Monitoring Report

CARBON OFFSET UNIT (CoU) PROJECT

Title: 26 MW Bagasse based Co-generation by M/s Sahakar Maharshi Shivajirao Narayanrao Nagawade Sahakari Sakhar Karkhana Ltd. Dist. Ahmednagar, Maharashtra.

Version 1.0

Date 06-08-2024

UCR ID: 441

First CoU Issuance Period: 01-01-2021 to 31-12-2023 (3 Years)

Crediting Period: 01-01-2021 to 31-12-2023 (3 Years)

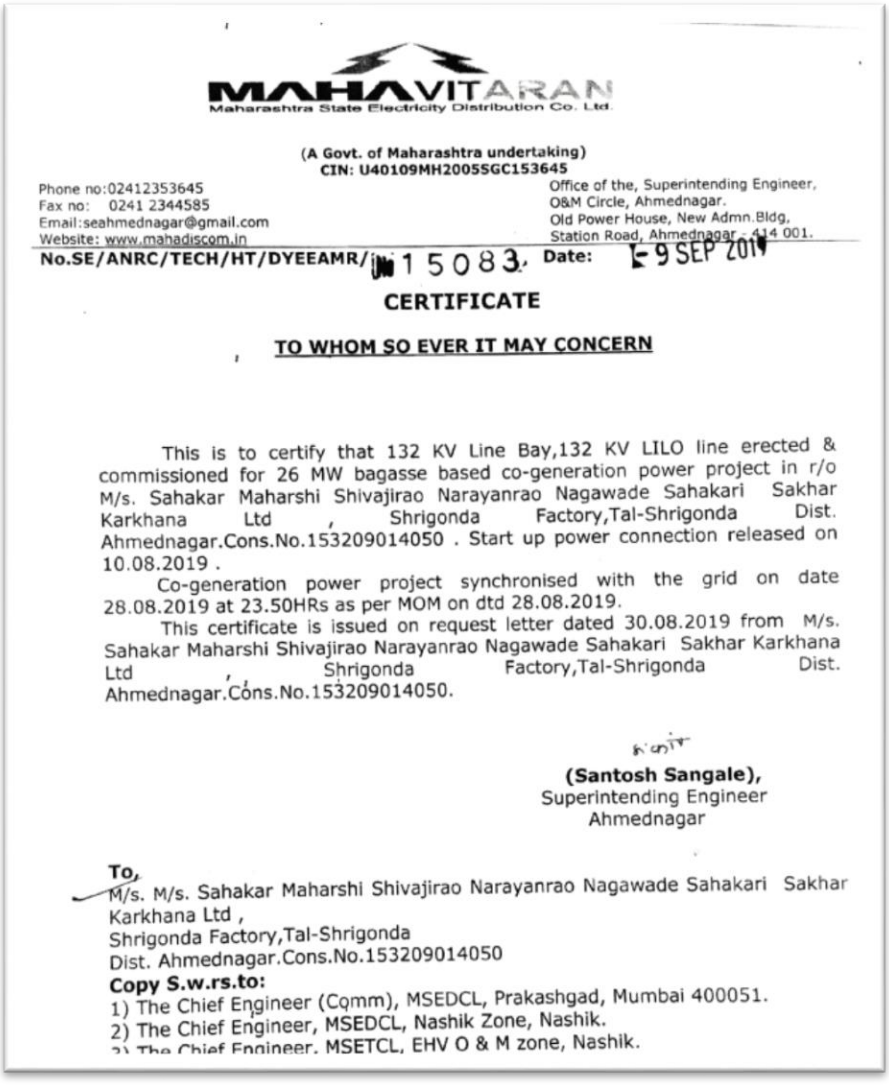
1 st Monitoring Period: 01-01-2021 to 31-12-2023 (3 Years)

Monitoring Report	
Title of the project activity	26 MW Bagasse based Co-generation by M/s Sahakar Maharshi Shivajirao Narayanrao Nagawade Sahakari Sakhar Karkhana Ltd. Dist. Ahmednagar, Maharashtra.
UCR Project Registration Number	441
Version	1.0
Completion date of the MR	06-08-2024
Monitoring period number and duration of this monitoring period	**Monitoring Period Number:** 01 **Duration of this monitoring Period:** 3 Year (first and last days included (01/01/2021 to 31/12/2023)
Project participants	**Project Proponent:** M/s Sahakar Maharshi Shivajirao Narayanrao Nagawade Sahakari Sakhar Karkhana Ltd. A/P Shrigonda Factory Tal. Shrigonda, Dist. Ahmednagar - 413726 **Aggregator:** Climekare Sustainability Pvt ltd. **UCR ID**: 336812961
Host Party	India
Applied methodologies and standardized baselines	Applied Baseline Methodology: **ACM0006**: Electricity and heat generation from biomass (Ver. 16) & UCR Standard for Emission Factor
Sectoral scopes	01 Energy industries (Renewable/Non-Renewable Sources)
Actual amount of GHG emission reductions for this monitoring period (2021-2023)	2021: 10,665 CoUs
	2022: 27,691 CoUs
	2023: 22,515 CoUs
	Total:60,871 CoUs

SECTION A. Description of project activity

A Purpose and general description of project activity >>

The Project Titled "**26 MW** Bagasse based Co-generation by "M/s Sahakar Maharshi Shivajirao Narayanrao Nagawade Sahakari Sakhar Karkhana Ltd." is a bagasse-based Co-Generation (co- gen) Power Project successfully commissioned by Maharashtra State Electricity Transmission Company Limited (MSETCL) and operational since **28/08/2019**. The Project is owned by M/s Sahakar Maharshi Shivajirao Narayanrao Nagawade Sahakari Sakhar Karkhana Ltd. (hereby to be called as Project Proponent, PP).



MAHAVITARAN
Maharashtra State Electricity Distribution Co. Ltd.

(A Govt. of Maharashtra undertaking)
CIN: U40109MH2005SGC153645

Phone no:02412353645
Fax no: 0241 2344585
Email:seahmednagar@gmail.com
Website: www.mahadiscom.in

Office of the, Superintending Engineer,
O&M Circle, Ahmednagar.
Old Power House, New Admn.Bldg,
Station Road, Ahmednagar - 414 001.

No.SE/ANRC/TECH/HT/DYEEAMR/ 15083. Date: 19 SEP 2019

CERTIFICATE

TO WHOM SO EVER IT MAY CONCERN

This is to certify that 132 KV Line Bay,132 KV LILO line erected & commissioned for 26 MW bagasse based co-generation power project in r/o M/s. Sahakar Maharshi Shivajirao Narayanrao Nagawade Sahakari Sakhar Karkhana Ltd , Shrigonda Factory,Tal-Shrigonda Dist. Ahmednagar.Cons.No.153209014050 . Start up power connection released on 10.08.2019 .

Co-generation power project synchronised with the grid on date 28.08.2019 at 23.50HRs as per MOM on dtd 28.08.2019.

This certificate is issued on request letter dated 30.08.2019 from M/s. Sahakar Maharshi Shivajirao Narayanrao Nagawade Sahakari Sakhar Karkhana Ltd , Shrigonda Factory,Tal-Shrigonda Dist. Ahmednagar.Cons.No.153209014050.

(Santosh Sangale),
Superintending Engineer
Ahmednagar

To,
M/s. M/s. Sahakar Maharshi Shivajirao Narayanrao Nagawade Sahakari Sakhar Karkhana Ltd ,
Shrigonda Factory,Tal-Shrigonda
Dist. Ahmednagar.Cons.No.153209014050

Copy S.w.rs.to:
1) The Chief Engineer (Comm), MSEDCL, Prakashgad, Mumbai 400051.
2) The Chief Engineer, MSEDCL, Nashik Zone, Nashik.
3) The Chief Engineer, MSETCL, EHV O & M zone, Nashik.

Purpose of the project activity:

The PP has set up an integrated new sugar mill with sugar crushing capacity of 5000 TCD and installs 26 MW commissioning on 28/08/2019 Bagasse based Cogeneration power plant. This will remove the dependency of the sugar mill on the power supplied from the state grid. Power generated from this project activity will be used for meeting plant requirement. After fulfilling its captive energy requirement, remaining power will

be sold to the state grid as per the Power Purchase Agreement.

The Co-gen power project of 26 MW capacity is operating on bagasse only for 120 to140 days during season days. At the designed level, the project has generated clean energy and after meeting the captive requirement the excess energy has been exported to the Maharashtra State Energy Distribution Company Limited (MSEDCL). All the steam and power requirements of the sugar mill and co-generation power plant are met from the plant itself.

The purpose of the project activity is to generate electricity using renewable biomass (i.e. Bagasse) and thereby reduce GHG emissions by displacing the fossil fuel dominated grid based electricity with biomass based renewable electricity. The electricity produced by the project is directly contributing to climate change mitigation by reducing the anthropogenic emissions of greenhouse gases (GHGs) into the atmosphere by displacing an equivalent amount of fossil power at grid. Hence, project activity is displacing the electricity generation i.e., **75,834 MWh** from the Indian grid system, which otherwise would have been generated by the operation of fossil fuel-based grid-connected power plants. The project activity doesn't involve any GHG emission sources. The CO2e emission reductions by the project activity are **60,871 tCO2e**.

The project activity employs 26 MW aggregated generator along with a boiler of **140 TPH** with high pressure and temperature configuration (**87Kg/Cm²**, 515°C).

