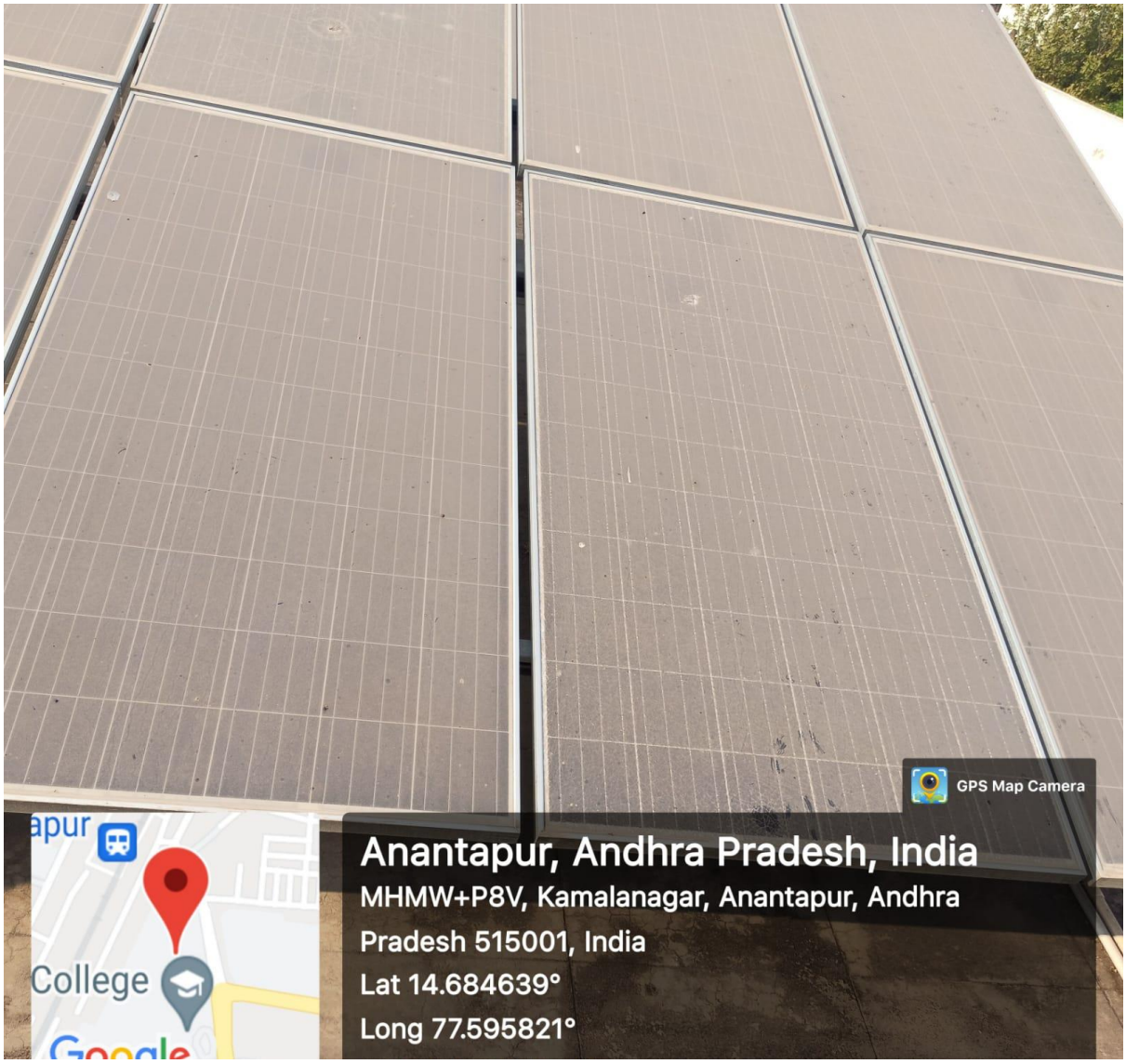
Criteria: 7.1.2

The Institution has facilities for alternate sources of energy and energy conservative measures:

