



STD-03215 Ph-253267/9800043510
Nahata Jogendra Nath Mondal Smriti Mahavidyalaya
P.O.- Nahata, North 24 Parganas, PIN-743290
Affiliated to West Bengal State University
E-mail: info.nahatajnmsm@gmail.com
Website: www.nahatajnmsm.ac.in
ESTD: 1985



ISO 9001:2015 and ISO 14001:2015 Certified Institute

7.1.3 Quality audits on environment and energy regularly undertaken by the Institution. The institutional environment and energy initiatives are confirmed through the following

- 1. Green audit / Environment audit**
- 2. Energy audit**
- 3. Clean and green campus initiatives**
- 4. Beyond the campus environmental promotion activities**

QUERY RAISED:

HEI to provide the ecopies of all the three audit reports (complete) - environmental, green and energy made by a certified agency

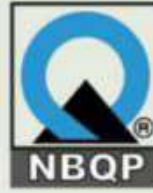
DVV Clarifications:

- 1. E-copies of audit reports made by certified agency**

Registration Certificate of Auditor

Green audit / Environment audit: 2018-19 to 2022-23

Energy audit: 2018-19 to 2022-23



National Board for Quality Promotion

(A constituent Board of Quality Council of India)

It is hereby certified that the credentials of

Mr. Supriyo Kayal

meet the evaluation criteria requirements of the
Auditor Registration Scheme of NBQP/QCI and
is therefore registered with NBQP/QCI

as a

**Principal Auditor for Quality
Management Systems**



Certificate No. PA/QMS/2324/001


Dr. A. Raj
CEO, NBQP

Date of Issue : 01/04/2023 | Validity : 31/03/2024

Quality Council of India, ITPI Building, 6th Floor, 4-A, Ring Road, IP Estate, New Delhi-110002.

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NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA

P.O. - Nahata, P.S. - Gopalnagar, Block - Bongaon, Dist.- North 24PGS,
West Bengal, Pin-743290

GREEN AUDIT REPORT

ACADEMIC YEAR 2022-23

(Covering Sustainability, Environment, Water, Waste and Energy Management,
In-line with National Building Code 2016-Part II)



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ACKNOWLEDGEMENT

Green Audit Team thanks the management of NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA for assigning this important work of Green Audit. Our special thanks are to:

- Honourable Principal **Dr. Prasun Biswas (Principal)**
- Teaching & Supporting Staff of College for giving us necessary inputs to carry out this very vital exercise of the audit. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

The Green audit conducted by the NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA is an internal audit that aims towards looking after a healthy environment. The initiative is taken up to foster the concept of environmental sustainability. Sincere thanks to all for providing us necessary amenities and co-operation during the audit that helped in making the audit a success.



OPENING & CLOSING MEETING ATTENDANCE ROSTER

Name of the Institute: **NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA**

Type of Audit: **GREEN AUDIT**

Date: 18/04/2023

NAME	DESIGNATION	OPENING MEETING 18.04.2023	CLOSING MEETING 18.04.2023
* Auditor /Technical Expert			
SUPRIYO KAYAL	LEAD AUDITOR	<i>Supriyo Kayal</i>	<i>Supriyo Kayal</i>

Client			
DR. PRASUN BISWAS	Teacher-in-Charge	<i>Prasun Biswas</i>	<i>Prasun Biswas</i>
DR. DHRUBAJYOTI CHATTOPADHYAY	Associate Professor	<i>Dhruba</i>	<i>Dhruba</i>
SMT. SRIPARNA DUTTA	Associate Professor	<i>Sriparna</i>	<i>Sriparna</i>
DR. ANISH KUMAR MUKHOPADHYAY	Assistant Professor	<i>Anish kumar mukhopadhyay</i>	<i>Anish kumar mukhopadhyay</i>
SRI. RANAJIT MAITI	Assistant Professor	<i>Ranajit Maiti</i>	<i>Ranajit Maiti</i>
DR. JHANTU SARADAR	Assistant Professor	<i>Jhantu Saradar</i>	<i>Jhantu Saradar</i>

* Declaration for conflict of interest: "I reconfirm that there is no Relationship (as defined in 17021 Clause: 5.2) with the Client that poses any Conflict of Interest and / or unacceptable threat to impartiality. By signing the above attendance, they confirm for the same.

Form – Opening/Closing Meeting -Rev:02



GREEN AUDIT

CERTIFICATE

This is to certify that a "GREEN AUDIT" for NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA, At P.O. -Nahata, P.S. - Gopalnagar, Block - Bongaon, Dist.- North 24PGS, West Bengal, Pin-743290, has been conducted in April'2023 to assess the green initiatives planning and efforts implemented in the college campus like Green Campus Management, Covering Sustainability, Environment, Water, Waste and Energy Management, in-line with National Building Code 2016-Part II. This green audit is also aimed to assess impact of green initiatives for maintenance of eco-friendly campus.

Place: Nahata

Date: 18th April'2023



Mr. S. Kayal

Lead Auditor EMS & Energy (EnMS)

NBQP(OCI) registered Principal Auditor



1. EXECUTIVE SUMMARY

Rapid economic and urbanization development has led to several environmental and ecological crises. On this background it becomes essential to adopt the system of the Green Campus for the institute which will lead for sustainable development.

The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The methodology included physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. It works on the several facets of 'Green Campus' including

- **Water Conservation,**
- **Tree Plantation,**
- **Waste Management,**
- **Alternative Energy and**
- **Mapping of Biodiversity.**

With this background, the specific objectives of the audit were to evaluate the adequacy of the management control framework of environment sustainability as well as the degree to which the Departments are in compliance with the applicable regulations, policies and standards. It can make a tremendous impact on student health and learning Institute operational costs and the environment. The criteria, methods and recommendations used in the audit were based on the identified risks.



2. INTRODUCTION

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of various establishments. It aims to analyse environmental practices within and outside of the concerned sites, which will have an impact on the eco-friendly ambience. Green audit can be a useful tool for an Institute to determine how and where they are using the **most energy or water or resources**; the Institute can then consider how to **implement changes and make savings**. It can also be used to determine the type and volume of waste, which can be used for a recycling project or to improve waste minimization plan. It can create health consciousness and promote environmental awareness, values and ethics. It provides staff and students better understanding of green impact on campus. If self-enquiry is a natural and necessary outgrowth of a quality education, it could also be stated that institutional self-enquiry is a natural and necessary outgrowth of a quality educational institution. Thus, it is imperative that the Institute evaluate its own contributions toward a sustainable future. As environmental sustainability is becoming an increasingly important issue for the nation, the role of higher educational institutions in relation to environmental sustainability is more prevalent.

1. Green Audit is a systematic approach, Audit is conducted objectively.
2. Auditor obtains and evaluates evidence.
3. Evidence obtained and evaluated by the auditor concerns assertions about economic actions and events.

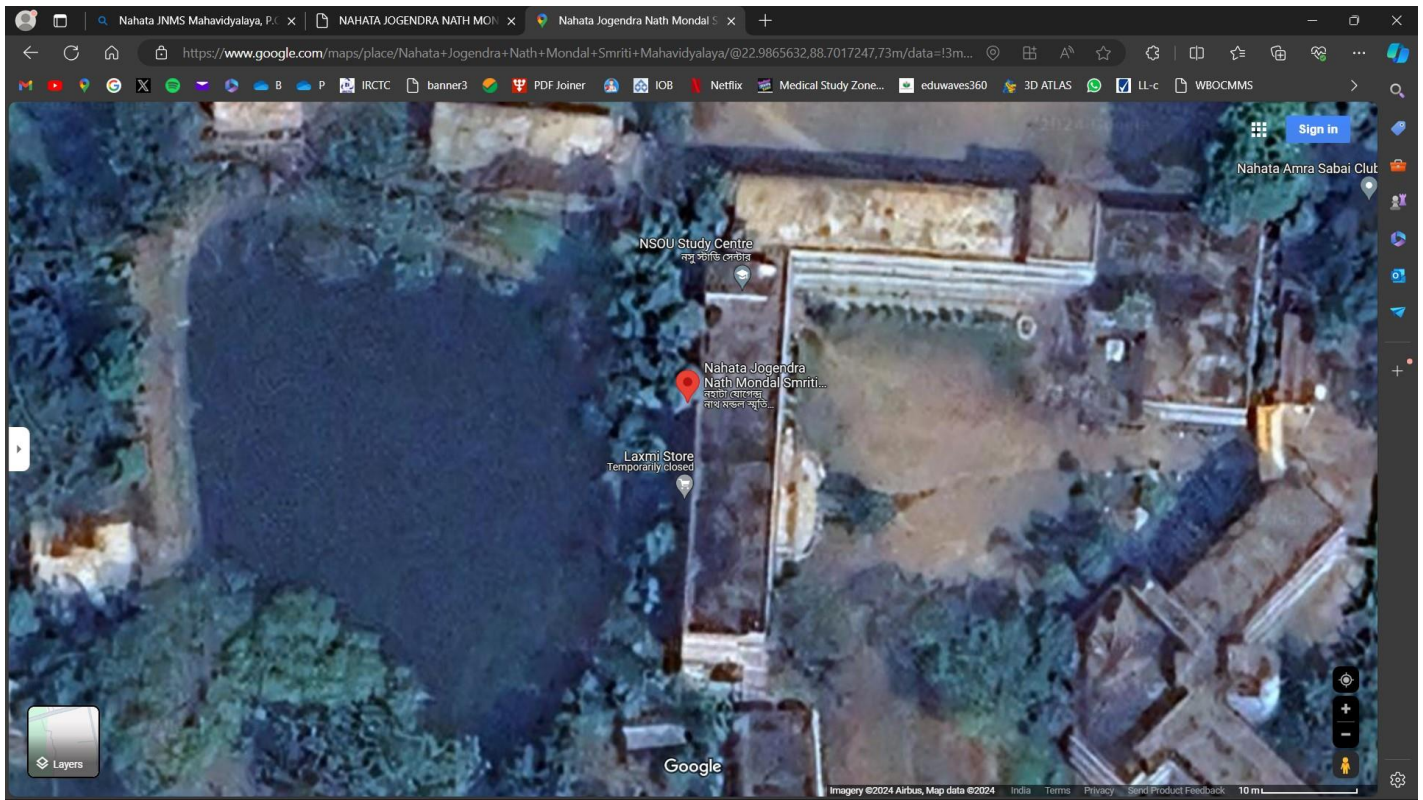


4. Auditor ascertains the degree of correspondence between assertions and established criteria.
5. Goal, or objective, of the audit is communicating the results to interested users.

About the college

Nahata Jogendra Nath Mondal Smriti Mahavidyalaya is a co-educational institution. The history of this institution is a history of progress. This college is mainly built for the purpose of education and development of the poor and falling behind students. In 1983, an all-out effort was undertaken in the area by the Government of West Bengal to expand higher education in rural Bengal and realize the aspirations of the people. Nahata Jogendranath Mondal Smriti Mahavidyalaya was affiliated to Calcutta University and this was established on 1st July 1985 with the efforts of the then Education Minister Mr. Kanti Biswas and the late Mr. Shantimoy Ghosh and with the sincerity and cooperation of people from all sections of the society. Late Mr. Rakhal Bhowmick and Mr. Hari Mohan Bhowmik donated land for the establishment of the college. Nahata High School donated classrooms and office rooms free of cost for almost two and a half years to run the college. At that time, high school teachers also taught college students responsibly. Nahata Jogendranath Mandal Smriti Mahavidyalaya has become an inexhaustible achievement in the development of the area for the past 30 years. Presently, the college is under the West Bengal State University and till now the college is running with graduate level courses in sixteen subjects and with PG courses in Bengali. Post-Graduate Bengali department reading-reading has started from the academic year 2018-2019. The NCC department of the college is progressing successfully. Apart from this, every year the college continues to play its leading role by participating in various folk festivals including the local agricultural fair and health fair and establishing cordial relations. The college also helps in raising public awareness by organizing blood donation camps, dengue prevention, thalassemia screening and health screening camps. The College is committed to the goal of holistic education and social upliftment.





VISION & MISSION:

Vision:

To serve the needs of the locality by providing higher education with a multifaceted human-centred approach to the socially, economically and other backward class masses for a better educational environment and holistic development.

Mission:

M1: To create an enlightened society by educating the local younger section of the society and make them competent for the development of



the nation.

M2: To orient the local younger generation with multidisciplinary courses and make them capable of pursuance of higher studies and research activities.

M3: To provide quality education to all the students of the area for integrated growth and personality development.

M4: To create a quality youth force through value education beyond their syllabus so that they bear the responsibility to fight against ignorance, illiteracy and other social evils.

M5: To explore the qualities and talents of the students and provide them with facilities for pursuance of their talents at the state and national levels and also shape their talents into professional skills.

3. OBJECTIVE OF THE STUDY

The main objectives of the green audit are to promote the environment management and conservation in the Institute campus. The purpose of the audit is to identify, quantify, describe and prioritize framework of environment sustainability in compliance with the applicable regulations, policies and standards.

Later on, it is implemented as a measure to enhance a healthy environment to almost all the organizations. Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out Green Audit. Green audit is assigned to the criteria 7 of NAAC, National Assessment and Accreditation Council which is a self-governing organization of India which declares the institutions as Grade A, B or C according to the scores assigned during the accreditation.



The main objectives of carrying out green audit are

- To aware students to real concern of environment and its sustainability
- To secure the environment and cut down the threats posed to human health
- To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requires high cost.
- To bring out a present status report on environmental compliance.

4. METHODOLOGY

In order to perform green audit, the methodology included different techniques such as physical inspection of the campuses, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following area to summarize the present status of environment management in the campuses

- **Water Management**
- **Air Quality assessment and Management**
- **Electricity consumption and management**
- **Waste Management,**
- **Mapping of Biodiversity.**

The Green Audit taken up by the College had been divided into three stages



5. THE PRE-AUDIT STAGE

In the pre-audit stage,

Meetings provide an opportunity to support the capacity and objectives of the audit and enable discussions on the feasibility associated with the audit. The meeting provided the chance to gather information that the audit team can study before arriving on the site. The audit procedure and audit plan were handed over at this meeting and discussed in advance of the audit itself. In NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA, the planning of audit processes was discussed in the pre-audit meeting. Audit team was also selected in this meeting with the help of staff and the Institute management. The audit protocol and audit plan were handed over at this meeting and discussed in advance of the audit itself. The Management of the Institute has shown the commitment towards the green auditing during the pre-audit meeting. They were ready to encourage all green activities. It was decided to promote all activities that are environment friendly such as awareness programs on the environment, campus planting more trees on the campus, etc., after the green auditing. The management of the Institute was willing to formulate policies based on green auditing report.

6. THE AUDIT STAGE

The Audit Stage team selection and the field works performed. Looking after the unique structure, location and ambiance of the Institute, the Green Audit Team focused on Material Issues pertaining to Institute which have the highest influence on the Green Attributes of the Institute. The Audit stage also focused on the Methodology adopted. Checklist approach is adopted for transparent evaluation of



the topics and increase readability for independent reader. Discussions were made with the college management regarding their policies on environmental management.

College and its premises were visited and analysed by the auditor to gather information. Campus trees were counted and identified. library, office rooms and parking grounds were also visited to collect data. Number and type of vehicles used by the stakeholders were observed.

7. THE POST AUDIT STAGE

The base of any green audit is that its findings are supported by documents and verifiable information. The audit process seeks, on a sampled basis, to track past actions, activities, events, and procedures to ensure that they are carried out according to systems requirements and in the correct manner. Green audits form a part of a process. Although they are individual events, the real value of green audits is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. Although green audits are carried out using policies, procedures, documented systems and objectives as a test, there is always an element of subjectivity in an audit. The post-audit stage ensures formulation of Draft findings and sent to management response. Since the audit is done internally, it was important to ensure management approval for the draft. After getting draft approval, the audit team went for final report formulation.



8. AUDIT GOALS OF THE INSTITUTE

The Institute, has created green monitoring team that aimed at performing the green audit of the institution. The main objectives of the audit are

- More efficient resource management
- To provide for basis for improved sustainability
- To create Green Campus
- To enable waste management through reduction of waste generation, solid waste and water recycling.
- Recognise the cost saving methods through waste minimising and managing.
- Point out the prevailing and fourth coming complications
- Impart environmental education through systematic environmental management approach and benchmarking for environment protection.

9. AUDIT FRAMEWORK AND DETAILED FINDINGS

The following audit framework is used for conducting Green Audit. The framework also lists of the findings and observations for every criterion.

