

7.1.2. Environmental Consciousness and Sustainability/Alternate Energy initiatives at AUR

A healthy environment influences the academics and work environment deeply. The University gives due importance to 3 'R' i.e. reduce, reuse and recycle waste. While the overall emphasis is to reduce waste generation and segregation of waste at the source, strategies/systems are in place for reusing and recycling the waste. Students are also encouraged to use parts of old equipments and infrastructure in designing artistic pieces/projects from the junkyard wastes. Amity University Rajasthan strongly believes in environment friendly campus concept and has initiated appropriate practices since its inception.

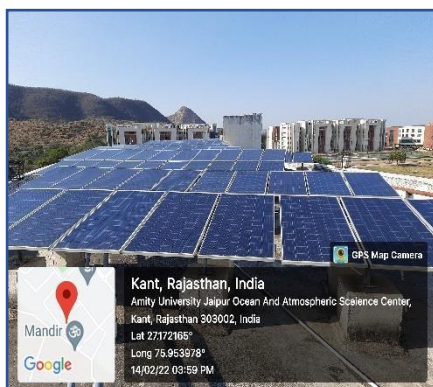
7.1.2. Alternate sources of energy conservation measures

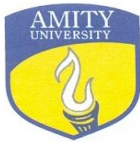
The facilities and details for alternate sources of energy and energy conservation measures are as follows:

1. Solar energy

- On-Campus Solar Park – Generate 40 % of required energy.
- Solar energy of nearly one MW generated through ground terrain based and roof top solar panels of Academic blocks and SRC.

Roof top Solar panels are installed on terraces of various buildings and a ground tracker system is also installed. An electricity bill of JVVNL is attached which itself means a permission document connecting to the grid from electricity department and wheeling to the grid. Environment saving data through Solar system is attached.





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2. Wheeling to the Grid

Net metering is available and excess solar power is sent to JVVNL grid. An electricity bill of JVVNL is attached which itself means a permission document connecting to the grid from electricity department and wheeling to the grid.

Office of Issue		Name & Address	AEN_OM_KUNDAKI DHANU AMBER	E-mail	Office code	2105240	
JAIPUR VIDYUT VITRAN NIGAM LIMITED PAN NO-AABCJ8373K ; GSTIN-08AABCJ8373K1Z7 , HSN Code :-2718							
Bill for Grid Connected Rooftop & Small Solar Photovoltaic System (SSPVS) (Consumer Copy) TollFree Complaint Center No:1800-180-8607							
Bill No	102112746	Bill Month	202110	Bill Status	R	Consumer Status	R
Bill Issue date	08/10/2021			Due date	15/10/2021		
1	Name & Address of consumer-Ribansand Bahad EDUCATION FOUNDATION VILL-KANT-KALWAR AMITY UNIVERSITY RAJASTHAN NH-11C JAIPUR-303002 null			1	SSPVS Generator Meter No	8341406	
2	Mobile Number:	9910221508		2	Meter Status	R	
3	Email ID:	mebneja@amity.edu		3	Present KWH Reading	13945.63	
4	Blinder No/ Account No.	03010034		4	Previous KWH Reading	12121.64	
5	K. No.	210524024337		5	Difference (3-4)	1824.19	
6	Service No	0		6	Multiplying Factor (MF)	150	
7	RSN	0		7	Net Generation KWH (3-4)*MF	177316	
8	Tariff Code	2011Xn		8	Net Exported Units(KWH) to DISCOM	0	
9	Category	NDS-HT		9	Net Exported & unadjusted Units (KWH)- S.F./max <100	0	
10	Feeder Code	2262974		10	Units Adjusted against Bill/ Payment	0	
11	Security Amount	6942522		11	Net Exported & unadjusted Units (KWH)- C.F for Next Billing (<100 Units)	0	
12	Meter Security Amount	0		12	Energy Charges	404085.69	
13	MAC of PFY	0		13	Fixed Charges	504226	
14	Supply Voltage	33000		14	Demand surcharge	0	
15	Metering Voltage	33000		15	Power factor surcharge/incentive	-14143	
16	Sanctioned Connected Load(KWH/HP)	3200(KW)		16	Amount of Unauthorized Use	0	
17	Installed capacity of solar P.G (KW)	966.4		17	CT/PT Rent	2200	
18	Contract Demand	2490		18	Transformer Rent	0	
19	Ownership of Meter	B		19	others if any/Partial Charges	0	
20	Billing Period	1		20	(i) Voltage Rebate	-12122.57	
21	Date of meter reading	01-10-2021		21	(ii) Solar/Sprinkler/Rural Rebate/Def/HCC	-1135.95	
22	Date of Previous reading	01-09-2021		22	Total Nigam Dues (Sr No 12 to 20)	885081.07	
23	Bi-directional meter No.	437965		23	Electricity Duty	124653.36	
24	Current Recorded Meter Details	KWH Export(b)	KWH Import(a)	24	WCC	22297.5	
25	Meter Status	R		25	UC	0	
26	Present KWH Reading	16203.32	142319.5	26	Other Debt/Credit Nigam Dues	0	
27	Present KVAH Reading	20541.61	143550.5	27	Other Debt/Credit Electricity Duty	15704.64	
28	Present KVA	12.04	41.8	28	Other Debt/Credit WCC	0	
29	Previous KWH Reading	10292.8	134887	29	Other Debt/Credit UC	0	
30	Previous KVAH Reading	10668	136084	30	Other Debt/Credit LED/Deferred Payment Scheme	89052	
31	Difference KWH (26-29)	5910.52	7432.5	31	Amount Adjusted (Code)	0	
32	Difference KVAH (27-30)	9673.81	7466.5	32	Total Amount (Sr No 21 to 30)	1137068.57	
33	Multiplying Factor (MF)	30		33	Outstanding Amount of Previous Bill	0	
34	Total KWH Import/Export	177315.6	222975	34	Deferred Amount (DEF 2nd Instalment)	0	
35	Total KVAH Import/Export	296214.3	223995	35	(i) Tariff Subsidy	0	
36	Tr. Losses (KWH)	0	0	36	(ii) Hall Strom/ Other Subsidy	0	
37	Tr. Losses (KVAH)	0	0	37	Amount (Sr no 31+32-33-34)	1137068.57	
38	Tr. Losses (KVA)	0	0	38	Amount of Solar Power Purchased	0	
39	Net Import/Export (KWH)	0	45659.4	39	Amount of Solar Power Adjusted against Bill(Sundry)	0	
40	Net Import/Export (KVAH)	-75219.3	0	40	Amount of Solar Power Payable to Consumer	0	
41	Net Import/Export (KVA)	0	692.6	41	Amount Payable By consumer up to Due Date	1137069	
42	Billing Demand	0	1867.5	42	LPS/DPS	19455.94	
43	Power Factor	0	0.995	43	Amount Payable After Due Date (Sr No 39 + 40)	1156565	
44	Billed Units	0	45659.4	44			

