

Project Verification Report Form (VR)				
BASIC INF	ORMATION			
Name of approved UCR Project Verifier / SQAC Certification Pvt Ltd.  Reference No.				
Type of Accreditation	<ul><li>☐ CDM or other GHG Accreditation</li><li>☐ ISO 14065 Accreditation</li><li>☑ UCR Approved</li></ul>			
Approved UCR Scopes and GHG Sectoral scopes for Project Verification	I-Renewable Energy Projects			
Validity of UCR approval of Verifier	October 2021 onwards.			
Completion date of this VR	23/10/2024			
Title of the project activity	14.88 MW Bagasse based Co-generation by M/s Utopian Sugars Ltd. Dist. Solapur Maharashtra.			
Project reference no. (as provided by UCR Program)	UCR ID: <b>442</b>			
Name of Entity requesting verification service	M/s. Utopian Sugars Limited.			
Contact details of the representative of the Entity, requesting verification service	Climekare Sustainability Pvt Ltd. UCR ID: 336812961 Email: sustainability@climekare.com			
Country where project is located India				
Applied methodologies (approved methodologies by UCR Standard used)  Applied Baseline Methodology: CDM UNFCCC Small-scale Methodology AMS-I D: Grid connected renewable electricity generation, Version 18				

Accredited by 5 Jupiter House, Callera Park, Aldermaston, Reading Berkshire RG7 8NN, United Kingdom (UK).

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507

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GHG Sectoral scopes linked to the applied methodologies	01 Energy industries (Renewable/Non- Renewable Sources)		
Project Verification Criteria:  Mandatory requirements to be assessed	<ul> <li>☐ UCR Standard</li> <li>☐ Applicable Approved Methodology</li> <li>☐ Applicable Legal requirements /rules of host country</li> <li>☐ Eligibility of the Project Type</li> <li>☐ Start date of the Project activity</li> <li>☐ Meet applicability conditions in the applied methodology</li> <li>☐ Credible Baseline</li> <li>☐ Do No Harm Test</li> <li>☐ Emission Reduction calculations</li> <li>☐ Monitoring Report</li> <li>☐ No GHG Double Counting</li> <li>☐ Others (please mention below)</li> </ul>		
Project Verification Criteria: Optional requirements to be assessed	<ul> <li>Environmental Safeguards Standard and do-no-harm criteria</li> <li>Social Safeguards Standard do-no-harm criteria</li> </ul>		
Project Verifier's Confirmation:  The UCR Project Verifier has verified the UCR project activity and therefore confirms the following:	The UCR Project Verifier SQAC Certification Pvt. Ltd., certifies the following with respect to the UCR Project Activity 14.88 MW Bagasse based Co-generation by M/s. Utopian Sugars Ltd. Dist. Solapur, Maharashtra.   The Project Owner has correctly described the Project Activity in the Project Concept Note V1 dated 12/03/2024 including the applicability of the approved methodology CDM UNFCCC Small-scale Methodology AMS-I D: Grid connected renewable electricity generation, Version 18 and meets the methodology		



	applicability conditions and has achieved the estimated GHG emission reductions, complies with the monitoring methodology and has calculated emission reductions estimates correctly and conservatively.		
	The Project Activity is generating GHG emission reductions amounting to the estimated <b>2,13,678 tCO</b> <sub>2eq</sub> , as indicated in the MR V1, which are additional to the reductions that are likely to occur in absence of the Project Activity and complies with all applicable UCR rules, including ISO 14064-2 and ISO 14064-3.		
	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 UCR rules and therefore recommends UCR Program to register the Project activity with above mentioned labels.		
Project Verification Report, reference number and date of approval	Verification Report UCR Project ID: <b>442</b> dated 23/10/2024		
Name of the authorised personnel of UCR Project Verifier and his/her signature with date	Santosh Nair Lead Verifier (Signature) SQAC Certification Pvt Ltd		



#### PROJECT VERIFICATION REPORT

## Section A. Executive summary

Climekare Sustainability Pvt Ltd. has contracted SQAC Certification Pvt. Ltd. to carry out the verification of the project activity of 14.88 MW Bagasse based Co-generation by M/s. Utopian Sugars Ltd. Dist. Solapur, Maharashtra, India. UCR approved Project ID: 442, to establish number of CoUs generated by project over the crediting period from 02/12/2014 - 31/12/2022 (8 years 01 month)

We believe that the total GHG emission reductions over the crediting / verification period stated in the Monitoring Report V1 (MR), submitted to us is accurate and in line with the UCR guidelines.

The GHG emission reductions were calculated based on UCR Protocols which draws reference from, AMS-I D: Grid connected renewable electricity generation, Version 18 & UCR Standard for Baseline Grid Emission Factor. The verification was done remotely by way of video calls / verification, phone calls and submission of documents for verification through emails as per UCR guidelines.

SQAC is able to certify that the emission reductions from 14.88 MW Bagasse based Cogeneration by M/s. Utopian Sugars Ltd. Dist. Solapur, Maharashtra, (UCR ID – **442**) for the period **02/12/2014** to **31/12/2022** amounts to **2,13,678 CoUs** (**2,13,678 tCO**<sub>2eq</sub>)

Project Verification team, technical reviewer and approver

Section B. Project Verification Team

Sr.	Role	Last	First	Affiliation	Involvement in		
No		name	name		Doc Off-Site Intervie		Interviews
1.	Team Leader	Nair	Santosh	n/a	yes	yes	yes
2.	Validator	Nair	Santosh	n/a	yes	yes	yes



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

Sr.	Role	Type of	Last name	First	Affiliation
No.		resource		name	
1.	Technical	IR	Shinganapurkar	Praful	SQAC Certification Pvt. Ltd
	reviewer				
2.	Approver	IR	Shinganapurkar	Praful	SQAC Certification Pvt. Ltd

# Section C. Means of Project Verification

#### C.1. Desk/document review

As part of the review and validation process, Progressive Management Consultants submitted a comprehensive set of documents for examination by the Lead Verifier. The documents included the Project Concept Note V1 (PCN), Monitoring Report V1, Emission Reduction calculation sheet (ER), Bagasse Consumption (Annexure B), Consent to operate, Credit notes, Daily generation details, Calibration Certificates (Flow meter), Invoices, Joint Meter Readings, Commissioning Certificates, Power Purchase Agreement, Boiler Certificate, Environmental Clearance, Memorandum of Understanding, Certificate of Verification, Calibration Certificates (Steam flow) and additional data provided upon request pertaining to all related projects. These documents were thoroughly reviewed to ensure compliance with relevant standards and guidelines, and to validate the accuracy and completeness of the information provided.