Control objective	Control(s)	Audit Observation
<ul style="list-style-type: none"> • WATER MANAGEMENT 	<ul style="list-style-type: none"> • Repair sources of water leakage, such as dripping taps. 	<ul style="list-style-type: none"> • Regular checking and maintenance of pipelines are done to control Water wastage.



	<ul style="list-style-type: none"> • Encourage to decrease excess water usage. 	<ul style="list-style-type: none"> • Though water is used nominal in the Institute, but to ensure a further minimal rate, placards and warnings are not set up in the Institute premise. That must be adopted at every water delivery Point.
	<ul style="list-style-type: none"> • Install water recycling mechanism. 	<ul style="list-style-type: none"> • Rain water of 6000 sq. feet has been stored, reused and recharge the found level water.
	<ul style="list-style-type: none"> • Minimize wastage of water and use of electricity during water filtration process, if used, such as Aqua guard filter 	<ul style="list-style-type: none"> • Institute has Aqua guard filter on each floor which gives safe drinking water. Also packaged drinking water using when necessary. State Government W.T.M. for drinking.
	<ul style="list-style-type: none"> • Rainwater Harvesting project execution 	<ul style="list-style-type: none"> • Already executed. They collect the rainwater from the roof and stored in tank (which is used in toilets, gardening) and excess rainwater is recharged at the ground through well.
	<ul style="list-style-type: none"> • Make full use of all recycling facilities 	<ul style="list-style-type: none"> • Institute does not have any such recycling device to carry on the procedure. Primary segregation is carried out and partly paper, plastic and E waste is kept in E-waste bin.
	<ul style="list-style-type: none"> • Waste, green waste and non-recycled collected from gardens, offices and rooms. 	<ul style="list-style-type: none"> • Taken by Panchayet.



<ul style="list-style-type: none"> Recycle or safely dispose of dry wastes, computers and electrical appliances. 	<ul style="list-style-type: none"> Recycle or safely dispose of dry wastes, computers and electrical appliances is done at primary level is done.
<ul style="list-style-type: none"> Provide sufficient, accessible and well-publicized collection points for recyclable waste, with responsibility for recycling clearly allocated 	<ul style="list-style-type: none"> The Institute has set up separate two bins on each floor to ensure proper segregation and collection of the various wastes.
<ul style="list-style-type: none"> Dispose all waste, whether solid or otherwise, in a scientific manner and ensure that it is not released directly to the environment 	<ul style="list-style-type: none"> Yes, the Institute is trying to dispose all wastes, whether solid or otherwise, in a scientific manner and ensure that it is not released directly to the environment; however, there is a lot of scope for improvement in current waste handling methods.



<ul style="list-style-type: none"> GREEN CAMPUS 	<ul style="list-style-type: none"> Encourage the faculties and students to plant trees in the garden. 	<ul style="list-style-type: none"> Encourage the faculties and students to plant trees in the garden. Existing plantation is not marked properly. However, more plantation can be adopted with more native trees.
	<ul style="list-style-type: none"> Establish a Garden in the campus 	<ul style="list-style-type: none"> Institute planning for garden.
	<ul style="list-style-type: none"> Disposal of the chemical waste generated from the laboratories in a scientific manner 	<ul style="list-style-type: none"> NA
	<ul style="list-style-type: none"> Minimize the use of fertilizers and Pesticides in Institute ground & garden. 	<ul style="list-style-type: none"> Moderate amounts of bio-fertilizers are used in the Institute.
<ul style="list-style-type: none"> ENERGY MANAGEMENT 	<ul style="list-style-type: none"> Look in to the possibility of on-site micro-generation of renewable electricity. 	<ul style="list-style-type: none"> Institute has started to installed Solar wall Lights for outdoor and garden.
	<ul style="list-style-type: none"> Give preference to the most energy efficient and environmentally sound appliances available, this includes only using energy-saving light bulbs 	<ul style="list-style-type: none"> The Institute is using LED lights as much as practicable as well as CFL. College using fan and LED tube, Xerox machine, Computer printer, CC tv etc. 90% Bulbs are LED tubes., AC 1 nos and computer 15 nos. verified during audit.
	<ul style="list-style-type: none"> Ensure that all cleaning products used by Institute staff have a minimal detrimental impact on the environment, i.e. are biodegradable and non-toxic 	<ul style="list-style-type: none"> Negligible amounts of washing liquids are used in the Institute and all the toilet cleaners are eco-friendly



Green Campus:

Total number of plants in the campus- 26 numbers, age more than 15 years.



Water Management

The source of water used in the college are municipal water supply.

Sl. No.	Parameters	Response
1	No of wells	2
2	No of water tanks	4
3	Any wastage/why	Nil
4	Water used for gardening	5 cu.mt.
5	Waste water sources	washrooms
6	Rain water harvest available?	Yes
7	Any leaky taps?	Nil
8	Amount of water lost per day	Nil



Waste management

Waste management is important for an eco-friendly campus. In a college, different types of wastes are generated, its collection and management are very challenging. The following data provide the details of the waste generated and the disposal method adopted by the college.

Types of waste	Particulars	Disposal method
E-Waste	Computers, electrical and electronic parts	E waste is kept in E-waste bin.
Plastic waste	Pen, Refill, Plastic water bottles and other plastic containers, wrappers etc.	Pick up by Panchayet
Solid wastes	Damaged furniture, paper waste, paper plates	Pick up by Panchayet
Waste water	Washing, urinals, bathrooms	Panchayet sewer line
Food waste	Food waste from canteen	Pick up by Panchayet

11. SUGGESTIONS AND RECOMMENDATIONS

A few recommendations are added to curb the menace of all management using eco-friendly and scientific techniques. This may lead to the prosperous future in context of green campus and thus sustainable environment and community development. It has been shown frequently that the practical suggestions, alternatives, and observations that have resulted from audits have added positive value to management of the campus.



CRITERIA WISE RECOMMENDATIONS

Green Campus

- All trees in the campus should be named scientifically and name should be placed on each tree.
- Beautify the college building with indoor plants.
- Encouraging students for making the campus green.
- Conducting competitions among departments for making students, teaching-non teaching staffs more interested in making the campus greener.
- In order to increase the carbon credit and greenery of the campus, it is recommended to plant more indigenous and Fruit and medicinal plants species inside the campus like Amla, Kaju, Tulsi, Alovera and Ashwagandha etc.

Water management

- The college should arrange awareness programs for water conservation. The campaign should be on proper monitoring of water consumption patterns in the campus and can also conduct water quality monitoring during specific intervals.

Energy management

- The energy audit recommends to avoid the use of more energy consuming electrical appliances and to replace with more environment friendly and energy efficient appliances (for example five stars rated Air conditioner) in the college. The potential of renewable energy sources has to be explored. As the college has a very large roof area for installing solar panels so that it can be effectively used for generating power.



- It is recommended to install the following solar powered appliances in the campus;
- Solar powered street lights and LED display board.
- Observe a power saving day every year
- Conduct more save energy awareness programs for students and staff.
- Use energy efficient light-emitting diode (LED) bulbs instead of incandescent and CFL bulbs
- Maintain appliances and replace old appliances. • Use computers and electronic equipment in power saving mode.

Waste management

- Try to avoid the use of plastic in the campus, and to encourage the use of biodegradable materials as alternatives. Ban on single use plastic such as carry bags, food packaging, bottles, straws, containers, cups and cutlery. Instead use steel plates. Avoid using paper cups and plate too.
- Leaf litter from the campus can be effectively used for aerobic/ vermi-composting, so that the composted material can also be used as good manure.
- Practice of waste segregation to be initiated.

Carbon footprint

- Increase a system of car-pooling among the staff to reduce the number of four wheelers coming to the college.
- Encourage students and staff member to use public transport as possible.
- College may set a day as “no own vehicle day” every month. The any day of every month must be dedicated for it. Teachers and students are not allowed to take their private vehicles on that day and are supposed to reach college via public transportation methods. The no own



vehicle day is widely accepted among students and teachers and is hugely appreciated by the community.

- College also can promote car and bike pooling system. Teachers/ students coming from the same area share their vehicles to reach the college. This also reduces the number of private vehicles used in the college campus
- PUC (Pollution under control) certificate is required for all vehicles in the parking area.

12. CONCLUSION

The green audit assists in the process of testing performance in the environmental arena and is fast becoming an indispensable aid to decision making in a college. The green audit reports assist in the process of attaining an eco-friendly approach to the sustainable development of the college. A green audit report is a very powerful and valuable communications tool to use when working with various students who need to be convinced that things are running smoothly and systems and procedures are coping with natural changes and modifications that occur. The audit has identified several observations for making the campus premise more environment friendly. The recommendations are also mentioned with observations for campus team to initiate action. The audit team opines that the overall site is maintained well from environmental perspective, certain changes if implemented the college will be benefited by various environmental ways. **The audit was conducted to check following aspects**

- More efficient resource management.
- Provide basis for improved sustainability.
- Creating a green campus.
- Enable waste management through reduction of waste generation, solid- waste and water recycling
- Recognition of the cost saving methods through waste minimizing and managing.
- Point out the prevailing and forthcoming complications.
- Impart environmental education through systematic environmental management approach and Benchmarking for environmental protection.

Allow targets are fairly achieved in executed green audit report.





Mr. S. Kayal

Lead Auditor EMS & Energy (EnMS)

NBQP(QCI) registered Principal Auditor

End of Report



SK/GA/2023/17

CERTIFICATE GREEN AUDIT 2022-23

THIS IS TO CERTIFY THAT

NAHATA JOGENDRANATH MONDAL SMRITI MAHAVIDYALAYA

P.O. NAHATA, PS. GOPALNAGAR, DIST. 24 PGS (N)

has achieved the standards for Environmental responsibility within the academic accountability of the institute during the Green Audit 2022-23



MR. SUPRIYO KAYAL
Lead Auditor

NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA

P.O. -Nahata, P.S. - Gopalnagar, Block - Bongaon, Dist.- North 24PGS,
West Bengal, Pin-743290

GREEN AUDIT REPORT

ACADEMIC YEAR 2019-22

(Covering Sustainability, Environment, Water, Waste and Energy Management,
In-line with National Building Code 2016-Part II)



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- Honourable Principal **Dr. Prasun Biswas (Principal)**
- Teaching & Supporting Staff of College for giving us necessary inputs to carry out this very vital exercise of the audit. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

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OPENING & CLOSING MEETING ATTENDANCE ROSTER

Name of the Institute: **NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA**

Type of Audit: **GREEN AUDIT**

Date: 21/04/2022

NAME	DESIGNATION	OPENING MEETING 21.04.2022	CLOSING MEETING 21.04.2022
* Auditor /Technical Expert			
SUPRIYO KAYAL	LEAD AUDITOR	<i>Supriyo Kayal</i>	<i>Supriyo Kayal</i>

Client			
DR. ARNAB GHOSH	Principal	<i>Arnab Ghosh</i>	<i>Arnab Ghosh</i>
DR. DHRUBAJYOTI CHATTOPADHYAY	Associate Professor	<i>Dhruba Jayoti Chattopadhyay</i>	<i>Dhruba Jayoti Chattopadhyay</i>
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Form – Opening/Closing Meeting -Rev:02



GREEN AUDIT

CERTIFICATE

This is to certify that a "GREEN AUDIT" for NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA, At P.O. -Nahata, P.S. - Gopalnagar, Block - Bongaon, Dist.- North 24PGS, West Bengal, Pin-743290, has been conducted in April'2022 to assess the green initiatives planning and efforts implemented in the college campus like Green Campus Management, Covering Sustainability, Environment, Water, Waste and Energy Management, in-line with National Building Code 2016-Part II. This green audit is also aimed to assess impact of green initiatives for maintenance of eco-friendly campus.

Place: Nahata

Date: 21st April'2022



Mr. S. Kayal

Lead Auditor EMS & Energy (EnMS)

NBQP(OCI) registered Principal Auditor



1. EXECUTIVE SUMMARY

Rapid economic and urbanization development has led to several environmental and ecological crises. On this background it becomes essential to adopt the system of the Green Campus for the institute which will lead for sustainable development.

The purpose of the audit was to ensure that the practices followed in the campus are in accordance with the Green Policy adopted by the institution. The methodology included physical inspection of the campus, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. It works on the several facets of 'Green Campus' including

- **Water Conservation,**
- **Tree Plantation,**
- **Waste Management,**
- **Alternative Energy and**
- **Mapping of Biodiversity.**

With this background, the specific objectives of the audit were to evaluate the adequacy of the management control framework of environment sustainability as well as the degree to which the Departments are in compliance with the applicable regulations, policies and standards. It can make a tremendous impact on student health and learning Institute operational costs and the environment. The criteria, methods and recommendations used in the audit were based on the identified risks.



2. INTRODUCTION

Green Audit is a process of systematic identification, quantification, recording, reporting and analysis of components of environmental diversity of various establishments. It aims to analyse environmental practices within and outside of the concerned sites, which will have an impact on the eco-friendly ambience. Green audit can be a useful tool for an Institute to determine how and where they are using the **most energy or water or resources**; the Institute can then consider how to **implement changes and make savings**. It can also be used to determine the type and volume of waste, which can be used for a recycling project or to improve waste minimization plan. It can create health consciousness and promote environmental awareness, values and ethics. It provides staff and students better understanding of green impact on campus. If self-enquiry is a natural and necessary outgrowth of a quality education, it could also be stated that institutional self-enquiry is a natural and necessary outgrowth of a quality educational institution. Thus, it is imperative that the Institute evaluate its own contributions toward a sustainable future. As environmental sustainability is becoming an increasingly important issue for the nation, the role of higher educational institutions in relation to environmental sustainability is more prevalent.

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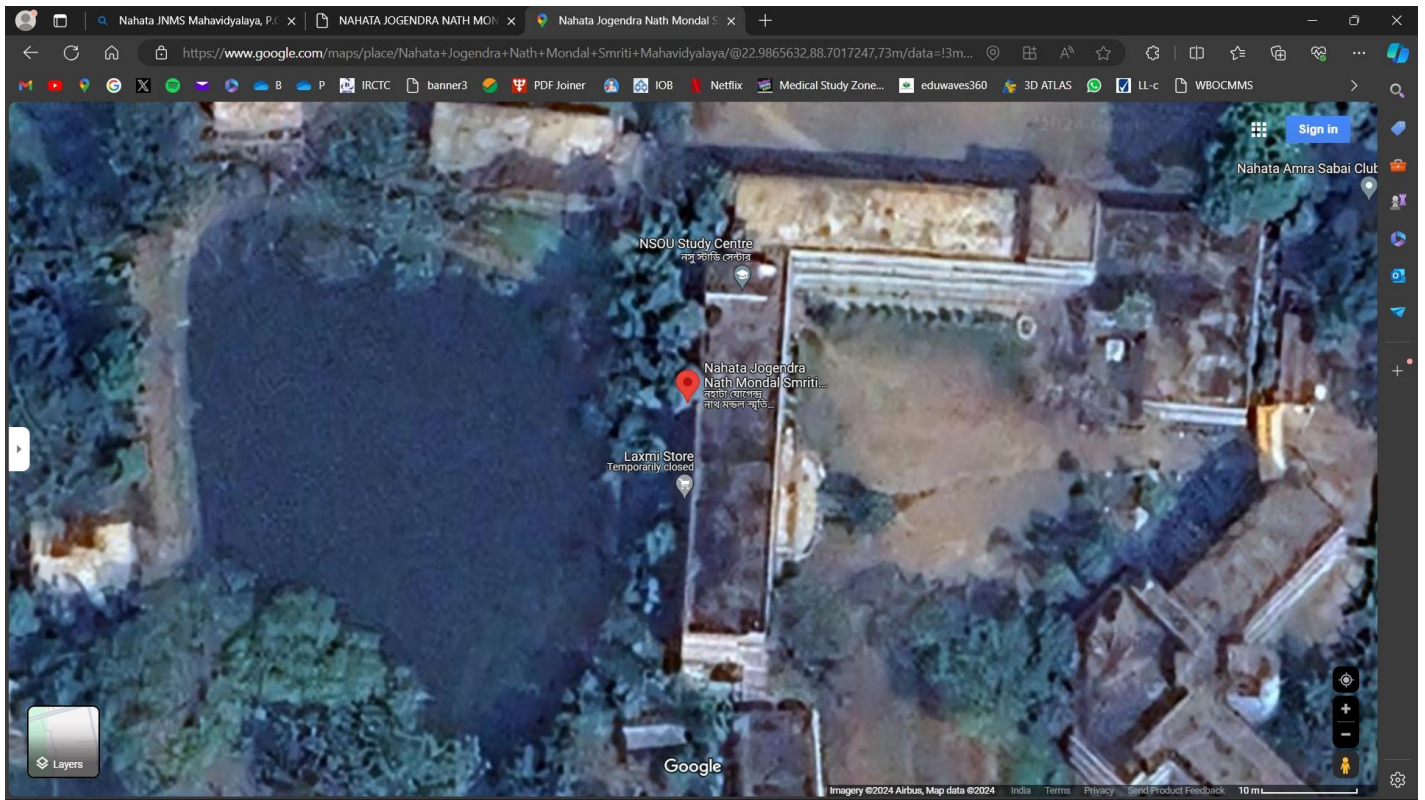


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About the college

Nahata Jogendra Nath Mondal Smriti Mahavidyalaya is a co-educational institution. The history of this institution is a history of progress. This college is mainly built for the purpose of education and development of the poor and falling behind students. In 1983, an all-out effort was undertaken in the area by the Government of West Bengal to expand higher education in rural Bengal and realize the aspirations of the people. Nahata Jogendranath Mondal Smriti Mahavidyalaya was affiliated to Calcutta University and this was established on 1st July 1985 with the efforts of the then Education Minister Mr. Kanti Biswas and the late Mr. Shantimoy Ghosh and with the sincerity and cooperation of people from all sections of the society. Late Mr. Rakhal Bhowmick and Mr. Hari Mohan Bhowmik donated land for the establishment of the college. Nahata High School donated classrooms and office rooms free of cost for almost two and a half years to run the college. At that time, high school teachers also taught college students responsibly. Nahata Jogendranath Mandal Smriti Mahavidyalaya has become an inexhaustible achievement in the development of the area for the past 30 years. Presently, the college is under the West Bengal State University and till now the college is running with graduate level courses in sixteen subjects and with PG courses in Bengali. Post-Graduate Bengali department reading-reading has started from the academic year 2018-2019. The NCC department of the college is progressing successfully. Apart from this, every year the college continues to play its leading role by participating in various folk festivals including the local agricultural fair and health fair and establishing cordial relations. The college also helps in raising public awareness by organizing blood donation camps, dengue prevention, thalassemia screening and health screening camps. The College is committed to the goal of holistic education and social upliftment.