Site Photos

The project activity is the construction and operation of a power-plant/unit that uses renewable energy sources and supplies electricity to the grid as well as generate heat for the captive consumption at 5000 TCD sugar mill. The project activity is thus the displacement of electricity that would be provided to the grid by more-GHG-intensive means and provides long-term benefits to the mitigation of climate change.

b) Brief description of the installed technology and equipment>>

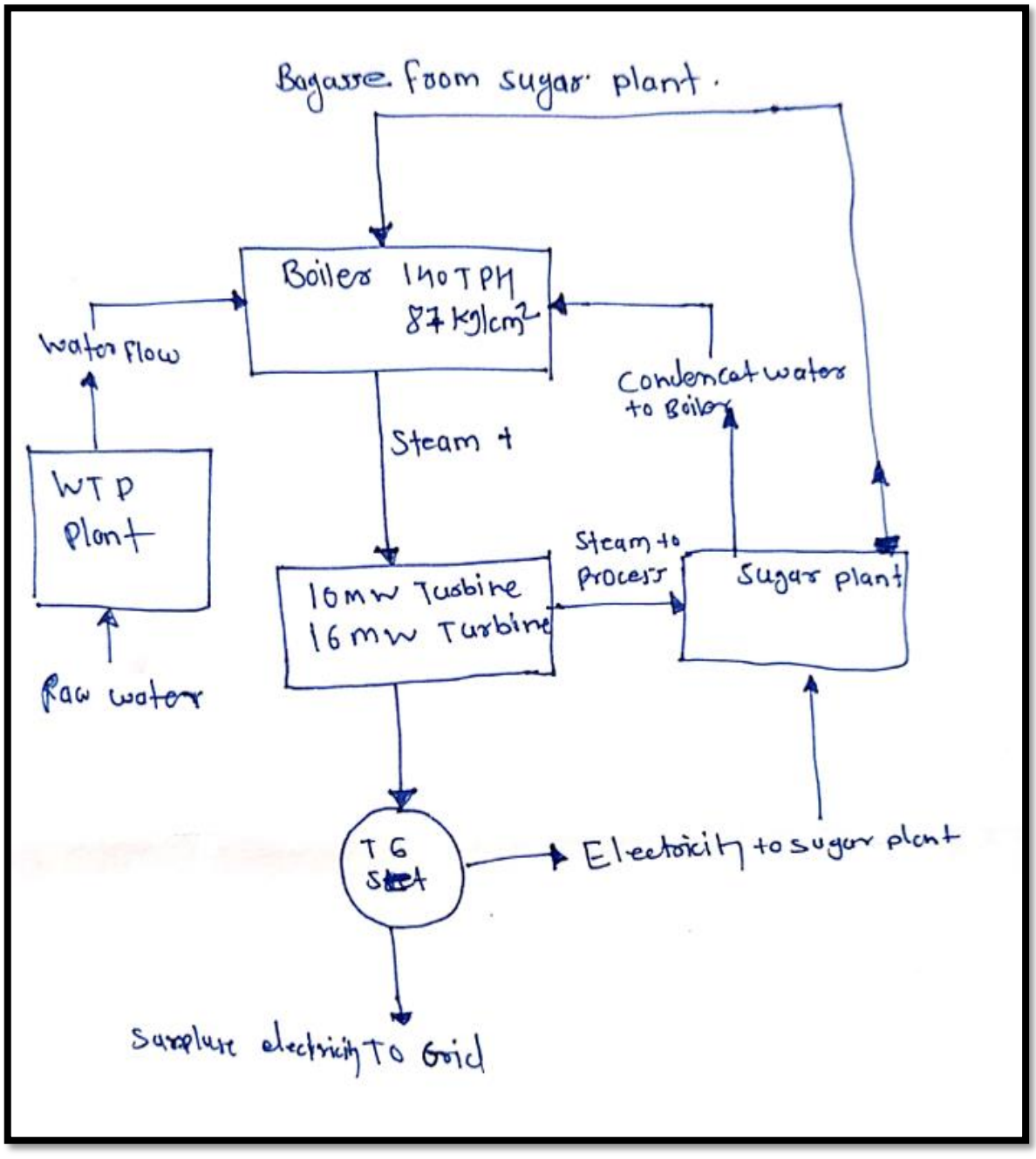
The project activity involves a **140 TPH** boiler with high pressure and temperature configuration (88kg/cm^{2}ata and 515 °C).

Some of the salient features of the project equipment can be found in the below mentioned table:

Boiler	No. 1
Manufacturer	SS Engineers, Pune
Registration No.	MR/ 17782
Capacity	140TPH
Type	Water Tube
Steam Temperature	515°C +-5°C
Design Pressure	100Kg/Cm²
Main Fuel	Bagasse

Turbine	No. 1	No. 2
Power Rated (KW)	10000	14800
Turbine Speed (RPM)	8303	7034
Gear Box Type	Double Helical	Double Helical
Steam Exhaust Pressure	1.5(Kg/cm²g)	2.48(BARA)
Oil Cooler Type	Shell & Tube	Shell & Tube

The Project activity in a **process flow diagram** can be expressed as below:



c) Relevant dates for the project activity (e.g., construction, commissioning, continued operation periods, etc.)>>

The duration of the crediting period corresponding to the monitoring period is covered in this monitoring report.

UCR Project ID	:	**441**
Start Date of Crediting Period	:	01/01/2021
The project was commissioned on	:	31/12/2023

d) Total GHG emission reductions achieved or net anthropogenic GHG removals by sinks achieved in this monitoring period>>

The total GHG emission reductions achieved in this monitoring period is as follows:

Summary of the Project Activity and ERs Generated for the Monitoring Period	
Start date of this Monitoring Period	01/01/2021
Carbon credits claimed up to	31/12/2023
Total ERs generated (tCO_{2eq})	**60,871 tCO2eq**

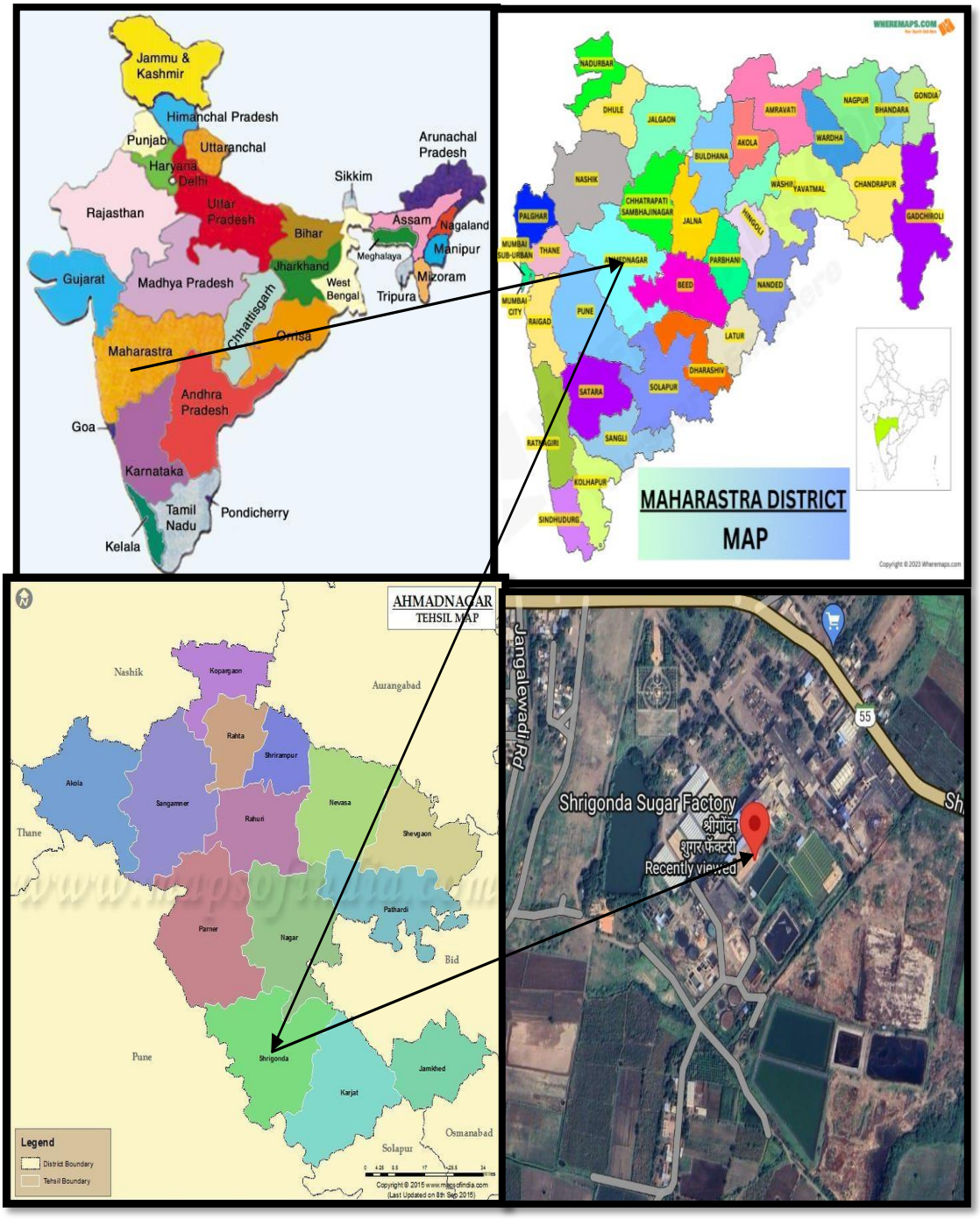
A.1. Location of project activity>>

The site is located at rural surroundings and it is 2.5 km and 8 km, 60 km away from Shrigonda Railway Station, Shrigonda town, Baramati respectively.

It is in the midst of cane growing area but not itself a prime agricultural land. It is geographically located in 180 35’19.95" N latitude and 74° 37' 11.62" E longitude. The premises is about 80 acres and from which about 15 acres land used for this co-gen project and as much as about 1/3 of which is already planned to be brought under the honest green-belt and landscaping. A 2.5 meter high perimeter wall in random rubble masonry or fencing will be erected all around the boundary. The site is 23 km away from Pune- Solapur Highway no.NH9.