## C.2. Off-site inspection

Date of offsite
inspection: 12/08/2024

Sr. No.	Activity performed Off-Site	Site location	Date
1.	Interview conducted over Video call/Telephonic discussions	Solapur, Maharashtra	12/08/2024
2	Supporting documents provided before, during, and after the verification.	Solapur, Maharashtra	12/08/2024



# C.3. Interviews

Sr.	Interview				
No	Name	ame Designation Affiliation		Date	Subject
•					
1	Mr. S D Sale	Electrical	Utopian	12/08/2024	Calibration,
		Engineer	Sugars Ltd.		Commissioning
					Certificate
					Compliance,
					etc.
2	Mr. Barge S. V	Deputy. Chief	Utopian	12/08/2024	JMR & Invoices
		Engineer	Sugars Ltd.		
3	Mr. Sudhir	Instrumentation	Utopian	12/08/2024	Commissioning
	Kadam	Engineer	Sugars Ltd.		and
					overview
4	Mr. Sachin	Environment	Utopian	12/08/2024	Power
	Shinde	officer	Sugars Ltd.		Purchasing
					Agreement,
					Meter Photos

# C.4. Sampling approach

Not applicable

# C.5. Clarification request (CLs), corrective action request (CARs) and forward action request (FARs) raised

Areas of Project Verification findings	No. of CL	No. of	No. of
		CAR	FAR
Green House Gas (GH	IG)		
Identification and Eligibility of project type	Nil	Nil	Nil
General description of project activity	Nil	Nil	Nil
Application and selection of methodologies and			
standardized baselines			
<ul> <li>Application of methodologies and</li> </ul>	Nil	Nil	Nil
standardized baselines			
- Deviation from methodology and/or	Nil	Nil	Nil
methodological tool			
- Clarification on applicability of	Nil	Nil	Nil
methodology, tool and/or standardized			
baseline			

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- Project boundary, sources and GHGs	Nil	Nil	Nil
- Baseline scenario	Nil	Nil	Nil
- Estimation of emission reductions or net	Nil	Nil	Nil
anthropogenic removals			
- Monitoring Report	Nil	Nil	Nil
Start date, crediting period and duration	Nil	Nil	Nil
Environmental impacts	Nil	Nil	Nil
Project Owner- Identification and communication	Nil	Nil	Nil
Total	Nil	Nil	Nil

# Section D. Project Verification Findings

# D.1. Identification and eligibility of project type

Means of Project Verification	Project Documentation: Review of the project activity description, including the purpose, technology, and equipment used.  Monitoring Data: Examination of the monitoring period data, including the amount of electricity generated and GHG emission reductions achieved.  Compliance with Methodologies: Verification that the project adheres to the applied baseline methodology (AMS-I.D) and sectoral scopes.  Environmental and Social Impact: Assessment of the project's contributions to sustainable development, including social, environmental, and economic benefits.	
Findings	Upon verification, the project is identified as a renewable energy project utilizing biomass (bagasse) for electricity generation. The project displaces fossil fuel-based grid electricity, contributing to GHG emission reductions. It adheres to the CDM UNFCCC Small-scale Methodology AMS-I.D for grid-connected renewable electricity generation. The project is eligible under the UCR CoU Standard, with a total installed capacity of 14.88 MW, of which 9	



MW is supplied to the Maharashtra State Electricity Transmission Company Limited (MSEDCL) grid. It meets the criteria for small-scale renewable energy projects, ensuring no double counting of emission reductions and contributing to sustainable development goals.

#### Conclusion

In conclusion, the project titled "14.88 MW Bagasse based Co-generation by M/s. Utopian Sugars Ltd." in Solapur, Maharashtra, is eligible for carbon credits under the Universal CO<sub>2</sub> Emission and Offset Registry (UCR). It utilizes bagasse, a renewable biomass by-product from sugarcane processing, to generate electricity, thereby displacing fossil fuelbased grid electricity. The project adheres to the CDM UNFCCC Small-scale Methodology AMS-I.D for grid-connected renewable electricity generation. It has demonstrated significant greenhouse gas (GHG) emission reductions, totaling 2,13,678 tCO<sub>2eq</sub> over the monitoring period from December 2014 to December 2022. The project meets all criteria for renewable energy projects and contributes to sustainable development by enhancing energy efficiency, managing waste, and supporting local energy supply.



### D.2. General Description of Project Activity

# **Means of Project Verification**

Project Purpose: Verification will ensure that the project aims to generate electricity using renewable biomass (bagasse) and reduce GHG emissions by displacing fossil fuel-based grid electricity.

Technology and Equipment: Verification will confirm the installation and operation of the 14.88 MW bagasse-based cogeneration power plant, including the high-pressure boilers of 82.5 TPH capacity and steam turbines with a capacity of 14.88 MW.

Operational Status: Verification will check the operational records, ensuring the plant has been functioning as described, with power generation and export to the Maharashtra State Electricity Transmission Company Limited (MSEDCL) grid.

Environmental Impact: Verification will assess the environmental benefits, such as waste management, energy efficiency, and reduction in GHG emissions.

#### **Findings**

Upon verification, it was found that the primary objective is to generate electricity using renewable biomass (bagasse) and reduce greenhouse gas (GHG) emissions by displacing fossil fuel-based grid electricity. The project has been operational since December 2, 2014, and has successfully generated clean energy, contributing to climate change mitigation. The cogeneration plant not only meets the internal energy requirements of the sugar mill but also exports surplus power to the Maharashtra State Electricity Transmission Company Limited (MSEDCL) grid, enhancing energy security and providing additional revenue. The project has achieved significant GHG emission reductions, totalling 2,13,678 tCO<sub>2eq</sub> during the monitoring period from 2014 to 2022.



#### Conclusion

In conclusion, the project activity involves a 14.88 MW bagasse-based cogeneration power plant set up by Utopian Sugars Limited in Solapur, Maharashtra. The primary goal is to generate electricity using renewable biomass (bagasse) and reduce greenhouse gas emissions by displacing fossil fuelbased grid electricity. The project has been operational since December 2, 2014, and has successfully generated clean energy, contributing to climate change mitigation. The surplus electricity produced is sold to MSEDCL grid, enhancing local and supporting sustainable energy supply agricultural practices. The project demonstrates significant environmental, economic, and technological benefits, promoting energy selfsufficiency and resource conservation in the sugar industry.



# D.3. Application and selection of methodologies and standardized baselines

# D.3.1 Application of methodology and standardized baselines

### **Means of Project Verification**

Project Boundary: Verification of the spatial extent of the project boundary, including all plants generating power and/or heat, power plants connected to the grid, means of biomass transportation, and sites where biomass residues would have been left for decay or dumped.

Baseline Scenario: Confirmation that the project activity replaces equivalent electricity from the Indian grid, which is carbon-intensive due to fossil fuel-based power plants.

Emission Reductions Calculation: Verification of the emission reductions calculated as the difference between baseline emissions and the sum of project emissions and leakage.

Monitoring Plan: Ensuring the monitoring of electricity data, including power generation from turbine generators, auxiliary consumption, and metering of all auxiliary units and main meters attached to each turbine generator.

