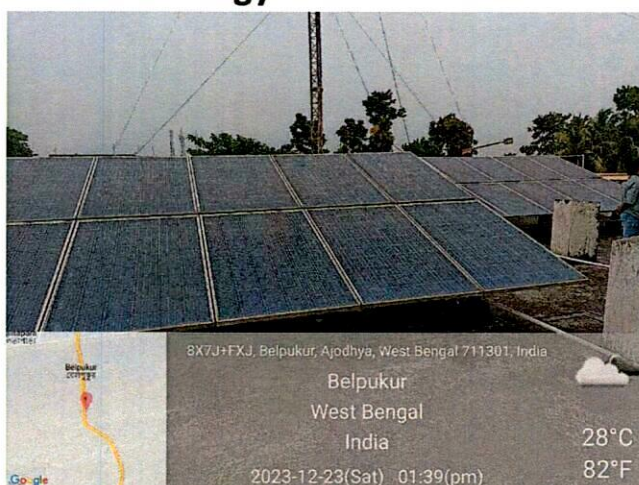
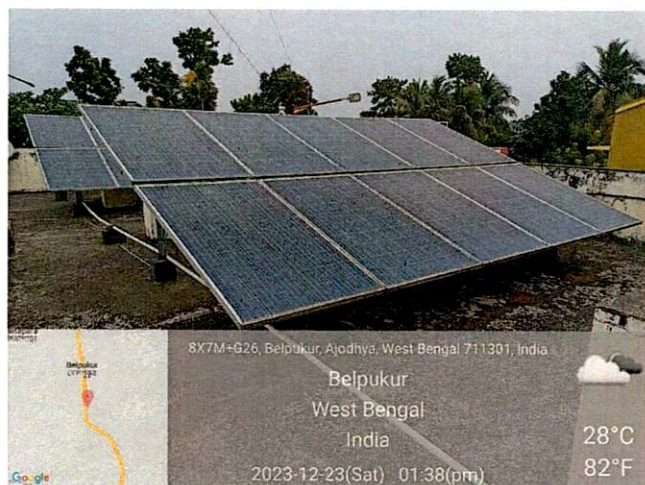




Ref. No.

Date

Solar Grid of 20 KW for Alternative Energy Sources



Total 80 Solar Plates of 265 W each is placed over the roof



Solar Meters (two meters for 10KW each) showing Total Power Generated till date



Chal.
Co-ordinator
IQAC
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Ajodhya, Howrah.

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Ajodhya, Howrah.