1. **Solar energy:** Solar energy is one of the best non conventional energy resources. Solar radiation comes by the result of nuclear fusion and reaches earth as pockets of energy called photons. Photo voltaic cells in the solar panel convert solar radiation into electricity. We have installed 20 kV solar panel unit in on the commerce block. It produces on an average 750 units per month. From February 2018 to June 2022 a total of 38025 units of power generated and it is almost 19 % of total consumption
2. **Biogas plant:** Nil
3. **Wheeling to the Grid :** Yes. Solar power unit is connected to the Grid
4. Sensor -Based energy conservation : Two sensors are installed for water tanks. One is for mineral water unit and another for main water tank
5. Use of LED bulbs /Power efficient equipment: Our college has 300 LED bulbs which consumed 3.42 % of total electric energy consumed by the college

Solar Pannels on the Commerce Block



Solar panels on the commerce block

3.Wheeling to the Grid: Yes. Solar power unit is connected to the Grid.

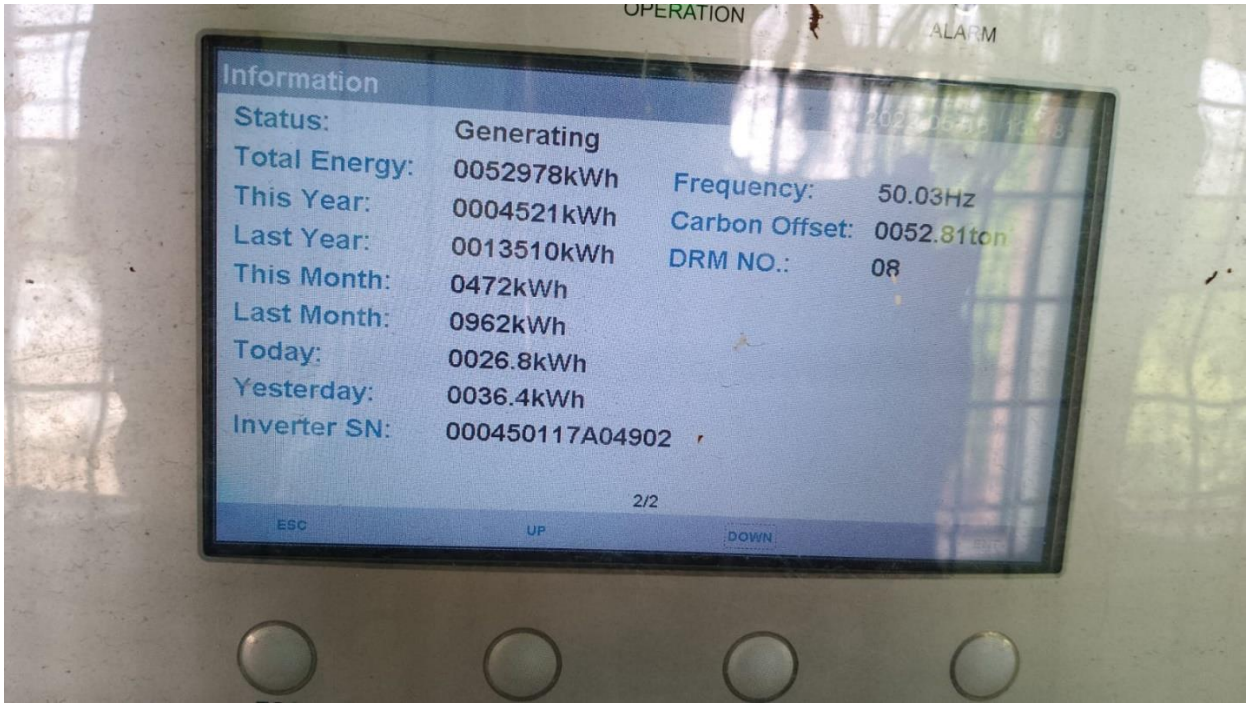
Controlling pannel of the Solar Unit

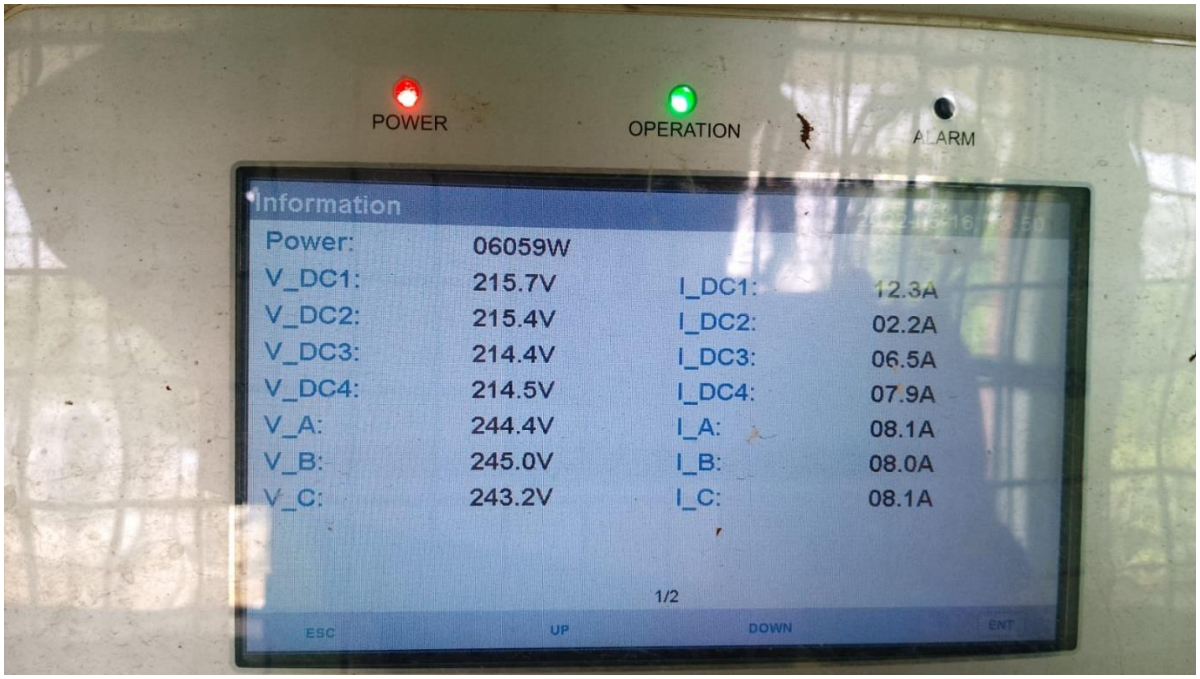
USCNO : 7112201000093 NAME : PRINCIPAL
ADDRESS : GOVT.ARTS COLLEGE,ATP,Q2/B7/5/A, ,0
SECTION : AE-D2 DISTRIBUTION : 01-AE-D2

