



# **ENERGY AUDIT REPORT: 2020-2023**

## **BRAHMANANDA KESHAB CHANDRA COLLEGE**

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## **Alternative Source of Energy: Solar Panel**

Grid connected Rooftop Solar PV power plant of PV Array capacity of 20kwp was installed at our college in November 2020. WBREDA being a State Nodal Agency for promotion of renewable energy was assigned to implement the project funded by the Government of West Bengal. They did a preliminary survey of the college rooftop and found it was technically feasible for installation of the solar power plant. They then deployed M/s Larsen & Toubro ltd to execute the project.

The PV Power Plant was grid connected type without battery backup and would supplement energy consumption from grid supply and thus reduce the expenditure for electricity bill through net metering arrangement. A total of sixty two (62) solar panels in eight rows was installed on the college roof. The energy meter (Sprint 350 Type: E3D106, 3 Ph, 4 Wire) was installed indoors on the second floor.

According to the terms and conditions set by WBREDA, they will provide breakdown maintenance service as and when required for a period of five (05) years from the date of commissioning of the power plant. They will also provide the necessary training for day to day operation and maintenance of the system.


The solar plant was commissioned and started functioning in November 2020. But there was some problem with the net meter installed by CESC which was not detected at that time. In that period the college was not functioning normally due to the restrictions put by the WB Government due to COVID 19 pandemic and so the problem of net meters remained undetected. In September 2022 a proper net meter was installed and the effect was reflected in the CESC bills. The units consumed drastically reduced to almost half in comparison to the readings of the previous years.

  
**Principal**  
; Brahmananda Keshab Chandra College  
Kolkata - 700103

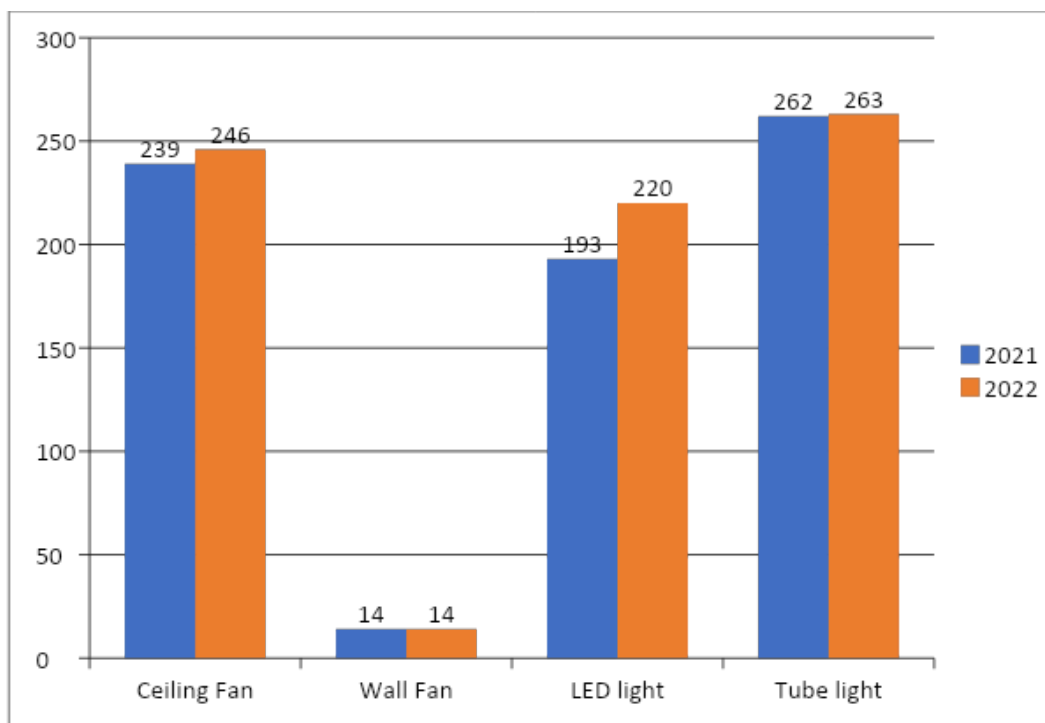
## **SAP Energy Committee report 2021-22**

1. Committee members met periodically to decide various activities of SAP energy Sub-Committee to be taken up in this period.
2. Audit on different electrical fittings of the college building including women's hostel was done in January 2022. It was observed that the number of energy saving LED lights had increased in the period 2021-22 both in the class rooms and hostel. It was also observed that normal tube lights were not replaced by LED lights in the library inspite of the recommendation of the committee.
3. The committee collected data from monthly electric bills of the college and found that units consumed do not reflect the solar energy generated by the solar panels fitted on the rooftop. This was reported to the college authority.
4. Student volunteers were inducted in the subcommittee in May 2022 and were asked to collect data from teaching and nonteaching staff of the college to get an idea about their mode of transportation while attending college.
5. Student volunteers were also instructed to prepare posters with quotes related to "save energy" and paste them in the classrooms for general display.
6. The student volunteers along with the committee members give constant effort to aware the stakeholders to save energy for the betterment of the college.