SHYAMPUR SIDDHESWARI MAHAVIDYALAYA

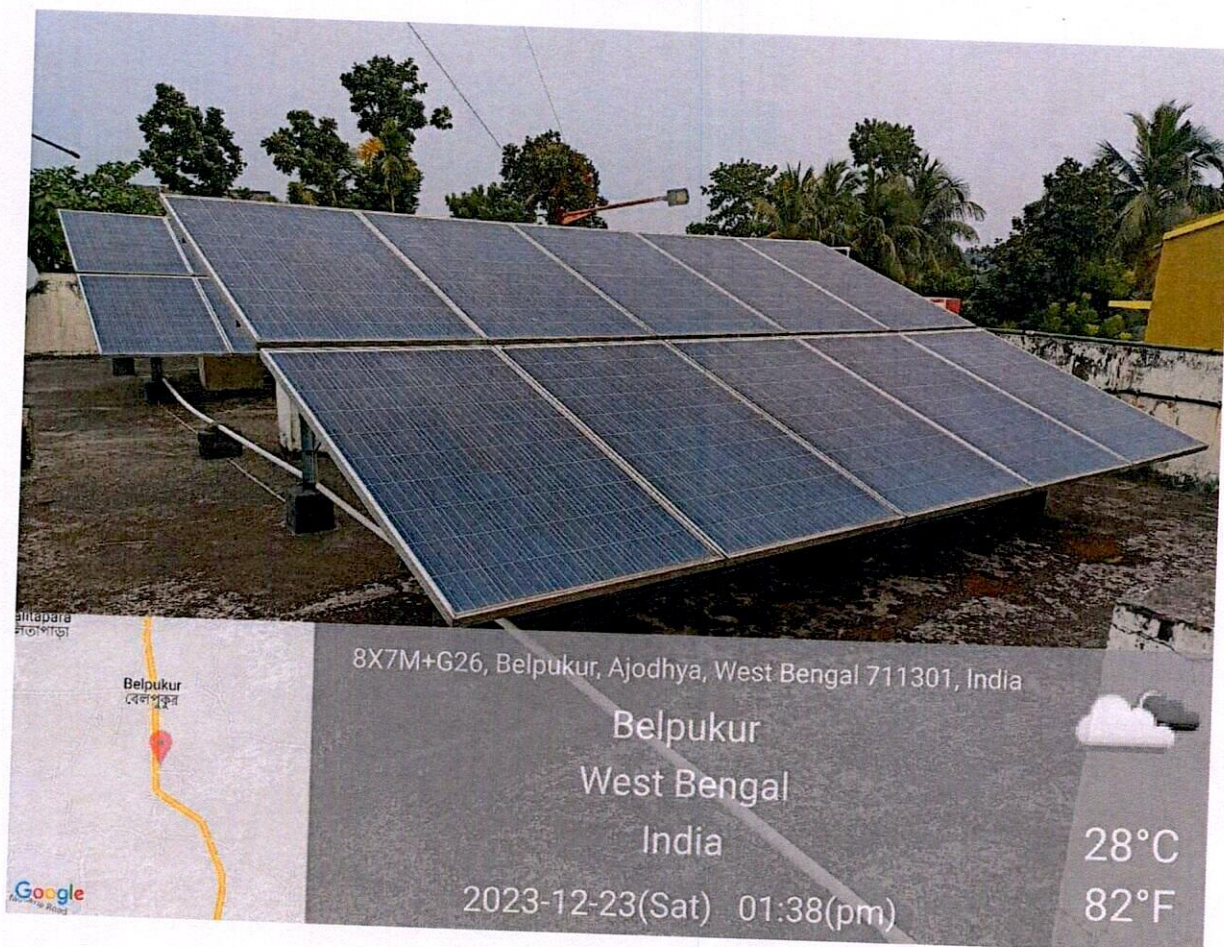
Performance Analysis and Benefit of Installation of Roof Top

Grid Connected Solar PV Power Plant

of

PV Array Capacity = $80 \times 260 = 20800 \text{ W} = 20.8 \text{ kW}$

2022-2023



Prepared by

Environment Management Committee

Shyampur Siddheswari Mahavidyalaya

With help from

West Bengal Renewable Energy Development Agency

Chal
Co-ordinator
IQAC
Shyampur Siddheswari Mahavidyalaya
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Ajodhya

1. Salient Information

- Installation Location Address: Belpukur, Ajodhya ,West Bengal,711301
- Capacity of Solar PV System: 2X10.4 kW
- Type of PV system: Roof top Grid Connected Type
- Solar PV System Installation Date: May, 2017
- Project Implemented by: WBREDA.
- Name of the Installer: Sunshine Power Products Pvt. Ltd.
- Name of DIScom : WBSEDC LTD
- DIScom Metering Arrangement: Net-meter (Export Import Energy Meter)
- Total 20.8 kW PV System is connected to One Consumer Net Meter of WBSEDC LTD.
- Consumer ID and Installation No Detail of WBSEDC LTD:
Consumer ID: 133012903 , Installation No : 8963805
- PV generation performance analysis period: June, 2022 to Feb, 2024.
- Generation Meter Reading Installed against 20.8 kW PV system
- PV Generation Meter S. No.: XD560802 and XD560804
- PV generation feed to grid after internal consumption analysis period PV
Generation Analysis Period: June 2022 to February 2024 based on
DIScom Net Meters (02 nos.)
- Generation from PV power plant: approx. 1 lakh kWh
- Effective financial benefit enjoyed for the solar generation: approx. 7 lakh

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2. Technical Detail of PV System:

