DVV Clarifications

Metrics Level Deviations

7.1.6	**Quality audits on environment and energy are regularly undertaken by the Institution and any awards received for such green campus initiatives:** 1. **Green audit** 2. **Energy audit** 3. **Environment audit** 4. **Clean and green campus recognitions / awards** 5. **Beyond the campus environmental promotion activities** HEI Input : A. Any 4 or all of the above	" Provide Certificate of Green audit Energy audit Environment audit Clean and green campus recognitions / awards Beyond the campus environmental promotion activities from the auditing agency. Provide Certificates of the awards received from the recognized agency. Provide Report on environmental promotional activities conducted beyond the campus with geo tagged photographs with caption and date for year 2020-21.

Supporting Documents:

1. Green Audit Certificate based on the data collected and monitored by the auditing agency for the years 2019-20 and 2020-21.
2. Energy Audit Certificate based on the data collected and monitored by the auditing agency for the years 2019-20 and 2020-21.
3. Environment Audit Certificate based on the data collected and monitored by the auditing agency for the years 2019-20 and 2020-21.
4. Clean and green campus recognition: Letter of Appreciation from the auditing agency for Implementing the recommendations suggested during the Green, Energy and Environment Audit Process
5. Minutes of the meetings of the Internal Green and Energy Audit Board of the Institute.

GV/ GA/ 03-22/ 61

Green Audit Certificate

is awarded for **2019-20 and 2020-21** to the Esteemed Institution

Kalyan Bharti Trust's

Heritage Institute of Technology

994 Madurdaha Chowbaga Road, Anandapur PO: East Kolkata Township, Kolkata 700107

As part of the Institution's initiatives for a Healthy & Sustainable College the audit was conducted.
We appreciate the immense efforts taken by Staff and students towards the Efficient Management of Premise.

Issued on **Tuesday, 22 March 2022** valid till **March 2023**

Ar. Nahida Shaikh
Architect, IGBC Accredited Professional, Assocham GEM Certified Professional (Regn. No. 22/718)

Project Head and Green Building Professional-Consultant

Sustainable Academe

Sustainability Department of Greenvio Solutions, Naigaon
An environment Design and Consultancy developing Healthy and Sustainable Environments
sustainableacademe@gmail.com I **greenviosolutions@gmail.com**

Greenvio Solutions

GV/ EA/ 03-22/ 60

Energy Audit Certificate

is awarded for **2019-20 and 2020-21** to the Esteemed Institution

Kalyan Bharti Trust's

Heritage Institute of Technology

994 Madurdaha Chowbaga Road, Anandapur PO: East Kolkata Township, Kolkata 700107

As part of the Institution's initiatives for a Healthy & Sustainable College the audit was conducted.
We appreciate the immense efforts taken by Staff and students towards the Energy Management and Conservation.

Issued on **Tuesday, 22 March 2022** valid till **March 2023**

Ar. Nahida Shaikh
Architect, IGBC Accredited Professional, Assocham GEM Certified Professional (Regn. No. 22/718)

Project Head and Green Building Professional-Consultant

Sustainable Academe

Sustainability Department of Greenvio Solutions, Naigaon

An environment Design and Consultancy developing Healthy and Sustainable Environments

sustainableacademe@gmail.com I **greenviosolutions@gmail.com**

Greenvio Solutions

GV/ ENVT/ 03-22/ 62

Environment Audit Certificate

is awarded for **2019-20 and 2020-21** to the Esteemed Institution

Kalyan Bharti Trust's

Heritage Institute of Technology

994 Madurdaha Chowbaga Road, Anandapur PO: East Kolkata Township, Kolkata 700107

As part of the Institution's initiatives for a Healthy & Sustainable College the audit was conducted.
We appreciate the immense efforts taken by Staff and students towards the Environment Protection and Conservation.