Sd/  
Aparajita Nag  
Convenor SAP Energy Subcommittee  
27.3.2022

  
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Brahmananda Keshab Chandra College  
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## Comparative study of usage of electrical fittings in college and hostel in 2021 and 2022



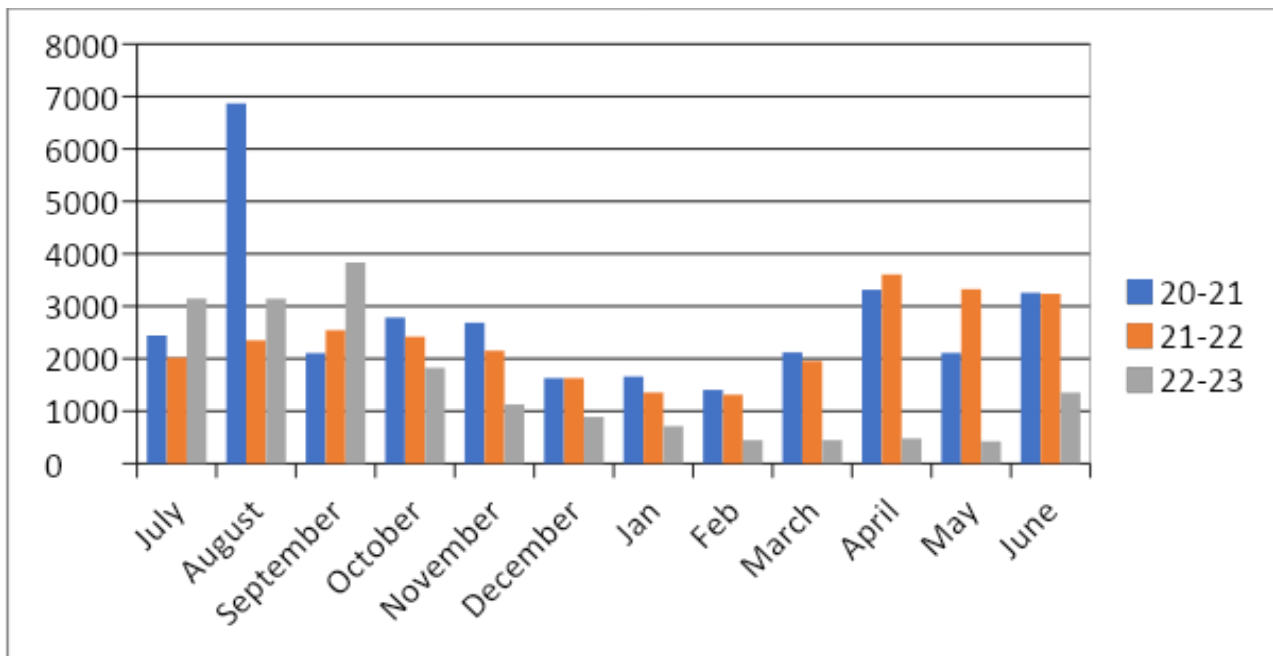
### SAP Energy Committee Report 2022-23

1. Committee members met periodically to decide various activities of SAP energy Sub-Committee to be taken up in this period.
2. The committee collected data from monthly electric bills of the college and found that units consumed do not reflect the solar energy generated by the solar panels fitted on the rooftop. This was reported to the college authority and the matter was taken up with CESC. It was found that the net meter installed by them was not working properly. A new

  
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meter was installed in October 2022 and from November 2022 the meter reading dropped sharply.

Months	Unit Consumed (2020-21)	Unit Consumed (2021-22)	Unit Consumed (2022-23)
July	2442	2019	3148
August	6867	2349	3144
September	2106	2543	3832
October	2785	2419	1826
November	2686	2153	1127
December	1630	1630	890
Jan	1660	1354	714
Feb	1405	1314	447
March	2119	1955	447
April	3314	3610	479
May	2110	3326	424
June	3257	3237	1353