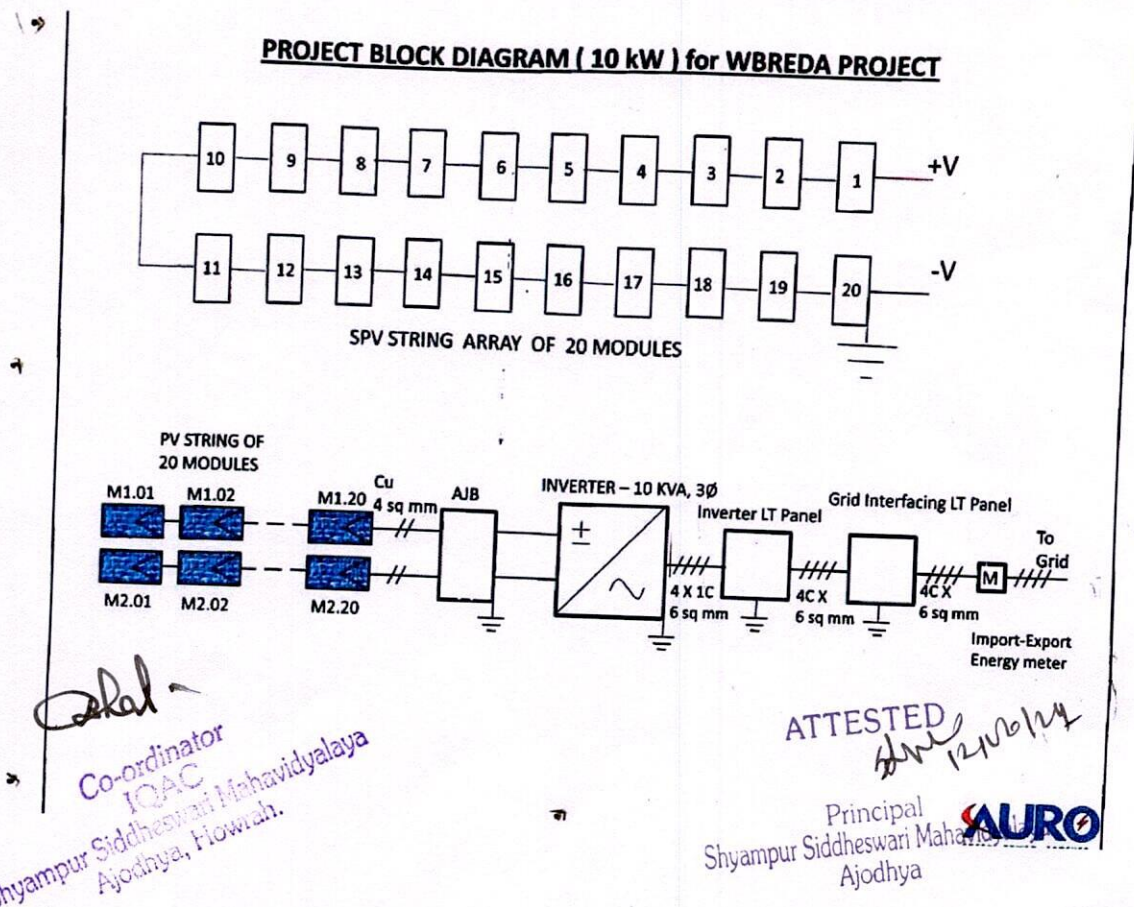
A) PV Array:

- i) Type : Poly Crystalline
- ii) Capacity 2X10.4 kW
- iii) PV module makes: Goldi Green Technologies Pvt. Ltd.
- iv) Capacity of each PV module : 260 W
- v) Rated Power (P_{max})=260W
- vi) No. of PV module: 80 Nos.
- vii) Open Circuit Voltage(V_{oc})=38.2 V
- viii) Short circuit current(I_{sc})=8.80 A
- ix) Voltage at Maximum Power (V_{mp})=30.30 V
- x) Current at Maximum Power(I_{mp})=8.59 A
- xi) Maximum System Voltage :1000 V
- xii) MODEL :-GOLDI260PM

B) Inverter:

- i) Type : Grid connected String Inverter
- ii) Capacity : 10.4 kW each
- iii) No. of Inverter: 02.

PROJECT BLOCK DIAGRAM (10 kW) for WBREDA PROJECT



3. Benefit Analysis

A) Benefit obtained from WBSEDC Ltd against
Consumer ID: 133012903 , Installation No : 8963805
From June 2022-Feb 2024