#### **Findings**

Upon verification, the project activity involves the generation of grid-connected electricity from a bagasse-based cogeneration power plant. It applies the AMS I.D. Small Scale Consolidated Methodology for "Grid connected renewable electricity generation," version 18. The project displaces CO<sub>2</sub> emissions from fossil fuel-based power plants by using biomass (bagasse) as fuel, which meets the primary applicability criteria of the methodology. The project is included in the Positive List of UCR Approved Scope under the UCR CoU Standard, with an installed capacity of 14.88 MW, of which 9 MW is supplied to MSEDCL grid. The methodology ensures



that the project activity does not involve any GHG emissions related to the decomposition or burning of biomass and does not co-fire fossil fuels beyond the permissible limit. The project activity is thus compliant with the applicable methodologies and standardized baselines.

#### Conclusion

In conclusion, the project activity entails the generation of grid-connected electricity from a bagasse-based cogeneration power plant. It adheres to the AMS I.D. Small Scale Consolidated Methodology "Grid connected renewable electricity generation," version 18. The project displaces CO<sub>2</sub> emissions from fossil fuel-based power plants by utilizing biomass (bagasse) for power generation, meeting the primary applicability criteria. The project is included in the Positive list of UCR Approved Scope under the UCR CoU Standard, with an installed capacity of 14.88 MW, of which 9 MW is supplied to the Maharashtra State Electricity Transmission Company Limited (MSEDCL) grid. The methodology is applicable as the project does not involve hydro power, methane recovery, dedicated biomass plantations, and it meets all specified criteria, ensuring no double counting of emission reductions.



# D.3.2 Clarification on applicability of methodology, tool and/or standardized baseline

# **Means of Project Verification**

Methodology Compliance: Ensuring the project adheres to the AMS-I.D. Small Scale Consolidated Methodology for grid-connected renewable electricity generation, version 18.

Baseline Scenario: Confirming the project displaces more GHG-intensive electricity generation in the grid.

Emission Reductions Calculation: Verifying the calculation of emission reductions using the formula provided, ensuring accurate data for electricity supplied to the grid and the grid emission factor.

Monitoring Plan: Checking the monitoring of electricity data, including power generation from turbine generators and auxiliary consumption, with calibrated meters and documented operational records

### **Findings**

Upon verification, the project activity involving the generation of grid-connected electricity from a 14.88 MW bagasse-based cogeneration power plant by M/s. Utopian Sugars Ltd. The methodology applied is AMS-I.D, "Grid connected renewable electricity generation," Version 18, under the CDM UNFCCC framework. The project displaces CO<sub>2</sub> emissions from fossil fuel-based power plants by using biomass (bagasse) as fuel. The project meets the primary applicability criteria of the methodology, as it involves renewable biomass and does not co-fire fossil fuels beyond the permissible limit. The project is included in the Positive List of UCR Approved Scope under the UCR CoU Standard, ensuring no double counting of emission reductions. The baseline scenario assumes the displacement of more GHG-intensive electricity generation in the grid



#### Conclusion

In conclusion, the 14.88 MW bagasse-based cogeneration power plant project by M/s. Utopian Sugars Ltd. in Solapur, Maharashtra, utilizes the AMS-I.D. methodology for grid-connected renewable

electricity generation (version 18) under the CDM UNFCCC framework. This project qualifies for the methodology as it generates electricity from biomass (bagasse), replacing fossil fuel-based grid electricity. The project does not produce any GHG emissions from biomass combustion and complies with the UCR CoU Standard for baseline grid emission factors. Thus, the applied methodology, tool, and standardized baseline are suitable and valid for this project."

### D.3.3 Project boundary, sources and GHGs

# **Means of Project Verification**

Project Boundary: Verification will involve confirming the spatial extent of the project, including all plants generating power and/or heat at the project site, power plants connected to the grid, means of biomass transportation, and sites where biomass residues would have been left for decay or dumped.

Sources and GHGs: Verification will include ensuring that  $CO_2$  emissions from burning fossil fuels in boilers are included, while  $CH_4$  and N2O emissions are excluded for simplification. It will also involve confirming that the project activity emissions from biomass are excluded.

Avoidance of Fossil Fuel Emissions: Verification will check that locally sourced GHG-neutral biomass is used, avoiding fossil fuel emissions and vehicular emissions from sourcing biomass from large distances.

#### **Findings**

Upon verification, the project boundary for the 14.88



MW Bagasse-based Co-generation project by M/s. Utopian Sugars Ltd. encompasses all plants generating power and/or heat at the project site, all power plants connected to the electricity system that the project plant is connected to, the means of transportation of biomass to the project site, and the site where the biomass residues would have been left for decay or

dumped. The primary GHG considered is  $CO_2$ , which is included as it is the major source of emissions from burning fossil fuels in boilers.  $CH_4$  and N2O are excluded for simplification. The project successfully avoids fossil fuel emissions by using locally sourced GHG-neutral biomass, thus reducing GHG emissions from in-house cogeneration energy requirements and vehicular emissions.

#### Conclusion

In conclusion, the project boundary for the 14.88 MW Bagasse-based Co-generation project by M/s. Utopian Sugars Ltd. encompasses all plants generating power and or heat at the project site, all power plants connected to the electricity system that the project plant is connected to, the means of transportation of biomass to the project site, and the site where the biomass residues would have been left for decay or dumped. The primary GHG considered is CO<sub>2</sub>, with CH<sub>4</sub> and N2O excluded for simplification. The project successfully avoids fossil fuel emissions by using locally sourced GHG-neutral biomass, thereby reducing GHG emissions through in-house cogeneration energy requirements and minimizing vehicular emissions from biomass transport.

#### D.3.4 Baseline scenario

Means of Project Verification	Electricity Generation Data: Verification of the net		
	quantity of electricity generated and supplied to the		
	grid by the project activity.		



Grid Emission Factor: Confirmation of the grid emission factor used to calculate baseline emissions.

Biomass Usage: Verification of the quantity and type of biomass (bagasse) used in the project.

Project Emissions: Assessment of project emissions, including those from biomass transportation and processing.

# **Findings**

Upon verification, it was found that the project involves the displacement of electricity generated from fossil fuel-based power plants connected to the Maharashtra State Electricity Transmission Company Limited (MSEDCL) grid. In the absence of this project, the equivalent amount of electricity would have been sourced from the regional grid, which is predominantly powered by fossil fuels. The project, therefore, replaces this carbon-intensive with electricity renewable biomass-based electricity, leading to significant greenhouse gas (GHG) emission reductions. The baseline emissions are calculated based on the net quantity of electricity supplied to Maharashtra State Electricity Transmission Company Limited (MSEDCL) grid and the grid emission factor, resulting in a conservative estimate of the carbon credits generated. This scenario underscores the project's contribution to reducing GHG emissions and promoting sustainable energy practices.

#### Conclusion

In conclusion, the baseline scenario for the 14.88 MW Bagasse-based Co-generation project by M/s Utopian Sugars Ltd. involves replacing electricity that would have been produced by fossil fuel power plants connected to Maharashtra State Electricity Transmission Company Limited (MSEDCL) grid. By using biomass (bagasse) for power generation, the project substitutes the carbon-intensive grid



electricity, resulting in substantial reductions in greenhouse gas (GHG) emissions. This project is a voluntary initiative that aids in climate change mitigation by decreasing dependence on fossil fuels and promoting renewable energy. Baseline emissions are determined by the net electricity supplied to the grid and the grid emission factor, ensuring a conservative estimate of the carbon credits generated.