There is no sensitive establishment in the vicinity such as health resort, hospital, archaeological monuments, sanctuaries, etc. The normal wind direction is found to be favorable at this site. All villages are away. All are provided with drinking water from wells or Government Water Supply Schemes RWS.

Country	:	India
Village	:	Shrigonda
State	:	Maharashtra
Latitude	:	18°35'26"N
Longitude:		74°37'08"E



A.2. Parties and project participants >>

Party (Host)	Participants
India	**Project Owner:** M/s Sahakar Maharshi Shivajirao Narayanrao Nagawade Sahakari Sakhar Karkhana Ltd. Dist. Ahmednagar Maharashtra. **Project Aggregator:** Climekare sustainability Pvt. Ltd**.** **UCR ID**: 336812961

Table 3

A.3. References to methodologies and standardized baselines >>

TYPE - Renewable Energy Projects

SECTORAL SCOPE - 01 Energy industries (Renewable/Non-Renewable Sources)

CATEGORY - ACM0006: "Electricity and heat generation from biomass" Version 16.0

A.4. Crediting period of project activity >>

Start date : **01/01/2021**

Crediting period corresponding to this monitoring period **:** **3 Year**

01/01/2021 to 31/12/2023 (Both the dates are inclusive)

A.5. Contact information of responsible persons/entities >>

Consultant: Climekare Sustainability Pvt. Ltd.

Email: sustainability@climekare.com

Phone: 9811752560

UCR ID: 336812961

SECTION B. Implementation of project activity

B.1. Description of implemented registered project activity >>

a) Provide information on the implementation status of the project activity during this monitoring period in accordance with UCR PCN>>

The total Co-gen power project of 26 MW capacity operates on bagasse for around 160 season days of the sugar mill operation.

b) For the description of the installed technology, technical process and equipment, include diagrams, where appropriate>>

All the steam and power requirements of the sugar mill and Co-gen power plant will be met internally from the project itself. The excess electricity generated is exported to the grid. The project activity employs **one boiler and two turbo-generators**. The technical details of the project activity can be found out in **section A. (b)** of the document.

B.2 Do no harm or Impact test of the project activity>>

There are social, environmental, economic and technological benefits which contribute to sustainable development.

Social benefits:

- The project activity contributes to employment generation in the local area for both skilled & unskilled people for operation and maintenance of the equipment. The project creates several permanent jobs.
- It has created steady higher value jobs and skilled workers at the facility. The project activity is contributing to the national energy security by reducing consumption of fossil fuels.
- The technology being used in the project is proven and safe for power generation. An increase in such kind of projects shall enable all the technology suppliers to continuously innovate and modernize on the technology front. The local people will know the technological advancement and will help in capacity building.

Environmental benefits:

- The project activity is a renewable energy project, which utilizes biomass as a fuel for power generation and heat, a move that is voluntary and not mandated under current environmental laws of India. Since this project activity generates green energy in the form of power and heat, it has positively contributed towards the reduction in (demand) use of finite natural resources like coal, gas and oil, minimizing depletion and in turn increasing its availability to other important purposes. Therefore, this project activity helps to environment sustainability by reducing GHG emission in the atmosphere.
- Indirect capacity building by providing a case example to other sugar mills in the region for switching to high capacity cogeneration configuration, for electricity generation. In addition to the reduction in carbon dioxide (CO2) emissions the project implementation will result in reduction of other harmful gases (NOx and SOx) that arise from the combustion of coal used in power generation. The project activity also leads to reduce ash generation since the ash

content in bagasse is lower than that of Indian coal.

- The bagasse generated in sugar mills in the region is generally in excess and hence get disposed in unplanned ways including dumping into nearby land or rivers. This will be reduced.
- A case was filed in the National Green Tribunal (NGT) concerning an explosion at a sugar factory. The incident involved the rupture of a molasses tank, leading to the release of untreated sewage into the Ghod River. Following the accident, the factory management promptly reported the incident to regulatory authorities, including the Maharashtra Pollution Control Board (MPCB). On the same day, February 10, 2022, MPCB officials visited the site and prepared an onsite observation report. The report link is provided below.

  (https://greentribunal.gov.in/sites/default/files/news_updates/Joint%20Committee%20Report%20in%20OA%20No.85-2022%20(page%20nos.91-124).pdf)

- Subsequently, following the NGT application no. 85/2022 (WZ) and caveat no. 12/2022, the state pollution control board issued directives to the factory to prepare a damage assessment report. In response, the factory management engaged Vasantdada Sugar Institute (VSI), Pune, to conduct the damage assessment. VSI is an NABET-accredited Environment Impact Assessment (EIA) consultant. The detail link of damage assessment report (DAR) is given below,

  (https://drive.google.com/file/d/14CmzuMY076EpseKBG2MwavHPliR3mGaS/view?usp=sharing)

  Some highlights of remedies taken by project proponent are as follow, same also mentioned in DAR.

  - The factory management took immediate action to control and remove the molasses from outside premises. In the control action, the management took following steps:
  - Stopped the flow of molasses in the natural drainage (nalla) by constructing temporary bunds.
  - Deployed tankers to collect the molasses from the nalla
  - Used vehicle mount diesel engine pumps to collect the molasses in tankers.
  - Brought the tankers to the factory premises and stored the molasses from tankers into spent wash storage constructed lagoons of distillery unit.
  - Used scraping material such as bagasse to prevent spread of molasses in the surrounding field.
  - The management could able to control and restrict the flow of molasses within 800 m (aerial distance) from the distillery premises.
  - Prevented the spread molasses in the surrounding agriculture and/ or open land to maximum extent.
  - Closed the distillery operation till the action of molasses removal from natural environment gets completed.

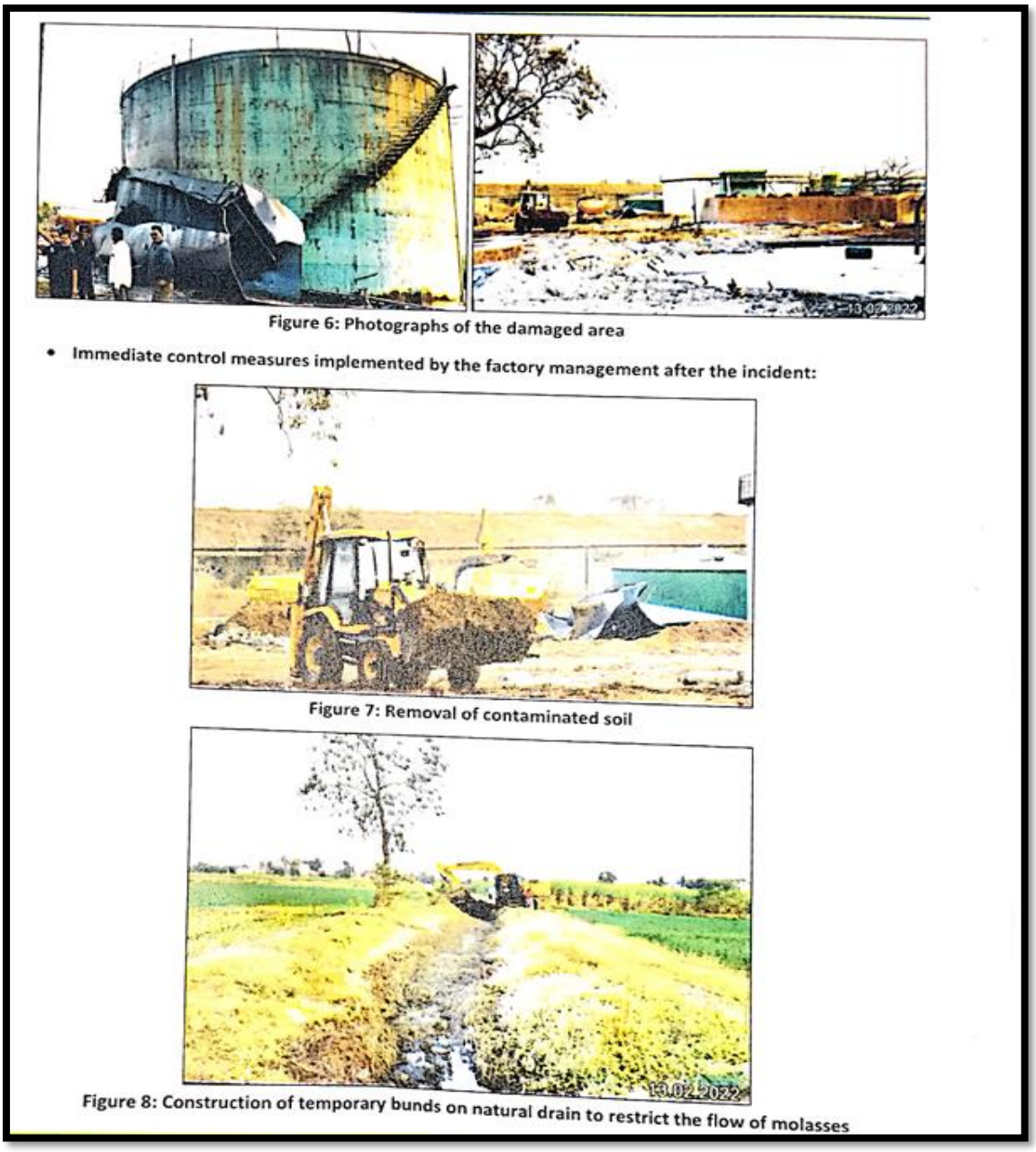


Figure 6: Photographs of the damaged area

- Immediate control measures implemented by the factory management after the incident:

Figure 7: Removal of contaminated soil

Figure 8: Construction of temporary bunds on natural drain to restrict the flow of molasses

Image: Photograph's taken during remedial action.

