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	☒ RoU Accreditation UWR ☐ 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	25/11/2024
Title of the project activity	1.76 MLD Wastewater Recycling by DCW Limited in Tamil Nadu
Project reference no. (as provided by UWR RoU Program under Approved for Verification tab)	UWR ID: 460
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

Applied reference documents used for estimation (approved water data and reference guides under the UWR Rou Standard used)	Water Data Guide
Project Verification Criteria: Mandatory requirements to be assessed	☒ UWR Standard ☒ Applicable Approved Calculations ☒ Applicable Legal requirements /rules of host country ☒ Eligibility of the Project Type ☒ Start date of the Project activity ☒ Meet applicability conditions in the applied methodology ☒ Credible Water Data Sets ☒ Do No Harm Test ☒ RoU calculations ☒ PCNMR ☒ No Double Counting ☐ Others (please mention below)
Project Verification Criteria: Optional requirements to be assessed	☒ Environmental Safeguards Standard and do-no-harm criteria ☒ Social Safeguards Standard do-no-harm criteria
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 [*1.76 MLD Wastewater Recycling by DCW Limited in Tamil Nadu*]. ☒ The Project Owner has correctly described the Project Activity in the PCNMR version 2.0 (dated *19/11/2024*) 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.*

	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. ☒ The Project Activity is likely to generate 49,268 RoUs as indicated in the PCNMR, which are applicable with UWR rules ☒ The Project Activity is not likely to cause any net-harm to the environment and/or society ☒ The Project Activity complies with all the applicable UWR rules[1] and therefore recommends UWR Program to register the Project activity with RoUs.
Project Verification Report, reference number and date of approval	Verification Report UCR Project ID: 460 Date: 02-12-2024
Name of the authorised personnel of UWR Project Verifier and his/her signature with date	Vidhya Murali Krishna  Quality Manager Date: 02/12/2024

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❖ PROJECT VERIFICATION REPORT

❖ Executive summary

The project activity is titled – “1.76 MLD Wastewater Recycling by DCW Limited in Tamil Nadu”. The project is located in Sahupuram town, Tamil Nadu State, India.

Company’s Name	Plant Treatment Capacity (m^3/d)	Commissioning Date		Location	Geo co-ordinates of Location
DCW Limited (Dharangadhra Chemical Works Limited)	1760 (1.76 MLD)	DM RO MGF UF ETP	26/06/2023 13/07/2023 18/07/2023 24/07/2023 End of September 2023	Sahupuram, District-Thoothukudi,State-Tamil Nadu, India	8°35'28.2"N & 78°05'39.3"E

The project activity includes DCW ETP, DCW Limited (Dharangadhra Chemical Works Limited) is a prominent chemical manufacturer located in India. Established in 1925, DCW Limited has a strong presence in the chemical industry with manufacturing facilities in Sahupuram, Tamil Nadu, and Dhrangadhra, Gujarat.

DCW Limited owns the water user rights for the area within the project's boundary, ensuring sustainable resource management in line with local requirements. The company holds an uncontested legal land title for the project area, affirming its rightful ownership and control over the land within the project boundaries.

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.

The DCW ETP was commissioned phase wise. All the units were commissioned on different dates.

Unit	**Commissioning Date**
DM	26/06/2023
RO	13/07/2023
MGF	18/07/2023
UF	24/07/2023
ETP	End of September 2023

DCW Limited's multi-stage Effluent Treatment Plant (ETP) in Sahupuram is a well-considered solution for managing industrial wastewater. This approach offers several advantages that align with DCW's environmental and water management goals.

The multi-stage treatment process likely incorporates a combination of methods, potentially including physico-chemical treatment and advanced filtration techniques like Reverse Osmosis (RO). This ensures comprehensive removal of pollutants, resulting in high-quality treated effluent that meets or surpasses regulatory requirements. Furthermore, physico-chemical treatment, a core component of many ETPs, is versatile and adaptable to various industrial wastewater compositions, making it suitable for DCW's specific needs.

Importantly, the multi-stage treatment also presents significant water reuse potential. The treated effluent can be utilized for various purposes within the DCW facility, such as cooling towers or process water. This approach reduces their reliance on freshwater resources, a crucial factor in regions facing water scarcity. By promoting water reuse, DCW demonstrates its commitment to responsible environmental practices and sustainable water management.

The plant is designed to handle about 1760 cum/day (1.76 MLD) of effluent. By effectively treating industrial wastewater, the ETP will significantly reduce the environmental impact of DCW's operations. This protects nearby water bodies from pollution, safeguarding public health and aquatic ecosystems. Additionally, the multi-stage treatment process employed by the ETP will result in high-quality treated effluent.