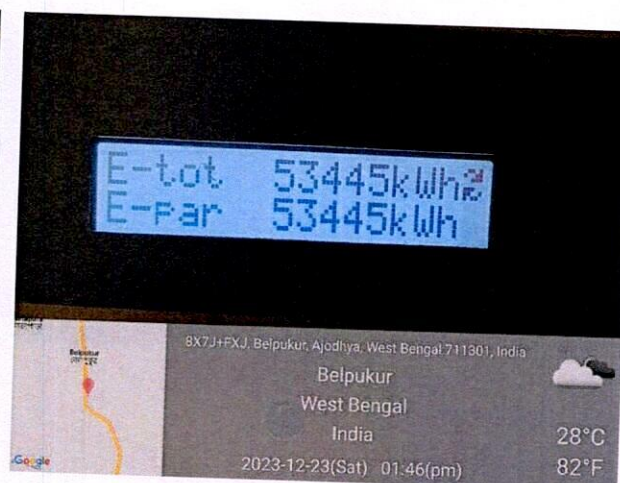
Sl No	Month	Year	Solar Energy Feed to grid after self consumption (kWh)	Financial Benefit Obtained form WBSEDCL (in Rs.)	Saving Coals (in Kg) Approx.	Saving CO2 (in Kg) Approx.
7	JUN-AUG	2022	344	2236	196.57	475.70
8	SEP-NOV	2022	377	2450.5	215.42	521.33
9	Dec-Feb	2022-23	315	2047.5	180	435.6
10	Mar-May	2022-23	1581	10276.5	903.43	2186.3
11	Jun-Aug	2022-23	2051	13331.5	1172	2836.24
12	Sep-Nov	2022-23	2068	13442	1181.71	2859.74
13	Dec-Feb	2023-24	2794	18161	1596.57	3863.7
		Total	9530	61945	5445.7	13178.61

Qalal.

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Ajodhya

Power Generated till Date:



B) Financial Benefit obtained from WBSEDC LTD (DIScom) to feed the excess PV generation to Grid from Jun, 2022 – Feb, 2024

Consumer ID	Installation No	Solar Energy Feed to grid after self consumption (kWh)	Financial Benefit Obtained form WBSEDCL (in Rs.)	Saving Coals (in Kg) Approx.	Saving CO2 (in Kg) Approx.
133101'2903	8963805	9530	61945	5445.7	13178.61

Q. Lal .

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Ajodhya, Howrah.

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4. Solar PV Generation analysis:

a) **Duration:** May 2017 to Feb 2024

b) **Source of Data:** PV Generation Meter.

c) **Generation Meter S. No:** XD560802 and XD560804

d) **Generation Meter Reading on as on 23-12-2023**

Meter No: - XD560802: Generation Reading: **51992 kWh**

Meter No: - XD560804 : Generation Reading: **53445 kWh**

f) **Total Generation form 2X10.4 kW PV Power Plant in 89 months [from July 2016 to December 2023] : kWh.**

g) **Total effective financial benefit enjoyed for the solar generation of kWh from PV power plant: 1,05,437 kWh @ Rs 6.5 = Rs **6,85,340.50****

h) **Performance of PV Power Plant:**

- **Generation per kW: approx. 6000 kWh/year**
- **Capacity Utilization factor: 14%**

Calah.

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Co-ordinator
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Shyamprasad Mahavidyalaya
Ajodhya, Haryana.

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Shyamprasad Mahavidyalaya
Ajodhya



West Bengal State Electricity Distribution Company Ltd.

(A Government of West Bengal Enterprise)
BILL (For Quarterly billing consumers)

AJODHYA CUSTOMER CARE CENTER, PHONE No -
CALL CENTER PHONE No - 19121 (TOLL FREE), TAN: CALW050536

SEC, SHAMPUR SIDDHESWARI
MAHAVIDYALAYA PO-AJODHYA DM GHAT 1,
SHYAMPUR II, HOWRAH
Pin -
Consumer Id 133012903
Tariff Class A(CM-R)
Installation No 8763805
Latitude N/A
Longitude N/A

Invoice No. 454011685466
Prev. Reading Date 06.03.2023
Present Reading Date 10.06.2023
Billing Date 13.06.2023
Next Reading Date 16.08.2023-20.08.2023
Connected Load 19 KVA
Solar PV Capacity
Meter Reading unit 4GA03QMR
PAN of consumer(s)

Meter No	Time	Previous Reading	Present Reading	MF	Unit consumed	Max Demand (KVA)
STE00236	N	9181.00	19028.00	1.00	9847.00	
STE00236	E	4276.00	6327.00	1.00	2051.00	