VISION & MISSION:

Vision:

To serve the needs of the locality by providing higher education with a multifaceted human-centred approach to the socially, economically and other backward class masses for a better educational environment and holistic development.

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3. OBJECTIVE OF THE STUDY

The main objectives of the green audit are to promote the environment management and conservation in the Institute campus. The purpose of the audit is to identify, quantify, describe and prioritize framework of environment sustainability in compliance with the applicable regulations, policies and standards.

Later on, it is implemented as a measure to enhance a healthy environment to almost all the organizations. Through Green Audit, one gets a direction as how to improve the condition of environment and there are various factors that have determined the growth of carrying out Green Audit. Green audit is assigned to the criteria 7 of NAAC, National Assessment and Accreditation Council which is a self-governing organization of India which declares the institutions as Grade A, B or C according to the scores assigned during the accreditation.



The main objectives of carrying out green audit are

- To aware students to real concern of environment and its sustainability
- To secure the environment and cut down the threats posed to human health
- To establish a baseline data to assess future sustainability by avoiding the interruptions in environment that are more difficult to handle and their corrections requires high cost.
- To bring out a present status report on environmental compliance.

4. METHODOLOGY

In order to perform green audit, the methodology included different techniques such as physical inspection of the campuses, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following area to summarize the present status of environment management in the campuses

- **Water Management**
- **Air Quality assessment and Management**
- **Electricity consumption and management**
- **Waste Management,**
- **Mapping of Biodiversity.**

The Green Audit taken up by the College had been divided into three stages



5. THE PRE-AUDIT STAGE

In the pre-audit stage,

Meetings provide an opportunity to support the capacity and objectives of the audit and enable discussions on the feasibility associated with the audit. The meeting provided the chance to gather information that the audit team can study before arriving on the site. The audit procedure and audit plan were handed over at this meeting and discussed in advance of the audit itself. In NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA, the planning of audit processes was discussed in the pre-audit meeting. Audit team was also selected in this meeting with the help of staff and the Institute management. The audit protocol and audit plan were handed over at this meeting and discussed in advance of the audit itself. The Management of the Institute has shown the commitment towards the green auditing during the pre-audit meeting. They were ready to encourage all green activities. It was decided to promote all activities that are environment friendly such as awareness programs on the environment, campus planting more trees on the campus, etc., after the green auditing. The management of the Institute was willing to formulate policies based on green auditing report.

6. THE AUDIT STAGE

The Audit Stage team selection and the field works performed. Looking after the unique structure, location and ambiance of the Institute, the Green Audit Team focused on Material Issues pertaining to Institute which have the highest influence on the Green Attributes of the Institute. The Audit stage also focused on the Methodology adopted. Checklist approach is adopted for transparent evaluation of



the topics and increase readability for independent reader. Discussions were made with the college management regarding their policies on environmental management.

College and its premises were visited and analysed by the auditor to gather information. Campus trees were counted and identified. library, office rooms and parking grounds were also visited to collect data. Number and type of vehicles used by the stakeholders were observed.

7. THE POST AUDIT STAGE

The base of any green audit is that its findings are supported by documents and verifiable information. The audit process seeks, on a sampled basis, to track past actions, activities, events, and procedures to ensure that they are carried out according to systems requirements and in the correct manner. Green audits form a part of a process. Although they are individual events, the real value of green audits is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. Although green audits are carried out using policies, procedures, documented systems and objectives as a test, there is always an element of subjectivity in an audit. The post-audit stage ensures formulation of Draft findings and sent to management response. Since the audit is done internally, it was important to ensure management approval for the draft. After getting draft approval, the audit team went for final report formulation.



8. AUDIT GOALS OF THE INSTITUTE

The Institute, has created green monitoring team that aimed at performing the green audit of the institution. The main objectives of the audit are

- More efficient resource management
- To provide for basis for improved sustainability
- To create Green Campus
- To enable waste management through reduction of waste generation, solid waste and water recycling.
- Recognise the cost saving methods through waste minimising and managing.
- Point out the prevailing and fourth coming complications
- Impart environmental education through systematic environmental management approach and benchmarking for environment protection.

9. AUDIT FRAMEWORK AND DETAILED FINDINGS

The following audit framework is used for conducting Green Audit. The framework also lists of the findings and observations for every criterion.

Control objective	Control(s)	Audit Observation
<ul style="list-style-type: none"> • WATER MANAGEMENT 	<ul style="list-style-type: none"> • Repair sources of water leakage, such as dripping taps. 	<ul style="list-style-type: none"> • Regular checking and maintenance of pipelines are done to control Water wastage.



	<ul style="list-style-type: none"> • Encourage to decrease excess water usage. 	<ul style="list-style-type: none"> • Though water is used nominal in the Institute.
	<ul style="list-style-type: none"> • Install water recycling mechanism. 	<ul style="list-style-type: none"> • Rain water of 6000 sq. feet has been stored, reused and recharge the found level water.
	<ul style="list-style-type: none"> • Minimize wastage of water and use of electricity during water filtration process, if used, such as Aqua guard filter 	<ul style="list-style-type: none"> • Institute has Aqua guard filter on each floor which gives safe drinking water. Also packaged drinking water using when necessary. State Government W.T.M. for drinking.
	<ul style="list-style-type: none"> • Rainwater Harvesting project execution 	<ul style="list-style-type: none"> • Already executed. They collect the rainwater from the roof and stored in tank (which is used in toilets, gardening) and excess rainwater is recharged at the ground through well.
	<ul style="list-style-type: none"> • Make full use of all recycling facilities 	<ul style="list-style-type: none"> • Institute does not have any such recycling device to carry on the procedure. Primary segregation is carried out and partly paper, plastic and E waste is kept in E-waste bin.
	<ul style="list-style-type: none"> • Waste, green waste and non-recycled collected from gardens, offices and rooms. 	<ul style="list-style-type: none"> • Taken by Panchayet.



<ul style="list-style-type: none"> Recycle or safely dispose of dry wastes, computers and electrical appliances. 	<ul style="list-style-type: none"> Recycle or safely dispose of dry wastes, computers and electrical appliances is done at primary level is done.
<ul style="list-style-type: none"> Provide sufficient, accessible and well-publicized collection points for recyclable waste, with responsibility for recycling clearly allocated 	<ul style="list-style-type: none"> The Institute has set up separate two bins on each floor to ensure proper segregation and collection of the various wastes.
<ul style="list-style-type: none"> Dispose all waste, whether solid or otherwise, in a scientific manner and ensure that it is not released directly to the environment 	<ul style="list-style-type: none"> Yes, the Institute is trying to dispose all wastes, whether solid or otherwise, in a scientific manner and ensure that it is not released directly to the environment; however, there is a lot of scope for improvement in current waste handling methods.



<ul style="list-style-type: none"> GREEN CAMPUS 	<ul style="list-style-type: none"> Encourage the faculties and students to plant trees in the garden. 	<ul style="list-style-type: none"> Encourage the faculties and students to plant trees in the garden. Existing plantation is not marked properly. However, more plantation can be adopted with more native trees.
	<ul style="list-style-type: none"> Establish a Garden in the campus 	<ul style="list-style-type: none"> Institute planning for garden.
	<ul style="list-style-type: none"> Disposal of the chemical waste generated from the laboratories in a scientific manner 	<ul style="list-style-type: none"> NA
	<ul style="list-style-type: none"> Minimize the use of fertilizers and Pesticides in Institute ground & garden. 	<ul style="list-style-type: none"> Moderate amounts of bio-fertilizers are used in the Institute.
<ul style="list-style-type: none"> ENERGY MANAGEMENT 	<ul style="list-style-type: none"> Look in to the possibility of on-site micro-generation of renewable electricity. 	<ul style="list-style-type: none"> Institute has started to installed Solar wall Lights for outdoor and garden.
	<ul style="list-style-type: none"> Give preference to the most energy efficient and environmentally sound appliances available, this includes only using energy-saving light bulbs 	<ul style="list-style-type: none"> The Institute is using LED lights as much as practicable as well as CFL. College using fan and LED tube, Xerox machine, Computer printer, CC tv etc. 90% Bulbs are LED tubes., AC 1 nos and computer 15 nos. verified during audit.
	<ul style="list-style-type: none"> Ensure that all cleaning products used by Institute staff have a minimal detrimental impact on the environment, i.e. are biodegradable and non-toxic 	<ul style="list-style-type: none"> Negligible amounts of washing liquids are used in the Institute and all the toilet cleaners are eco-friendly



Green Campus:

Total number of plants in the campus- 26 numbers

Water Management

The source of water used in the college are municipal water supply.

Sl. No.	Parameters	Response
1	No of wells	2
2	No of water tanks	4
3	Any wastage/why	Nil
4	Water used for gardening	5 cu.mt.
5	Waste water sources	washrooms
6	Rain water harvest available?	Yes
7	Any leaky taps?	Nil
8	Amount of water lost per day	Nil

Waste management

Waste management is important for an eco-friendly campus. In a college, different types of wastes are generated, its collection and management are very challenging. The following data provide the details of the waste generated and the disposal method adopted by the college.

Types of waste	Particulars	Disposal method
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E-Waste	Computers, electrical and electronic parts	E waste is kept in E-waste bin.
Plastic waste	Pen, Refill, Plastic water bottles and other plastic containers, wrappers etc.	Collect in Bin.
Solid wastes	Damaged furniture, paper waste, paper plates	Pick up by Panchayet
Waste water	Washing, urinals, bathrooms	Panchayet sewer line
Food waste	Food waste from canteen	Uses Bin.

11. SUGGESTIONS AND RECOMMENDATIONS

A few recommendations are added to curb the menace of all management using eco-friendly and scientific techniques. This may lead to the prosperous future in context of green campus and thus sustainable environment and community development. It has been shown frequently that the practical suggestions, alternatives, and observations that have resulted from audits have added positive value to management of the campus.

CRITERIA WISE RECOMMENDATIONS

Green Campus

- All trees in the campus should be named scientifically and name should be placed on each tree.
- Beautify the college building with indoor plants.
- Encouraging students for making the campus green.
- Conducting competitions among departments for making students, teaching-non teaching staffs more interested in making the campus greener.



- In order to increase the carbon credit and greenery of the campus, it is recommended to plant more indigenous and Fruit and medicinal plants species inside the campus.

Water management

- The college should arrange awareness programs for water conservation. The campaign should be on proper monitoring of water consumption patterns in the campus and can also conduct water quality monitoring during specific intervals.

Energy management

- The energy audit recommends to avoid the use of more energy consuming electrical appliances and to replace with more environment friendly and energy efficient appliances (for example five stars rated Air conditioner) in the college. The potential of renewable energy sources has to be explored. As the college has a very large roof area for installing solar panels so that it can be effectively used for generating power.
- It is recommended to install the following solar powered appliances in the campus;
- Conduct more save energy awareness programs for students and staff.
- Use energy efficient light-emitting diode (LED) bulbs instead of incandescent and CFL bulbs
- Maintain appliances and replace old appliances. • Use computers and electronic equipment in power saving mode.

Waste management



- Try to avoid the use of plastic in the campus, and to encourage the use of biodegradable materials as alternatives. Ban on single use plastic such as carry bags, food packaging, bottles, straws, containers, cups and cutlery. Instead use steel plates. Avoid using paper cups and plate too.
- Practice of waste segregation to be initiated.

Carbon footprint

- Increase a system of car-pooling among the staff to reduce the number of four wheelers coming to the college.
- Encourage students and staff member to use public transport as possible.

12. CONCLUSION

The green audit assists in the process of testing performance in the environmental arena and is fast becoming an indispensable aid to decision making in a college. The green audit reports assist in the process of attaining an eco-friendly approach to the sustainable development of the college. A green audit report is a very powerful and valuable communications tool to use when working with various students who need to be convinced that things are running smoothly and systems and procedures are coping with natural changes and modifications that occur. The audit has identified several observations for making the campus premise more environment friendly. The recommendations are also mentioned with observations for campus team to initiate action. The audit team opines that the overall site is maintained well from environmental perspective, certain changes if implemented the college will be benefited by various environmental ways. **The audit was conducted to check following aspects**

- More efficient resource management.
- Provide basis for improved sustainability.



- Creating a green campus.
- Enable waste management through reduction of waste generation, solid- waste and water recycling
- Recognition of the cost saving methods through waste minimizing and managing.
- Point out the prevailing and forthcoming complications.
- Impart environmental education through systematic environmental management approach and Benchmarking for environmental protection.

Allow targets are fairly achieved in executed green audit report.



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NBQP(QCI) registered Principal Auditor

End of Report





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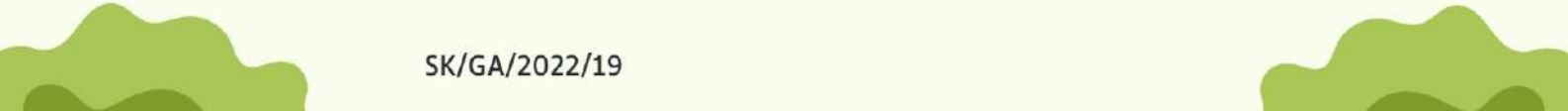
P.O. NAHATA, PS. GOPALNAGAR, DIST. 24 PGS (N)

has achieved the standards for Environmental responsibility within the academic accountability of the institute during the Green Audit 2019-22.



MR. SUPRIYO KAYAL
Lead Auditor

SK/GA/2022/19



NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA

P.O. -Nahata, P.S. - Gopalnagar, Block - Bongaon, Dist.- North 24PGS,
West Bengal, Pin-743290

GREEN AUDIT REPORT

ACADEMIC YEAR 2018-19

**(Covering Sustainability, Environment, Water, Waste and Energy Management,
In-line with National Building Code 2016-Part II)**



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ACKNOWLEDGEMENT

Green Audit Team thanks the management of NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA for assigning this important work of Green Audit. Our special thanks are to:

- Honourable Principal **Dr. Arnab Ghosh (Principal)**
- Teaching & Supporting Staff of College for giving us necessary inputs to carry out this very vital exercise of the audit. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

The Green audit conducted by the NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA is an internal audit that aims towards looking after a healthy environment. The initiative is taken up to foster the concept of environmental sustainability. Sincere thanks to all for providing us necessary amenities and co-operation during the audit that helped in making the audit a success.