Issued on **Tuesday, 22 March 2022** valid till **March 2023**

Ar. Nahida Shaikh
Architect, IGBC Accredited Professional, Assocham GEM Certified Professional (Regn. No. 22/718)

Project Head and Green Building Professional-Consultant

Sustainable Academe

Sustainability Department of Greenvio Solutions, Naigaon
An environment Design and Consultancy developing Healthy and Sustainable Environments
sustainableacademe@gmail.com I **greenviosolutions@gmail.com**

Greenvio Solutions

Date: 22 March 2022
Ref no: LA/22/03/31

Letter of Appreciation

For

Implementing the recommendations suggested during the Green, Energy and Environment Audit Process

Awarded to

Kalyan Bharti Trust's

Heritage Institute of Technology

994 Madurdaha Chowbaga Road, Anandapur PO: East Kolkata Township, Kolkata 700107

With reference to the above cited subject we appreciate the efforts of the College in **implementing the activity of printing and putting up awareness posters related to Cleanliness, Energy, Waste, Water, Save Environment.** The College has printed these and put them at appropriate locations in the premise.

We hope the College continues similar efforts in the future as well. We have attached some of the photographic evidences in this letter.

Best regards,

Ar. Nahida Shaikh
Project Head and Green Building Consultant
Sustainable Academe
Sustainability Department of Greenvio Solutions, Naigaon
An environment Design and Consultancy developing Healthy and Sustainable Environments
sustainableacademe@gmail.com I **greenviosolutions@gmail.com**

Heritage Institute of Technology
Kolkata

Minutes of the meeting of Green and Energy Audit Board held on 16th September, 2021 (Thursday) at 2:00 P.M. at CME Conference Room.

Members Present:

1.	Prof.(Dr.) Pinaki Bhattacharya	Chairman
2.	Mr. Arvind Srivastava	Convener
3.	Mr. Manoj Saraogi	Member
4.	Lt. Col.(Retd.) Amitava Ghosh Dastidar	Member
5.	Prof.(Dr.) Saibal Dutta	Member
6.	Prof. (Dr.) Sukanta Sarkar	Member
7.	Prof. Rudra Prasad Roychowdhury	Member
8.	Mr. Debasish Chatterjee	Member
9.	Mr. Sanjay Agarwal	Member

At the outset the Chairman welcomed all the members of the Committee present in the meeting.

The following points were discussed and resolved.

Routine Maintenance & Monitoring as General Practice:

1. Yearly Chiller condenser de-scaling has been completed. This practice immensely helps to reduce energy loss.

2. Chemical treatment for all the cooling towers to achieve maximum heart transfer has been completed.

3. 2 x heavy duty RO plants of capacity @500ltr/hr at CME building & 600ltr/hr at ICT building are functioning with reject water tanks of 5000ltr in each building. Outlet of the reject water is connected with toilet flush water system and the flushed water from the toilets is recycled through 100KLD STP plant inside the campus. The entire process is looked after by trained persons on regular basis.

4. To reduce, reuse and recycle of plastics, various awareness programs have been carried out through NSS and HEGA environmental Clubs under the supervision of selected faculty members.

5. Waste segregations are strictly followed by all the stakeholders.

6. Plantation and greeneries are being maintained.

7. Trimming and maintenance of all 623 planted trees of 15 feet (average) height and 160 trees of above 30-50 ft height are carried out by the garden team regularly.

8. Hedges, seasonal flowers/plants all around the campus are maintained regularly for greeneries and beautification.

9. Garden team is preparing for competitions in National/State level awards under categories like seasonal flowers, Palm and feature garden designing etc.

10. As a standard practice power factor is being maintained at 99% to reduce losses and earn rebate from supply authority.

New developments during the period under consideration:

1. To achieve optimum energy consumption manual switching of all outdoor lights have been converted to photo sensor automated switching system. Now, the total area of 1,90,000 sft have been covered to include 04 x mast light units with 28 lights and all LED wall fitted bulkhead boundary lights.

2. 03 x Mast light unit containing 08 x 400 watt metal halide lights has been converted into 200 watt LED flood lights. With these additional number at present there are 04 LED flood light in total.

3. Process of conversion of all types of indoor lights to LED lights is in progress. A total number of 710 LED lights have been installed. Thus maximum reduction of electric energy will be achieved.

Plans to be executed

1. 02 x Mast light unit containing 08 x 400 watt metal halide lights will be converted to LED flood light in early 2022.

2. Practices of energy savings amongst students to be ensured. Posters on 'save energy' and lectures for the same will be organized at least twice in a year.