Bill Month	JUN, 2023	JUL, 2023	AUG, 2023
Amount due after due date(Rs.)	24101.00	24102.00	24102.00
Due dates to avail Monthly Rebates	23.06.2023	24.07.2023	22.08.2023
Monthly Rebates(Rs.)	-240.51	-240.51	-240.51
Amount due within due dates(Rs.)	23860.00	23861.00	23861.00
Special Rebates(Rs.)	-779.40		
Total Amount Payable at a time within 1st Due date* (Rs.)			70,602.00
Amount payable at a time through e-Payment within 1st Due date			70,096.00

Breakup of Charges	Total
Category	
Energy Charge(Rs.)	70443.82
Fixed/Demand Charge(Rs.)	1710.00
Meter Rent(Rs.)	150.00
Gross Amount(Rs.)	72303.82
Adjustments**	-0.82

Payment may be made using RTGS/NEFT in your exclusive a/c no:
WBB1330129038963805 with IFSC code ICIC0000104
As per order of WBERC dated 28.07.2022 & Subsidy from West Bengal Govt
Outstanding: Rs. 0.00

Last Payment Details: Amount(Rs.): 20499.00 Payment date: 17.03.2023
Electricity duty is exempted for this consumer from period 21.02.2018 - 31.12.9999
Solar Details: Import 9847.00 Export+Carried forward 2051.00 Billable 7796.00 Carry Forward 0.00
Units
Interest Rs. 2203.29, TDS Rs. 0 & Net Int Rs. 2203.29 on Security Deposit as on 31.03.2023
Security Deposit: Rs. 38924.76

Signature
Coordinator
Shyampur Siddheswari Mahavidyalaya
Ajodhya, Howrah

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Principal
Shyampur Siddheswari Mahavidyalaya
Ajodhya

For outstanding amount please see instruction overleaf (বকেদা সংক্রান্ত নির্দেশিকা পিছনের পাতায় দেখুন)

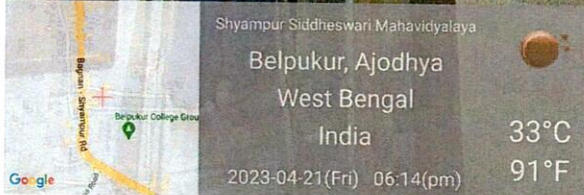
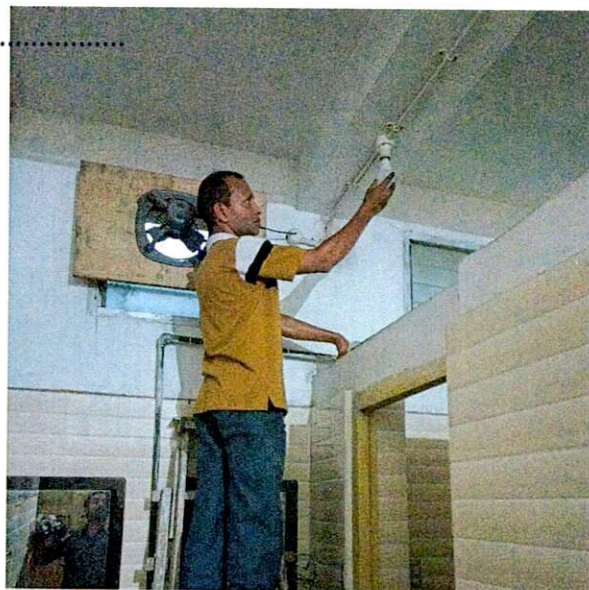
AVAIL ADDITIONAL REBATE @ SP/KWH BY PAYING WITHIN 1st DUE DATE AT A TIME. AVAIL 1% ADDITIONAL REBATE AS PER TARIFF ORDER FOR E-PAYMENT WITHIN DUE DATE.
PLEASE REGISTER YOUR MOBILE NO. AND E-MAIL ID AT WBSEDCL PORTAL OR INFORM TO YOUR CCO TO AVAIL DIFFERENT VALUE ADDED SERVICES

ক্রেতার সরকারি বিদ্যুৎ উৎস উন্নয়ন কেন্দ্রের কল সেন্টার এর মাধ্যমে ১৯০০-০৪০০-০০০০ নম্বর হাটফ্রি কল সেন্টার-এ ফোন করে বা ব্যক্তিগত ভাবে কল সেন্টার-এ গিয়ে বিদ্যুৎ সরবরাহের সমস্যা বা অন্য কোনো অভিযোগ জানিয়ে জানানো হবে।