# D.3.6 Estimation of Emission Reductions or Net Anthropogenic Removal

# **Means of Project Verification**

Monitoring of Electricity Data: Power generation from turbine generators and auxiliary consumption are metered. Main meters attached to each turbine generator determine total generation.

Operational Records: Documented, collected, and archived in hard copies or electronic formats.

Calibrated Meters: Used for measuring steam quantity, temperature, and pressure.

Bagasse Calculation: Amount of bagasse generated is calculated from the amount of cane crushed, monitored through daily records.

# **Findings**

Upon verification, it highlights that the project activity involves a 14.88 MW bagasse-based cogeneration power plant by M/s. Utopian Sugars Ltd. The project displaces fossil fuel-based grid with renewable biomass-based electricity electricity, resulting in significant GHG emission reductions. The total emission reductions achieved during the monitoring period from 02/12/2014 to 31/12/2022 amount to 2,13,678 tCO<sub>2eq</sub>. This is calculated by subtracting project emissions and leakage from the baseline emissions, which are determined by the net electricity supplied to Maharashtra State Electricity Transmission Company Limited (MSEDCL) grid and the grid

	emission factor. The project does not involve any		
	GHG emission sources on-site, ensuring zero CO <sub>2</sub>		
	emissions from bagasse combustion		
Conclusion	In conclusion, the project activity, a 14.88 MW		
	bagasse-based co-generation power plant by M/s.		
	Utopian Sugars Ltd., achieved a total GHG		
	emission reduction of 2,13,678 tCO <sub>2eq</sub> during the		
	monitoring period from December 2, 2014, to		
	December 31, 2022. This reduction was		
	accomplished by displacing fossil fuel-based grid		
	electricity with renewable biomass-		
	based electricity. The project effectively utilized		
	bagasse, a by-product of sugarcane processing, to		
	generate clean energy, thereby contributing		
	significantly to climate change mitigation by		
	reducing anthropogenic GHG emissions.		

# **D.3.7 Monitoring Report**

Means of Project Verification	Operational Records: Documentation of daily, monthly, and quarterly reports on electricity generation, steam data, and bagasse usage.	
	Meter Calibration: Regular calibration of energy meters by an independent third party to ensure accuracy.	
	Internal Audits: Reviews by an internal audit team from different departments to verify data recording and maintenance procedures.	
	External Verification: Cross-checking of bagasse usage and electricity generation with plant records and joint meter reading statements.	
Findings	Upon verification, the Monitoring Report for the 14.88 MW Bagasse-based Co-generation project by M/s. Utopian Sugars Ltd. in Solapur, Maharashtra,	



indicates successful implementation operation from December 2, 2014, to December 31, 2022. The project achieved a total GHG emission reduction of 2,13,678 tCO<sub>2eq</sub> by displacing fossil fuel-based grid electricity with renewable biomass-based electricity. The project utilized bagasse, a by-product of sugarcane processing, to generate electricity, thereby enhancing energy efficiency and supporting sustainable agriculture. The report confirms compliance with the applied CDM UNFCCC methodology and highlights the project's contributions to environmental sustainability, economic development, and energy security.

#### Conclusion

In conclusion, the Monitoring Report for the 14.88 MW Bagasse-based Co-generation project by M/s. Utopian

Sugars Ltd. in Solapur, Maharashtra, demonstrates successful implementation and operation from 02/12/2014 to 31/12/2022. The project achieved a total GHG emission reduction of 2,13,678 tCO<sub>2eq</sub> by displacing fossil fuel-based grid electricity with renewable biomass-based electricity. The report confirms that the project adhered to the applied baseline methodology (CDM UNFCCC Small-scale Methodology AMS-I.D) and contributed sustainable development through environmental, social, economic, and technological benefits. The project effectively utilized bagasse, a renewable biomass, ensuring zero on-site CO<sub>2</sub> emissions and supporting local energy supply and economic growth.



# D.4. Start date, crediting period and duration

Means of Project Verification	Start Date: Verified through the commissioning date of the project, which is 02/12/2014.  Crediting Period: Verified by the documented crediting period, which spans from 02/12/2014 to 31/12/2022.  Duration: Verified by the monitoring period, which is 8 years and 1 month, aligning with the crediting period.
Findings	Upon verification, the project activity, titled "14.88 MW Bagasse based Co-generation by M/s. Utopian Sugars Ltd.," commenced on December 2, 2014. The crediting period for this project spans from December 2, 2014, to December 31, 2022, covering a total duration of 8 years and 1 month. This period is inclusive of both the start and end dates.
Conclusion	In conclusion, the start date of the project activity is 02/12/2014, and the crediting period for this monitoring period spans 08 years and 1 month, from 02/12/2014 to 31/12/2022. This duration is inclusive of both the start and end dates, as specified in the monitoring report.



### **D.5.** Positive Environmental Impacts

# **Means of Project Verification**

GHG Emission Reductions: Verification of the actual amount of GHG emission reductions achieved during the monitoring period (2014-2022), totalling 2,13,678 tCO<sub>2eq.</sub>

Renewable Energy Generation: Confirmation of the electricity generated using renewable biomass (bagasse) and its contribution to displacing fossil fuel-based grid electricity.

Environmental Benefits: Assessment of the project's impact on reducing air pollution, water pollution, and solid waste, as well as its role in promoting sustainable agricultural practices.

Compliance with Methodologies: Ensuring the project adheres to the applied baseline methodology (CDM UNFCCC Small-scale Methodology AMS-I.D) and sectoral scopes.

# **Findings**

Upon verification, the project by M/s. Utopian Sugars Ltd. demonstrates significant positive environmental impacts. By utilizing bagasse, a renewable biomass, for cogeneration, the project reduces reliance on fossil fuels, thereby decreasing greenhouse gas emissions. The project has achieved a total reduction of 2,13,678 tCO<sub>2eq</sub> over the monitoring period from 2014 to 2022. Additionally, the use of high-pressure cogeneration technology enhances energy efficiency and supports sustainable agricultural practices. The project also contributes to local energy security by generating surplus electricity for the Maharashtra State Electricity Transmission Company Limited (MSEDCL) grid, thus promoting cleaner energy alternatives and fostering sustainable development in the region.



#### Conclusion

In conclusion, the project "14.88 MW Bagasse based Co-generation by M/s. Utopian Sugars Ltd." demonstrates significant positive environmental impacts. By utilizing bagasse, a renewable biomass, for electricity generation, the project effectively reduces greenhouse gas emissions by displacing fossil fuel-based grid electricity. This contributes to climate change mitigation with a total reduction of 2,13,678 tCO<sub>2eq</sub> over the monitoring period. Additionally, the project promotes sustainable energy practices, enhances energy self-sufficiency, and supports local energy thereby fostering environmental supply, sustainability and reducing reliance on nonrenewable energy sources.

