



**Assam Don Bosco University**

# Energy Audit Report

**Efficient Power Optimization**

Department of Electrical & Electronics Engineering  
10/5/2020



## **ENERGY AUDIT REPORT**

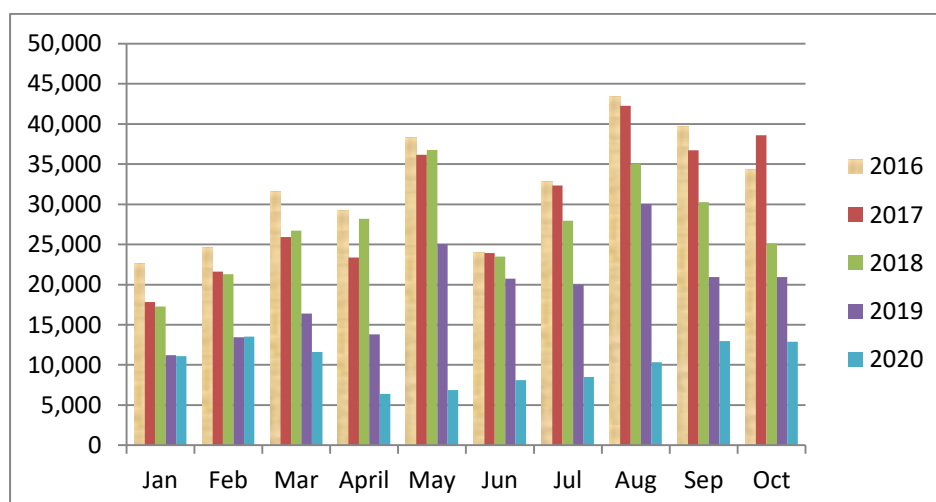
### ➤ **Dates**

- **Initiated: 06-10-2019**
- **Period reviewed: 4 years**
- **Compiled: 05-10-2020**