OPENING & CLOSING MEETING ATTENDANCE ROSTER

Name of the Institute: **NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA**

Type of Audit: **GREEN AUDIT**

Date: 17/04/2019

NAME	DESIGNATION	OPENING MEETING 17.04.2019	CLOSING MEETING 17.04.2019
* Auditor /Technical Expert			
SUPRIYO KAYAL	LEAD AUDITOR	<i>Supriyo Kayal</i>	<i>Supriyo Kayal</i>

Client			
Dr. Arnab Ghosh	Principal	<i>Arnab Ghosh</i>	<i>Arnab Ghosh</i>
Dr.Dhrubajyoti Chattopadhyay	Associate Professor	<i>Dhrubajyoti Chattopadhyay</i>	<i>Dhrubajyoti Chattopadhyay</i>
Smt. Sriparna Dutta	Associate Professor	<i>Sriparna Dutta</i>	<i>Sriparna Dutta</i>
Dr. Anish Kumar Mukhopadhyay	Assistant Professor	<i>Anish Kumar Mukhopadhyay</i>	<i>Anish Kumar Mukhopadhyay</i>
Sri. Ranajit Maiti	Assistant Professor	<i>Ranjit Maiti</i>	<i>Ranjit Maiti</i>
Dr. Prasun Biswas	Assistant Professor	<i>Prasun Biswas</i>	<i>Prasun Biswas</i>
Dr. Jhantu Saradar	Assistant Professor	<i>Jhantu Saradar</i>	<i>Jhantu Saradar</i>

* Declaration for conflict of interest: "I reconfirm that there is no Relationship (as defined in 17021 Clause: 5.2) with the Client that poses any Conflict of Interest and / or unacceptable threat to impartiality. By signing the above attendance, they confirm for the same.

Form – Opening/Closing Meeting -Rev:02



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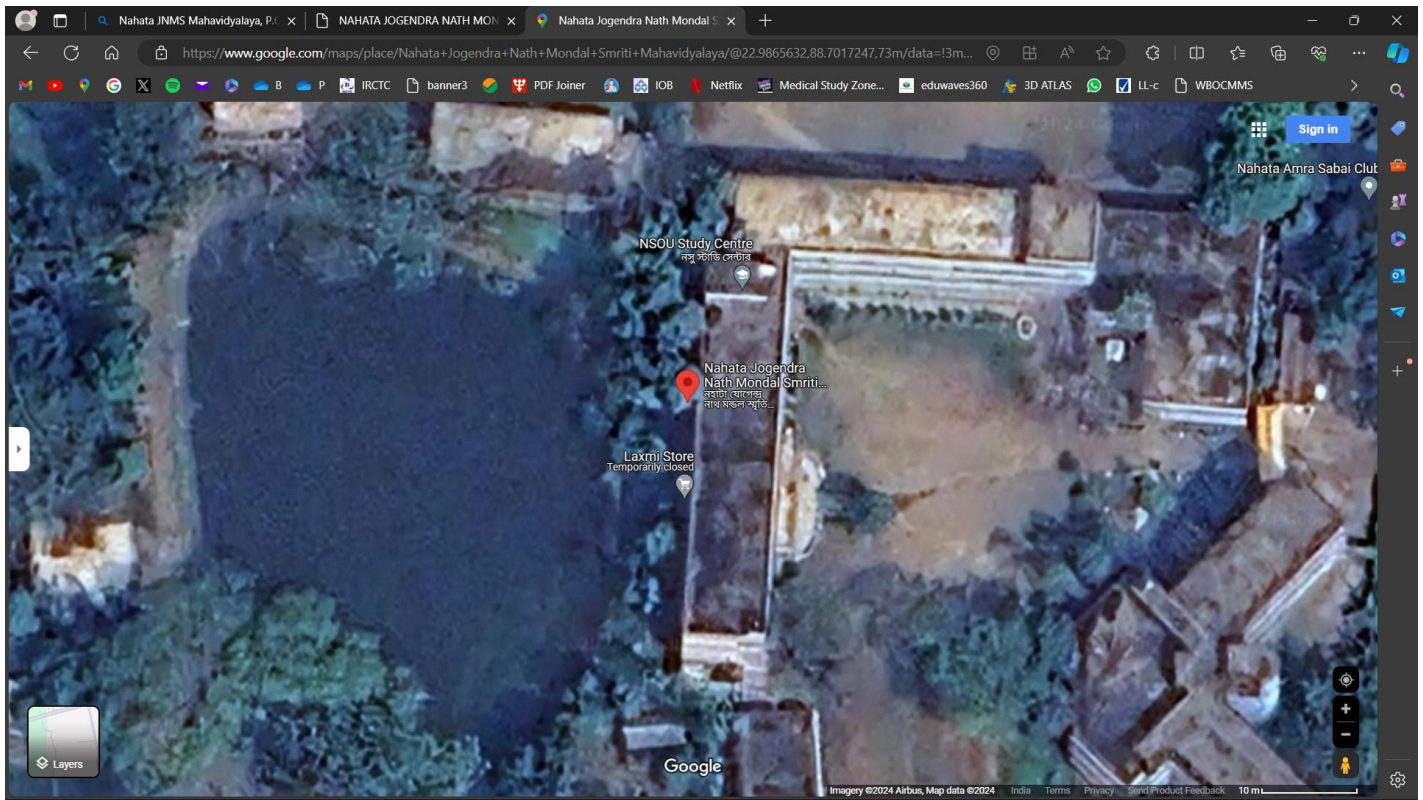


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- To bring out a present status report on environmental compliance.

4. METHODOLOGY

In order to perform green audit, the methodology included different techniques such as physical inspection of the campuses, observation and review of the documentation, interviewing key persons and data analysis, measurements and recommendations. The study covered the following area to summarize the present status of environment management in the campuses

- **Water Management**
- **Air Quality assessment and Management**
- **Electricity consumption and management**
- **Waste Management,**
- **Mapping of Biodiversity.**

The Green Audit taken up by the College had been divided into three stages



5. THE PRE-AUDIT STAGE

In the pre-audit stage,

Meetings provide an opportunity to support the capacity and objectives of the audit and enable discussions on the feasibility associated with the audit. The meeting provided the chance to gather information that the audit team can study before arriving on the site. The audit procedure and audit plan were handed over at this meeting and discussed in advance of the audit itself. In NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA, the planning of audit processes was discussed in the pre-audit meeting. Audit team was also selected in this meeting with the help of staff and the Institute management. The audit protocol and audit plan were handed over at this meeting and discussed in advance of the audit itself. The Management of the Institute has shown the commitment towards the green auditing during the pre-audit meeting. They were ready to encourage all green activities. It was decided to promote all activities that are environment friendly such as awareness programs on the environment, campus planting more trees on the campus, etc., after the green auditing. The management of the Institute was willing to formulate policies based on green auditing report.

6. THE AUDIT STAGE

The Audit Stage team selection and the field works performed. Looking after the unique structure, location and ambiance of the Institute, the Green Audit Team focused on Material Issues pertaining to Institute which have the highest influence on the Green Attributes of the Institute. The Audit stage also focused on the Methodology adopted. Checklist approach is adopted for transparent evaluation of



the topics and increase readability for independent reader. Discussions were made with the college management regarding their policies on environmental management.

College and its premises were visited and analysed by the auditor to gather information. Campus trees were counted and identified. library, office rooms and parking grounds were also visited to collect data. Number and type of vehicles used by the stakeholders were observed.

7. THE POST AUDIT STAGE

The base of any green audit is that its findings are supported by documents and verifiable information. The audit process seeks, on a sampled basis, to track past actions, activities, events, and procedures to ensure that they are carried out according to systems requirements and in the correct manner. Green audits form a part of a process. Although they are individual events, the real value of green audits is the fact that they are carried out, at defined intervals, and their results can illustrate improvement or change over time. Although green audits are carried out using policies, procedures, documented systems and objectives as a test, there is always an element of subjectivity in an audit. The post-audit stage ensures formulation of Draft findings and sent to management response. Since the audit is done internally, it was important to ensure management approval for the draft. After getting draft approval, the audit team went for final report formulation.



8. AUDIT GOALS OF THE INSTITUTE

The Institute, has created green monitoring team that aimed at performing the green audit of the institution. The main objectives of the audit are

- More efficient resource management
- To provide for basis for improved sustainability
- To create Green Campus
- To enable waste management through reduction of waste generation, solid waste and water recycling.
- Recognise the cost saving methods through waste minimising and managing.
- Point out the prevailing and fourth coming complications
- Impart environmental education through systematic environmental management approach and benchmarking for environment protection.

9. AUDIT FRAMEWORK AND DETAILED FINDINGS

The following audit framework is used for conducting Green Audit. The framework also lists of the findings and observations for every criterion.

Control objective	Control(s)	Audit Observation
<ul style="list-style-type: none"> • WATER MANAGEMENT 	<ul style="list-style-type: none"> • Repair sources of water leakage, such as dripping taps. 	<ul style="list-style-type: none"> • Regular checking and maintenance of pipelines are done to control Water wastage.



	<ul style="list-style-type: none"> • Encourage to decrease excess water usage. 	<ul style="list-style-type: none"> • Though water is used nominal in the Institute.
	<ul style="list-style-type: none"> • Install water recycling mechanism. 	<ul style="list-style-type: none"> • Rain water of 6000 sq. feet has been stored, reused and recharge the found level water.
	<ul style="list-style-type: none"> • Minimize wastage of water and use of electricity during water filtration process, if used, such as Aqua guard filter 	<ul style="list-style-type: none"> • Institute has Aqua guard filter on each floor which gives safe drinking water. Also packaged drinking water using when necessary. State Government W.T.M. for drinking.
	<ul style="list-style-type: none"> • Rainwater Harvesting project execution 	<ul style="list-style-type: none"> • Already executed. They collect the rainwater from the roof and stored in tank (which is used in toilets, gardening) and excess rainwater is recharged at the ground through well.
	<ul style="list-style-type: none"> • Make full use of all recycling facilities 	<ul style="list-style-type: none"> • Institute does not have any such recycling device to carry on the procedure. Primary segregation is carried out and partly paper, plastic and E waste is kept in E-waste bin.
	<ul style="list-style-type: none"> • Waste, green waste and non-recycled collected from gardens, offices and rooms. 	<ul style="list-style-type: none"> • Taken by Panchayet.



<ul style="list-style-type: none"> Recycle or safely dispose of dry wastes, computers and electrical appliances. 	<ul style="list-style-type: none"> Recycle or safely dispose of dry wastes, computers and electrical appliances is done at primary level is done.
<ul style="list-style-type: none"> Provide sufficient, accessible and well-publicized collection points for recyclable waste, with responsibility for recycling clearly allocated 	<ul style="list-style-type: none"> The Institute has set up separate two bins on each floor to ensure proper segregation and collection of the various wastes.
<ul style="list-style-type: none"> Dispose all waste, whether solid or otherwise, in a scientific manner and ensure that it is not released directly to the environment 	<ul style="list-style-type: none"> Yes, the Institute is trying to dispose all wastes, whether solid or otherwise, in a scientific manner and ensure that it is not released directly to the environment; however, there is a lot of scope for improvement in current waste handling methods.



<ul style="list-style-type: none"> GREEN CAMPUS 	<ul style="list-style-type: none"> Encourage the faculties and students to plant trees in the garden. 	<ul style="list-style-type: none"> Encourage the faculties and students to plant trees in the garden. Existing plantation is not marked properly. However, more plantation can be adopted with more native trees.
	<ul style="list-style-type: none"> Establish a Garden in the campus 	<ul style="list-style-type: none"> Institute planning for garden.
	<ul style="list-style-type: none"> Disposal of the chemical waste generated from the laboratories in a scientific manner 	<ul style="list-style-type: none"> NA
	<ul style="list-style-type: none"> Minimize the use of fertilizers and Pesticides in Institute ground & garden. 	<ul style="list-style-type: none"> Moderate amounts of bio-fertilizers are used in the Institute.
<ul style="list-style-type: none"> ENERGY MANAGEMENT 	<ul style="list-style-type: none"> Look in to the possibility of on-site micro-generation of renewable electricity. 	<ul style="list-style-type: none"> Institute has started to installed Solar wall Lights for outdoor and garden.
	<ul style="list-style-type: none"> Give preference to the most energy efficient and environmentally sound appliances available, this includes only using energy-saving light bulbs 	<ul style="list-style-type: none"> The Institute is using LED lights as much as practicable as well as CFL. College using fan and LED tube, Xerox machine, Computer printer, CC tv etc. 90% Bulbs are LED tubes., AC 1 nos and computer 15 nos. verified during audit.
	<ul style="list-style-type: none"> Ensure that all cleaning products used by Institute staff have a minimal detrimental impact on the environment, i.e. are biodegradable and non-toxic 	<ul style="list-style-type: none"> Negligible amounts of washing liquids are used in the Institute and all the toilet cleaners are eco-friendly



Green Campus:

Total number of plants in the campus- 26 numbers

Water Management

The source of water used in the college are municipal water supply.

Sl. No.	Parameters	Response
1	No of wells	2
2	No of water tanks	4
3	Any wastage/why	Nil
4	Water used for gardening	5 cu.mt.
5	Waste water sources	washrooms
6	Rain water harvest available?	Yes
7	Any leaky taps?	Nil
8	Amount of water lost per day	Nil

Waste management

Waste management is important for an eco-friendly campus. In a college, different types of wastes are generated, its collection and management are very challenging. The following data provide the details of the waste generated and the disposal method adopted by the college.

Types of waste	Particulars	Disposal method
----------------	-------------	-----------------



E-Waste	Computers, electrical and electronic parts	E waste is kept in E-waste bin.
Plastic waste	Pen, Refill, Plastic water bottles and other plastic containers, wrappers etc.	Collect in Bin.
Solid wastes	Damaged furniture, paper waste, paper plates	Pick up by Panchayet
Waste water	Washing, urinals, bathrooms	Panchayet sewer line
Food waste	Food waste from canteen	Uses Bin.

11. SUGGESTIONS AND RECOMMENDATIONS

A few recommendations are added to curb the menace of all management using eco-friendly and scientific techniques. This may lead to the prosperous future in context of green campus and thus sustainable environment and community development. It has been shown frequently that the practical suggestions, alternatives, and observations that have resulted from audits have added positive value to management of the campus.

CRITERIA WISE RECOMMENDATIONS

Green Campus

- All trees in the campus should be named scientifically and name should be placed on each tree.
- Beautify the college building with indoor plants.
- Encouraging students for making the campus green.
- Conducting competitions among departments for making students, teaching-non teaching staffs more interested in making the campus greener.



- In order to increase the carbon credit and greenery of the campus, it is recommended to plant more indigenous and Fruit and medicinal plants species inside the campus.

Water management

- The college should arrange awareness programs for water conservation. The campaign should be on proper monitoring of water consumption patterns in the campus and can also conduct water quality monitoring during specific intervals.

Energy management

- The energy audit recommends to avoid the use of more energy consuming electrical appliances and to replace with more environment friendly and energy efficient appliances (for example five stars rated Air conditioner) in the college. The potential of renewable energy sources has to be explored. As the college has a very large roof area for installing solar panels so that it can be effectively used for generating power.
- It is recommended to install the following solar powered appliances in the campus;
- Conduct more save energy awareness programs for students and staff.
- Use energy efficient light-emitting diode (LED) bulbs instead of incandescent and CFL bulbs
- Maintain appliances and replace old appliances. • Use computers and electronic equipment in power saving mode.

Waste management



- Try to avoid the use of plastic in the campus, and to encourage the use of biodegradable materials as alternatives. Ban on single use plastic such as carry bags, food packaging, bottles, straws, containers, cups and cutlery. Instead use steel plates. Avoid using paper cups and plate too.
- Practice of waste segregation to be initiated.

Carbon footprint

- Increase a system of car-pooling among the staff to reduce the number of four wheelers coming to the college.
- Encourage students and staff member to use public transport as possible.

12. CONCLUSION

The green audit assists in the process of testing performance in the environmental arena and is fast becoming an indispensable aid to decision making in a college. The green audit reports assist in the process of attaining an eco-friendly approach to the sustainable development of the college. A green audit report is a very powerful and valuable communications tool to use when working with various students who need to be convinced that things are running smoothly and systems and procedures are coping with natural changes and modifications that occur. The audit has identified several observations for making the campus premise more environment friendly. The recommendations are also mentioned with observations for campus team to initiate action. The audit team opines that the overall site is maintained well from environmental perspective, certain changes if implemented the college will be benefited by various environmental ways. **The audit was conducted to check following aspects**

- More efficient resource management.
- Provide basis for improved sustainability.



- Creating a green campus.
- Enable waste management through reduction of waste generation, solid- waste and water recycling
- Recognition of the cost saving methods through waste minimizing and managing.
- Point out the prevailing and forthcoming complications.
- Impart environmental education through systematic environmental management approach and Benchmarking for environmental protection.

Allow targets are fairly achieved in executed green audit report.