#### D.8. Project Owner- Identification and communication

# **Means of Project Verification**

Project Owner Identification: The project owner is M/s. Utopian Sugars Ltd., located in Solapur, Maharashtra. The project is registered under UCR ID 442.

Communication: The project owner can be contacted through Climekare Sustainability Pvt. Ltd., which acts as the project aggregator. The contact information includes an email address (<a href="mailto:sustainability@climekare.com">sustainability@climekare.com</a>) and a phone number (9811752560).

### **Findings**

Upon verification, the project owner, M/s. Utopian Sugars Ltd., is clearly identified as the proponent of the 14.88 MW Bagasse-based Co-generation project in Solapur, Maharashtra. The project is registered under UCR ID 442 and has been operational since December 2, 2014. Communication details are provided, including the



involvement of Climekare Sustainability Pvt. Ltd. as the aggregator. The project aims to generate renewable electricity using biomass, thereby reducing GHG emissions by displacing fossil fuel-based grid electricity. The project has successfully achieved significant GHG emission reductions over the monitoring period from 2014 to 2022.

#### Conclusion

In conclusion, the project owner, M/s. Utopian Sugars Ltd., has effectively identified communicated the project's objectives and implementation details. The project aims to generate electricity using renewable biomass (bagasse) and reduce GHG emissions by displacing fossil fuel-based grid electricity. The project has been operational since December 2014 and has achieved significant GHG emission reductions, totalling 2,13,678 tCO<sub>2eq</sub> over the monitoring period. The project owner has also ensured compliance with relevant methodologies and standards, and has maintained transparent communication with stakeholders, including the project aggregator, Climekare Sustainability Pvt. Ltd.



# **Positive Social Impact**

Means of Project Verification	Employment Opportunities: The project has created numerous job opportunities for local residents, reducing unemployment rates and improving economic stability in the community.  Infrastructure Development: Improvements in local infrastructure, such as roads and utilities, benefit the entire community by facilitating easier access to markets, healthcare, and educational institutions.  Support for Local Farmers: By providing a stable market for agricultural produce, the project supports farmers' livelihoods and encourages sustainable farming practices.
	Community Development: The project contributes to the development of renewable infrastructure and overall economic development in the region.
Findings	Upon verification, the project by M/s. Utopian Sugars Ltd. demonstrates a positive social impact through several key aspects. It has created numerous job opportunities for local residents, reducing unemployment and improving economic stability in the community. The project has also necessitated improvements in local infrastructure, such as roads and utilities, benefiting the broader community. Additionally, by providing a stable market for agricultural produce, the project supports local farmers' livelihoods and encourages sustainable farming practices. Overall, the project contributes to social well-being by fostering economic development and enhancing the quality of life for the local population.
Conclusion	In conclusion, the project by M/s. Utopian Sugars



Ltd. demonstrates a positive social impact through several key aspects. It has created numerous job opportunities for local residents, reducing unemployment and improving economic stability in the community. The project has also led to infrastructure improvements, such as better roads and utilities, benefiting the entire community. Additionally, by providing a stable market for local farmers' produce, it supports their livelihoods and encourages sustainable farming practices. Overall, the project contributes to social well-being by fostering economic development, enhancing infrastructure, and supporting local agriculture.

## Sustainable development aspects (if any)

#### **Means of Project Verification**

Social Well-being: Verification through job creation records, local infrastructure improvements, and support for local farmers.

Environmental Well-being: Monitoring of biomass usage, reduction in GHG emissions, and compliance with environmental regulations.

Economic Well-being: Assessment of local economic benefits, infrastructure development, and market support for agricultural produce.

Technological Well-being: Evaluation of the implementation and efficiency of cogeneration technology and its impact on reducing dependence on fossil fuels.

# **Findings**

Upon verification, the project by M/s. Utopian Sugars Ltd. demonstrates significant contributions to sustainable development. Socially, it creates numerous job opportunities, improves local infrastructure, and supports local farmers by providing a stable market for agricultural produce. Environmentally, it utilizes biomass energy, reducing



GHG emissions and avoiding air, water, and solid waste pollution. Economically, it promotes decentralization of economic power, enhances local infrastructure, and supports sustainable farming practices. Technologically, it introduces efficient cogeneration technology, reducing dependence on carbon-intensive grid supply and improving energy availability and quality. Overall, the project aligns well with sustainable development goals, fostering economic, social, environmental, and technological well-being.

#### Conclusion

In conclusion, the project activity by M/s. Utopian Sugars Ltd. demonstrates significant contributions to sustainable development. It creates numerous job opportunities, enhancing local economic stability and infrastructure. The project supports local farmers by providing a stable market for agricultural produce, sustainable farming promoting practices. Environmentally, it utilizes clean biomass energy, reducing GHG emissions and avoiding pollution. it promotes decentralization of Economically, economic power and infrastructure development, fostering new industries and economic activities. Technologically, it advances cogeneration power plants, reducing dependence on carbon-intensive grid supply and improving energy availability and quality. Overall, the project aligns with India's sustainable development goals, contributing to social, environmental, economic, and technological wellbeing.

#### Section E. Internal quality control

To ensure accuracy and reliability throughout the verification process, rigorous internal quality control measures were implemented. This involved regular internal reviews of procedures, documentation, and reports to promptly address any errors or discrepancies. Verification staff received ongoing training to maintain their proficiency and efficiency. Standard Operating Procedures (SOPs) were established to provide clear guidance on data collection, analysis, and reporting, ensuring consistency and adherence to best practices. Robust documentation management practices were



adopted to maintain transparent records of activities, including data sources and methodologies. Peer reviews and team discussions validated findings and ensured consensus on conclusions. Continuous improvement processes were instituted to assess and enhance verification practices, identifying areas for improvement and boosting overall performance over time.

## Section F. Project Verification opinion

The GHG emission reductions were calculated based on UCR Protocols which draws reference from, Applied Baseline Methodology: CDM UNFCCC Small-scale Methodology AMS-I D: Grid connected renewable electricity generation, Version 18 & UCR Standard for baseline Grid Emission Factor. The verification was done remotely by way of video calls / verification, phone calls and submission of documents for verification through emails.

SQAC is able to certify that the Emission reductions from 14.88 MW Bagasse based Cogeneration by M/s. Utopian Sugars Ltd., Dist. Solapur, Maharashtra, India. (UCR ID – 442) for the period 02/12/2014 to 31/12/2022 amounts to 2,13,678 CoUs (2,13,678  $tCO_{2eq}$ )

## **Appendix 1. Abbreviations**

Abbreviations	Full texts
PP/PO	Project Proponent / Project Owner
PA	Project Aggregator
PPA	Power Purchase Agreement
ER	Emission Reduction
COUs	Carbon offset Units.
tCO2e	Tons of Carbon Dioxide Equivalent
CDM	Clean Development Mechanism
SDG	Sustainable Development Goal
CAR	Corrective Action Request
CR	Clarification Request
FAR	Forward Action Request
GHG	Green House Gas
UCR	Universal Carbon Registry
MR	Monitoring report
PCN	Project Concept Note
VR	Verification Report
VS	Verification Statement
COD	Commercial Operation Date



# Appendix 2. Competence of team members and technical reviewers

Sr. No	Role	Name	Education Qualification	Related Experience
1.	Team Leader / Lead Verifier / Validator	Santosh Nair	BE (Chemical) Lead Auditor in ISO 9001,14001, 45001,13485,2230 1,22000,27001,140 64-1,2,3	Carbon Verifier for all major sectors such as Wind, Solar, Hydro, Biomass, Biogas, Waste Heat Recovery, Biofuel, etc.
2.	Technical reviewer	Praful Shinganapurkar	BE (Mechanical) Certified Energy Auditor Lead Auditor in ISO 9001,14001 & 45001	Carbon Verifier for all major sectors such as Wind, Solar, Hydro, Biomass, Biogas, Waste Heat Recovery, Biofuel, etc.