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 01/10/2023 to 31/12/2023 and the RoU’s generated by the project activity in this monitoring period are 49,268 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 "1.76 MLD Wastewater Recycling by DCW Limited in Tamil Nadu". The information and data presented in the PCNMR version 2.0 dated 19/11/2024 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	01/10/2023
End date of monitoring period	31/12/2023
RoU's achieved	49,268 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	Involvement in		
					Document review	Off-Site inspection	Interviews

				outsourced entity)			
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: 07/10/2024			
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 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 requirementsof 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 accordancewith 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 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	Sahupuram, District-Thoothukudi, State-Tamil Nadu, India	07/10/2024

Interviews

No.	**Interview**			**Date**	**subject**
	Last name	**First name**	**Affiliation**		
1.	-	D. Suresh	DCW Limited (Dharangadhra	07/10/2024	Project Implementation,
2.	-	R.Ravikumar			

3.	-	T. Roopakumar	Chemical Works Limited)		Monitoring plan, Project Boundary, Eligibility criteria, Host country requirements, RoU calculations Project implementation, monitoring, Local stakeholder consultation
4.	-	R.Ravi			
5.	-	S.Kandasamy			
6.	Karpagavinayagam	-			
7.	Shrivastava	Pranjal	Vivid emissions reductions universal private Ltd.		
8.	Mehta	Agrah			
9.	-	Ganesan	Local stakeholders		
10.	-	Subramaniapillai			
11.	-	SenthilArumugam			
12.	-	Mansoor			

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	04	01	-
Application and selection of methodologies and standardized sets	-	-	-
- Application of RoU methodologies and standardized data sets	02	-	-
- Deviation from methodology and/or methodological tool	-	-	-
- Clarification on applicability of methodology, tool and/or standardized data sets	03	-	-
- Project boundary and unutilized water sources	-	-	-
- Likely scenario without RoU Project	-	-	-
- Estimation of RoUs	-	01	-
- PCNMR	-	02	-
Start date, crediting period and duration	-	01	-
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) Positive social impacts	01	-	-
Total	10	05	

❖ 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 1760m^3/day (1.76 MLD). This is confirmed based on the commissioning certificate 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//Documents/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 1760m^3/day (1.76 MLD) and its commissioning date is verified through the commissioning certificate of the project. The documents confirms the treatment of wastewater from the chemical industry 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 Sahupuram in Tamil Nadu state of India. The approximate geo-coordinates of the project locations are mentioned below. Plant Treatment Capacity (m^3/d): 1760 (1.76 MLD) Geo co-ordinates of Location: Latitude - 8°35'28.2"N, Longitude - 78°05'39.3"E Assessment team performed an offsite inspection of project and confirmed that the location described in the PCNMR are accurate.
Findings	CL 01, CL 02, CL 03, CL 04 and CAR 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 other

	submitted documents.

Application and selection of water data and calculation parameters

Means of Project Verification	Verification criteria is 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	CL 05 and CL 07 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 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 08, CL 09 and CL 10 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.

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 DCW chemical industry. 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 documentation and any other relevant documentation. 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.
Findings	No findings raised.
Conclusion	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.

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

Means of Project Verification

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.

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.

RoU's achieved during the first monitoring period as per the Project Activity:

Months	Inlet (Total water in Equalisation tank)	Total water treated	Total Water Recycled(KL)		Total Water Rejected	RoUs (uncertainity factor applied)	RoUs Round off
			PVC	CPVC	RO Reject		
Oct'23	25800	24222	13572	4076	6574	17295.04	17295
Nov'23	24500	23722	14392	3783	5547	17811.5	17811
Dec'23	20200	19282	11358	3093	4831	14161.98	14161
Total						**49268.52**	**49268**

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.
Findings	CAR 05 was raised and closed successfully. More information presented appendix below.
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 DCW ETP, 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 49,268 RoUs (1000 liters each) were collected over the monitoring period from 01/10/2023 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 Tamiraparani 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 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	CAR 03, CAR 04 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 are correctly calculated and reported. The PCNMR meets the 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	CAR 01 was raised and closed successfully. More information presented appendix below.
Conclusion	The project has chosen crediting period start date as 01/10/2023. The crediting period is chosen as 01/10/2023 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	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. Project owner: DCW Limited (Dharangadhra Chemical Works Limited)