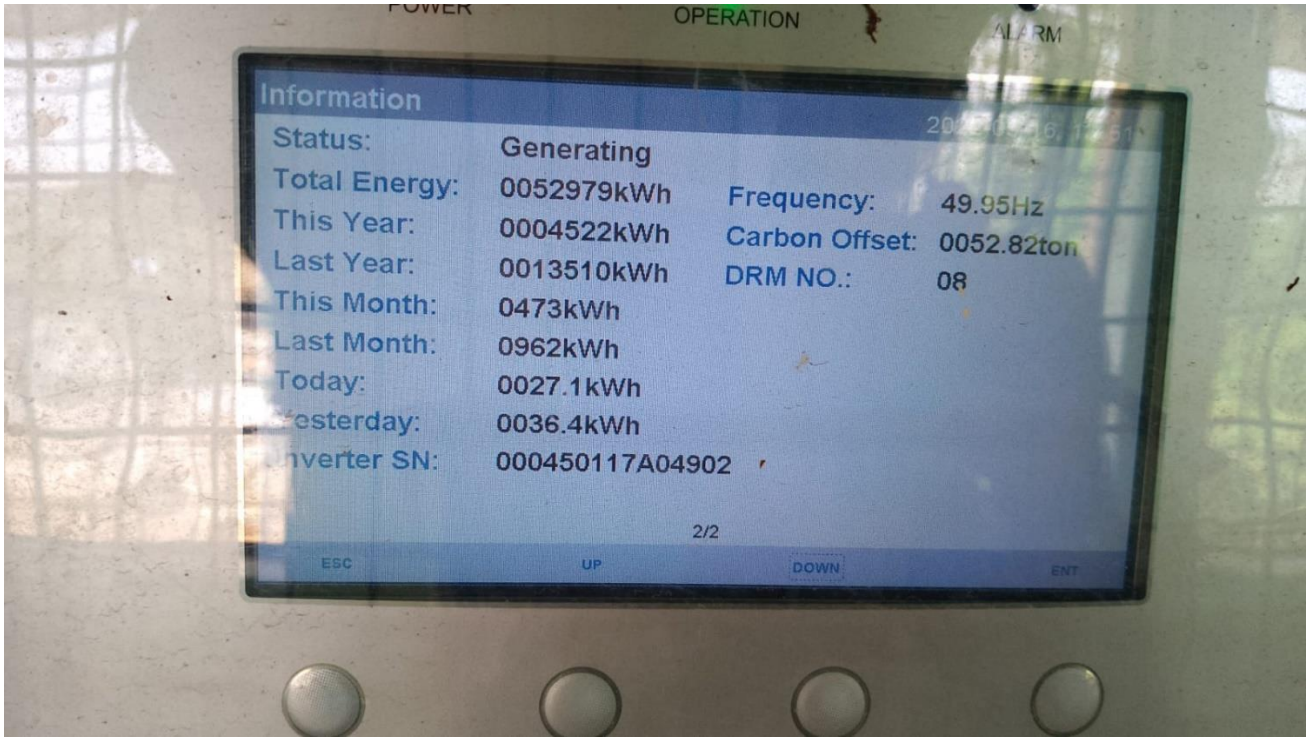
MONTH	TYPE	OPRDG-IMP	CLRDG-IMP	IMP UNITS	OPRDG-EXP	CLRDG-EXP	EXP UNITS	NET UNITS
MAR-18	KWH	370295	52	1				
APR-18	KWH	52	8487	8435	1.	3353	3352	0
MAY-18	KVH	8487	15835	7348	3353	5241	1888	0
JUN-18	KVH	15835	20578	4743	5241	6843	1602	0
JUL-18	KVH	20578	23480	2902	6843	8222	1379	0
AUG-18	KVH	23480	28117	4637	8222	9886	1664	0
SEP-18	KVH	28117	32861	4744	9886	11842	1956	0
OCT-18	KVH	32861	37392	4531	11842	14261	2419	0
NOV-18	KVH	37392	41570	4178	14261	16336	2075	0
DEC-18	KVH	41570	46024	4454	16336	18642	2306	0
JAN-19	KVH	46024	48890	2866	18642	20143	1501	0
FEB-19	KVH	48890	52607	3717	20143	22025	1882	0
MAR-19	KVH	52607	56009	3402	22025	23781	1756	0
APR-19	KVH	56009	60921	4912	23781	28850	5069	-157
MAY-19	KVH	60921	67478	6557	28850	32490	3640	0
JUN-19	KVH	67478	70959	3481	32490	34481	1991	0
JUL-19	KVH	70959	73319	2360	34481	35325	844	0
JUL-19	KVH	73319	77426	4107	35325	35426	101	0
AUG-19	KVH	77426	81796	4370	35426	39863	4437	-67
SEP-19	KVH	81796	86429	4633	39863	43392	3529	0
OCT-19	KVH	86429	92820	6391	43392	49322	5930	0
NOV-19	KVH	92820	97947	5127	49322	53540	4218	0
DEC-19	KVH	97947	103268	5321	53540	58078	4538	0
JAN-20	KVH	103268	108042	4774	58078	62137	4059	0
FEB-20	KVH	108042	113940	5898	62137	62137	0	0
MAR-20	KVH	113940	119862	5922	62137	62137	0	0
APR-20	KVH	119862	124504	4642	62137	62137	0	0
MAY-20	KVH	124504	126513	2009	62137	62137	0	0
JUN-20	KVH	126513	129135	2622	62137	62137	0	0
JUL-20	KVH	129135	132397	3262	62137	62137	0	0