# Appendix 3. Document reviewed or referenced

Sr No	Author	Title	Provider
1	Climekare	Project Concept Note V1	Climekare Sustainability Pvt
	Sustainability Pvt	(PCN)	Ltd.
	Ltd.		
2	Climekare	Monitoring Report V1	Climekare Sustainability Pvt
	Sustainability Pvt	(MR)	Ltd.
	Ltd.		
3	Climekare	Emission Reduction	Climekare Sustainability Pvt
	Sustainability Pvt	calculation sheet (ER)	Ltd.
	Ltd.		
4	Utopian Sugars	Bagasse Consumption	Climekare Sustainability Pvt
	Limited,	(Annexure B)	Ltd.
	Kacharewadi,		
5	Maharashtra	Consent to operate	Climekare Sustainability Pvt
	Pollution Control		Ltd
	Board		
6	Maharashtra State	Credit notes	Climekare Sustainability Pvt
	Electricity		Ltd.
	Distribution Co. Ltd.		
7	Utopian Sugars	Daily Generation details	Climekare Sustainability Pvt
	Limited,		Ltd.
	Kacharewadi		

8	Adept Fluidyne Pvt	Calibration Certificates	Climekare Sustainability Pvt
	Ltd.	(Flow meter)	Ltd.
9	Utopian Sugars		
	Limited,	Invoices	Climekare Sustainability Pvt
	Kacharewadi		Ltd
10	Utopian Sugars	Joint Meter Readings	Climekare Sustainability Pvt
	Limited,		Ltd
	Kacharewadi		
11	Mahatransco-	Commission Certificates	Climekare Sustainability Pvt
	Maharashtra State		Ltd
	Electricity		
	Transmission Co.		
	Ltd.		
12	Maharashtra State	Power Purchase	Climekare Sustainability Pvt
	Electricity	Agreement	Ltd.
	Distribution Co. Ltd.		
	& Utopian Sugars		
	Limited,		
	Kacharewadi,		
13	Directorate of Steam	Boiler Certificate	Climekare Sustainability Pvt
	Boiler		Ltd
14	Ministry of	Environmental	Climekare Sustainability Pvt
	Environment, Forest	Clearance	Ltd
	& Climate Change		
	Impact Assessment		
	Division		
15	Maharashtra State	Memorandum of	Climekare Sustainability Pvt
	Electricity	Understanding	Ltd
	Transmission Co Ltd		
16	Government of	Certificate of Verification	Climekare Sustainability Pvt
	Maharashtra, Food,		Ltd
	Civil Supply and		
	Consumer		
	Protection		
	Department Legal		
	Metrology		
	Organisation		
17	Sai Services	Calibration Certificates	Climekare Sustainability Pvt
		(Steam flow)	Ltd.



# Appendix 4. Clarification request, corrective action request and forward action request

Table 1. CLs from this Project Verification

CL ID	00	Section no.		Date: DD/MM/YYYY						
Descriptio	n of CL									
		n/a								
<b>Project Ow</b>	ner's response			Date: DD/MM/YYYY						
		n/a								
Document	Documentation provided by Project Owner									
		n/a								
<b>UCR</b> Project	ct Verifier assessm	Date: DD/MM/YYYY								
		n/a								

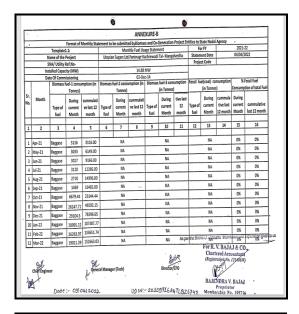
Table 2. CARs from this Project Verification

CAR ID	00	Section no.	Date: DD/MM/YYYY							
Description of CAR										
		n/a								
<b>Project Ow</b>	ner's resp	oonse	Date: DD/MM/YYYY							
		n/a								
Document	Documentation provided by Project Owner									
		n/a								
<b>UCR</b> Projec	UCR Project Verifier assessment									

Table 3. FARs from this Project Verification

		rojoot voimoation							
FAR ID	00	Section no.	Date: DD/MM/YYYY						
Description of FAR									
		n/a							
<b>Project Ow</b>	ner's respo	onse	Date: DD/MM/YYYY						
		n/a							
Document	Documentation provided by Project Owner								
		n/a							
<b>UCR Project</b>	UCR Project Verifier assessment								
		n/a							





