	Author	Title	References to the 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 double counting		Aggregator
5	NA	Commissioning Certificates for the CETP		Aggregator
6	NA	Water flow details/log book details for the complete 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		Universal Water Registry

Clarification request, corrective action request and forward action request

Table 1. CLs from this Project Verification

Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	01
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description		Date:	20/08/2024
PP required to submit the supporting document of project commissioning date.			
Client/Responsible Party/Project Proponent Response		Date:	30/08/2024
PP has already submitted the evidence for the Project's commissioning date.			
Validation/Verification Team Assessment		Date:	04/09/2024
PP has submitted the supporting document for the Project's commissioning date and the same has been verified by the assessment team. Hence, this part of CL is closed.			

Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	02
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description		Date:	20/08/2024
As per UWR RoU verification standard version 2.0, PP shall submit an undertaking for no double counting for current monitoring period and for project activity has neither been registered nor seeking registration under any other water registry or sustainable development programs.			
Client/Responsible Party/Project Proponent Response		Date:	30/08/2024
PP has Submitted the undertaking for no double counting for the current monitoring period and for project activity has neither been registered nor seeking registration under any other water registry or sustainable development programs.			
Validation/Verification Team Assessment		Date:	04/09/2024
PP has submitted the supporting document and on verification it is found that there is no double counting for the given monitoring period and the project activity is neither registered nor seeking registration under any other water registry or sustainable development programs. Hence, this part of CL is closed.			

Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	03
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description		Date:	20/08/2024
PP shall submit the details of both inlet & outlet flow meters. (Inlet – inflow of water to CETP from tanneries & Outlet – Outflow of treated water from the treatment unit).			
Client/Responsible Party/Project Proponent Response		Date:	30/08/2024
PP has submitted the details of both inlet & outlet flow meters. (Inlet – inflow of water to CETP from tanneries & Outlet – Outflow of treated water from the treatment unit).			
Validation/Verification Team Assessment		Date:	04/09/2024
PP has submitted the details and the same has been verified and found to be appropriate. Hence, this part of CL is closed.			

Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	04
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description		Date:	20/08/2024
As per UWR standard PP shall submit calibration details and frequency of water flow meters.			
Client/Responsible Party/Project Proponent Response		Date:	30/08/2024
PP has submitted calibration details & certificates for both Mass flow meter and electromagnetic flow meter and their frequency.			
Validation/Verification Team Assessment		Date:	04/09/2024
PP has submitted the calibration details and are found to be consistent by the assessment team. Hence, this part of CL is closed.			

Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	05
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR

Finding Description	Date:	20/08/2024
PP shall submit the supporting documents of technical specifications of RO.		
Client/Responsible Party/Project Proponent Response	Date:	30/08/2024
PP has submitted the documents of technical specification of RO.		
Validation/Verification Team Assessment	Date:	04/09/2024
PP has submitted the DPR and the technical specifications of RO are mentioned in the DPR. Verifier considers the information mentioned in the DPR as correct. Hence, this part of CL is closed.		

Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	06
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description	Date:	20/08/2024	
PP shall submit the supporting documents of flow details of both inlet and outlet of the treatment unit.			
Client/Responsible Party/Project Proponent Response	Date:	30/08/2024	
PP has submitted the documents of flow details of both inlet and outlet of the treatment unit.			
Validation/Verification Team Assessment	Date:	04/09/2024	
PP has submitted the supporting documents of flow details and found to be consistent by the assessment team. Hence, this part of CL is closed.			

Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	07
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description	Date:	20/08/2024	
PP has claimed SDG goals 3 & 8. Supporting documents of the same shall be submitted.			
Client/Responsible Party/Project Proponent Response	Date:	30/08/2024	
PP wants to clarify that the project activity has reduced the usage of ground water as they use the treated water into the process itself, hence the project activity ensures freshwater water availability in that region and also promotes healthy lives and well-being. Hence it supports SDG3 and no supporting document is required. However, PP has submitted the supporting documents for SDG8.			
Validation/Verification Team Assessment	Date:	04/09/2024	
PP has given the clarification regarding SDG 3 and submitted the supporting document which claims SDG 8 and on verification it is confirmed that the project is eligible for SDG 3 & 8. Hence, this part of CL is closed.			

Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	08
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description	Date:	20/08/2024	
PP shall submit the details of local stakeholder meetings. Supporting documents of any ongoing consultation with stakeholders and also the list of names of local stakeholder.			