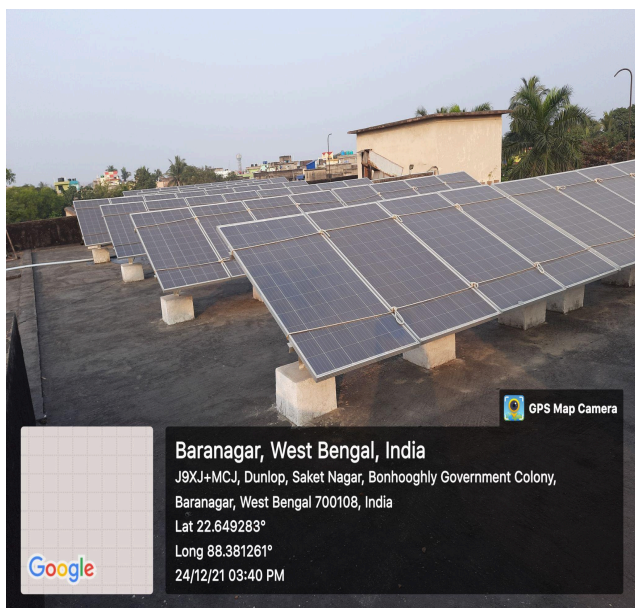


  
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3. Student volunteers were instructed to prepare posters with quotes related to “save energy” and paste them in the classrooms for general display.
4. Members with the volunteers monitor the condition of the solar panel installed on the rooftop from time to time and take a cleaning drive when needed.
5. The student volunteers along with the committee members give constant effort to aware the stakeholders to save energy for the betterment of the college.

Sd/  
Aparajita Nag  
Convenor SAP Energy Subcommittee  
11.8.2023

### Photographs of the Facility:



  
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Brahmananda Keshab Chandra College  
Kolkata - 700103



**Training Programme in On-Grid Solar System:**



## One day Training Programme on On-Grid Solar System - 2022



*Organized by*

**Internal Quality Assurance Cell (IQAC) & SAP Committee**

**Brahmananda Keshab Chandra College**

*In association with*

**L&T Construction, Kolkata**



**12<sup>th</sup> September, 2022**

**12:30 PM onwards**

**Venue: Room No. 117, BKC College**

Registration open for all

Registration Link

Registration Free

Feedback Link

  
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 Brahmananda Keshab Chandra College  
 Kolkata - 700103

## *Programme Schedule*

# One-day Training Programme on On-Grid Solar System - 2022

*Organised by*



**Internal Quality Assurance Cell (IQAC) & SAP Energy Committee  
Brahmananda Keshab Chandra College**

*In association with*



**L&T Construction, Kolkata**

*Venue: Room No. 117  
Brahmananda Keshab Chandra College*

[Registration Link](#)

[Feedback Link](#)

Date – September 12, 2022, Monday

Time	Event
12:15 PM	Registration (Please register through Registration Link)
12:30 PM	<b>Inaugural Session</b> i) Welcome Address by <b>Dr. Papia Chakraborti</b> , Principal, BKCC ii) Address by <b>Dr. Sheikh Ahmed Hossain</b> , Coordinator, IQAC iii) Address by <b>Mr. Kshitiz Kumar</b> , Engineer, L&T construction, Kolkata
12:45 – 1:30 PM	<b>Technical Session</b> Session Chair : <b>Dr. Aparajita Nag</b> , Associate Professor of Physics, BKC College Speaker : <b>Mr. Kshitiz Kumar</b> , Engineer, L&T construction, Kolkata Speaker : <b>Mr. Subhendu Sasmal</b> , Engineer, L&T construction, Kolkata Topic : <b>On-Grid Solar System</b>
1:30 – 1.45 PM	Q&A
1:45 PM	Valedictory

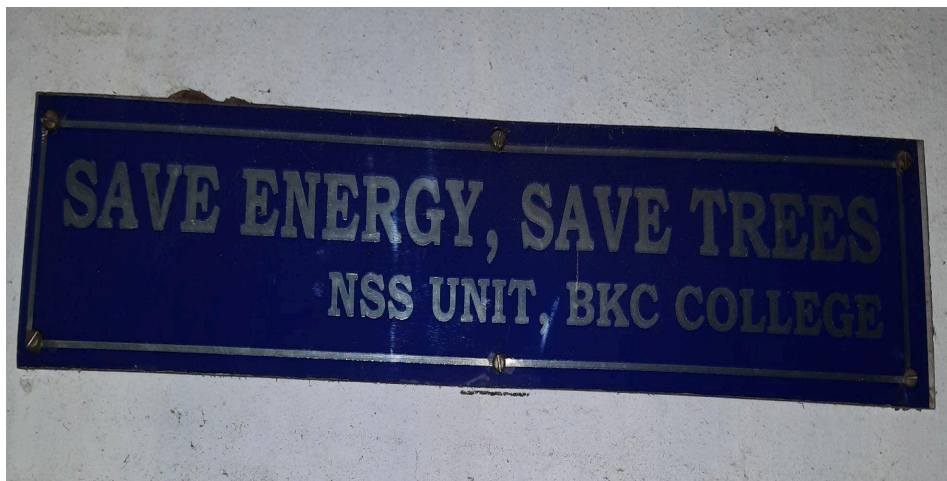
**Dr. Papia Chakraborti**  
Principal  
Organising Chairperson

**Dr. Sheikh Ahmed Hossain**  
Coordinator, IQAC  
Organising Secretary

Dated: 06/09/2022



**Energy Conservation Signages:**



  
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Kolkata - 700103