



### **ENERGY CONSUMPTION AND CARBON EMISSION**

Energy has been identified as a crucial and balancing factor in the indices for sustainable development since the Earth Summit in 1992. Especially in the contemporary scenario, it is acknowledged that the heavy and unbalanced energy consumption adversely affects energy price and economic growth, and most countries now give priority to energy conservation methods.

Amity University Madhya Pradesh was established in 2010. It is now a leading institute offering higher education in the state of Madhya Pradesh. The significant advances the University made in academic and research activities were matched with parallel improvements in the technical and infrastructure facilities of the campus, which makes it retain its position of excellence across time. It has 10 institutes housed in 3 blocks of buildings spread across 110 acres. The vast campus and the large number of rooms being in use as classrooms and other facilities necessitated the implementation of a separate transformer for the college. The amount of the electricity bill was climbing steadily across the years.

The expansive network of cables was found to conflict with the growing branches of trees, and thus the entire electric cables were laid in underground ducts, which was in sync with environment protection also. This audit was undertaken in order to verify how effective these steps were, and also to identify loopholes, if any, in the existing practices, along with outlining measures for enhancing energy utilization.

### **Details of Power Consumption and Carbon Emission (July 2020-June 2021)**

<b>Month</b>	<b>Unit Consumed (MVAh)</b>	<b>Unit Consumed (KWh)</b>	<b>CO2 in tonnes</b>	<b>CO2 in Kg</b>	<b>Unit Generated by Solar in KWh</b>	<b>Carbon Footprints saved in tonnes</b>
July 2020	46	43	38	35690	33046	2.7
August 2020	47	44	39	36520	30288	2.5
September 2020	45	41	37	34030	40210	3.3
October 2020	41	39	34	32370	33778	2.8
November 2020	39	34	32	28220	30095	2.5
December 2020	38	36	32	29880	28253	2.3
January 2021	42	41	35	34030	26090	2.2
February 2021	44	43	28	35690	34069	2.8
March 2021	62	61	51	50630	39421	3.3
April 2021	72	71	60	58930	41563	3.4
May 2021	29	28	24	23240	37535	3.1
June 2021	36	35	30	29050	37954	3.2

Source- Power Office, AUMP



**Fig 1: Solar Panels**





**Fig 2: DG Set**



**Fig 3: Transformer**



**Fig 4: HT Panel**



**Fig5: LT Panel 1**



**Fig 6: LT Panel 2**