		MAHARASHT	RA STATI	ELECTRIC	ITY DISTRI	BUTION C	O.LTD.					
				( Corporate O								
			Ene	ergy Purchase A	Agreement	Materiae Be	int No. :- 02770					
Date	of Comm : 02-DEC-	2014		Month: JAN	Year : 2020	mesering Po	Int No. :- 02776	117701				
H.O.1	NOC NO: 10000085	45		Capacity: 14								
		nent - Sale to MSEDCL Y-2014 to 02-MAY-2027		Feeder Name	i: 701 lame : 132 KV I							
To.	NOC PERIOD : UP MA	1-2014 to 02-MAT-2027		Substitution N	iame : 102 NV	MANUALITED	na.					
Utop	ian Sugars Limite	d,.										
sub:	Monthly Credit Not	e in respect of Utopian Su	gars Limited	d								
		greement - Sale to MSEDC			SASSE/USL/14	081 DT. 03.05.	2014, from 00-l	MAY-2014 B	0 02-MAY-2027			
	Make : 057	Meter Serial No										
	CT Ratio   75/1	Line PT Ratio										
Meter	CT Ratio: 1/1	Meter PT Ratio	: 11/0.11	Hen	ce M.F. : 900		Polarity:	REC				
51.		Billing Meter Re	ading as on	Billion Meter F	teading as on			Unit Rec	orded by Billing			
No.	Parameter	Current (		Previous		Diffe	Difference		Meter			
1.	KWH DEL		3398.910 3396.925 1.985		1.985		1786.500					
2.	KWH DEL A		1064.478		1064.478	0.000			0.000			
3.	KWH DEL B		1222.990		1222.543		0.448		402.750			
4.	KWH DEL C		489.453		487.568		0.885		794.500			
5.	KWH DEL D		622.990	622.338		0.663			587.250			
6.	KWH REC		192764.068		185225.428	7538.640			6784776.000			
7.	KWH REC A		65432.320		62850.203	2592.118			2323905.750			
8.	KWH REC B		71403.848		68636.643		2767.205		2490484.500			
9.	KWH REC C		24141.298		23211.620	929.678						
10.	KWH REC D KVAH DEL			3581,558		31786,603	_	30526.963 2579.125		1259.640		1133676.000
11.	KVAH DEL KVAH REC							2.400	_			
12.	KVARH Q1		205919.288 462.568	_	197893.093		8026.195 1.155		7223876.600 1039.600			
14.	KVARH Q1 KVARH Q2		1847,563	-	1847,563		0.000		0.000			
15.	KVARH Q3		72201.673	_	69426.208		2775.465		2497918.500			
16.	KVARH Q4		79.280		79.203		0.178		159.750			
_	ime	ort i.e. Generation Power I	Factor		Export i.e. Consumption from			DCL Grid P	ower Factor			
		Kwh / Kvah = .92925					wh / Kvah = .81					
WH I		6784776		Fona	KWH DE	L Units	KWH REC	Units	Units for Credit			
.eem t	arring .	6784774			Cre	dit	Credi	t	(KWH)			
WH I		6.84		one A		0.0		323905.75	2323905.75			
	Charges	46407867.84		one B		402.76		2490484.5	2490081.75			
	H Unit	0		one C		796.5		836709.75	835913.25			
	H Rate	.25		one D Total		587.25 1786.5		1133676.0	1133088.75			
RVA	H Charges	0						6784/76.0	6782989.5			
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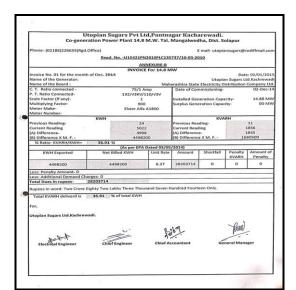
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2						
6. (	Conditions under Ha of hazardous waste:	zardous V	Vaste (M, H	& T M) R	iles, 2008 for	treatment and d
Sr. No		ste	Category (	Quantity	UOM	Disposal Reuse in own
1	Used /Spent Oil	1	5.1	5.0	Kg/D	boiler as fue
	Non-Hazardous Solid					1
7.	Type of Waste	Quantit	UOM	Treatmen	*	Disposal
1	Fly/Boiler Ash	300.0	MT/M			cks manufacture
2	ETP Studge	25.0	MT/M		Used as Si	oil conditioner.
9.	This goard reserves is same shall be binding. This consent shou NOC/permission fro Industry shall opera of CPCB and shall server.	g on the ir	e construe ner Governn	d as exe nent agenci system wh online mo	mption from és. ich is installe nitoring data	ed as per the Dir at MPCB and
9.	same shall be binding This consent shou NOC/permission fro Industry shall opera of CPCB and shall	g on the ir	e construe ner Governn	d as exe nent agenci system wh online mo	mption from es. ich is installe nitoring data For and on bashtra Pollu (Dr. P. Anh	obtaining ne
9. 10. Receive	same shall be binding This consent shou NOC/permission fro Industry shall opera of CPCB and shall server.  ed Consent fee of Amount (Rs.) Rs. 4/12/000/-	g on the in id not om any of te online connect/	e construe ner Governn	d as exe enent agenci system wh online mo Mahar	mption from es. ich is installe initoring data For and on t ashtra Pollo Membe	od as per the Dir a at MPCB and behalf of the tion Control Bo
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9. 10. Receiv	ame shall be bindin; This consent shou NOC/permission for Industry shall opera of CPCB and shall server.  ed Consent [col- ]. Amount (Es) [18, 41; 20, 10] 0. Regional Officer—Mergional Officer—Mergional Officer—Mergional Officer—Mergional Officer—New York (Es)  Regional Officer—New Yor	MAHBR  MPCB Pun e compilia	DD. No. 5201e05260  ge & Sub-Re nee of the ce R. Mumbai.	d as exected and a second as exected as exected who online mo Mahan 2409830   Control of the con	mption from es.  ich is installe nitoring data  For and on t  cashtra Pollui  (Dr. P. Anh Membe  Date  07.05.2015	a obtaining ne and as per the Dir at MPCB and behalf of the nion Control Bo diagan, IAS) secretary  Drawn O Bank of Mahare
9. 10. Receiv	same shall be binding This consent shou NOC/permission fro Industry shall opera of CPCB and shall server.  cd Consent (see up- y Amount (65) [Rs. 4-12-000/-] [Rs. 4-12-000/-] [Regional Officer - N	MAHBR  MPCB Pun e compilia	DD. No. 5201e05260  ge & Sub-Re nee of the ce R. Mumbai.	d as exected and a second as exected as exected who online mo Mahan 2409830   Control of the con	mption from es.  ich is installe nitoring data  For and on t  cashtra Pollui  (Dr. P. Anh Membe  Date  07.05.2015	a obtaining ne and as per the Dir at MPCB and behalf of the nion Control Bo diagan, IAS) secretary  Drawn O Bank of Mahare

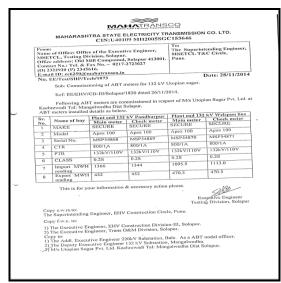
				OPIAN SU TH - OCTO		. PANTNAGA MONTH		AREWADI NG REPORT				
Date		Generation Export				Import			Inhouse			
	Today	eason todar	Todate	Today	eason todar	Todate	Today	eason toda	Todate	Today	eason toda	Toda
21/10/2020	94000	94000	265428000	45000	45000	180625917	0	0	498063	49000	49000	84802
22/10/2020	164000	258000	265592000	76500	121500	180702417	0	0	498063	87500	136500	84889
23/10/2020	246000	504000	265838000	153000	274500	180855417	0	0	498063	93000	229500	84982
24/10/2020	312000	816000	266150000	207900	482400	181063317	0	0	498063	104100	333600	85086
25/10/2020	274000	1090000	266424000	183600	666000	181246917	2700	2700	500763	90400	424000	85177
26/10/2020	336000	1426000	266760000	225900	891900	181472817	0	2700	500763	110100	534100	85287
27/10/2020	332000	1758000	267092000	225000	1116900	181697817	0	2700	500763	107000	641100	85394
28/10/2020	350000	2108000	267442000	236700	1353600	181934517	0	2700	500763	113300	754400	85507
29/10/2020	353000	2461000	267795000	236268	1589868	182170785	0	2700	500763	116732	871132	85624
30/10/2020	354000	2815000	268149000	225000	1814868	182395785	0	2700	500763	129000	1000132	85753
31/10/2020	350000	3165000	268499000	225000	2039868	182620785	0	2700	500763	125000	1125132	85878
TOTAL	3165000			2039868			2700			1125132		