- Reply on behalf of respondent (Project proponent) in this case, (https://greentribunal.gov.in/sites/default/files/news_updates/Reply%20by%20R-1%20in%20OA%20No.85-2022%20(page%20nos.160-243).pdf)

- After reviewing all the damage assessment reports and responses from the respondents (Project proponent), the Maharashtra Pollution Control Board (MPCB) granted consent to operate to the project proponent. The letter as follows,

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
Fax: 24023516
Website: http://mpcb.gov.in
Email: cac-cell@mpcb.gov.in

Kalpataru Point, 2nd and 4th floor, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai-400022

No:- Format1.0/CAC/UAN No.MPCB-CONSENT-0000113835/CR-2112001256 **Date: 23/12/2021**

To,
Sahakar Maharshi Shivajirao Narayanrao Nagawade SSK Ltd.,
Plot No 52/2, Limpangaon Village,
Tal- Shrigonda, Dist. - Ahmednagar.

Your Service is Our Duty

Sub: **Renewal of Consent for 3500 TCD with amalgamation of 26 MW Co-generation unit, under RED category.**

Ref:
1. **Earlier consent granted vide no. Format1.0/CAC-CELL/UAN NO.0000022957-17/R/CAC-1709000637 dated 16.09.2017.**
2. **Earlier consent granted vide no. Format1.0/CAC/UAN No.MPCB-CONSENT-0000069715/CO-2101001161 dated 28.01.2021**
3. **Minutes of 7th CAC meeting held on 13.10.2021 & 29.10.2021.**

Your application No.MPCB-CONSENT-0000113835 Dated 04.08.2021

For: grant of Consent to Renewal under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. **The Consent to Renewal is granted upto: 31.07.2022**
2. **The capital investment of the industry is Rs.89.6793 (Sugar unit) + 130.4350 (Co-generation unit) Total - 220.1143 Crs. Crs. (As per C.A Certificate submitted by industry).**
3. **Consent is valid for the manufacture of:**

Sr No	Product	Maximum Quantity	UOM
1	Sugar	15840	MT/M
2	MOLASSES	5760	MT/M
3	PRESS MUD	5760	MT/M
4	BAGASSE	40320	MT/M
5	Co-generation	26	MW

Pollution Board Consent to Operate for the period upto 31/07/2022

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
Fax: 24023516
Website: http://mpcb.gov.in
Email: cac-cell@mpcb.gov.in

Kalpataru Point, 2nd and 4th floor, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai-400022

No:- Format1.0/CAC/UAN No.MPCB-CONSENT-0000139366/CR/2211000908

Date: 11/11/2022

To,
Sahakar Maharshi Shivajirao Narayanrao Nagawade SSK Ltd.,
Plot No 52/2, Limpangaon Village,
Tal- Shrigonda, Dist. - Ahmednagar.

Your Service is Our Duty

Sub: **Renewal of Consent for 3500 TCD sugar and 26 MW Co-generation unit, under RED category.**

Ref:
1. **Earlier consent granted vide no. Format1.0/CAC-CELL/UAN No. MPCB-CONSENT-0000113835/CR-2112001256 dated 23.12.2021.**
2. **Minutes of 6th CAC meeting held on 30.08.2022.**

Your application No.MPCB-CONSENT-0000139366 Dated 15.06.2022

For: grant of Consent to Renewal under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. **The Consent to Renewal is granted upto: 31.07.2023**
2. **The capital investment of the industry is Rs.Existing - 220.1143 Crs. + Expansion - 6.6896 Crs. Total - 226.8039 Crs. Crs. (As per C.A Certificate submitted by industry).**
3. **Consent is valid for the manufacture of:**

Sr No	Product	Maximum Quantity	UOM
1	Sugar	15840	MT/M
2	Molasses	5760	MT/M
3	Press mud	5760	MT/M
4	Bagasse	40320	MT/M
5	Co-generation	26	MW

3.

4. **Conditions under Water (P&CP) Act, 1974 for discharge of effluent:**

Sr No	Description	Permitted in CMD	Standards to	Disposal
1.	Trade effluent	398	As per Schedule -I	48 CMD shall be 100 % recycle & 350 CMD shall be used on land for irrigation.

Pollution Board Consent to Operate for the period upto 31/07/2023

MAHARASHTRA POLLUTION CONTROL BOARD

Tel: 24010706/24010437
Fax: 24023516
Website: http://mpcb.gov.in
Email: cac-cell@mpcb.gov.in

Kalpataru Point, 2nd and 4th floor, Opp. Cine Planet Cinema, Near Sion Circle, Sion (E), Mumbai-400022

No:- Format1.0/CAC/UAN No.MPCB-CONSENT-0000174430/CR/2310001612

Date: 22/10/2023

To,
Sahakar Maharshi Shivajirao Narayanrao Nagawade SSK Ltd.,
Plot No 52/2, Limpangaon Village,
Tal- Shrigonda, Dist. - Ahmednagar. Maharashtra

LiFE Lifestyle for Environment

Your Service is Our Duty

Sub: Renewal of consent to operate

Ref:

1. **Earlier consent granted vide no. Format1.0/CAC/UAN No.MPCBCONSENT-0000139366/CR/2211000908 dated 11.11.2022.**
2. **Minutes of 11th CAC meeting held on 30.08.2023.**
3. **Application submitted by Industry vide UAN no. MPCB-CONSENT-0000174430 for consent to operate**

Your application No.MPCB-CONSENT-0000174430 Dated 30.06.2023

For: Grant of Consent to Renewal under Section 26 of the Water (Prevention & Control of Pollution) Act, 1974 & under Section 21 of the Air (Prevention & Control of Pollution) Act, 1981 and Authorization under Rule 6 and Rule 18(7) of the Hazardous & Other Wastes (Management & Transboundary Movement) Rules 2016 is considered and the consent is hereby granted subject to the following terms and conditions and as detailed in the schedule I, II, III & IV annexed to this order:

1. **The Consent to Renewal is granted upto: 31.07.2024**
2. **The capital investment of the industry is Rs.Existing - Rs. 226.8039 Crs. + Expansion - Rs. 79.152 Crs. Total - Rs. 305.9559 Crs. Crs. (As per C.A Certificate submitted by industry).**
3. **Consent is valid for the manufacture of:**

Sr No	Product	Maximum Quantity	UOM
1	Sugar	15840	MT/M
2	Molasses	5760	MT/M
3	Press mud	5760	MT/M
4	Bagasse	40320	MT/M
5	Co-generation	26	MW

Pollution Board Consent to Operate for the period upto 31/07/2024

STATE LEVEL ENVIRONMENT IMPACT ASSESSMENT AUTHORITY

Environment department,
Room No. 217, 2nd floor,
Mantralaya, Annexe,
Mumbai- 400 032.
Date:September 11, 2019

To,
M/s Sahakar Maharshi Shivajirao Narayanrao Nagawade SSK Ltd.
at Gat. No. 52/2

Subject: Environment Clearance for Proposed 26 MW bagasse based Co-generation unit

Sir,

This has reference to your communication on the above mentioned subject. The proposal was considered as per the EIA Notification - 2006, by the State Level Expert Appraisal Committee-I, Maharashtra in its 161st meeting and recommend the project for prior environmental clearance to SEIAA. Information submitted by you has been considered by State Level Environment Impact Assessment Authority in its 174th meetings.

2. It is noted that the proposal is considered by SEAC-I under screening category Category B, Sr. No. 1 (d) as per EIA Notification 2006.

Brief Information of the project submitted by you is as below :-

1.Name of Project	Proposed 26 MW bagasse based co-generation unit by M/s Sahakar Maharshi Shivajirao Narayanrao Nagawade SSK Ltd, Plot No 52/2, Limpangaon Village, Tal- Shrigonda, Dist- Ahmednagar, Maharashtra
2.Type of institution	Private
3.Name of Project Proponent	M/s Sahakar Maharshi Shivajirao Narayanrao Nagawade SSK Ltd.
4.Name of Consultant	M/s SGM Corporate Consultants Pvt. Ltd.
5.Type of project	Industrial Project
6.New project/expansion in existing project/modernization/diversification in existing project	It is a Proposed New Project of 26 MW bagasse based Co-generation Plant with 180 Operational days.
7.If expansion/diversification, whether environmental clearance has been obtained for existing project	Not Applicable
8.Location of the project	Gat. No. 52/2
9.Taluka	Shrigonda
10.Village	Limpangaon
Correspondence Name:	Mr. R.S.Naik
Room Number:	Gat. No. 52/2
Floor:	Not Applicable
Building Name:	M/s Sahakar Maharshi Shivajirao Narayanrao Nagawade SSK Ltd.
Road/Street Name:	Not Applicable
Locality:	Village- Limpangaon, Tal- Shrigonda, District- Ahmednagar
City:	Shrigonda
11.Whether in Corporation / Municipal / other area	Grampanchayat Limpangaon
12.IOD/IOA/Concession/Plan Approval Number	Not Applicable **IOD/IOA/Concession/Plan Approval Number:** Not Applicable **Approved Built-up Area:** 5545
13.Note on the initiated work (If applicable)	Not Applicable
14.LOI / NOC / IOD from MHADA/ Other approvals (If applicable)	Not Applicable
15.Total Plot Area (sq. m.)	331800
16.Deductions	Not applicable

Explanation of release of untreated sewage into the Ghod river of the case on behalf of PP:

Water and effluent management – sugar industry Main source of water is Ghod Left Bank Canal and the industry has obtained permission from Irrigation Dept., Pune for withdrawal of water. As per the records, the average daily consumption of fresh water is 800 m3/day and mainly used for process (cooling water & machinery cleaning water) @ 240 m3/day, utilities i.e. sugar industry boiler feed @ 600 m3/day, cooling tower make-up & ancillary activities @ 220 m3/day and domestic purpose @ 25 m3/day respectively**.**

The main sources of effluent generation from process are; mill house section, boiling house section (multiple effect evaporators), vacuum pans, centrifugal section, process condensate contaminated with concentrated juice, ancillary activities (rotary vacuum filter cleaning & gland leakages from pumps, pipelines etc.) and fresh water RO reject & boiler blowdown streams. The management of process effluent & condensate and condensate/blowdown streams from utilities are briefed as follows: ¬

Process effluent management: Effluent generating from mill house section, centrifugal section & boiling house section is collected separately and channelized into ETP for treatment. The industry has provided ETP of reported designed capacity of 1,000 m3/day and the reported effluent generation from the process is about 850 m3/day (at full cane crushing capacity), out of which fresh water RO reject & utility boiler blowdown @ 250 m3/day is recycled in the process. Hence, the actual effluent generation from the process is 600 m3/day.