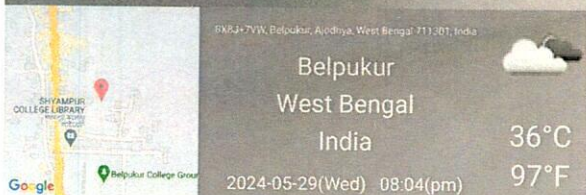
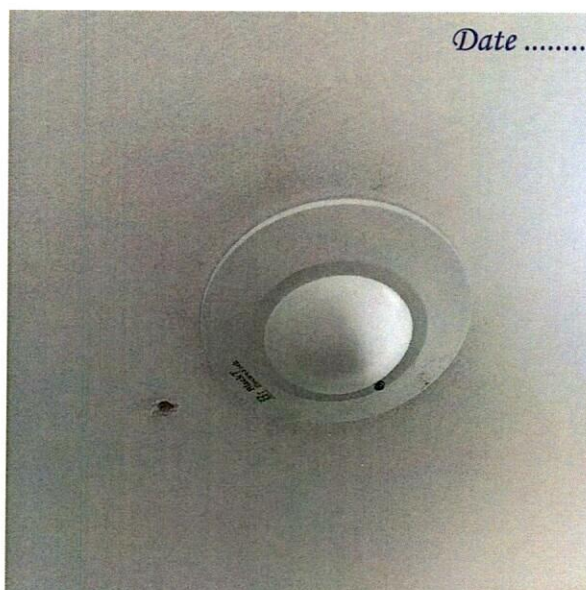


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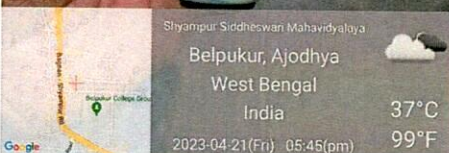
Date



Installation of Motion Sensor Lights



Sensor Based Switching System



LED Lights with Motion Sensors to reduce energy consumption

SCAN the QR
Code for Video:



Co-ordinator
IQAC
Shyampur Siddheswari Mahavidyalaya
Ajodhya, Howrah.