Client/Responsible Party/Project Proponent Response	Date:	30/08/2024
As per UWR templates there is no need to provide details of local stakeholder meetings so only Name has been provided.		
Validation/Verification Team Assessment	Date:	04/09/2024
PP has submitted the supporting documents mentioning the details of local stakeholders. Hence, this part of CL is closed.		

Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	09
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description		Date:	20/08/2024
During remote audit PP has claimed that their inhouse water testing laboratory is NABL accredited. PP shall submit the supporting document for the same.			
Client/Responsible Party/Project Proponent Response	Date:	30/08/2024	
PP wants to clarify that it has applied for NABL accreditation for its in-house water test laboratory and the accreditation certificate will be issued after the completion of the audit hence no such supporting document is available. PP has also provided the test reports of TNPCB standard which is carried out TNPCB for both effluent and treated water to ensure that it meets the required norms.			
Validation/Verification Team Assessment	Date:	04/09/2024	
PP has clarified that the NABL certification is still under process. Hence, this part of CL is closed.			

Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	10
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description		Date:	20/08/2024
PP shall submit the water quality report of both effluent and treated water in accordance with TNPCB.			
Client/Responsible Party/Project Proponent Response	Date:	30/08/2024	
PP has Submitted the Water testing Report for both effluent and treated water in accordance with TNPCB.			
Validation/Verification Team Assessment	Date:	04/09/2024	
PP has submitted the water testing report and is verified by the assessment team and found to be in accordance with the TNPCB. Hence, this part of CL is closed.			

Classification	<input type="checkbox"/> CAR <input checked="" type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	11
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description		Date:	20/08/2024
In PCNMR project is described as a small scale project. PP shall submit the justification for the same as per UWR standards.			
Client/Responsible Party/Project Proponent Response	Date:	30/08/2024	
Since the project is not generating water credits beyond the permitted annual threshold (I.e. 1 million ROUs per year), hence PP recognised this as small-scale project. However, water credit standard does not specify any scale of the project types. Hence, PP has removed the mention of scale from the PCNMR.			

Validation/Verification Team Assessment	Date:	04/09/2024
As per UWR standards the specifications for the scale of the project activity is not specified. PP has removed the mentioned scale of the project activity in the PCNMR. Hence, this part of CL is closed.		

Table 2. CARs from this Project Verification

Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	01
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description		Date:	20/08/2024
Design basics of RO are mentioned in DPR. PP shall add them in PCNMR.			
Client/Responsible Party/Project Proponent Response		Date:	30/08/2024
PP has added the Mentioned basic design for RO from DPR.			
Validation/Verification Team Assessment		Date:	04/09/2024
PP has mentioned the design basics of RO in the PCNMR and is verified by the assessment team. Hence, this part of CAR is closed.			

Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	02
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description		Date:	20/08/2024
PP shall add details of water quality of effluent and treated water in PCNMR.			
Client/Responsible Party/Project Proponent Response		Date:	30/08/2024
PP has added the Water quality of effluent and treated water in PCNMR.			
Validation/Verification Team Assessment		Date:	04/09/2024
PP has added the details of water quality of effluent and treated water in PCNMR and is verified by the assessment team. Hence, this part of CAR is closed.			

Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	03
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description		Date:	20/08/2024
PP shall add details of water flow of treated water in PCNMR.			
Client/Responsible Party/Project Proponent Response		Date:	30/08/2024
PP has added the details of water flow of treated water in PCNMR.			
Validation/Verification Team Assessment		Date:	04/09/2024
PP has added the flow details of treated water in PCNMR and is verified by the assessment team. Hence, this part of CAR is closed.			

Classification	<input checked="" type="checkbox"/> CAR <input type="checkbox"/> CL/CR <input type="checkbox"/> FAR	Number:	04
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description		Date:	20/08/2024
In revised actual RoU's calculation excel sheet the values in column in H are hard quoted. PP shall the link the actual RoU's calculation column (Column H) with the formula.			
Client/Responsible Party/Project Proponent Response		Date:	30/08/2024
PP has Considered the recycled water as evaporator condensate and added the formula.			
Validation/Verification Team Assessment		Date:	04/09/2024
PP has linked the RoU'S calculation column (column H) with the formula in the excel sheet and is verified by the assessment team. Hence, this part of CAR 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