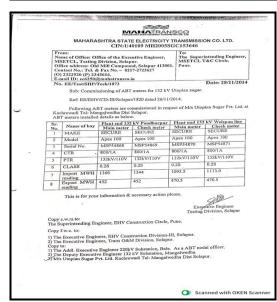
			UT	opian su	GARS LTD	. PANTNAGA	AR, KACH	arewadi				
			MONTE	I - NOVEME	BER-2020	MON	THLY REA	DING REPOR	RT			
Date	Generation		on		Export			Import		Inhouse		
Date	Today	eason todar	Todate	Today	eason todar	Todate	Today	eason toda	Todate	Today	eason toda	Todate
01/11/2020	340000	3505000	268839000	228600	2268468	182849385	0	2700	500763	111400	1236532	85989616
2/11/2020	353000	3858000	269192000	234000	2502468	183083385	0	2700	500763	119000	1355532	86108616
03/11/2020	335000	4193000	269527000	220500	2722968	183303885	813	3513	501576	114500	1470032	86223116
04/11/2020	344000	4537000	269871000	230400	2953368	183534285	0	3513	501576	113600	1583632	86336716
05/11/2020	348000	4885000	270219000	225900	3179268	183760185	0	3513	501576	122100	1705732	86458816
06/11/2020	353000	5238000	270572000	231300	3410568	183991485	0	3513	501576	121700	1827432	86580516
7/11/2020	355000	5593000	270927000	232200	3642768	184223685	0	3513	501576	122800	1950232	86703316
08/11/2020	352000	5945000	271279000	227700	3870468	184451385	0	3513	501576	124300	2074532	86827616
09/11/2020	353000	6298000	271632000	230400	4100868	184681785	0	3513	501576	122600	2197132	86950216
10/11/2020	354000	6652000	271986000	231300	4332168	184913085	0	3513	501576	122700	2319832	87072916
11/11/2020	354000	7006000	272340000	231300	4563468	185144385	0	3513	501576	122700	2442532	87195616
12/11/2020	354000	7360000	272694000	230400	4793868	185374785	0	3513	501576	123600	2566132	87319216
13/11/2020	351000	7711000	273045000	225000	5018868	185599785	0	3513	501576	126000	2692132	87445216
14/11/2020	356000	8067000	273401000	224100	5242968	185823885	0	3513	501576	131900	2824032	87577116

	epl	-	(Calibratio	TYTIE PVI. LLU n Laboratory) Estate, Kothrud, Pune-411038.	, INDIA	
			CALIBRATIO	N CERTIFICATE		
Certificat	No .	: AFPL/FM/2324	/2226	O A No	: 233	
Calibratio	n date	: 16.07.2023		Due Date	: 15.07.2024	
Customer	Name		igars Ltd. Pantnag di,Tal - Mangalwe Maharashtra 413:	dha,		
		45.		f Flowmeter		
Type of F		: OVAL GEAR (To			: NA	
Model No		: OV115AG43F1	31P/F2		: 0-33 m³/h	
Sr No		: 187723 .			: (±) 1.0 %	of Reading
Flowmete		: DN 65			: 4-20mA	
Power Su		: 220VAC			30.8799	
Water Te	mperature	: 26.7 °C			996.707 Kg/m <sup>3</sup>	
			List of	Formulae		
	Qa (m³/h)		3600 x 1.00106 density	% of Deviation in Qi	(Qa - Qi Qi	
			Nome	nclature		
Qa - Stan	dard Flow F	tate		Qi - Displayed Flow Rate	e	
	-	and their callbro		ion Results		
s No	We	ight of Water	Time (t)	Std Flow Rate (Qa)	Displayed Flow Rate (Qi)	Deviation in (Qi)
		Kg	· S	LPM	LPM	96
1		0.00	0.00	0.00	0.00	0.00
2		221.10	74.10	179.74	179.70	0.02
3		254.68	56.23	272.83	272.80	0.01
4		312.18	37.62	499.87	499.83	0.01
					COL ?	2
Calibrated	Ву	Sauz.		Verified By Signature	VSG AU	
Brioture		. /-		Signature	- MA 131	131
The perfor	mance of th	e above equipment i	s guaranteed for a	is been tested and found to period of 12 months from nst any manufacturing defe	the date of installat	Sps. lion or 18



















Calibrated & Verified By : Samir Sayyad Signature :

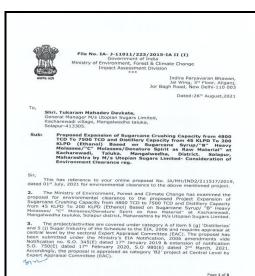
Sunda Sunda

It is hereby certified that the equipment mentioned above has been tested and found to meet its specifications.

The Calibration of the above equipment is guaranteed for a period of 12 months from the date of inspection.







4. Ministry issued EC for the distillery unit of 45 KLPD Vide F. No. SEIAA-EC-0000002299 dated 20.07.2020 and it was commissioned in the year 22020 and as per EIA Notification there is no requirement of lienvironment Clearance for sugar industry having sugarcane crushing capacity is less than 5000 TCD. It was informed that no lititation is pending against the proposal.

Sr. No.	Unit	Capacity						
	Ome	Existing	Proposed	Total				
1.	Sugarcane crushing capacity	4800 TCD	2700 TCD	7500	TCD			
2.	Cogeneration Power Plant	14.8 MW		14.8	MW			
3.	Distillery	45 KLPD	155KLPD	200 F	KLPD			
	Rectified Spirit or	45 KLPD		45	Only			
	Extra Neutral Alcohol or	45 KLPD		45	one			
	Ethanol	45 KLPD		45	at a			
	Ethanol	45 KLPD	155 KLPD	200	Utilized for EBD			

6. Existing land area is 344400 m²; no additional land is required for proposed expansion. Industry will develop greenbelt in an area of 33,34 % i.e. 11.48 ha out of total area of the project. The submitted project cost is 88,125 Coress. Total carpital of total area of the project. The submitted project cost is 88,125 Coress. Total carpital capacity is R3 34.40 Cores and the recurring cost (operation and maintenance) is about R3 3.50 Cores per annum. For proposed expansion of project capital cost of the project capital cost of the control of the project capital cost of the country of the control of the country of the control of the country of the country

7. There are no national parks, wildlife sanctuaries, Biosphere Reserves, Tiger/Elephant Reserves, and Wildlife Corridors etc. within 10 km distance from the project site. Manganga River is flowing at a distance of 9.12 km in North-West

8. Ambient air quality monitoring was cerried out at 2 locations for January 2031 and the monitoring results indicate the ranges of concentrations as: PM10 (69 - 24  $\mu g/m_3$ ), PM.s. (29 - 30 $\mu g/m_3$ ), SOs (8 + 10 $\mu g/m^3$ ) and NOx (10 + 15 $\mu g/m_3$ ). As the proposal is a 8D category project baseline data is not required.

 Total fresh water requirement of the plant will be 121 KLPD out of which 78 KLPD for distillery unit shall be met from ground water and rest 43 KLPD for domestic purpose shall be met from Ujani canal. Sugar effluent of 1095 m3/day

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