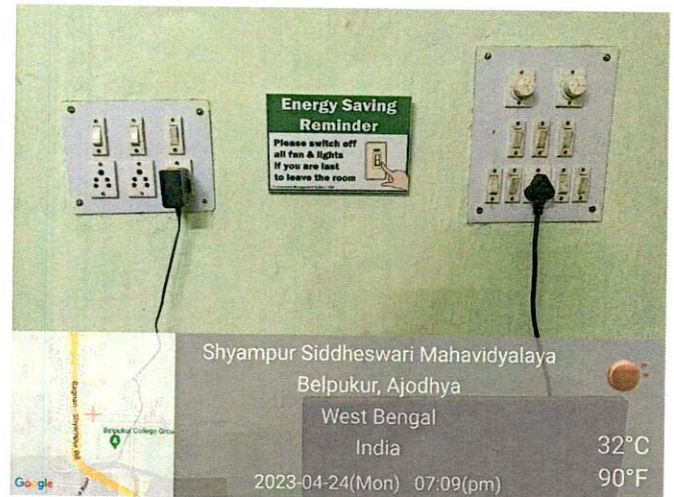
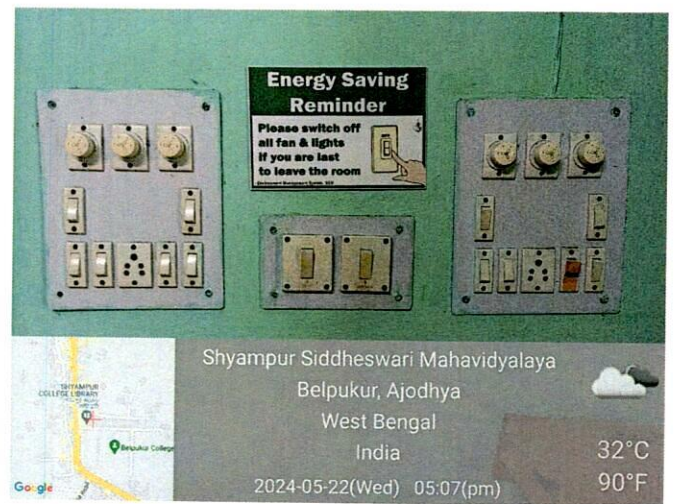
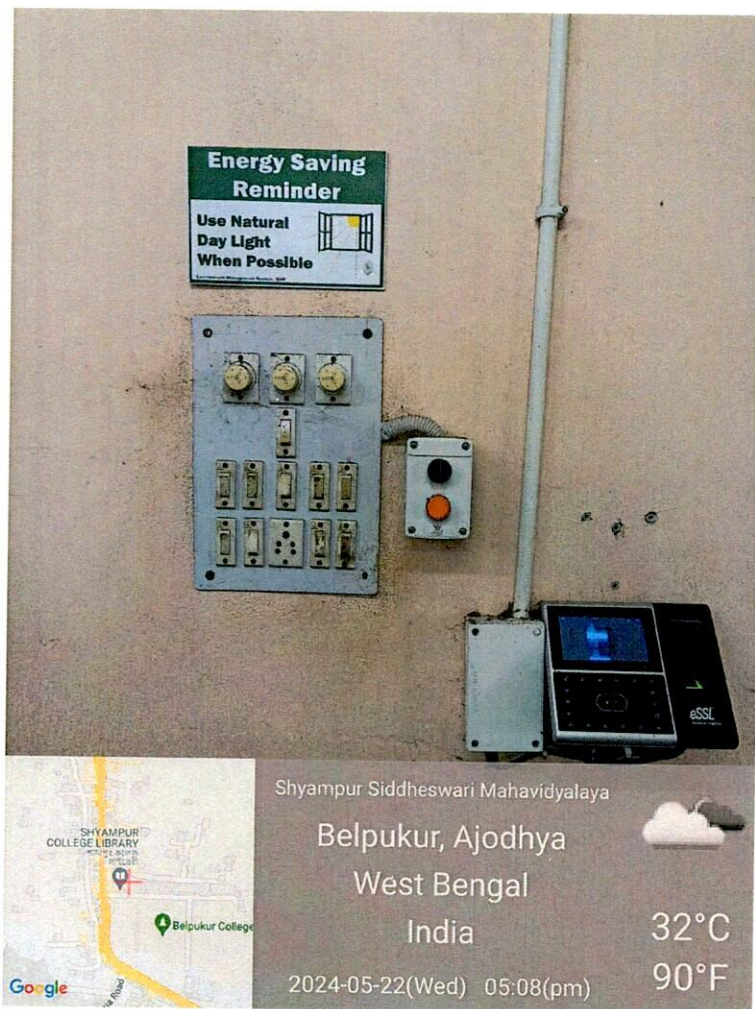
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Date



Energy Conservation Reminders through Signages



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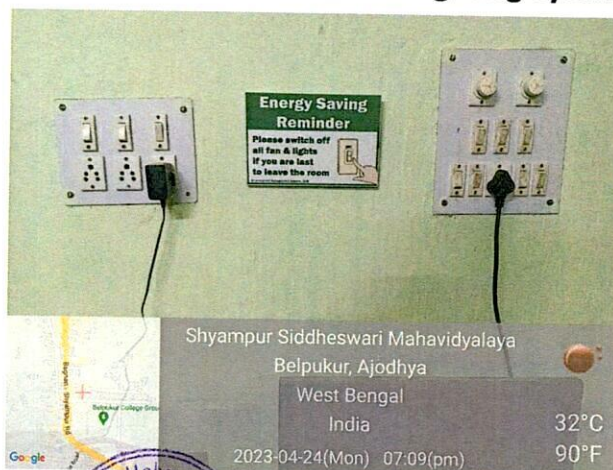


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Date



Need-Based Lighting System with Partial Lighting with LED



Energy Conservation Reminders through Signages



Shalini
Co-ordinator
IQAC
Shyampur Siddheswari Mahavidyalaya
Ajodhya, Howrah.