### ➤ **Review on consumption of Energy Units with corresponding Bill payments (2016-2020)**

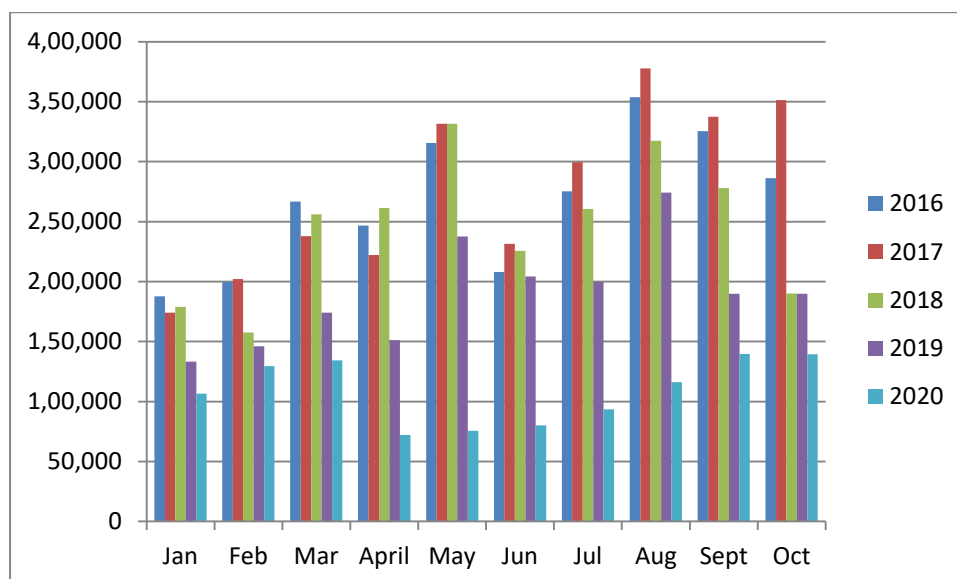
Electricity Bill and Payments – Azara Campus																					
Bill Month	Units Consumed in Year					Bill Amount Paid in Year					Unit Rate (APDCL)					Unit Rate Paid					
	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	2016	2017	2018	2019	2020	
1. Jan	22,602	17,840	17,272	11,198	11,080	1,87,789	1,74,130	1,78,916	1,33,198	1,06,632	7.55	7.55	8.30	8.00	7.60	8.31	9.76	10.36	11.89	9.62	
2. Feb	24,551	21,600	21,296	13,460	13,520	1,99,572	2,02,035	1,57,619	1,46,127	1,29,564	7.55	7.55	8.30	8.00	7.60	8.13	9.35	7.4	10.86	9.58	
3. Mar	31,600	25,920	26,719	16,386	11,610	2,66,694	2,37,907	2,56,146	1,74,131	1,34,423	7.55	7.55	8.30	8.00	7.60	8.44	9.18	9.59	10.63	11.6	
4. Apr	29,200	23,360	28,192	13,820	6,390	2,46,588	2,22,245	2,61,449	1,51,117	72,122	7.55	8.30	8.00	7.60	7.25	8.44	9.51	9.27	10.93	11.3	
5. May	38,280	36,160	36,754	25,044	6,880	3,15,584	3,31,537	3,31,414	2,37,632	75,679	7.55	8.30	8.00	7.60	7.25	8.24	9.17	9.02	9.49	11	
6. Jun	24,040	23,920	23,497	20,726	8,120	2,07,903	2,31,407	2,25,649	2,04,173	80,220	7.55	8.30	8.00	7.60	7.25	8.65	9.67	9.6	9.85	9.88	
7. Jul	32,880	32,320	27,950	20,000	8,520	2,75,100	2,99,630	2,60,665	1,99,782	93,520	7.55	8.30	8.00	7.60	7.25	8.37	9.27	9.33	9.99	11	
8. Aug	43,360	42,240	35,024	30,038	10,320	3,53,668	3,77,743	3,17,511	2,74,273	1,16,157	7.55	8.30	8.00	7.60	7.25	8.16	8.94	9.07	9.13	11.3	
9. Sep	39,720	36,720	30,254	20,920	12,960	3,25,456	3,37,350	2,78,020	1,89,814	1,39,678	7.55	8.30	8.00	7.60	7.25	8.19	9.19	9.19	9.07	10.8	
10. Oct	34,360	38,600	25,112	20,920	12,880	2,86,195	3,51,327	1,90,102	1,89,814	1,39,382	7.55	8.30	8.00	7.60	7.25	8.33	9.1	7.57	9.07	10.8	
11. Nov	30,280	29,080	21,828	20,800		2,54,685	2,74,725	2,18,162	1,95,657		7.55	8.30	8.00	7.60		8.41	9.45	9.99	9.41	####	
12. Dec	16,560	16,840	13,196	9,480		1,63,688	1,75,280	1,47,599	96,882		7.55	8.30	8.00	7.60		9.88	10.41	11.19	10.22	####	
Total		3,44,600	3,07,094	2,22,792		30,82,922	32,15,316	28,23,252	21,92,600												####

### ➤ **Month wise Energy Unit Consumption (2016-2020)**





➤ Month wise Energy Cost incurred (2016-2020)



➤ Percentage of lighting power requirements met through LED Bulbs

Total Lighting Requirements	Percentage Lighting through LED Bulbs	Percentage Lighting through other sources
54.5 KW	67.00%	33.00%

➤ Percentage of power requirements met by renewable sources

Power requirement met by renewable energy sources	Total Power requirement	Renewable Energy source	Renewable Energy generated and used	Energy supplied to the grid
320 kw (peak)	621 kw (connected load at Azara – 207 kw, Tapesia – 214 kw, Kharguli – 200 kw)	Solar	Commissioned to Ministry of Renewable Energy Channel Partner – Ujaas Energy Ltd. Work completed	100%

Reference: University Self Study Report (Clause 7.1.3):  
<https://dbuniversity.ac.in/csesi/naac/nov04/SSR%20Report.html>



➤ **Solar Panel Installation at Azara Campus**



➤ **Solar Panel Installation at Azara Campus: The trend indicates an overall downward graph in energy cost incurred**