Mr. S. Kayal

Lead Auditor EMS & Energy (EnMS)

NBQP(QCI) registered Principal Auditor

End of Report





CERTIFICATE GREEN AUDIT 2018-19

THIS IS TO CERTIFY THAT

NAHATA JOGENDRANATH MONDAL SMRITI MAHAVIDYALAYA

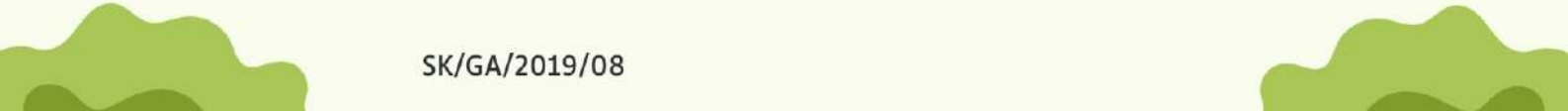
P.O. NAHATA, PS. GOPALNAGAR, DIST. 24 PGS (N)

has achieved the standards for Environmental responsibility within the academic accountability of the institute during the Green Audit 2018-19.



MR. SUPRIYO KAYAL
Lead Auditor

SK/GA/2019/08



NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA

P.O. - Nahata, P.S. - Gopalnagar, Block - Bongaon, Dist.- North 24PGS,
West Bengal, Pin-743290

ENERGY AUDIT REPORT For the Year 2022-23



Contains

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ENERGY AUDIT CERTIFICATE

PRESENTED TO

NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA

P.O. -Nahata, P.S. - Gopalnagar, Block - Bongaon, Dist.- North 24PGS, West Bengal, Pin-743290. Has been assessed by the audit team for the comprehensive study of energy audit on Institutional working framework to fulfil the requirement of Energy Audit.

The energy saving initiatives has been taken by the Institution have been verified in the report submitted and were found to be satisfactory.

The effort taken by management and faculty towards all types of energy used in the Institution and sustainability are highly appreciated and noteworthy.

Date:28/03/2023



Mr. S. Kayal

Lead Auditor EMS & Energy (EnMS)

NBQP(QCI) registered Principal Auditor



ACKNOWLEDGEMENT

We would like to thank the management of NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA for assigning this important work of Energy Audit. We appreciate the co-operation to the teams for completion of assessment.

We would also like to thank **Dr. Prasun Biswas (Principal)**, for his continuous support and guidance, without which the completion of the project would not have been possible. We are also thankful to other staff members who were actively involved while collecting the data and conducting field measurements.

We would like to thank **Dr. Prasun Biswas (Principal)**, for giving us an opportunity to evaluate the performance of the campus.



DISCLAIMER

Energy Audit Team has prepared this Energy Audit Report for NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA based on input data submitted by the representatives of college complemented with the best judgment capacity of the expert team.

While all reasonable care has been taken in its preparation, details contained in this report have been compiled in good faith based on information gathered.

It is further informed that the conclusions are arrived following best estimates and no representation, warranty or undertaking, express or implied is made and no responsibility is accepted by Audit Team in this report or for any direct or consequential loss arising from any use of the information, statements or forecasts in the report.

Auditor and its staff and agents shall keep confidential all information relating to your organization and shall not disclose any such information to any third party, except that in the public domain or required by law or relevant accreditation bodies. Auditor staff, agents and accreditation bodies have signed individual confidentiality undertakings and will only receive confidential information on a 'need to know' basis.

Supriyo Kayal
Lead Auditor EMS & Energy



ABBREVIATION

A	Amps
AC	Air Conditioner
AC	Alternating Current
AMET	Academy of Maritime Education and Training
CFL	Compact fluorescent lamp
CIP	Comprehensive Inspection Programme
DC	Direct Current
HSD	High Speed Diesel
Hz	Hertz
kg	Kilogram
kVA	kilo-volt-ampere
kW	kilo Watts
kWh	kilowatt hour
kWp	Kilowatt peak
LED	Light Emitting Diode
LPG	Liquefied Petroleum Gas
MMS	Module mounting structure
MPPT	Maximum Power Point Tracker
NAAC	The National Assessment and Accreditation Council
SEC	Specific Energy Consumption
TV	Television
V	Volts
W	Watts
W/m²	watt per square metre



OVERVIEW OF THE COLLEGE

Nahata Jogendra Nath Mondal Smriti Mahavidyalaya is a co-educational institution. The history of this institution is a history of progress. This college is mainly built for the purpose of education and development of the poor and falling behind students. In 1983, an all-out effort was undertaken in the area by the Government of West Bengal to expand higher education in rural Bengal and realize the aspirations of the people. Nahata Jogendranath Mondal Smriti Mahavidyalaya was affiliated to Calcutta University and this was established on 1st July 1985 with the efforts of the then Education Minister Mr. Kanti Biswas and the late Mr. Shantimoy Ghosh and with the sincerity and cooperation of people from all sections of the society. Late Mr. Rakhil Bhowmick and Mr. Hari Mohan Bhowmik donated land for the establishment of the college. Nahata High School donated classrooms and office rooms free of cost for almost two and a half years to run the college. At that time, high school teachers also taught college students responsibly. Nahata Jogendranath Mandal Smriti Mahavidyalaya has become an inexhaustible achievement in the development of the area for the past 30 years. Presently, the college is under the West Bengal State University and till now the college is running with graduate level courses in sixteen subjects and with PG courses in Bengali. Post-Graduate Bengali department reading-reading has started from the academic year 2018-2019. The NCC department of the college is progressing successfully. Apart from this, every year the college continues to play its leading role by participating in various folk festivals including the local agricultural fair and health fair and establishing cordial relations. The college also helps in raising public awareness by organizing blood donation camps, dengue prevention, thalassemia screening and health screening camps. The College is committed to the goal of holistic education and social upliftment.



Vision

To serve the needs of the locality by providing higher education with a multifaceted human-centred approach to the socially, economically and other backward class masses for a better educational environment and holistic development.

Mission:

M1: To create an enlightened society by educating the local younger section of the society and make them competent for the development of the nation.

M2: To orient the local younger generation with multidisciplinary courses and make them capable of pursuance of higher studies and research activities.

M3: To provide quality education to all the students of the area for integrated growth and personality development.

M4: To create a quality youth force through value education beyond their syllabus so that they bear the responsibility to fight against ignorance, illiteracy and other social evils.

M5: To explore the qualities and talents of the students and provide them with facilities for pursuance of their talents at the state and national levels and also shape their talents into professional skills.

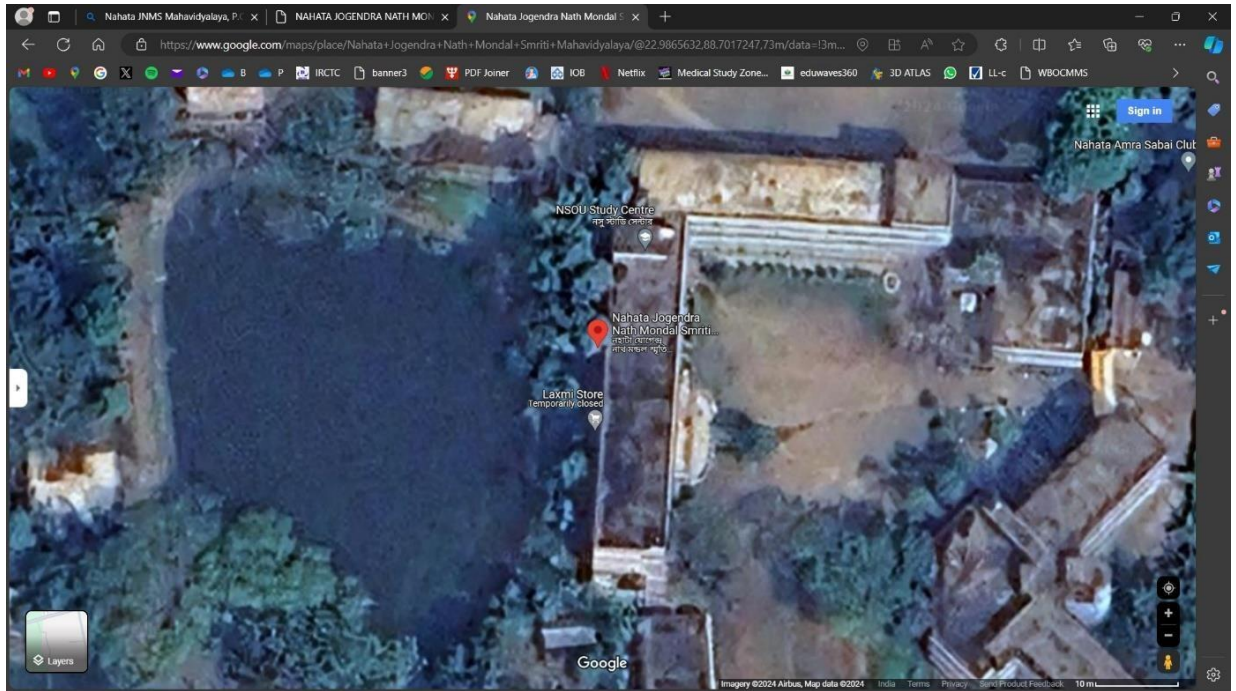


Energy Policies:

- ✚ Phased manner changing of normal conventional lights to energy efficient LED lights. All new lights procured will be LED lights only.
- ✚ Timely switching off and switching on of street lights.
- ✚ Optimum use of air conditioners. Switch on as and when required.
- ✚ Phased manner replacement of electrical appliances like ACs, Fridge, etc. with Energy efficient (Higher star rating) appliances.
- ✚ Activate power management features on your computer and monitor, so that it will go into a low power “sleep” mode when you are not working on it.
- ✚ Minimum use of ground water by reduced hours of pumping.
- ✚ Regular checking of leakage in water pipe lines and taps.
- ✚ Save water and save electricity stickers placed at prominent places.
- ✚ Conduct of different awareness campaign on “Save Water”, “Save Trees” & Save Electricity through lectures/different competitions etc.
- ✚ Vermi composting is also in practice for disposing the wet waste from canteen and also other biodegradable wastes.
- ✚ Tree plantation in Campus.
- ✚ Ensuring ban on single use plastic bags in campus.
- ✚ Encourage use of public transport & Car-pooling (i.e. reduced vehicular use in the campus).
- ✚ Waste collection bins (i.e. burnable, non-burnable & recyclable) and their management.
- ✚ Ensuring proper e-waste management.
- ✚ Initiation for paperless (e-office) & e-documents for routine work.
- ✚ Increasing use of digital library.



Location:



AUDIT PARTICIPANTS

On behalf of college

Name	Designation
Dr. Prasun Biswas	Teacher-in-Charge
Dr. Dhrubajyoti Chattopadhyay	Associate Professor
Dr. Anish Mukhopadhyay	Assistant Professor
Dr. Kakali Bhowmick	Assistant Professor
Mr. Balai Das	LDC
Mr. Prodip Sarkar	Elec. Tech.

On behalf of Auditor Services

Name	Position	Qualifications
Mr. Supriyo Kayal	Lead Auditor	<i>M.Sc., DIPC. Energy Management System Auditor</i>



EXECUTIVE SUMMARY

The purpose of this Energy Audit was to seek opportunities to improve the energy efficiency of the NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA. Reducing the energy consumption despite improving the human comfort, health and safety were of primary concern.

Beyond just identifying the energy consumption pattern, this audit sought to detect and categorize the most energy efficient appliances. Additionally, some daily practices relating common appliances have been shared which may help reducing the energy consumption. Data collection for energy audit of the campus was carried out by the Auditor Team. The Energy Audit Report accounts for the energy consumption patterns of the institution on actual survey and detailed analysis during the audit.

The work comprehends the area wise consumption traced using suitable equipment. The analysis was carried out by our team with the support of the staff members from NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA. The report provides a list of possible actions to preserve and efficiently access the available source, resources and their saving potential was also identified. We look forward towards optimization that the authorities, students and staff members would follow the recommendations in the best possible way. The report is based on certain generalizations including the approximations wherever necessary. The views conveyed may not reveal the general opinion. They merely represent the opinion of the team guided by the interviews of clients. We are happy to submit this Energy audit report to the NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA.

Objectives of Energy Auditing

The energy audit provides the vital information base for overall energy conservation program covering essentially energy utilization analysis and evaluation of energy conservation measures. It aims at:

- ✚ Identifying the quality and cost of various energy inputs.
- ✚ Assessing present pattern of energy consumption in different cost centres of operations.



- ✚ Relating energy inputs and production output.
- ✚ Identifying potential areas thermal and electrical energy economy.
- ✚ Highlighting wastages in major areas.
- ✚ Fixing of energy saving potential targets for individual cost centres.
- ✚ Implementation of measures for energy conservation & realization of savings

Methodology:

- ✚ Methodology adopted for achieving the desired objectives viz.: Assessment of the current operational status and energy savings include the following:
- ✚ Discussions with the concerned officials for identification of major areas of focus and other related systems.
- ✚ Team of engineers visited the site and had discussions with the concerned officials to collect data / information on the operations and load distribution within the plant and same for the overall premises. The data was analysed to arrive at a base line energy consumption pattern.
- ✚ Measurements and monitoring with the help of appropriate instruments including continuous and / or time-lapse recording, as appropriate and visual observations were made to identify the energy usage pattern and losses in the system.
- ✚ Trend analysis of costs and consumptions.
- ✚ Capacity and efficiency test of major utility equipment's, wherever applicable.
- ✚ Estimation of various losses
- ✚ Computation and in-depth analysis of the collected data, including utilization of computerized analysis and other techniques as appropriate were done to draw inferences and to evolve suitable energy conservation plan/s for improvements/ reduction in specific energy consumption.



ENERGY AUDIT - ANALYSIS

1. ENERGY CONSUMPTION

To understand the Energy Consumption trends and for analysing the average monthly consumption we have collected electricity energy bills from July 2021 to June 2022

The details of “**Meter Connection**” at “**NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA**” are as follows-

Name - The Principal NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA

CA No. -

1.1 Summary of Monthly Electricity Consumption and Total Bill Amount

To understand the Energy consumption trend and for developing the baseline parameter we have collected monthly energy bill for the 12 months i.e. from July 2022 to June 2023

Electrical Instruments:

Particulars Quantity

Bulb and

Tube light 204

Fan 180

AC 07

Refrigerator 04

Micro Oven 02

Computer, Printer 35

TOTAL 432

Disel Generator: Nos.

Capacity: 39 KVA

* Electricity measured as Units and

** Fuel used for DG set measured in Litre

Particulars of Electric consumption in Rupees given below:





WBSEDCL

QUARTERLY ELECTRICITY SPOT BILL

BEWARE OF FRAUDULENT SMS/CALLS:
WBSEDCL never calls or asks through SMS/WhatsApp to contact anyone related to disconnection. Whenever WBSEDCL sends SMS, its sender ID is **WBSEDC. So, please verify the sender ID.