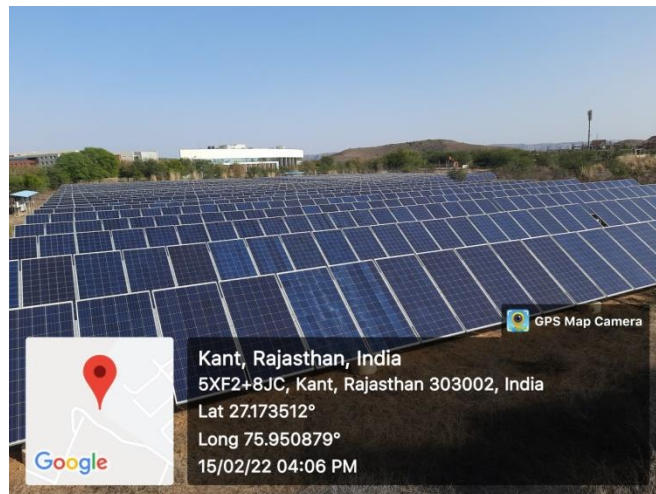
Sig-Ledger Keeper (LK)	Sig-ARO	Sig-AEN	
Counter Foil of the Bill of Grid Connected Rooftop & Small Solar Photovoltaic System (SSPVS)			
Name of Consumer	Ribansand Bahad EDUCATION FOUNDATION VILL-KANT-KALWAR	Remarks:	
Bill Month	202110	Bill No	102112746
K. No.	210524024337	Mode of Payment Cash/Cheque No	
Blinder No/ Account No.	03010034	Payment Date	16-10-2021
SDO Code	2105240	Amount Payable By consumer up to Due Date	1137069
		Amount Payable After Due Date	1156565



3. Sensor-based energy conservation

Amity University Rajasthan has Sensor Based Energy Conservation technology to ensure maximum energy conservation

- AUR has a Ground tracker solar system of 500 Kilowatt which sense and monitor the moment of Sun and accordingly the Solar panels moves as per direction of Sun. It generates more electricity due to an increased direct exposure to solar rays and provides maximum efficiency. A Geotagged photo of Solar park and weather sensor station is attached.
- AMF Panel: AUR has a 1500 Kilowatt AMF (Automatic Main Failure) panel at substation-II which automatically starts when main supply cuts from JVVNL and switches off automatically when supply comes. It runs DG sets under synchronization as per load and saves the diesel consumption. The Geotagged photo of the panel is attached.



Ground tracker solar system



Weather sensor station



AMF PANEL



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4. Use of LED bulbs/power efficient equipment

- Switching towards LED lamps to reduce electricity consumption is under process. In first phase, corridors of all blocks and Street lamps converted to LED from main gate to ABS circle. LED lights for replacement of heavy-duty security lights are ongoing.
- The University also initiated to install Road lights (LED) on NH-11 in a patch of almost one and half kilometer.