3. Group control switches for fans installed in the classrooms/ faculty rooms to be converted into single-switch-single-equipment system.

4. 20 Pcs 70 watt Pole lights (MH) to be replaced with 25 Watt LED flood light throughout campus.

Prof. (Dr.) Pinaki Bhattacharya
Chairman
Green and Energy Audit Board

Heritage Institute of Technology

Kolkata

Minutes of the meeting of Green and Energy Audit Board held on 14th February, 2020 (Friday) at 3:00 P.M. at CME Conference Room.

Members Present:

1. Prof.(Dr.) Pinaki Bhattacharya	Chairman
2. Mr. Arvind Srivastava	Convener
3. Mr. Manoj Saraogi	Member
4. Lt. Col.(Retd.) Amitava Ghosh Dastidar	Member
5. Prof.(Dr.) Saibal Dutta	Member
6. Prof. (Dr.) Sukanta Sarkar	Member
7. Prof. RudraPrasad Roychowdhury	Member
8. Mr. Debasish Chatterjee	Member
9. Mr. Sanjay Agarwal	Member

The Chairman called the meeting to order and the following points have been discussed and resolved.

1. To prevent tank overflow 4 x solenoid valves have been installed in overhead tanks existing in all the building inlet lines.

2. Power factor of the campus is maintained at 99% to achieve maximum rebate and reduce transmission loss. A total amount of Rs. 2, 07,145 (two lakhs seven thousand one hundred and forty five rupees only) has been realized in 2021 (Jan – Nov 2021) out of total electricity bill amounting Rs. 6806873 (sixty eight lakhs six thousand eight hundred and seventy three only).

3. Works on conversion of manual switching of all outdoor lights to photo sensor automated switching system is in progress to achieve optimum energy consumption. A total area of 1,90,000 sft will be covered to include 04 x mast light units with 28 lights and all LED wall fitted bulk head boundary lights.

4. 01 x Mast light unit containing 08 x 400 watt metal halide lights has been converted into 200 watt LED flood lights.

5. Chiller condenser de-scaling is in practice and taken up once in a year to reduce energy loss.

CERTIFIED TO BE A TRUE COPY

6. Chemical treatment for all the cooling towers are carried out on a regular basis to achieve maximum heat transfer.

7. Process of conversion of all types of indoor lights to LED lights is in progress. A total number of 310 LED lights have been installed with effect from January to Nov 2021 to achieve maximum reduction of electric energy.

6.Rain Water harvesting mechanism to utilize roof top rain waters of 12000 sft roof area is in function. The RCC reservoir of 1 lakh capacity to store rain water is operating as main source of water for gardening and fire pumps. Available roof top rainwater for storage is 350 kl/annum.

7. 2 x heavy duty RO plants of capacity @500ltr/hr at CME building & 600ltr/hr at ICT building is functioning with reject water tanks of 5000ltr in each building. Outlet of the reject water is connected with toilet flash water system and the flashed water from the toilets is recycled through 100KLD STP planted inside the campus.

8. To reduce, reuse and recycle plastic through various awareness programs have been carried out through NSS and HEGA environmental Club under the supervision of selected faculty members.

9. Waste segregations are strictly followed by all the stakeholders.

10. Plantation and greeneries are being maintained.

11. Trimming and maintenance of all 623 planted trees of 15 feet (average) height and 160 trees of above 30-50 ftare carried out by the garden team regularly.

12. Hedges, seasonal flowers/plants all around the campus are maintained regularly for greeneries and beautification.

13. Garden team is preparing for competitions in National/State awards on various competitions of categories like seasonal flowers, Palm and feature garden designing etc.

Plans to be executed

1. All the metal lights installed in mast lights to be converted into LED lights by 1st quarter of 2022.

2. Practices of energy savings amongst students to be ensured. Posters on 'Save Energy' and lectures for the same will be organized atleast twice in a year.

3. Group control switches for fans installed in the classrooms/ faculty rooms to be converted into single-switch-single-equipment system.

Sd/-

Prof. (Dr.) Pinaki Bhattacharya
Chairman
Green and Energy Audit Board

Jt. Registrar
Heritage Institute of Technology

CERTIFIED TO BE A TRUE COPY