: After allowing addl Rebate, Amt Payable Rs. 173.00 :
within 03/03/2023 using e-Pay with Zero Transaction Charge

TEACHER IN CHARGE JIMS MAHAVIDYALAYA
TAPAN RANA VILL B P.O. - MAHARAJIST-24 PGS(N) 743290

GIS P No. :
: Lat - 22.9867125 N , Long - 88.7017181 E

Con Id : 103333601 Tariff : A(CM-1)
Inst No : 19973899 CD (KVA) : 0.23
MRU : 9CN18QHR SD(Rs.) : 595.47
Bill Period : Mar'23- May'23
Bill Date : 21/02/23
Meter No : 100255156 PH-1 M.F. : 1

Period	Reading Date	Units (KWH)
Previous	22/11/22	5383
Present	21/02/23	5394
Adjustment		0
Total Unit		11
Max Demand(KVA)		0.60

Amount Payable(Rupees)

Bill Due Dt	Amt befr Due Dt (With Rebate)	Amt after Due Dt (Without Rebate)	Remark
03/03/2023	60.00	60.00	
03/04/2023	58.00	59.00	
02/05/2023	58.00	59.00	

Special Rebate : -1.10
Total Amt Payable at a time within 03/03/2023 : 175.00
Others Unpaid Bill Amount : 0.00
: Total Amount Payable at a time through E-Payment :
: after allowing 1% Addl Rebate within 03/03/2023: 173.00 :

Payment may be made through RTGS/NEFT in Your exclusive account number WBBI0333360119973899 using IFSC code ICIC0000104 (See Details at www.wbsecl.in under 'Payment Modes')

Bill Details

Item	Charge(Rs)	Item	Charge(Rs)
@ Enrgy Chrg	55.00	Arr. E.D.	0.00
Arr. Enrg	0.00	Misc	0.00
Fixd Chrg	75.00	S.C.&Int.	0.00
FPPCA	0.00	S.D.Instl	0.00
MVCA	0.00	W Cvt Sbsdy	0.00
Mtr Rent	45.00	LPSC	0.00

WT: 0.00
Elec Duty : 0.00

Gross Demand : 175.00
* Outstanding Dues : 1.65
* Tax Collection at Source(TCS) : **
Others Unpaid Bill Amount : 0.00
Miscellaneous Adjustment : 0.00
Other Adjustment : 0.00
OSD Others : 0.00
W Additional Subsidy : 0.00
* TCS may be added as per under section 206C(1H) of IT Act

OSD/Oth.Unpaid Bill as on 18/02/21 Please ignore if already Paid
Last Payment Details : Rs. 870.00 Date : 29/11/2022

@ ENERGY CHARGE DETAILS

QUARTERLY CONSUM	RATE(Rs)	AMOUNT(Rs)
FRST 11.00	5.00	55.00

****FIXED CHARGE DETAILS**

CONTRACT LOAD	TOTAL MONTH	RATE(Rs)	AMOUNT(Rs)
0.23	3.00	25.00	75.00

Scan this QR Code to pay using any
BHARAT QR enabled Banking App during 23/02/2023 to 03/03/2023



M/W TARIFF AS PER WBERC ORDER DTD. 28.03.2022
GOPALNAGAR CCC
Phone : 3215260063
Call Centre Toll Free No: 19121

Register/Update your Mobile No,pls. send below SMS to 8422990336
REG 103333601 19973899
(Its applicable to Your consumer id and send from that mobileNo)
For no Power Docketing Facility miss call us to 8422990337

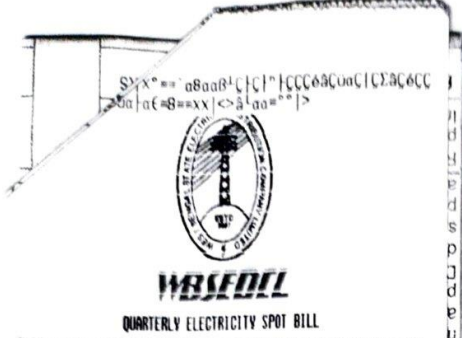


103333601
APP VERSION : 2.21.21.0 c48cf8a7afe2f63 TIME : 13:35:00
00343 80510 33336 01



WBSEDCL is carrying out consumer survey by mobile App for betterment of services. Representative of the agency will collect this part of the bill during survey. Plz keep Your latest energy bill available to assist the survey agency.





BEWARE OF FRAUDULENT SMS/CALLS:
WBSEDCL never calls or asks through SMS/WhatsApp to contact anyone related to disconnection. Whenever WBSEDCL sends SMS, its sender ID is **WBSEDCL. So, please verify the sender ID.

After allowing addl Rebate, Amt Payable Rs. 34193.00 ;
within 03/03/2023 using e-Pay with Zero Transaction Charge

TEACHER INCHARGE OF J.N.M.S.
MAHAVIDDYALAYA VILL+PO. NAHATA DIST, 24PGS(N)
GIS P No. : NA
GPS : Lat - 22.9866307 N , Long - 88.7018492 E

Con Id : 154047712 Tariff : A(CH-R)
Inst No : 11688648 CD (KVA) : 5.88
MRU : 9CL03QMR SD(Rs.) : 12246.11
Bill Period : Mar '23- May '23
Bill Date : 21/02/23
Meter No : SF015039 PH-3 M.F. : 1

Period	Reading Date	Units (KWH)
Previous	22/11/22	149173
Present	21/02/23	152551
Adjustment		0
Total Unit		3378
Max Demand(KVA)		0.15

Amount Payable(Rupees)			
Bill Due Dt	Amt befr Due Dt (With Rebate)	Amt after Due Dt (Without Rebate)	Remark
03/03/2023	11610.00	11711.00	
03/04/2023	11610.00	11712.00	
02/05/2023	11610.00	11712.00	

Special Rebate : -337.80
Total Amt Payable at a time within 03/03/2023 : 34491.00
Others Unpaid Bill Amount : 0.00
: Total Amount Payable at a time through E-Payment :
: after allowing 1% Addl Rebate within 03/03/2023: 34193.00 :

Payment may be made through RTGS/NEFT in your exclusive account number WBBI5404771211688648 using IFSC code ICIC0000104 (See Details at www.wbsecl.in under 'Payment Modes')

BILL DETAILS

Item	Charge(Rs)	Item	Charge(Rs)
W Enrgy Chrg	29930.76	Arr. F.D.	0.00
Arr. Enrg	0.00	Misc	0.00
Fixed Chrg	529.20	S.C. Int.	0.00
PPPA	0.00	S.D. Instl	0.00
MCA	0.00	W Out Subsidy	0.00
Mtr Rent	150.00	LPSC	0.00
Arr. Othrs	0.00		
Elec. Duty	4523.30		

Gross Demand : 35123.26
* Outstanding Dues : 0.00
* Tax Collection at Source(TCS) : **
Others Unpaid Bill Amount : 0.00
Miscellaneous Adjustment : 0.00
Other Adjustment : -0.32
OSD Others : 0.00
* Additional Subsidy : 0.00
* TCS may be added as Per under section 206C(1H) of IT Act

OSD/Oth.Unpaid Bill as on 18/02/21 Please Ignore if already Paid
Last Payment Details : Rs. 37760.00 Date : 29/11/2022

ENERGY CHARGE DETAILS

QUARTERLY CONSUM	RATE(Rs)	AMOUNT(Rs)
FRST 180.00	6.40	1152.00
NEXT 120.00	7.60	912.00
NEXT 150.00	8.25	1237.50
NEXT 450.00	8.68	3906.00
NEXT 2478.00	9.17	22723.26

FIXED CHARGE DETAILS

CONTRACT LOAD	TOTAL MONTH	RATE(Rs)	AMOUNT(Rs)
5.88	3.00	30.00	529.20

Scan this QR Code to pay using any BHARAT QR enabled Banking App during 23/02/2023 to 03/03/2023



NEW TARIFF AS PER WBERC ORDER DTD. 29.03.2022
GOPALNAGAR CCC
Phone : 3215260063
Call Centre Toll Free No: 19121

Register/Update Your Mobile No.pls. send below SMS to 8422990336
REG 154047712 11688648
(Its applicable to your consumer id and send from that mobile no)
For no Power Docketing Facility miss call us to 8422990337



154047712
APP VERSION : 2.21.21.0 c48cf8a7afe2f63 TIME : 13:39:01
00368 71415 40477 12



WBSEDCL is carrying out consumer survey by mobile APP for betterment of services. Representative of the agency will collect this part of the bill during survey. Plz keep your latest energy bill available to assist the survey agency.



Following addl Rebate, Amt Payable
 18/06/2022 using e-Pay with Zero Transaction Charge
 TRANSACTOR OF J.N.M.S.
 THE VILL-P.O. MAHATA DIST, 24PST(N)
 Long - 88.701721 E
 A/CN/ 5.08



V-358
 30/11/22



WBSEDCL

QUARTERLY ELECTRICITY SPOT BILL

BEWARE OF FRAUDULENT SMS/CALLS:
 WBSEDCL never calls or asks through SMS/whatsapp to contact anyone related to disconnection. Whenever WBSEDCL sends SMS, its sender ID is **WBSEDC. So, please verify the sender ID.

After allowing addl Rebate, Amt Payable Rs. 864.00 :
 within 02/12/2022 using e-Pay with Zero Transaction Charge

TEACHER IN CHARGE JMS MAHAVIDYALAYA
 TAPAN RANA VILL & P.O. - MAHATA DIST-24 PCS(N) 743290
 GIS P No. :
 GPS : Lat - 22.9866378 N , Long - 88.7017868 E

Con Id : 103333601 Tariff : A(DM-1)
 Inst No : 19973899 CD (KVA) : 0.230
 MRU : 9CN1BQMR SD(Rs.) : 595.47
 Bill Period : Dec'22- Feb'23
 Bill Date : 22/11/22
 Meter No : 100255156 PH-1 M.F. : 1

Period	Reading Date	Units (KWH)
Previous	25/08/22	5228
Present	22/11/22	5383
Adjustment		0
Total Unit		155
Max Demand(KVA)		0.59

Amount Payable(Rupees)

Bill Due Dt	Amt befr Due Dt (With Rebate)	Amt after Due Dt (Without Rebate)	Remark
02/12/2022	297.00	299.00	
02/01/2023	296.00	299.00	
01/02/2023	296.00	299.00	

Special Rebate : -15.50
 Total Amt Payable at a time within 02/12/2022 : 872.00
 Others Unpaid Bill Amount : 0.00

Total Amount Payable at a time through E-Payment :
 after allowing 1% Addl Rebate within 02/12/2022: **864.00**

Payment may be made through RTGS/NEFT in your exclusive account number WBB10333360119973899 using IFSC code ICIC0001014 (See Details at www.wbsecl.in under 'Payment Modes')

Bill Details

Item	Charge(Rs)	Item	Charge(Rs)
Enrgy Chrg	775.00	Arr. E.D.	0.00
Arr. Enrg	0.00	Misc	0.00
Fixd Chrg	75.00	S.C.BInt.	0.00
FPPCA	0.00	S.D.Instl	0.00
MVCA	0.00	W Dvt Sbsdy	0.00
Mtr Rent	45.00	LPSC	0.92
Arr. Othrs	0.00		
Elec Duty	0.00		

Gross Demand : 895.92
 Outstanding Dues : 0.00
 Tax Collection at Source(TCS) : 0.00
 Others Unpaid Bill Amount : 0.00
 Miscellaneous Adjustment : 0.00
 Other Adjustment : -0.30
 OSO Others : 0.00
 Additional Subsidy : 0.00
 TCS may be added as per under section 206C(1H) of IT Act

OSD/Oth.Unpaid Bill as on 19/11/22 Please ignore if already Paid
 Last Payment Details : Rs. 2726.00 Date : 08/09/2022

ENERGY CHARGE DETAILS

QUARTERLY CONSUM	RATE(Rs)	AMOUNT(Rs)
FRST 155.00	5.00	775.00

FIXED CHARGE DETAILS

CONTRACT LOAD	TOTAL MONTH	RATE(Rs)	AMOUNT(Rs)
0.230	3.00	25.00	75.00

Scan this QR Code to pay using any BHARAT QR enabled Banking App during 24/11/2022 to 02/12/2022



PAID IN FULL
 Cash/Cheque
 J.N.M.S. M.V

MV TARIFF AS PER WBERC ORDER D10. 28.03.2022

DOPALNAGAR CCC
 Phone : 321526063
 Call Centre Toll Free No: 19121

Register/Update Your Mobile No,pls. send below SMS to 8422990336
 REG 103333601 19973899
 (Its applicable to your consumer id and send from that mobileNo)
 For no Power Docketing Facility miss call us to 8422990337



APP VERSION : 2.21.17.0 c48cf8a7afe2f63 TIME : 11:03:00



WBSEDCL is carrying out consumer survey by mobile App for betterment of services. Representative of the agency will collect this part of the bill during survey. Plz keep your latest energy bill available to assist the survey agency.

Received
 Rs. 3900/-
 Mtr Rent & Seal
 28-11-22





WBSEDCL

QUARTERLY ELECTRICITY SPOT BILL

BEWARE OF FRAUDULENT SMS/CALLS:

WBSEDCL never calls or asks through SMS/WhatsApp to contact anyone related to disconnection. Whenever WBSEDCL sends SMS, its sender ID is **WBSEDC. So, please verify the sender ID.

: After allowing addl Rebate, Amt Payable Rs. 37434.00 :
within 02/12/2022 using e-Pay with Zero Transaction Charge

TEACHER INCHARGE O F J.N.M.S.
MAHARAJGALVA VILL+PO. MAHARAJA DIST, 24PGS(N)
GIS P No. : NA
GPS : Lat - 22.9865739 N , Long - 88.701821 E

Con Id : 154047712 Tariff : A(CM-R)
Inst No : 11688648 CD (KVA) : 5.880
MRU : 9CL03QMR SD(Rs.) : 12246.11
Bill Period : Dec'22- Feb'23
Bill Date : 22/11/22
Meter No : SFD15039 PH-3 M.F. : 1

Period	Reading Date	Units (KWH)
Previous	25/08/22	145480
Present	22/11/22	149173
Adjustment		0
Total Unit		3693

Amount Payable(Rupees)

Bill Due Dt	Amt befr Due Dt (With Rebate)	Amt after Due Dt (Without Rebate)	Remark
02/12/2022	12718.00	12829.00	
02/01/2023	12706.00	12817.00	
01/02/2023	12706.00	12817.00	

Special Rebate : -369.30
 Total Amt Payable at a time within 02/12/2022 : 37760.00
 Others UnPaid Bill Amount : 0.00
 : Total Amount Payable at a time through E-Payment :
 : after allowing 1% Addl Rebate within 02/12/2022: 37434.00

Payment may be made through RTGS/NEFT in your exclusive account number WBBI5404771211688648 using IFSC code ICIC0000104 (See Details at www.wbsecl.in under 'Payment Modes')

Bill Details

Item	Charge(Rs)	Item	Charge(Rs)
Engy Chrg	32819.31	Arr. E.D.	0.00
Arr. Eng	0.00	Misc	0.00
Fixd Chrg	529.20	S.C.&Int.	0.00
FPPCA	0.00	S.D.Instl	0.00
MVCA	0.00	Govt Sbsdy	0.00
Mtr Rent	150.00	LPSC	13.90
Arr. Othrs	0.00		
Elec Duty	4952.25		

Gross Demand	38464.66
Outstanding Dues	0.00
Tax Collection at Source(TCS)	0.00
Others Unpaid Bill Amount	0.00
Miscellaneous Adjustment	0.00
Other Adjustment	-2.06
OSD Others	0.00
Additional Subsidy	0.00

* TCS may be added as Per under section 206C(1H) of IT Act
OSD/Oth.Unpaid Bill as on 19/11/22 Please ignore if already paid
Last Payment Details : Rs. 41187.00 Date : 08/09/2022

ENERGY CHARGE DETAILS

QUARTERLY CONSUM	RATE(Rs)	AMOUNT(Rs)
FRST 180.00	6.40	1152.00
NEXT 120.00	7.60	912.00
NEXT 150.00	8.25	1237.50
NEXT 450.00	8.68	3906.00
NEXT 2793.00	9.17	25611.81

FIXED CHARGE DETAILS

CONTRACT LOAD	TOTAL MONTH	RATE(Rs)	AMOUNT(Rs)
5.880	3.00	30.00	529.20

Scan this QR Code to pay using any BHARAT QR enabled Banking App during 24/11/2022 to 02/12/2022



NEW TARIFF AS PER WBERC ORDER DTD. 28.03.2022

COPALNAGAR CCC

Phone : 3215260063

Call Centre Toll Free No: 19121

Register/Update your Mobile No,pls. send below SMS to 8422990336
REG 154047712 11688648

(Its applicable to your consumer id and send from that mobileNo)
For no Power Docketing Facility miss call us to 8422990337



154047712

APP VERSION : 2.21.17.0 c48cf8a7afe2f63 TIME : 11:07:24



WBSEDCL is carrying out consumer survey by mobile App for betterment of services. Representative of the agency will collect this part of the bill during survey. Plz keep your latest energy bill available to assist the survey agency.