The various unit operations & processes of ETP are; Process effluent ◊ V Notch chamber ◊ Bar screen chamber ◊ Grit chamber ◊ O&G skimmer ◊ Surge tank ◊ Equalization tank with sparge aeration (lime addition) ◊ Primary clarifier ◊ Anaerobic holding tank-1 & 2 ◊ Anaerobic filter ◊ Bio tower ◊ Tube settler ◊ Activated sludge process ◊ Secondary clarifier (with RAS recycling) ◊ Supernatant collection tank ◊ Pressure sand filter ◊ Activated Sand filter ◊ Treated effluent collection tank ◊ Treated effluent discharge to unlined lagoon (15 day storage capacity) for irrigation as per CTO conditions.

Primary & secondary sludge from tube settler & clarifiers ◊ Sludge holding tank ◊ Sludge drying beds (02 nos., 20x5x2 m each) ◊ Soil conditioner.

Process condensate management: As informed, excess condensate from multiple effect evaporators & pan evaporators are collected separately and treated in newly commissioned ETP – condensate polishing unit (CPU). The industry has provided separate ETP (CPU) of reported designed capacity of 1,200 m3/day.

The various unit operations & processes of ETP (CPU) are; Excess condensate ◊ Two stage cooling tower ◊ Equalization tank with diffused aeration ◊ Anaerobic filter ◊ Activated sludge process ◊ Secondary clarifier ◊ Flash mixer (with addition of alum & poly electrolyte) ◊ Filter feed tank ◊ Chlorination ◊ Multi grade filter ◊ Activated Sand filter ◊ Treated condensate collection tank ◊ Treated condensate is reused in recirculation pump cooling & its accessories and spray pond make-up. Also, treated condensate is reused in utilities (cooling tower make-up) after treatment through softner. Excess treated condensate is channelized to fresh water reservoir for reuse in process (sugar & distillery unit).

Secondary sludge from clarifiers of CPU of sugar & distillery industry is handled in a common sludge drying bed of ETP of sugar industry.

All this treated water is used for agricultural purposes. To facilitate this, the sugar factory has signed agreements with individual farmers, specifying that the water is strictly for agricultural use. Each farmer ensures that the water is used exclusively for this purpose.

Economic benefits:

- The project activity creates employment opportunities during the project stage and operation and maintenance of the Co-gen power plant.
- The project activity helps in conservation of fast depleting natural resources like coal and oil thereby contributing to the economic wellbeing of country as a whole.
- The increase in demand of bagasse exerted by the project has had a local effect on its price and generates additional revenue for the sugarcane farmers. The project activity results in saving the coal and allowing it to be diverted to other needy section of the economy.
- The various other benefits due to the project activity ensure that the project is contributing to the sustainable development of the region by bringing in green technologies and processes to a backward region. The technology is indigenous and by implementing such projects the country is showcasing its GHG mitigation actions in its efforts to combat climate change.

Technological well-being:

- The project activity leads to the promotion of cogeneration power plant into the region and will promote practice for small scale industries to reduce the dependence on carbon intensive grid supply to meet the captive requirement of electrical energy and also increasing energy availability and improving quality of power under the service area. Hence, the project leads to technological well-being.

B.3. Baseline Emissions>>

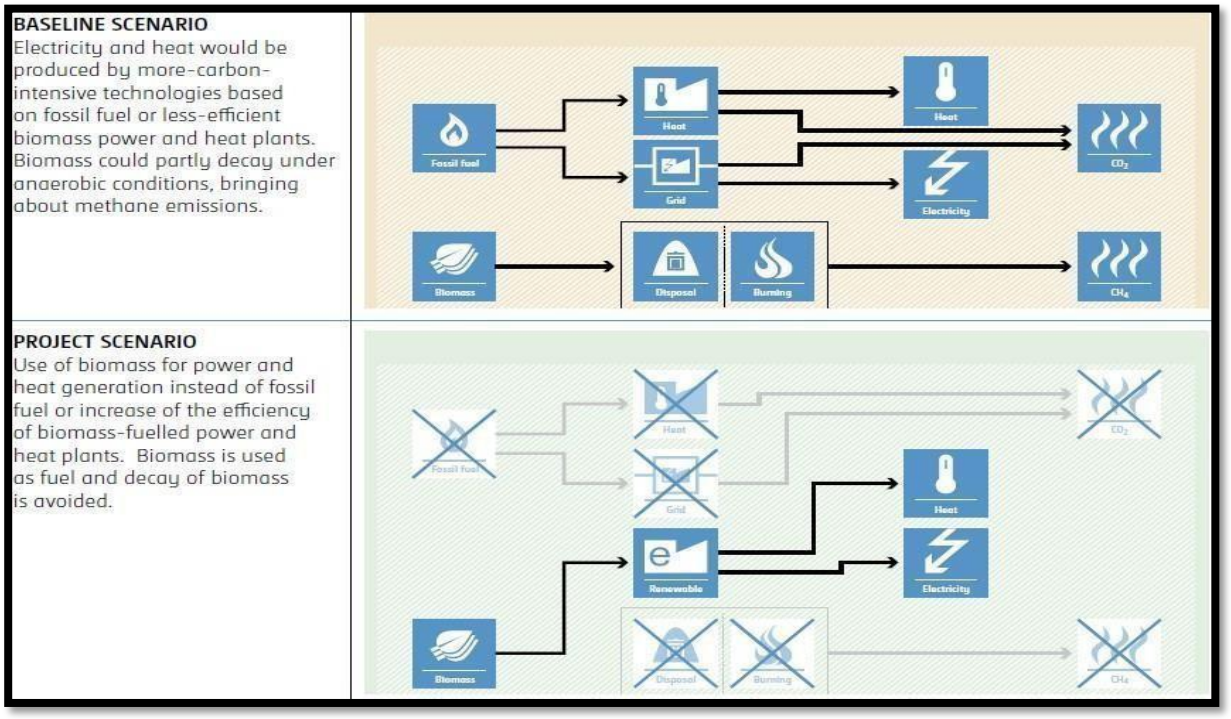
In the absence of the project activity, the equivalent amount of electricity would have been imported from the regional grid (which is connected to the unified Indian Grid system (NEWNE Grid)), which is carbon intensive due to predominantly sourced from fossil fuel-based power plants.

Baseline Scenario:

The approved and adapted baseline methodology has been referred from the indicative simplified baseline and monitoring methodologies for selected large scale UNFCCC CDM project activities that involve generation of power and heat in thermal power plants, including cogeneration plants using biomass.
Typical activities under ACM0006 are new plants, capacity expansions, energy efficiency improvements or fuel switch projects.
The applicable methodology and simplified modalities and procedures for small scale CDM

project activities is: “the baseline scenario is displacement of more-GHG-intensive electricity generation in grid.”

Thus, this project activity was a voluntary investment which replaced equivalent amount of electricity from the Indian grid. The continued operation of the project activity would continue to replace fossil fuel-based power plants and fight against the impacts of Climate change.



B.4. De-bundling>>

This project activity is not a de-bundled component of a larger project activity.

SECTION-C: Application of methodologies and standardized baselines

C.1. References to methodologies and standardized baselines >>

Sectoral Scope: 01 Energy industries (Renewable/Non-Renewable Sources).

TYPE I – Renewable Energy Projects.

Applied Baseline Methodology: ACM0006: “Electricity and heat generation from biomass” Version 16.0

C.2. Applicability of methodologies and standardized baselines >>

The project activity involves generation of grid connected electricity from the construction and operation of a cogeneration power-based project and selling the additional generation to the national grid. The project activity has installed capacity of **26 MW** which will qualify for a **large-scale project activity under Type-I** of the Large-Scale methodology. The project status is corresponding to the methodology **ACM0006, Version 16** and applicability of methodology is discussed below:

Applicability Criteria	Project Condition
1. The methodology is applicable under the following conditions: (a) Biomass used by the project plant is limited to biomass residues, biogas, RDF2 and/or biomass from dedicated plantations; (b) Fossil fuels may be co-fired in the project plant. However, the amount of fossil fuels co-fired does not exceed 25% of the total fuel fired on energy basis. (c) For projects that use biomass residues from a production process (e.g., production of sugar or wood panel boards), the implementation of the project does not result in an increase of the processing capacity of (the industrial facility generating the residues) raw input (e.g., sugar, rice, logs, etc.) or in other substantial changes (e.g., product change) in this process; (d) The biomass used by the project plant is not stored for more than one year; (e) The biomass used by the project plant is not processed chemically or biologically (e.g., through esterification,fermentation, hydrolysis, pyrolysis, bio- or chemical-degradation, etc.) prior to combustion. Drying and mechanical processing, such as shredding and palletization, are allowed	**1.** The project is implemented to use 100% of the bagasse in the crushing season, the criteria points (b) (c), (d) and (e) are applicable.
2. In the case of fuel switch project activities, the use of biomass or the increase in the use of biomass as compared to the baseline scenario is technically not possible at the project site without a capital investment in: (a) The retrofit or replacement of existing	2. The project is a new greenfield project and hence this criterion is not applicable.

heat generators/boilers; or (b) The installation of new heat generators/boilers; or (c) A new dedicated supply chain of biomass established for the purpose of the project (e.g., collecting and cleaning contaminated new sources of biomass residues that could otherwise not be used for energy purposes); or (d) Equipment for preparation and feeding of biomass.	
3. If biogas is used for power and heat generation, the biogas must be generated by anaerobic digestion of wastewater, and: (a) If the wastewater generation source is registered as a CDM project activity, the details of the wastewater project shall be included in the PDD, and emission reductions from biogas energy generation are claimed using this methodology; (b) If the wastewater source is not a CDM project, the amount of biogas does not exceed 50% of the total fuel fired on energy basis.	3. There is no production of biogas and hence this criterion is not applicable.
4. In the case biomass from dedicated plantations is used, the "TOOL16: Project and leakage emissions from biomass" shall apply to determine the relevant project and leakage emissions from cultivation of biomass and from the utilization of biomass residues.	4. The bagasse produced as a waste of the sugar mill is being used for the generation of steam, and during, and hence this criterion is also not applicable.