		OPR	CHR					
AUG-20	KVH	132397	134984	2587	62137	62137	0	0
SEP-20	KVH	134984	137411	2427	62137	62137	0	0
OCT-20	KVH	137411	141201	3790	62137	62137	0	0
NOV-20	KVH	141201	145185	3984	62137	62137	0	0
DEC-20	KVH	145185	148751	3566	62137	62137	0	0
JAN-21	KVH	148751	151989	3238	62137	62137	0	0
FEB-21	KVH	151989	155816	3827	62137	62137	0	0
MAR-21	KVH	155816	159702	3886	62137	62137	0	0
APR-21	KVH	159702	164831	5129	62137	62137	0	0
MAY-21	KVH	164831	169732	4901	62137	62137	0	0
JUN-21	KVH	169732	172123	2391	62137	62137	0	0
JUL-21	KVH	172123	174827	2704	62137	62137	0	0
AUG-21	KVH	174827	178410	3583	62137	62137	0	0
SEP-21	KVH	178410	182577	4167	62137	62137	0	0
OCT-21	KVH	182577	186353	3776	62137	62137	0	0
NOV-21	KVH	186353	190841	4488	62137	62137	0	0
DEC-21	KVH	190841	194951	4110	62137	62137	0	0
JAN-22	KVH	194951	199071	4120	62137	62137	0	0
FEB-22	KVH	199071	203009	3938	62137	62137	0	0
MAR-22	KVH	203009	207278	4269	62137	62137	0	0
APR-22	KVH	207278	213067	5789	62137	62137	0	0
MAY-22	KVH	213067	219956	6889	62137	62137	0	0

Monthly Statement of Solar Power Generated

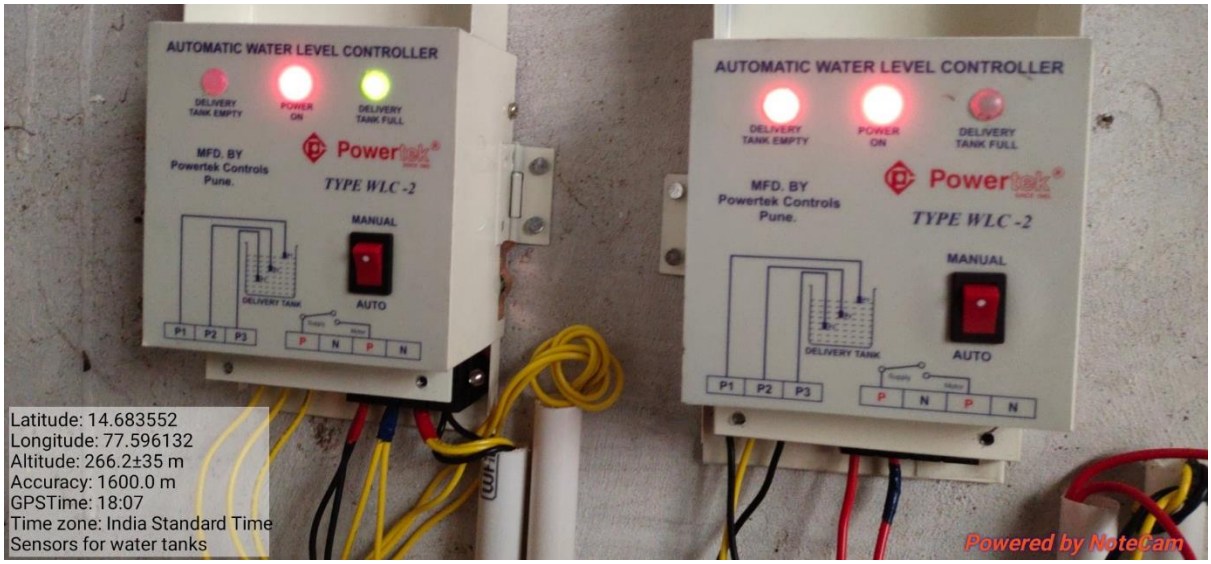



POWER
OPERATION
ALARM
Information
Power: 06059W
V_DC1: 215.7V I_DC1: 12.3A
V_DC2: 215.4V I_DC2: 02.2A
V_DC3: 214.4V I_DC3: 06.5A
V_DC4: 214.5V I_DC4: 07.9A
V_A: 244.4V I_A: 08.1A
V_B: 245.0V I_B: 08.0A
V_C: 243.2V I_C: 08.1A
1/2
ESC
UP
DOWN
ENT