Phone No. 033
Town, Rajahat
Mart-18-1111, Action



WBS EDCIL

: Amt Payable within 05/09/2022 through e-Pay Rs. 2556.00 :
using any E-PAY Mode with
Zero Transaction Charge

TEACHER IN CHARGE JMS MAHAVIDYALAYA
TAPAN RANA VILL B P.O. - NAHATADIST-24 PGS(N) 743290
GIS P No. :
GPS : Lat - 22.9866309 N
Long - 88.7017854 E

Con Id : 103333601 Tariff : A(DM-1)
Inst No : 19973899 CD (KVA) : 0.230
MRU : 9CWI8QMR SD(Rs.) : 595.47
Bill Period : Sept'22- Nov'22
Bill Date : 25/08/22
Meter No : 100255156 PH-1 M.F. : 1

Period	Reading Date	Units (KWH)
Previous	30/05/22	4700
Present	25/08/22	5228
Adjustment		0
Total Unit		528

Amount Payable(Rupees)

Bill Due Dt	Amt befr Due Dt (With Rebate)	Amt after Due Dt (Without Rebate)	Remark
05/09/2022	913.00	922.00	} 2762
11/10/2022	911.00	920.00	
03/11/2022	911.00	920.00	

Special Rebate : -52.80
Total Amt Payable at a time within 05/09/2022 : 2682.00
Others Unpaid Bill Amount : 0.00

: Total Amount Payable at a time through E-Payment :
: after allowing 1% Addl Rebate within 05/09/2022: 2656.00 :

Payment may be made through RTGS/NEFT in your exclusive account
number WBS10333360119973899 using IFSC code ICIC0000104
(See Details at www.wbsedcl.in under "Payment Modes")

Bill Details

Item	Charge(Rs)	Item	Charge(Rs)
@ Enrgy Chrg	2640.00	Arr. E.D.	0.00
Arr. Enrg	0.00	Misc	0.00
Fixed Chrg	75.00	S.C.&Int.	0.00
FPPCA	0.00	S.D.Instl	0.00
MVCA	0.00	# Cvt Sbsdy	0.00
Mtr Rent	45.00	LPSC	2.71
Arr. Othrs	0.00		
Elec Duty	0.00		

Gross Demand : 2762.71
* Outstanding Dues : 0.00
* Tax Collection at Source(TCS) : 0.00
Others Unpaid Bill Amount : 0.00
Miscellaneous Adjustment : 0.00
Other Adjustment : -1.00
OSD Others : 0.00
Additional Subsidy : 0.00

* TCS may be added as per under section 206C(1H) of IT Act

Unpaid Bill as on 19/08/22 Please ignore if already paid
Last Payment Details : Rs. 3107.00 Date : 11/06/2022

ENERGY CHARGE DETAILS

QUARTERLY CONSUM	RATE(Rs)	AMOUNT(Rs)
FRST 528.00	5.00	2640.00

FIXED CHARGE DETAILS

CONTRACT LOAD	TOTAL MONTH	RATE(Rs)	AMOUNT(Rs)
0.230	3.00	25.00	75.00

Scan this QR Code to pay using any
EMONEY QR enabled Banking App during 27/08/2022 to 05/09/2022



PAYMENTS WILL BE ACCEPTED AFTER 48 HOURS
FROM THE DATE OF PREPARATION OF THE SPOT BILL

NEW TARIFF AS PER WBERC ORDER DTD. 28.03.2022

COPALNAGAR CCC
Phone : 321526063

Call Centre Toll Free No: 19121

Register/Update Your Mobile No, pls. send below SMS to 8422990336
REG 103333601 19973899
(Its applicable to Your consumer id and send from that mobileNo)
For no Power Docketing Facility miss call us to 8422990337

Defect / Danger in WBS EDCIL's network?
WhatsApp Photo and Location to 8900793100



103333601

APP VERSION : 2.21.13.0
c48cf8a7afe2f63 TIME : 14:52:25



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WBS EDCIL is carrying out consumer survey by mobile App for betterment of services. Representative of the agency will collect this part of the bill during survey. Plz keep your latest energy bill available to assist the survey agency.



Town, Rajahat, Kolkata-700163
Phone No. 033-29623756



WBSEDCL

Ant Payable within 05/09/2022 through e-Pay Rs. 40550.00 :
using any E-PAY Mode with
Zero Transaction Charge

TEACHER INCHEARGE O F J.N.M.S.
MAHAVIDYALAYA VILL+PO. MAHATA DIST, 24PGS(M)
GIS P No. : NA
CPS : Lat - 22.9865954 N
Long - 88.7018208 E

Con Id : 154047712 Tariff : A(CH-R)
Inst No : 11688648 CD (KVA) : 5.880
MRU : 9CL030MR SD(Rs.) : 12246.11
Bill Period : Sept'22- Nov'22
Bill Date : 25/08/22
Meter No : SF015039 PH-3 M.F. : 1

Period	Reading Date	Units (KWH)
Previous	30/05/22	141483
Present	25/08/22	145480
Adjustment		0
Total Unit		3997

Bill Due Dt	Ant befr Due Dt (With Rebate)	Ant after Due Dt (Without Rebate)	Remark
05/09/2022	13776.00	13897.00	} 41.667
11/10/2022	13764.00	13895.00	
03/11/2022	13764.00	13895.00	

Special Rebate : -399.70
Total Ant Payable at a time within 05/09/2022 : 40904.00
Others Unpaid Bill Amount : 0.00

Total Amount Payable at a time through E-Payment : 40550.00 :
after allowing 1% Addl Rebate within 05/09/2022 : 40550.00 :

Payment may be made through RTGS/NEFT in Your exclusive account number WB015404771211688648 using IFSC code ICIC000104 (See Details at www.wbsecl.in under 'Payment Modes')

Item	Charge(Rs)	Item	Charge(Rs)
Engy Chrg	35606.99	Arr. E.D.	0.00
Arr. Enrg	0.00	Misc	0.00
Fixd Chrg	529.20	S.C.&Int.	0.00
FPPCA	0.00	S.D.Instl	0.00
WVCA	0.00	W Cut Sbsdy	0.00
Mtr Rent	150.00	LPSC	12.58
Arr. Othrs	0.00		
Elec Duty	5366.22		

Gross Demand : 41664.99
Outstanding Dues : 0.00
Tax Collection at Source(TCS) : 0.00
Others Unpaid Bill Amount : 0.00
Miscellaneous Adjustment : 0.00
Other Adjustment : -0.59
OSD Others : 0.00
Additional Subsidy : 0.00
TCS may be added as per under section 206C(1H) of IT Act

OSD/Oth.Unpaid Bill as on 19/08/22 Please ignore if already paid
Last Payment Details : Rs. 55976.00 Date : 11/06/2022

ENERGY CHARGE DETAILS

QUARTERLY CONSUM	RATE(Rs)	AMOUNT(Rs)
FRST 180.00	6.40	1152.00
NEXT 120.00	7.60	912.00
NEXT 150.00	8.25	1237.50
NEXT 450.00	8.68	3906.00
NEXT 3097.00	9.17	28399.49

FIXED CHARGE DETAILS

CONTRACT LOAD	TOTAL MONTH	RATE(Rs)	AMOUNT(Rs)
5.880	3.00	30.00	529.20

Scan this QR Code to pay using any
BHARAT QR enabled Banking App during 27/08/2022 to 05/09/2022



PAYMENTS WILL BE ACCEPTED AFTER 48 HOURS
FROM THE DATE OF PREPARATION OF THE SPOT BILL

NIW TARIFF AS PER WBERC ORDER DTD. 28.03.2022
COOPALNAGAR CCC
Phone : 321526063
Call Centre Toll Free No: 19121

Register/Update your Mobile No,pls. send below SMS to 8422990336
REG 154047712 11688648

(Its applicable to your consumer id and send from that mobileNo)
For no Power Docketing Facility miss call us to 8422990337

Defect / Danger in WBSEDCL's network?
WhatsApp Photo and Location to 8900793100



154047712
APP VERSION : 2.21.13.0
c48cf8a7afe2f63 TIME : 14:58:52



WBSEDCL is carrying out consumer survey by mobile App for betterment of services. Representative of the agency will collect this part of the bill during survey. Plz keep your latest energy bill available to assist the survey agency.

2762
41667
44,429





WBSEDCL

: Amt Payable within 09/06/2022 through e-Pay Rs. 3029.00 :
using any E-PAY Mode with
Zero Transaction Charge

TEACHER IN CHARGE JMS MAHAVIDYALAYA
TAPAN RAMA VILL & P.O. - MAHATADIST-24 PCS(M) 743290
GIS P No. :
GPS : Lat - 22.9866302 N
Long - 88.7017649 E

Con Id : 103333601 Tariff : A(CM-1)
Inst No : 19973899 CD (KVA) : 0.230
MRU : 9CM18QMR SD(Rs.) : 595.47
Bill Period : Jun'22- Aug'22
Bill Date : 30/05/22
Meter No : 100255156 PH-1 M.F. : 1

Period	Reading Date	Units (KWH)
Previous	23/02/22	4120
Present	30/05/22	4700
Adjustment		0
Total Unit		580

Amount Payable(Rupees)

Bill Due Dt	amt befr Due Dt (With Rebate)	amt after Due Dt (Without Rebate)	Remark
09/06/2022	1123.00	1133.00	
11/07/2022	997.00	1007.00	
08/08/2022	997.00	1007.00	

Special Rebate : -58.00
Total Amt Payable at a time within 09/06/2022 : **3058.00**
Others Unpaid Bill Amount : 0.00

: Total Amount Payable at a time through E-Payment :
: after allowing 1% Adtl Rebate within 09/06/2022: 3029.00 :

Payment may be made through RTGS/NEFT in your exclusive account number WB10333360119973899 using IFSC code ICIC000104 (See Details at www.wbsecl.in under 'Payment Modes')

Bill Details

Item	Charge(Rs)	Item	Charge(Rs)
Enrgy Chrg	2900.00	Arr. E.D.	0.00
Arr. Enrg	0.00	Misc	0.00
Fixd Chrg	75.00	S.C.Bint.	0.00
FPPCA	0.00	S.D.Instl	0.00
MVCA	0.00	M Cvt Sbsdy	0.00
Mtr Rent	45.00	LPSC	24.56
Arr. Othrs	0.00		
Elec. Duty	0.00		

Gross Demand : 3044.56
• Outstanding Dues : 100.91
• Tax Collection at Source(TCS) : 0.00
Others Unpaid Bill Amount : 0.00
Miscellaneous Adjustment : 0.00
Other Adjustment : 0.00
OSD Others : 0.00
• Additional Subsidy : 0.00
• TCS may be added as per under section 206C(1H) of IT Act

OSD/Oth.Unpaid Bill as on 19/06/22 Please ignore if already paid
Last Payment Details : Rs. 1351.00 Date : 03/03/2022

ENERGY CHARGE DETAILS

QUARTERLY CONSUM	RATE(Rs)	AMOUNT(Rs)
FRST 580.00	5.00	2900.00

FIXED CHARGE DETAILS

CONTRACT LOAD	TOTAL MONTH	RATE(Rs)	AMOUNT(Rs)
0.230	3.00	25.00	75.00

Scan this QR Code to pay using any
BHARAT QR enabled Banking App during 01/06/2022 to 09/06/2022



PAYMENTS WILL BE ACCEPTED AFTER 48 HOURS
FROM THE DATE OF PREPARATION OF THE SPOT BILL

NW TARIFF AS PER WBERC ORDER DTD. 28.03.2022
GOPALNAGAR CCC
Phone : 3215260063
Call Centre Toll Free No: 19121

Register/Update Your Mobile No,Pls. send below SMS to 8422990336
REG 103333601 19973899
(Its applicable to your consumer id and send from that mobileNo)
For no Power Docketing Facility miss call us to 8422990337

Defect / Danger in WBSEDCL's network?
WhatsApp Photo and Location to 8900793100



103333601
APP VERSION : 2.21.10.0
c48cfa7afe2f63 TIME : 14:10:48



WBSEDCL is carrying out consumer survey by mobile App for betterment of services. Representative of the agency will collect this part of the bill during survey. Plz keep your latest energy bill available to assist the survey agency.



Bill payment using Net Banking Credit Card and avail 1%



WBSEDCL

: Amt Payable within 09/06/2022 through e-Pay Rs. 55113.00 :
using any E-PAY Mode with
Zero Transaction Charge

TEACHER INCHARGE D F J.M.M.S.
MAHAVIDYALAYA VILL+PO. MAHATA DIST, 24PGS(M)
GIS P No. : NA
GPS : Lat - 22.9865845 N
Long - 88.7017849 E

Con Id : 154047712 Tariff : A(CH-R)
Inst No : 11688648 CD (KVA) : 5.880
MRU : 9CL03QMR SD(Rs.) : 12246.11
Bill Period : Jun'22- Aug'22
Bill Date : 30/05/22
Meter No : SF015039 PH-3 H.F. : 1

Period	Reading Date	Units (KWH)
Previous	23/02/22	136064
Present	30/05/22	141483
Adjustment		0
Total Unit		5419

Amount Payable(Rupees)

Bill Due Dt	Amt befr Due Dt (With Rebate)	Amt after Due Dt (Without Rebate)	Remark
09/06/2022	18712.00	18876.00	
11/07/2022	18713.00	18877.00	
08/08/2022	18713.00	18877.00	

Special Rebate : -541.90
Total Amt Payable at a time within 09/06/2022 : 55595.00
Others Unpaid Bill Amount : 0.00
Total Amount Payable at a time through E-Payment :
after allowing 1% Addl Rebate within 09/06/2022: 55113.00

Payment may be made through RTGS/NEFT in your exclusive account number WB015404771211688648 using IFSC code 1C1C000104
(See Details at www.wbsecl.in under 'Payment Modes')

Bill Details

Item	Charge(Rs)	Item	Charge(Rs)
Engy Chrg	48646.73	Arr. E.D.	0.00
Arr. Enrg	0.00	Misc	0.00
Fixd Chrg	529.20	S.C.Int.	0.00
FPPCA	0.00	S.D.Instl	0.00
MVCA	0.00	Govt Sbsdy	0.00
Mtr Rent	150.00	LPSC	0.00
Arr. Othrs	0.00		
Elec Duty	7302.63		

Gross Demand : 56620.56
Outstanding Dues : 0.00
Tax Collection at Source(TCS) : 0.00
Others Unpaid Bill Amount : 0.00
Miscellaneous Adjustment : 0.00
Other Adjustment : -0.73
OSD Others : 0.00
Additional Subsidy : 0.00
TCS may be added as per under section 206C(1H) of IT Act

OSD/Oth.Unpaid Bill as on 19/05/22 Please ignore if already paid
Last Payment Details : Rs. 20087.00 Date : 03/03/2022

ENERGY CHARGE DETAILS

QUARTERLY CONSUM	RATE(Rs)	AMOUNT(Rs)
FRST 180.00	6.40	1152.00
NEXT 120.00	7.60	912.00
NEXT 150.00	8.25	1237.50
NEXT 450.00	8.68	3906.00
NEXT 4519.00	9.17	41439.23

FIXED CHARGE DETAILS

CONTRACT LOAD	TOTAL MONTH	RATE(Rs)	AMOUNT(Rs)
5.880	3.00	30.00	529.20

Scan this QR Code to pay using any BHARAT QR enabled Banking App during 01/06/2022 to 09/06/2022



PAYMENTS WILL BE ACCEPTED AFTER 48 HOURS FROM THE DATE OF PREPARATION OF THE SPOT BILL

NEW TARIFF AS PER WBERC ORDER DTD. 28.03.2022
GOPALNAGAR CCC
Phone : 3215260063
Call Centre Toll Free No: 19121

Register/Update your Mobile No,pls. send below SMS to 8422990336
REG 154047712 11688648
(Its applicable to your consumer id and send from that mobileNo)
For no Power Docketing Facility miss call us to 8422990337

Defect / Danger in WBSEDCL's network?
WhatsApp Photo and Location to 8900793100



154047712
APP VERSION : 2.21.10.0
c48cf0a7afe2f63 TIME : 14:21:22



WBSEDCL is carrying out consumer survey by mobile APP for betterment of services. Representative of the agency will collect this part of the bill during survey. Plz keep your latest energy bill available to assist the survey agency.



ANALYSIS

There should be regular maintenance schedule of equipment like pumps, exhaust fans and IT equipment. Electronics such as computers, printers, scanners, etc. more than 3 year or 5 years (as per their life) should be replaced with new computers/laptops. Ideal Temperature should be maintained for all electronic appliances.

AREAS FOR IMPROVEMENT

Lighting System:

- ✚ All “conventional FTL (46 Watt) should be replaced by energy efficient LED Tube Light fixture (20 Watt).
- ✚ Installation of “**Timer control on street lighting**” in college campus recommended for energy saving in the campus.

Ceiling Fan and Exhaust Fan:

- ✚ Replacement of “conventional ceiling fan 80 Watt” by energy efficient star rated fan or BLDC based energy efficient fan (20 to 25 Watt) in “admin building, class rooms, Auditorium Hall laboratories and faculties cabin” have great potential for energy saving.



Air Conditioning System:

- ✚ It is recommended “Fall Ceiling “in air conditioning area. It will be reduced air conditioning load of AC and unit consumption.
- ✚ Reduced the infiltration from door and window in air conditioning area

Energy Management Workshop and Training:

- ✚ Develop energy management policies for college. Establish a procurement policy that is energy saving and eco-friendly.
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- ✚ This policy will be communicated to students, teaching and nonteaching staff through internal communication channels and will be made available to public through college website.



Mr. S. Kayal

Lead Auditor EMS & Energy (EnMS)

NBQP(QCI) registered Principal Auditor

***** **END OF THE REPORT** *****



CERTIFICATE

ENERGY AUDIT

YEAR 2022 - 23

proudly presented to

**Nahata Jogendranath Mondal Smrirti
Mahavidyalaya**

P.O. Nahata, PS. Gopalnagar, Dist. 24 PGS (N)

has achieved the energy use standards with the least
environmental impact during the year 2022-23.