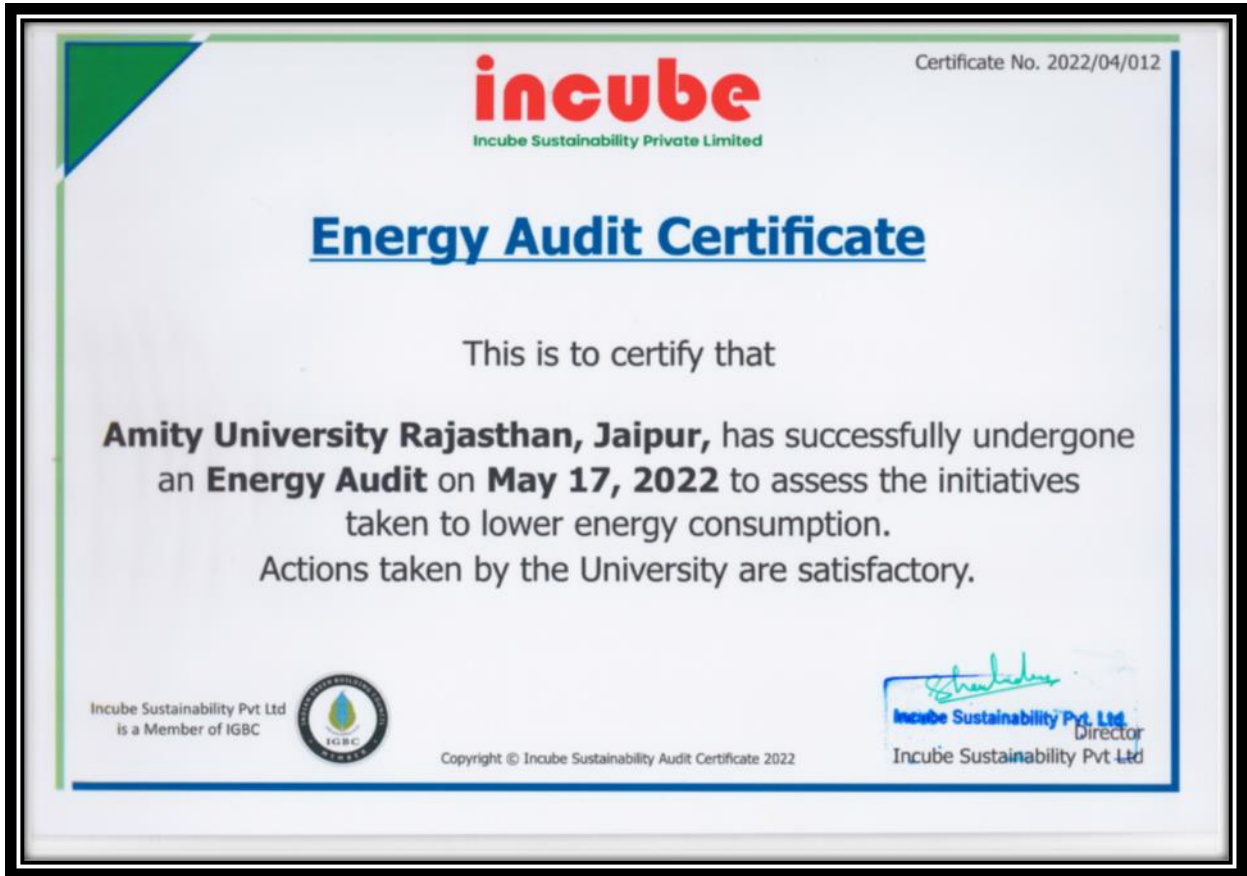
The LED lights can be up to 80% more energy efficient than conventional bulbs, and waste far less energy than other styles of lighting. The LEDs require less power than regular forms of lighting, so obviously the less energy they require, the more positive the effect on the environment. Therefore, Amity University Rajasthan has started converted the conventional bulbs to LED lights.





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Amity Power Management				
Month	Units Received from DISCOM MVAh	CO2 Generated tonnes	Units Generated by Solar MVAh	CO2 benefit due to Solar tonnes
January, 2021	93	77	106	88
February, 2021	80	66	117	97
March, 2021	129	107	144	119
April, 2021	95	79	160	133
May, 2021	67	56	134	112
June, 2021	79	65	141	117
July, 2021	220	183	123	102
August, 2021	215	178	129	107
September, 2021	46	38	99	82
October, 2021	128	106	123	102
November, 2021	62	52	100	83
December, 2021	90	74	76	63
Total	1303	1081	1451	1204

Carbon Footprint Reduction at Amity University Rajasthan