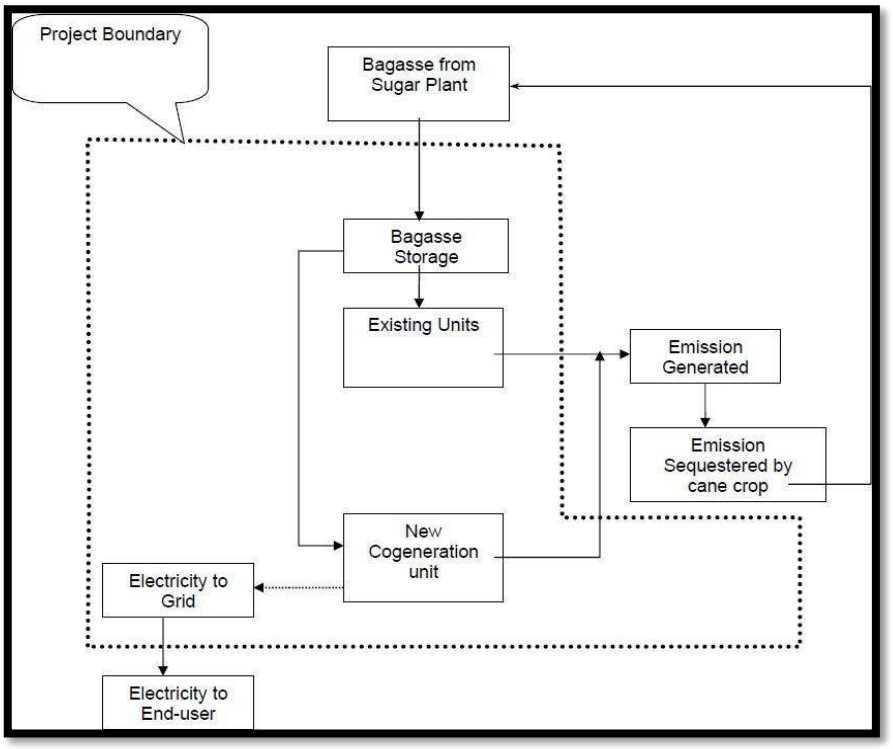
C.3Applicability of double counting emission reductions >>

The project was not applied under any other GHG mechanism. Hence project will not cause double accounting of carbon credits (i.e., COUs).

C.4. Project boundary, sources and greenhouse gases (GHGs)>>

The spatial extent of the project boundary encompasses:

1. All plants generating power and/or heat located at the project site, whether fired with biomass, fossil fuels or a combination of both.
2. All power plants connected physically to the electricity system (grid).



By using GHG-neutral biomass (Bagasse), the PP is successfully able to avoid the fossil fuel emissions and thereby GHG emissions due to in-house cogeneration energy requirements and also vehicular emissions avoiding sourcing of biomass fuel from a large distance.

	Source	GHG	Included?	Justification/Explanation
Baseline	CO_2 Emissions from burning of fossil fuels in boilers	CO_2	**Included**	Major source of GHG emissions
		CH_4	Excluded	Excluded for simplification.
		N_2O	Excluded	Excluded for simplification.
Project Activity	Emissions from Biomass Project Activity	CO_2	Excluded	Excluded for simplification.
		CH_4	Excluded	Excluded for simplification.
		N_2O	Excluded	Excluded for simplification.

C.5. Establishment and description of baseline scenario (UCR Protocol) >>

As per para 20 of the approved consolidated methodology ACM0006 Version 16, if the project activity is the installation of a new grid-connected renewable power plant/unit, the baseline scenario is the following:

"All plants generating power and/or heat located at the project site, whether fired with biomass, fossil fuels or a combination of both".

Net GHG Emission Reductions and Removals

- Emission reductions are calculated as follows:

$$ER_y = BE_y - PE_y - LE_y$$

Where,

ER_y = Emissions reductions in year y (t CO_2)

BE_y = Baseline emissions in year y (t CO_2)

PE_y = Project emissions in year y (t CO_2)

LE_y = Leakage emissions in year y (t CO_2)

- The Baseline emissions in year y can be calculated as follows:

$$BE_y = EL_{MWhy} \text{ X } EF_{Gridy}$$

Where,

EL_{MWhy} = Quantity of net electricity supplied to the grid as a result of the implementation of the project activity in year y (MWh)

EF_{Gridy} = Grid emission factor in year y (t CO_2/MWh)

BE_y = 75,843 * 0.9 = 68,249 t CO_2

- Since this is a biomass fired cogeneration project, emission reduction is calculated for the net electricity imported to the grid. This amount will be deducted from the total value of emission reduction post-ante.

Project emissions (**PE_y**) involve emissions resulting from the cultivation of biomass, transportation of biomass, processing of biomass, transportation of biomass residues and processing of biomass residues. As an alternative to the monitoring of the parameters needed to calculate the emissions from the biomass (sugarcane) transportation, PP is allowed to apply the following option:

Project emissions are calculated as follows:

$$PE_y = PE_{Biomas,y} + PE_{FF,y} + PE_{GR1,y} + PE_{GR2,y} + PE_{CBR,y} + PE_{BG2,y}$$

Where:

PE_y	=	Project emissions in year *y* (t CO_2)
$PE_{Biomass,y}$	=	Project emissions associated with the biomass and biomass residues in year *y* (t CO_2)
$PE_{FF,y}$	=	Emissions during the year *y* due to fossil fuel consumption at the project site (t CO_2)
$PE_{GR1,y}$	=	Emissions during the year *y* due to grid electricity imports to the project site (t CO_2)
$PE_{GR2,y}$	=	Emissions due to a reduction in electricity generation at the project site in year *y* (t CO_2)
$PE_{CBR,y}$	=	Emissions from the combustion of biomass during the year *y* (t CO2e)
$PE_{BG2,y}$	=	Emissions from the production of biogas in year *y* (t CO2e)

- **PETy** = Default project emissions as per UCR notification dated 04/10/2023 has been applied following the provisions from the TOOL12

For large-scale project activities, a net-to-gross adjustment of 10%, i.e. the emission reductions determined based on the applied methodology by 0.9 to determine the final amount of emission reductions that can be claimed per vintage.

PET = (68,249 * 10%) = 6,823 t CO_2 (Round down)

$PE_{FF,y}$	=	Emissions during the year *y* due to fossil fuel consumption at the project site (t CO_2)

- CO2 emissions from fossil fuel combustion in process j are calculated based on the quantity of fuels combusted and the CO2 emission coefficient of those fuels, as follows:

$$PEFC,j,y = \sum FCi,j,y \times COEFi,y\ i$$

Where:

$PEFC,,$ = Are the CO2 emissions from fossil fuel combustion in process j during the year y (tCO2/yr)

$FCi,,$ = Is the quantity of fuel type i combusted in process j during the year y (mass or volume unit/yr)

$COEFi,$ = Is the CO2 emission coefficient of fuel type i in year y (tCO2/mass or volume unit)

i = Are the fuel types combusted in process j during the year y

$$COEFi, = NCVi, \times EFCO2,,$$

Where:

$COEFi,$ = Is the CO2 emission coefficient of fuel type i in year y (tCO2/mass or volume unit)

$NCVi,$ = Is the weighted average net calorific value of the fuel type i in year y (GJ/mass or volume unit)

= NCV of wood is 15.5 TJ/kg (15.5 GJ/tCO2)

$EFCO2,,$ = Is the weighted average CO2 emission factor of fuel type i in year y (tCO2/GJ)

= Co2 emission coefficient For wood is 100500 kg/TJ (0.1005 tCO2/GJ) (Confirmed from IPCC default values at the upper limit of the uncertainty at a 95% confidence interval as provided in table 1.4 of Chapter1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG)

i = Are the fuel types combusted in process j during the year y

= fuel type combusted in process is wood.

$COEFi, = NCVi, \times EFCO2,,$

= 0.1005*15.5

= 1.557

- It is an integrated Co-gen plant. The biomass is the output of the sugar mill and which is being consumed hence there is no leakage emissions being generated.