OPERATION
ALARM
Information
Status: Generating
Total Energy: 0052979kWh Frequency: 49.95Hz
This Year: 0004522kWh Carbon Offset: 0052.82ton
Last Year: 0013510kWh DRM NO.: 08
This Month: 0473kWh
Last Month: 0962kWh
Today: 0027.1kWh
Yesterday: 0036.4kWh
Inverter SN: 000450117A04902
2/2
ESC
UP
DOWN
ENT

Details of the Solar Power Unit

4.Sensor -Based energy conservation: Sensors are arranged to the water tanks to save water and power

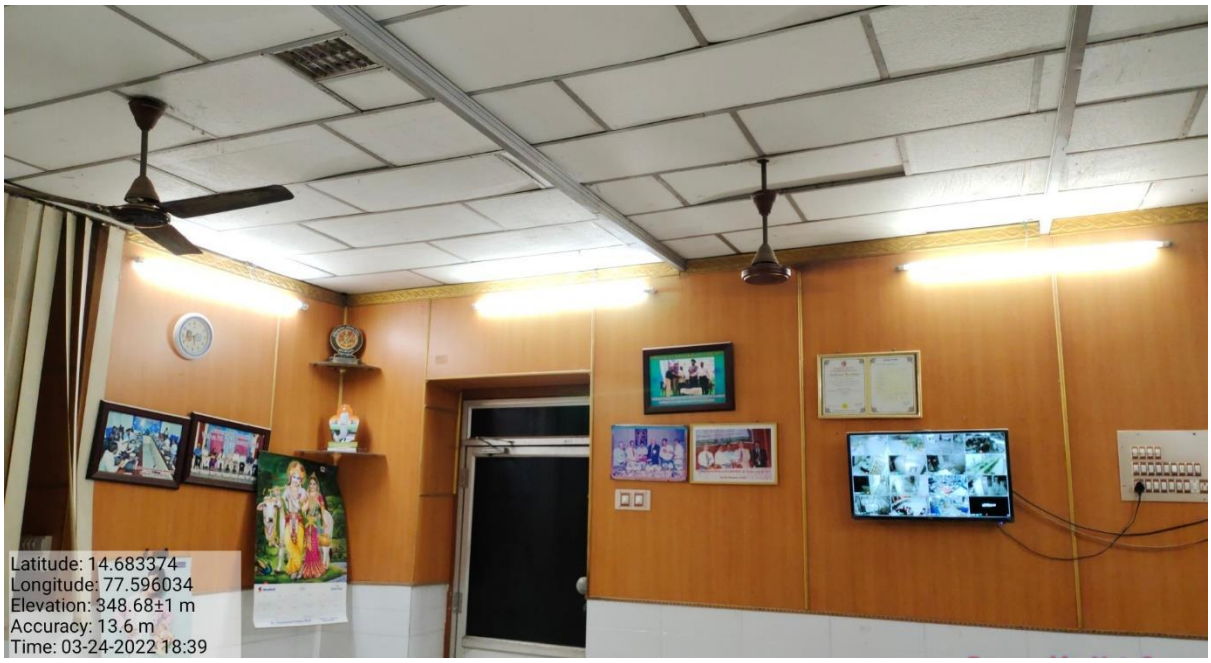


Sensors for water tanks

5.Use of LED bulbs /Power efficient equipment: Our college has 300 LED bulbs which consumed 3.42 % of total electric energy consumed by the college

LED bulbs in Drama Hall

LED bulbs in Seminar hall



LED bulbs in Principal Chamber

LED Bulb at Telugu Academy building

LED Path Light

LED path light at Main building