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 for the production of Leather. 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 06 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 6, 8, 12 & 13. SDG 6 is sustainable development and is verified during remote audit. The project has showcased recycling and safe reuse of 1760 cubic meter/day (1.76 MLD) within the industry during this monitoring period and the same was verified by the assessment team. SDG 8 is decent work & economic growth and this was verified by the supporting document of employment details provided. SDG 12 is Responsible consumption and production and is verified during remote audit. The ETP ensures that industrial wastewater is treated and recycled, promoting sustainable management and efficient use of natural resources, thereby reducing the ecological footprint of production processes. 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.
Findings	No findings raised
Conclusion	The project has the capability to address SDG 6, 8, 12 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 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 Sahupuram, Thottukudi 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 49,268 RoU during the monitoring period i.e. from 01/10/2023 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
ETP	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. 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. 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 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		Universal Water Registry

Clarification request, corrective action request and forward action request

Table 1. CLs from this Project Verification

Classification	☐ **CAR** ☒ **CL/CR** ☐ **FAR**	**Number:**	**01**
Raised by:	**Mr. Pankaj Kumar**	**Document Reference**	**PCNMR**
Finding Description		**Date:**	**09/10/2024**
PP shall submit compliance certificate issued by state pollution control board.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/11/2024**
PP has submitted compliance certificate issued by state pollution control board.			
Validation/Verification Team Assessment		**Date:**	**21/11/2024**
PP has submitted the compliance certificated issued by Tamil Nadu Pollution Control Board and the same has been verified. Hence, this part of CL is closed.			

Classification	☐ CAR ☒ CL/CR ☐ FAR	Number:	02
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description		Date:	09/10/2024
As per UWR RoU program manual 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:	15/11/2024
PP has submitted 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.			
Validation/Verification Team Assessment		Date:	21/11/2024
PP has submitted an undertaking for no double counting fir the current monitoring period and for the project activity has neither been registered nor seeking registration under any other water registry or sustainable development programs and the same has been verified. Hence, this part of CL is closed.			

Classification	☐ CAR ☒ CL/CR ☐ FAR	Number:	03
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description		Date:	09/10/2024
PP shall submit the details of both inlet & total water treated flow meters.			
Client/Responsible Party/Project Proponent Response		Date:	15/11/2024
PP has submitted the Details.			
Validation/Verification Team Assessment		Date:	21/11/2024
PP has submitted the details of inlet and outlet flow meters and the same has been verified. Hence, this part of CL is closed.			

Classification	☐ CAR ☒ CL/CR ☐ FAR	Number:	04
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR
Finding Description		Date:	09/10/2024
PP shall submit the supporting documents of technical specifications of RO.			
Client/Responsible Party/Project Proponent Response		Date:	15/11/2024
PP has submitted the supporting documents of technical specifications of RO.			
Validation/Verification Team Assessment		Date:	21/11/2024
PP has submitted the supporting documents of technical specifications of RO and the same has been verified. Hence, this part of CL is closed.			

Classification	☐ CAR ☒ CL/CR ☐ FAR	Number:	05
Raised by:	Mr. Pankaj Kumar	Document Reference	PCNMR

Finding Description	**Date:**	**09/10/2024**
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:**	**15/11/2024**
PP has submitted the monthly records of the flowmeters of both inlet and outlet.		
Validation/Verification Team Assessment	**Date:**	**21/11/2024**
PP has submitted the monthly record of inlet and outlet flow and the same has been verified. Hence, this part of CL is closed.		

Classification	☐ **CAR** ☒ **CL/CR** ☐ **FAR**	**Number:**	**06**
Raised by:	**Mr. Pankaj Kumar**	**Document Reference**	**PCNMR**
Finding Description		**Date:**	**09/10/2024**
PP has claimed SDG goal 8. Supporting documents of the same should be submitted.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/11/2024**
PP has submitted the supporting documents.			
Validation/Verification Team Assessment		**Date:**	**21/11/2024**
PP has provided supporting document for SDG goal 8 and the same has been verified. Hence, this part of CL is closed.			

Classification	☐ **CAR** ☒ **CL/CR** ☐ **FAR**	**Number:**	**07**
Raised by:	**Mr. Pankaj Kumar**	**Document Reference**	**PCNMR**
Finding Description		**Date:**	**09/10/2024**
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:**	**15/11/2024**
PP has submitted the required details.			
Validation/Verification Team Assessment		**Date:**	**21/11/2024**
PP has submitted the names of the local stakeholders. As per UWR standards local stakeholders meeting details and ongoing consultation details is not required. Hence, this part of CL is closed.			