$LE_y = 0$

Total Emission reduction by the project for the current monitoring period is calculated as below:

Year	Electricity supplied to grid (mw)	Baseline Emission	PE(T)	PE (FC)	ER
2021	13485.317	12136	1213	258	10665
2022	34263.9	30837	3083	63	27691
2023	28085.3879	25276	2527	234	22515
Total	**75834.6049**	**68,249**	**6,823**	**555**	**60,871**

C.6. Prior History>>

The project activity is a large-scale Biomass cogeneration project and was not applied under any other GHG mechanism prior to this registration with UCR. Also, project has not been applied for any other environmental crediting or certification mechanism. Hence project will not cause double accounting of carbon credits (i.e., COUs).

C.7. Monitoring period number and duration>>

First Monitoring Period : 3 Years

01/01/2021 to 31/12/2023 (inclusive of both dates)

C.8. Changes to start date of crediting period >>

The change in the crediting date is due to:

- The non-compliance with UCR guidelines in 2019 due to the high percentage of fossil fuels in the fuel mix. (Greater than 25%)
- The lack of operational activities in 2020 because of the sugar factory was closed.

The 01/01/2021 start date ensures that all credited emissions reductions or energy generation activities are in full compliance with the relevant guidelines and accurately reflect the operational reality of the project.

C.9. Permanent changes from PCN monitoring plan, applied methodology or applied standardized baseline >>

No permanent changes in monitoring plan and applied methodology.

C.10. Monitoring plan>>

The monitoring of electricity data revolves around the power generation from the turbine generators and the auxiliary consumption of the power plant. All auxiliary units at the power plant are metered and there are also main meters attached to each turbine generator to determine their total generation.

Operational records and other evidences have been documented, collected and archived in either hard-copies or electronic manners. The energy generation is metered by calibrated meters. Steam quantity, temperature and pressure are measured by calibrated meters. All the values can be checked from the source data i.e. Plant records.

The total amount of bagasse generated by the sugar plant can be calculated from the amount of cane crushed in the season (monitored variable), which is obtained from the in Daily records. Therefore, bagasse can be calculated using the formula: Bagasse = Cane + Added water – Juice

The electricity generation from turbines and auxiliary consumption is recorded continuously on an hourly basis by the operators in the shift. At the end of the day this data is collated by the

engineer in charge and signed off by the power plant manager. The steam data is also manually recorded on an hourly basis from the meters. The data is recorded in logbooks by the operators and the engineer in charge collates the data from these log books and stores them electronically. This data is used by engineer in charge to prepare a monthly report and send it to Plant Head for verification. The monthly reports become a part of the Management Information System (MIS) and are reviewed by the management during the quarterly review meeting.

All the meters are checked and calibrated by an independent agency and they are maintained as per the instructions provided by their suppliers. Hence there are no uncertainties or adjustments associated with data to be monitored. An internal audit team, comprising of personnel from the factory but from a department other than utility, reviews the daily reports, monthly reports, procedure for data recording and maintenance reports of the meters. This team checks whether all records are being maintained as per the details provided in the PCN.

All the data and reports will be kept at the offices of the sugar mill until 2 years after the end of the crediting period or the last issuance of CoUs for the project activity, whichever occurs later.

Data/Parameter	**FCi,j,y**
Data unit	Mass unit per year (ton/yr)
Description	Quantity of fuel type i combusted in process j during the year y (Wood)
Source of data Value(s) applied	Onsite measurements
Measurement methods and procedures	Weighing bridge
Monitoring frequency	Yearly.
Purpose of data	Project emission

Data/Parameter	**Electricity exported to grid** MWh/annum
Data unit	MWh
Description	Total export to MSEDCL in MWh – monthly joint meter reading (JMR) statement; summed for annual figure in MWh
Measurement methods and procedures Value(s) applied	<table><tr><td>Year</td><td>MWh exported</td></tr><tr><td>2021</td><td>13485.317</td></tr><tr><td>2022</td><td>34263.9</td></tr><tr><td>2023</td><td>28085.3879</td></tr></table>

Source of data	JMR / Credit note
Monitoring frequency	Meter readings are daily, while the billing is monthly
Purpose of data	Baseline Emissions. The net quantity of electricity generated in the project plant during the year y can be compared with the monthly sales to the connected grid and actual supplied electricity can be verified.

Data/Parameter	**EG project plant, y**
Data unit	MWh
Description	Net quantity of electricity generated in the project plant during the year y
Source	utopian sugar factory - factory records
Measurement methods and procedures	This value will be determined annually from the records maintained at the factory. All auxiliary units at the power plant are metered and there is also a main meters attached to each turbine generator to determine their total generation.
Monitoring frequency	The hourly recordings of data are to be taken from energy meters located at the project activity site. This data is to be recorded hourly by the shift attendant and entered into logbooks on site. This hourly data is to be signed off at the end of every shift by an engineer in charge of the shift and again at the end of each day and signed off by the power plant manager. The energy meters are calibrated annually by an independent third party
QA/QC	Net electricity production has been calculated by deducting auxiliary consumption from gross generation of the plant. Digital meters calibration procedures are planned. Daily productions details are kept in log books and electronic data base. Energy meters are of class 0.2 with tolerance of 0.5%. All Meters are calibrated by accredited external third party, as per standard procedures, periodically.
Data/Parameter	**EF grid,y**
Data unit	Grid Emission Factor
Description	tCO2/MWh
Source of data Value(s) applied	UCR CoU Standard Default for Indian grid **0.9 tCO2/MWh** for the period 2021-2023
QA/QC	The parameter is conservative.
Purpose of data	To estimate baseline emissions

Data/Parameter	**Q biomass,yr**
Data unit	MT/yr
Description	The quantity of bagasse used to generate steam in the boilers each year
Source of data Value(s) applied	Plant records receipts. 2021 76655.08304 2022 182701.4 2023 130737.5
Monitoring frequency	monthly
QA/QC	The amount of Bagasse used can be cross checked by the documents. Quantity of Bagasse has been monitored.

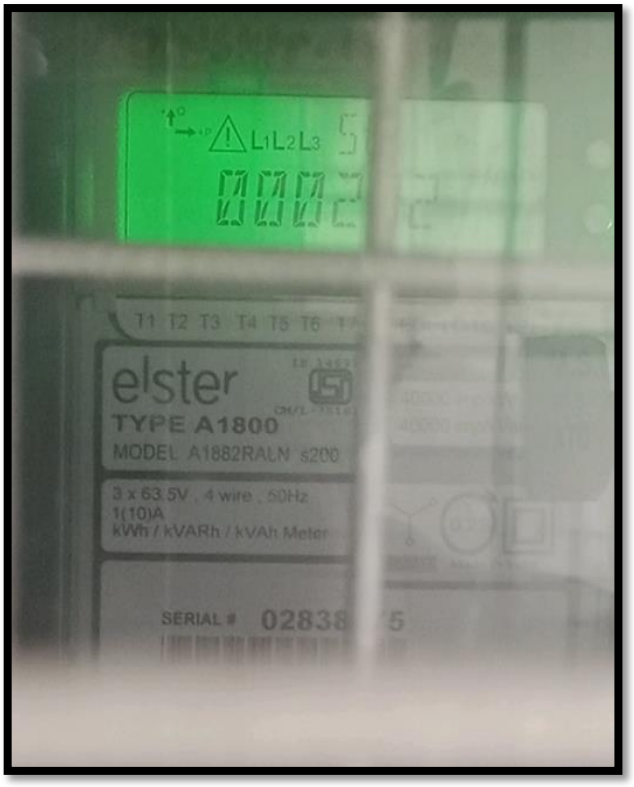
Data/Parameter	**NCV i,y**
Data unit	GJ per mass or volume unit (GJ/ton)
Description	Weighted average net calorific value of fuel type i in year y
Source of data Value(s) applied	IPCC default values at the upper limit of the uncertainty at a 95% confidence interval as provided in Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories
Value	15.5 TJ/kg (15.5GJ/ton) (Wood)
Purpose of data	Quality control

Data / Parameter:	**Moisture content of biomass residues**
Data unit:	% water content
Description	Moisture content of each biomass residue k
Measured /Calculated /Default:	Measured
Source of data:	On-site measurements. The moisture content is measured daily and based on the analysis conducted at laboratory in house. The daily results are determined by science graduates who are trained and follow procedure as defined in the approved revised monitoring plan and internal SOPs part of management system. The monthly average values were used for reporting purpose in the monitoring report.

Value(s) of monitored parameter:	49%
Indicate what the data are used for	Baseline emissions

Data/Parameter	**EFCO2,i,y**
Data unit	tCO2/GJ
Description	Weighted average CO2 emission factor of fuel type i in year y
Source of data Value(s) applied	IPCC default values at the upper limit of the uncertainty at a 95% confidence interval as provided in Table 1.2 of Chapter 1 of Vol. 2 (Energy) of the 2006 IPCC Guidelines on National GHG Inventories
Value	(0.1005GJ/ton) (Wood)
Purpose of data	Quality control

Main meter and Check meter:



Calibration certificate:

Testcal Combustion Systems

TESTCAL COMBUSTION SYSTEMS

HEAD OFFICE: - 637/2B OMKAR NAGER BIBAWADHI PUNE 411037
MOBIL Phone: - + 91- 8010395439 / 9881396861/ 9307742092
Office Email ID: - Tccssystems@gmail.com / Testcalpune@gmail.com / Tccssales@gmail.com
Tccsservice1@gmail.com Website- www.Tccs.com

CALIBRATION CERTIFICATE

1) Customer

Sahakar Maharshi shivajirao Narayanrao Nagawade Sahakari
Sakhar Karkhana LTD
AP- Shrigonda Factory - (413726) Tal. Shrigonda
Dist Ahmednagar

Calibration Certificate No. : SI/SMS/CAL/FT-02

Condition of Item	ok
Challan No.	:--
Date of Received	: 07/03/2024
Date of Calibration	: 07/03/2024
Calibration Due On	: 06/03/2025
Date of issue	: 19/12/2024
Location of Calibration	: On Site
Work Instruction No.	: SI/W/MEC/003