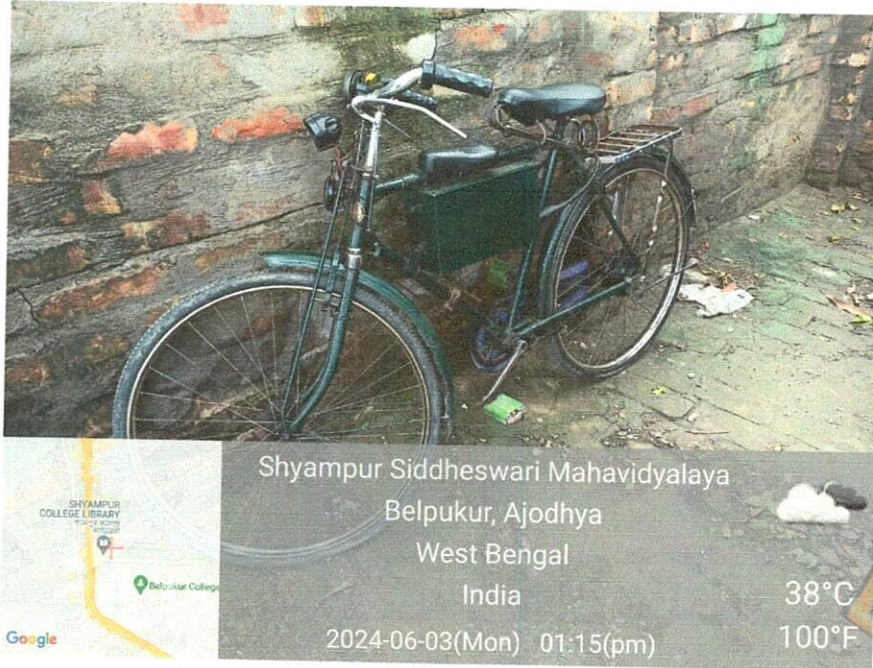
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Battery Powered Vehicle



Battery Powered Bicycle used by Staffs



Battery Powered Rikshaw owned by the College

Shalini
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Shyampur Siddheswari Mahavidyalaya
Ajodhya, Howrah.

Shalini
15/6/24
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SHYAMPUR SIDDHESWARI MAHAVIDYALAYA

Ajodhya • Howrah • Pin-711312



(Affiliated to the University of Calcutta)
(Accredited by NAAC at the 'B' Grade)

President:

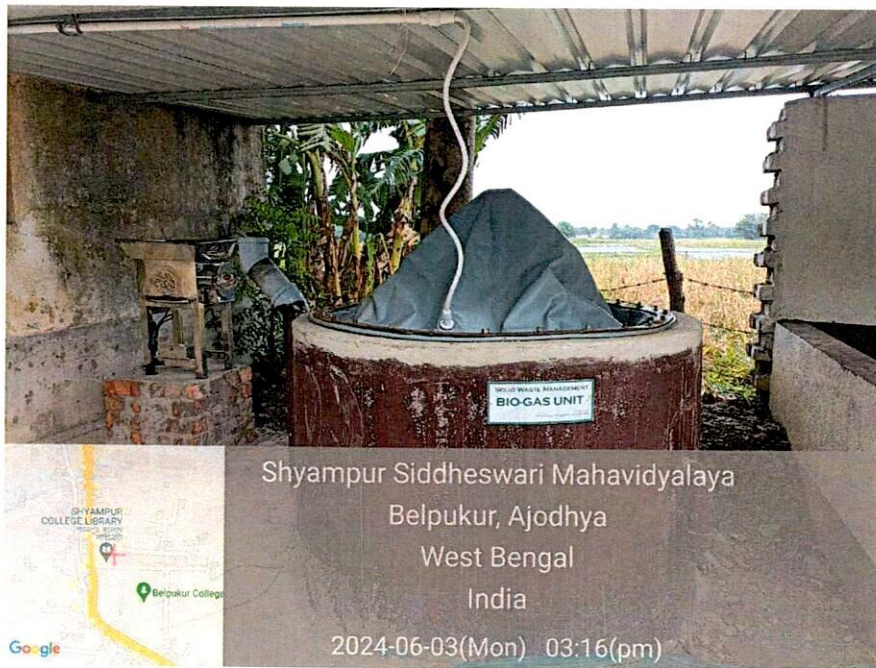
SRI KALIPADA MANDAL

Principal & Secretary :

DR. SABYASACHI SEN

Ref. No.

Date



Bio-Gas Plant: Alternative Source of Energy from Organic Waste



Bio-Gas as organic fuel source for Food & Nutrition Department



ATTESTED

[Signature] 06/06/24

Principal

SHYAMPUR SIDDHESWARI MAHAVIDYALAYA
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