Classification	☐ **CAR** ☒ **CL/CR** ☐ **FAR**	**Number:**	**08**
Raised by:	**Mr. Pankaj Kumar**	**Document Reference**	**PCNMR**
Finding Description		**Date:**	**09/10/2024**
PP shall submit the water quality report of both effluent and treated water in accordance with state pollution control board.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/11/2024**

PP has submitted the required document.		
Validation/Verification Team Assessment	**Date:**	**21/11/2024**
As per Tamil Nadu Pollution Control Board, PP has submitted the water quality report of both effluent and treated water and the same has been verified. Hence, this part of CL is closed.		

Classification	☐ **CAR** ☒ **CL/CR** ☐ **FAR**	**Number:**	**09**
Raised by:	**Mr. Pankaj Kumar**	**Document Reference**	**PCNMR**
Finding Description		**Date:**	**09/10/2024**
PP shall submit the photographs of flow meter.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/11/2024**
PP has submitted the photographs of flow meter.			
Validation/Verification Team Assessment		**Date:**	**21/11/2024**
PP has submitted the photographs of flow meter and the same has been verified with the provided calibration certificates. Hence, this part of CL is closed.			

Classification	☐ **CAR** ☒ **CL/CR** ☐ **FAR**	**Number:**	**10**
Raised by:	**Mr. Pankaj Kumar**	**Document Reference**	**PCNMR**
Finding Description		**Date:**	**09/10/2024**
PP shall submit the DPR of ongoing project activity.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/11/2024**
PP wants to clarify that PP has submitted all the relevant details for the ongoing project activity that constitutes in a DPR.			
Validation/Verification Team Assessment		**Date:**	**21/11/2024**
PP has submitted all the required documents of the project activity and the same has been verified. Hence, this part of CL is closed.			

Table 2. CARs from this Project Verification

Classification	☒ **CAR** ☐ **CL/CR** ☐ **FAR**	**Number:**	**01**
Raised by:	**Mr. Pankaj Kumar**	**Document Reference**	**PCNMR**
Finding Description		**Date:**	**09/10/2024**
Monitoring period date in PCNMR is inconsistent with the date mentioned in excel sheet. Correction sought.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/11/2024**
PP has made the monitoring period date consistent in the PCNMR and excel sheet.			
Validation/Verification Team Assessment		**Date:**	**21/11/2024**

PP has made the corrections in monitoring period date in PCNMR and is now in accordance with the date mentioned in excel sheet. Hence, this part of CAR is closed.

Classification	☒ **CAR** ☐ **CL/CR** ☐ **FAR**	**Number:**	**02**
Raised by:	**Mr. Pankaj Kumar**	**Document Reference**	**PCNMR**
Finding Description		**Date:**	**09/10/2024**
PP shall add details of water quality of effluent and treated water in PCNMR.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/11/2024**
PP has already added the details of water quality.			
Validation/Verification Team Assessment		**Date:**	**21/11/2024**
PP has added the water quality details of effluent and treated water in PCNMR and the same has been verified. Hence, this part of CAR is closed.			

Classification	☒ **CAR** ☐ **CL/CR** ☐ **FAR**	**Number:**	**03**
Raised by:	**Mr. Pankaj Kumar**	**Document Reference**	**PCNMR**
Finding Description		**Date:**	**09/10/2024**
PP shall add details of water flow of treated water in PCNMR.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/11/2025**
PP has added the details in PCNMR.			
Validation/Verification Team Assessment		**Date:**	**21/11/2024**
PP has added the mentioned details in PCNMR and the same has been verified. Hence, this part of CAR is closed.			

Classification	☒ **CAR** ☐ **CL/CR** ☐ **FAR**	**Number:**	**04**
Raised by:	**Mr. Pankaj Kumar**	**Document Reference**	**PCNMR**
Finding Description		**Date:**	**09/10/2024**
In section A.2 of PCNMR, PP should add mentioned details as per UWR PCNMR template version 3.0.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/11/2024**
PP has modified the PCNMR as per template version 3.0.			
Validation/Verification Team Assessment		**Date:**	**21/11/2024**
PP has modified the PCNMR in accordance with the UWR PCNMR template version 3.0 and the same has been verified. Hence, this part of CAR is closed.			

Classification	☒ **CAR** ☐ **CL/CR** ☐ **FAR**	**Number:**	**05**

Raised by:	**Mr. Pankaj Kumar**	**Document Reference**	**PCNMR**
Finding Description		**Date:**	**09/10/2024**
As mentioned in UWR RoU standard version 7.0, apply uncertainty factor for each RoU.			
Client/Responsible Party/Project Proponent Response		**Date:**	**15/11/2024**
PP has applied uncertainty factor for each RoU.			
Validation/Verification Team Assessment		**Date:**	**21/11/2024**
As per UWR RoU standard version 7.0 PP has applied uncertainty factor for each RoU and the same has been verified. 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~~