Environmental Condition

Amb. Temp.	:	21 to 40 °C
Relative Humidity	:	<70 %RH

2) Details of UUC

Name	: Flow Transmitter (DP Type)	Instrument Range	:	0 To 10000 mmH2 O
ID/Sr. No	: 17W07 C4000000 3647063	Least Count	:	0.1 mmH2 O
Make	: Honeywell	Model	:	STD730
Accuracy	: ±0.5 % FS			
Location	: Boiler steam O/L flow meter			

3) STANDARD USED FOR CALIBRATION

Name	: Digital Pressure Gauge	Universal Calibrator
Certificate No	: CS/23/LB/MP/672-02	2024/0003
Certified By	: R & D Instrument Services	Instotech
ID/Sr No :	: SIPL/DPG/02/01	SIPL/UC/01
Due Date	: 04/01/2025	02/01/2025

4) CALIBRATION OBSERVATIONS

Input	Reading on UUC	Desire Reading	Actual Reading	Error
MmH2 O	mmH2 O	mA	mA	%
0	0.0	4.00	4.000	0.00
2500	2497.4	12.00	11.996	-0.02
5000	4990.5	15.31	15.303	-0.04
7500	7484.8	17.86	17.842	-0.11
10000	9988.3	20.00	19.990	-0.06

THE STANDARD USED TRACEBLE TO NATIONAL/INTERNATIONAL STANDARD THROUGH CHAIN OF CALIBRATION

Note :

1) This certificate refers only to the particular item submitted for calibration. UUC stands for Unit Under Calibration.
2) This calibration results reported in the certificate are valid at the time of and the stated conditions of measurment.
3) Calibration Points were selected as per customer specification.
4) Expanded Uncertainty in the measurement at 95% C.L. at a coverage factor k=2
5) This certificate shall not be reproduced, except in full unless written permission for the publication of an approved abstract has been obained from the Technical Manager of Stratus Instrumentation.

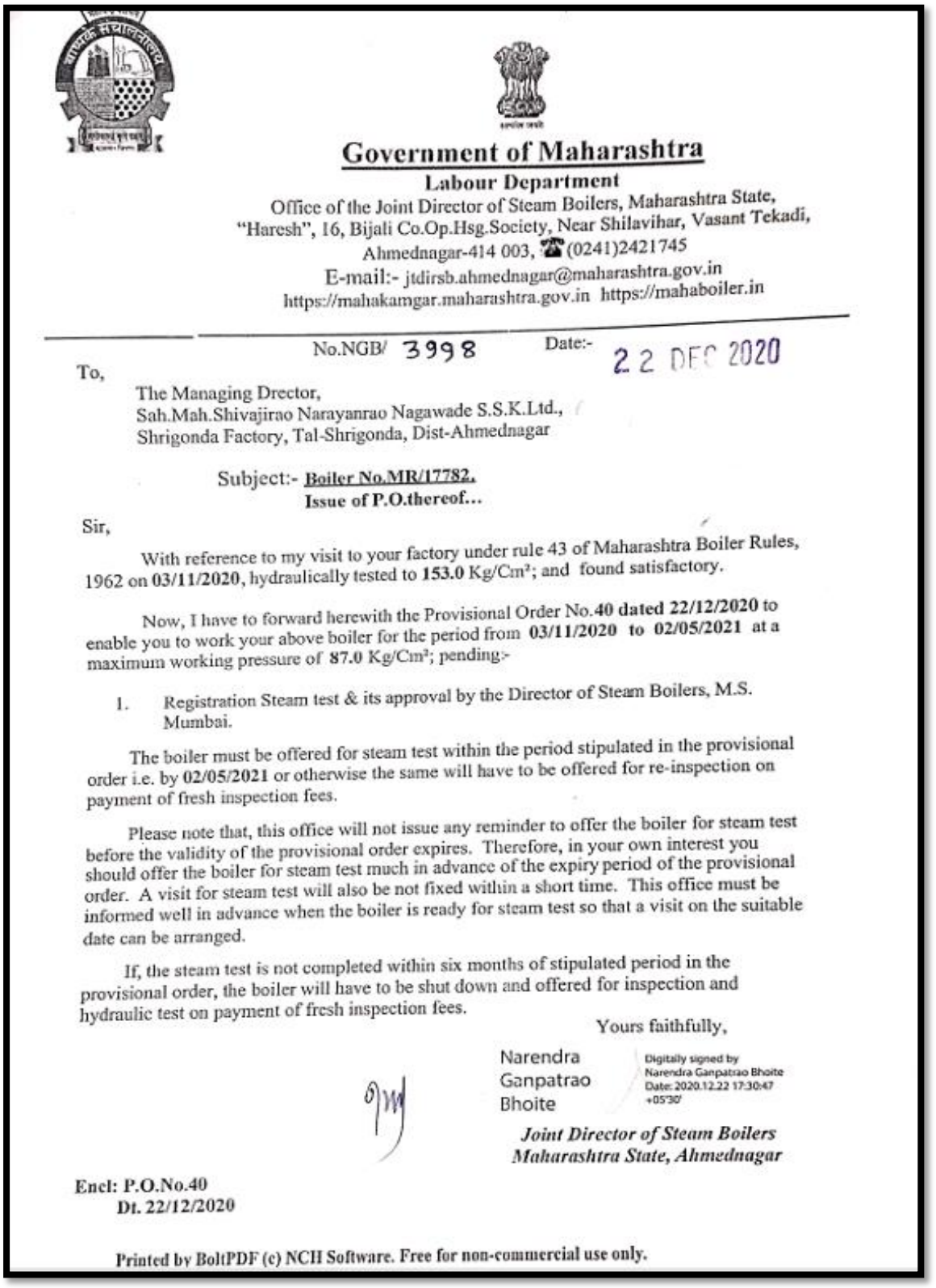
Calibrated By
Calibration Engineer
Suraj Pimpale

TESTCAL COMBUSTION SYSTEMS PUNE 411037

Approved By
Technical Manager
Sagar Mohite

** End of the Certificate **

Boiler Certificate:



Government of Maharashtra

Labour Department

Office of the Joint Director of Steam Boilers, Maharashtra State,
"Haresh", 16, Bijali Co.Op.Hsg.Society, Near Shilavihar, Vasant Tekadi,
Ahmednagar-414 003, ☎(0241)2421745
E-mail:- jtdirsb.ahmednagar@maharashtra.gov.in
https://mahakamgar.maharashtra.gov.in https://mahaboiler.in

No.NGB/ 3998 Date:- 22 DEC 2020

To,

The Managing Drector,
Sah.Mah.Shivajirao Narayanrao Nagawade S.S.K.Ltd.,
Shrigonda Factory, Tal-Shrigonda, Dist-Ahmednagar

Subject:- **Boiler No.MR/17782.**
Issue of P.O.thereof...

Sir,

With reference to my visit to your factory under rule 43 of Maharashtra Boiler Rules, 1962 on **03/11/2020**, hydraulically tested to **153.0** Kg/Cm²; and found satisfactory.

Now, I have to forward herewith the Provisional Order No.**40 dated 22/12/2020** to enable you to work your above boiler for the period from **03/11/2020 to 02/05/2021** at a maximum working pressure of **87.0** Kg/Cm²; pending:-

1. Registration Steam test & its approval by the Director of Steam Boilers, M.S. Mumbai.

The boiler must be offered for steam test within the period stipulated in the provisional order i.e. by **02/05/2021** or otherwise the same will have to be offered for re-inspection on payment of fresh inspection fees.

Please note that, this office will not issue any reminder to offer the boiler for steam test before the validity of the provisional order expires. Therefore, in your own interest you should offer the boiler for steam test much in advance of the expiry period of the provisional order. A visit for steam test will also be not fixed within a short time. This office must be informed well in advance when the boiler is ready for steam test so that a visit on the suitable date can be arranged.

If, the steam test is not completed within six months of stipulated period in the provisional order, the boiler will have to be shut down and offered for inspection and hydraulic test on payment of fresh inspection fees.

Yours faithfully,

Narendra Ganpatrao Bhoite
Digitally signed by Narendra Ganpatrao Bhoite
Date: 2020.12.22 17:30:47 +05'30'

Joint Director of Steam Boilers
Maharashtra State, Ahmednagar

Encl: P.O.No.40
Dt. 22/12/2020

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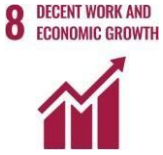
Development GoalsTargeted	SDG Target	Indicator (SDG Indicator)
SDG 7: Affordableand Clean Energy 	**7.2:** By 2030, increase substantially the share of renewable energy in the global energy mix **Target achieved: Renewable Power in 75,834 MWh**	**7.2.1**: Renewable energy share in the total final energy consumption
SDG 8: Decent Work and Economic Growth 	**8.5** By 2030, achieve full and productive employment and decent work for all women and men, including for young people and persons with disabilities, and equal pay for work of equal value. **Target:** • Training staff annually • Employment of staff	**8.5.1**: Average hourly earnings of female and male employees, by occupation, age and persons with disabilities.
SDG 09: Industries, Infrastructure and Innovation 	**9.2:** Promote inclusive and sustainable industrialization and, by 2030, significantly raise industry's share of employment and gross domestic product, in line with national circumstances, and double its share in least developed countries	The project activity provides employment to people 115 villages in the area. **9.1.1:** It measures the proportion of the rural population who live within 2 km of an all-season road. This indicator helps assess access to infrastructure and connectivity.
SDG 13: Climate Action 	**13.2**: Integrate climate change measures into national policies, strategies and planning **Target Achieved: 60,871 quantity of tCO2 reduced.**	**13.2.1**: Number of countries that have communicated the establishment or Operationalization of an integrated policy/ strategy