MR. SUPRIYO KAYAL
Lead Auditor

NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA

P.O. -Nahata, P.S. - Gopalnagar, Block - Bongaon, Dist.- North 24PGS,
West Bengal, Pin-743290

ENERGY AUDIT REPORT

For the Year 2019-22



Contains

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The energy saving initiatives has been taken by the Institution have been verified in the report submitted and were found to be satisfactory.

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Date:27/04/2022



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Supriyo Kayal
Lead Auditor EMS & Energy



ABBREVIATION

A	Amps
AC	Air Conditioner
AC	Alternating Current
AMET	Academy of Maritime Education and Training
CFL	Compact fluorescent lamp
CIP	Comprehensive Inspection Programme
DC	Direct Current
HSD	High Speed Diesel
Hz	Hertz
kg	Kilogram
kVA	kilo-volt-ampere
kW	kilo Watts
kWh	kilowatt hour
kWp	Kilowatt peak
LED	Light Emitting Diode
LPG	Liquefied Petroleum Gas
MMS	Module mounting structure
MPPT	Maximum Power Point Tracker
NAAC	The National Assessment and Accreditation Council
SEC	Specific Energy Consumption
TV	Television
V	Volts
W	Watts
W/m²	watt per square metre



OVERVIEW OF THE COLLEGE

Nahata Jogendra Nath Mondal Smriti Mahavidyalaya is a co-educational institution. The history of this institution is a history of progress. This college is mainly built for the purpose of education and development of the poor and falling behind students. In 1983, an all-out effort was undertaken in the area by the Government of West Bengal to expand higher education in rural Bengal and realize the aspirations of the people. Nahata Jogendranath Mondal Smriti Mahavidyalaya was affiliated to Calcutta University and this was established on 1st July 1985 with the efforts of the then Education Minister Mr. Kanti Biswas and the late Mr. Shantimoy Ghosh and with the sincerity and cooperation of people from all sections of the society. Late Mr. Rakhil Bhowmick and Mr. Hari Mohan Bhowmik donated land for the establishment of the college. Nahata High School donated classrooms and office rooms free of cost for almost two and a half years to run the college. At that time, high school teachers also taught college students responsibly. Nahata Jogendranath Mandal Smriti Mahavidyalaya has become an inexhaustible achievement in the development of the area for the past 30 years. Presently, the college is under the West Bengal State University and till now the college is running with graduate level courses in sixteen subjects and with PG courses in Bengali. Post-Graduate Bengali department reading-reading has started from the academic year 2018-2019. The NCC department of the college is progressing successfully. Apart from this, every year the college continues to play its leading role by participating in various folk festivals including the local agricultural fair and health fair and establishing cordial relations. The college also helps in raising public awareness by organizing blood donation camps, dengue prevention, thalassemia screening and health screening camps. The College is committed to the goal of holistic education and social upliftment.



Vision

To serve the needs of the locality by providing higher education with a multifaceted human-centred approach to the socially, economically and other backward class masses for a better educational environment and holistic development.

Mission:

M1: To create an enlightened society by educating the local younger section of the society and make them competent for the development of the nation.

M2: To orient the local younger generation with multidisciplinary courses and make them capable of pursuance of higher studies and research activities.

M3: To provide quality education to all the students of the area for integrated growth and personality development.

M4: To create a quality youth force through value education beyond their syllabus so that they bear the responsibility to fight against ignorance, illiteracy and other social evils.

M5: To explore the qualities and talents of the students and provide them with facilities for pursuance of their talents at the state and national levels and also shape their talents into professional skills.

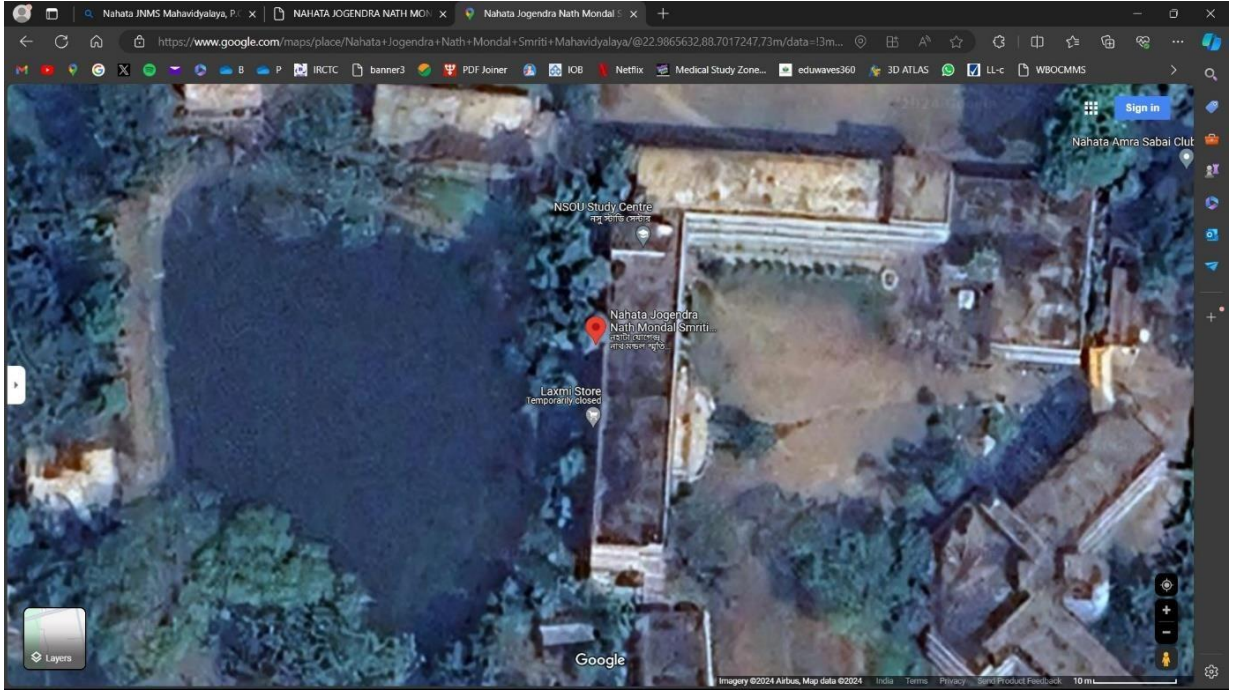


Energy Policies:

- ✚ Phased manner changing of normal conventional lights to energy efficient LED lights. All new lights procured will be LED lights only.
- ✚ Timely switching off and switching on of street lights.
- ✚ Optimum use of air conditioners. Switch on as and when required.
- ✚ Phased manner replacement of electrical appliances like ACs, Fridge, etc. with Energy efficient (Higher star rating) appliances.
- ✚ Activate power management features on your computer and monitor, so that it will go into a low power “sleep” mode when you are not working on it.
- ✚ Minimum use of ground water by reduced hours of pumping.
- ✚ Regular checking of leakage in water pipe lines and taps.
- ✚ Save water and save electricity stickers placed at prominent places.
- ✚ Conduct of different awareness campaign on “Save Water”, “Save Trees” & Save Electricity through lectures/different competitions etc.
- ✚ Vermi composting is also in practice for disposing the wet waste from canteen and also other biodegradable wastes.
- ✚ Tree plantation in Campus.
- ✚ Ensuring ban on single use plastic bags in campus.
- ✚ Encourage use of public transport & Car-pooling (i.e. reduced vehicular use in the campus).
- ✚ Waste collection bins (i.e. burnable, non-burnable & recyclable) and their management.
- ✚ Ensuring proper e-waste management.



Location:



AUDIT PARTICIPANTS

On behalf of college

Name	Designation
Dr. Arnab Ghosh	Principal
Dr. Dhrubajyoti Chattopadhyay	Associate Professor
Smt. Sriparna Dutta	Associate Professor
Dr. Prasun Biswas	Assistant Professor
Sri. Gautam Sharma	Assistant Professor
Sri. Prodip Sarkar	Elec. Tech

On behalf of Auditor Services

Name	Position	Qualifications
Mr. Supriyo Kayal	Lead Auditor	M.Sc., DIPC. Energy Management System Auditor



EXECUTIVE SUMMARY

The purpose of this Energy Audit was to seek opportunities to improve the energy efficiency of the NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA. Reducing the energy consumption despite improving the human comfort, health and safety were of primary concern.

Beyond just identifying the energy consumption pattern, this audit sought to detect and categorize the most energy efficient appliances. Additionally, some daily practices relating common appliances have been shared which may help reducing the energy consumption. Data collection for energy audit of the campus was carried out by the Auditor Team. The Energy Audit Report accounts for the energy consumption patterns of the institution on actual survey and detailed analysis during the audit.

The work comprehends the area wise consumption traced using suitable equipment. The analysis was carried out by our team with the support of the staff members from NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA. The report provides a list of possible actions to preserve and efficiently access the available source, resources and their saving potential was also identified. We look forward towards optimization that the authorities, students and staff members would follow the recommendations in the best possible way. The report is based on certain generalizations including the approximations wherever necessary. The views conveyed may not reveal the general opinion. They merely represent the opinion of the team guided by the interviews of clients. We are happy to submit this Energy audit report to the NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA.

Objectives of Energy Auditing

The energy audit provides the vital information base for overall energy conservation program covering essentially energy utilization analysis and evaluation of energy conservation measures. It aims at:

- ✚ Identifying the quality and cost of various energy inputs.
- ✚ Assessing present pattern of energy consumption in different cost centres of operations.



- ✚ Relating energy inputs and production output.
- ✚ Identifying potential areas thermal and electrical energy economy.
- ✚ Highlighting wastages in major areas.
- ✚ Fixing of energy saving potential targets for individual cost centres.
- ✚ Implementation of measures for energy conservation & realization of savings

Methodology:

- ✚ Methodology adopted for achieving the desired objectives viz.: Assessment of the current operational status and energy savings include the following:
- ✚ Discussions with the concerned officials for identification of major areas of focus and other related systems.
- ✚ Team of engineers visited the site and had discussions with the concerned officials to collect data / information on the operations and load distribution within the plant and same for the overall premises. The data was analysed to arrive at a base line energy consumption pattern.
- ✚ Measurements and monitoring with the help of appropriate instruments including continuous and / or time-lapse recording, as appropriate and visual observations were made to identify the energy usage pattern and losses in the system.
- ✚ Trend analysis of costs and consumptions.
- ✚ Capacity and efficiency test of major utility equipment's, wherever applicable.
- ✚ Estimation of various losses
- ✚ Computation and in-depth analysis of the collected data, including utilization of computerized analysis and other techniques as appropriate were done to draw inferences and to evolve suitable energy conservation plan/s for improvements/ reduction in specific energy consumption.



ENERGY AUDIT - ANALYSIS

1. ENERGY CONSUMPTION

To understand the Energy Consumption trends and for analysing the average monthly consumption we have collected electricity energy bills from July 2021 to June 2022

The details of “**Meter Connection**” at “**NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA**” are as follows-

Name - The Principal NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA

CA No. -

1.1 Summary of Monthly Electricity Consumption and Total Bill Amount

To understand the Energy consumption trend and for developing the baseline parameter we have collected monthly energy bill for the 12 months i.e. from July 2022 to June 2023

Electrical Instruments:

Particulars Quantity

Bulb and

Tube light 204

Fan 180

AC 07

Computer, Printer 35

* Electricity measured as Units and

** Fuel used for DG set measured in Litre

Particulars of Electric consumption in Rupees given below:





WBSEDCL

Payment Receipt

WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED
(A GOVERNMENT OF WEST BENGAL ENTERPRISE)

Transaction ID: 1620105461276
Date: 03.03.2022
Payment Gateway: KIOSK-315710201
Billing Office: GOPAINAGAR CUSTOMER CARE CENTRE
Consumer Id: 154047712
Name: TEACHER INCHARGE OF J.N.M.S.
Invoice Number /Appl. No. /Inst. No: 452008485709
Bill Paid For: MAR2022-MAY2022
Payment Mode : KIOSK
Received: Rs. 20264.0

* Payment subject to realisation.

Thank You





Payment Receipt

WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED
(A GOVERNMENT OF WEST BENGAL ENTERPRISE)

WBSEDCL

Transaction ID: 1620108641277
Date: 03.03.2022
Payment Gateway: KIOSK-315710201
Billing Office: GOPAINAGAR CUSTOMER CARE CENTER
Consumer Id: 103335601
Name: TEACHER IN CHARGE JNMS MAFAVIDYALAYA
Invoice Number /App. No. /Inst. No: 478006847815
Bill Paid For: MAR2022-MAY2022
Payment Mode : KIOSK
Received: Rs. 1352.0

* Payment subject to realisation.

Thank You



Book No. - MR/2019

WBSEDCL - 9B

Serial No. C

Money Receipt

0919977

WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED

(A GOVERNMENT OF WEST BENGAL ENTERPRISE)

Receipt No : 129504882204
Date : 31.01.2022 14:37:22
Collector Code : 90018852 Counter: 02
Collection Off : GOPAINAGAR CUSTOMER CARE CENTER

Billing Off : GOPAINAGAR CUSTOMER CARE CENTER
RP.No: 12975353 Consumer Id: 154047712
Name : TEACHER INCHARGE OF J.N.M.S.
Payment For Disconnection & Reconnection Chro
Payment Mode : Cash
Received : Rs. 100.00

Please preserve it for future reference

* Payment subject to realisation of cheque.

Thank You





Book No. - MR/2019
WBSEDCL - 9B
WBSEDCL - 9B

Serial No. C
0919977
Serial No. C
0919976

Money Receipt

WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED

(A GOVERNMENT OF WEST BENGAL ENTERPRISE)

KAM FORMS
8/19
Please preserve it for future reference

Receipt No : 132604878485
Date : 31-01-2022 14:36:38
Collector Code : 90018852 Counter: 02
Collection Off : GOPALNAGAR CUSTOMER CARE CENTER

Billing Off : GOPALNAGAR CUSTOMER CARE CENTER
BP.No: 12975353 Consumer Id: 154047712
Name : TEACHER INCHARGE OF T.N.M.S.
Invoice Number: 454008792911
Bill Paid For: DEC.2021-FEB.2022
Payment Mode : Cash
Received : Rs. 19161.00



* Payment subject to realisation of cheque.

Thank You





Book No.

WBSEDCL - 9B

Serial No. C

Money Receipt

4811914

WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED

(A GOVERNMENT OF WEST BENGAL ENTERPRISE)

Receipt No : 132004768850

Date : 05.10.2021 13:12:55

Collector Code : 90010852 Counter: 02

Collection Off : GOPALNAGAR CUSTOMER CARE CENTER

Billing Off : GOPALNAGAR CUSTOMER CARE CENTER

SP.No: 12175353 Consumer Id: 154047712

Name : TEACHER INCHARGE OF J.N.M.S.

Invoice Number: 406004727647

Bill Paid For: SEP.2021-NOV.2021

Payment Mode : Cash

Received : Rs. 22610.00



Thank You





Book No. - MR/2019

WBSEDCL - 9B

Serial No. C

Money Receipt

4811912

WEST BENGAL STATE ELECTRICITY DISTRIBUTION COMPANY LIMITED

(A GOVERNMENT OF WEST BENGAL ENTERPRISE)

Receipt No : 129804770179
Date : 05.10.2021 13:09:25
Collector Code : 90018952 Counter: 02
Collection Off : GUPALNAGAR CUSTOMER CARE CENTER
Billing Off : GUPALNAGAR CUSTOMER CARE CENTER
BP.No: 22397900 Consumer Id: 103333601
Name : TEACHER IN CHARGE JNMS MAHAVIDYALAYA
Invoice Number: 478005048910
Bill Paid For: OCT.2021-DEC.2021
Payment Mode : Cash
Received : Rs. 1740.00

* Payment subject to realisation of cheque.

Thank You



WBSIEDCL
KIOSK:<GOPALNGAR CCC>

(GOPALNAGAR CCC)
Money Receipt
For any Complaints /Query Dail
19121 (Toll Free)

KIOSK ID :315710201
Receipt No :1620100051277
Pay Mode :Cash
Pay Date :05/06/2021 11:21:26 AM
Bill Period for :JUL2021-SEP2021
Consumer ID :103333601
BP No :0022397900
Name :TEACHER IN CHARGE JNMS
MAHAVIDYALAYA
Bill Amount :Rs.120
Paid Amount :Rs.120
(One hundred Twenty Only)
Excess Pay (If Any) :Rs. 0
Less Pay (If Any) :Rs. 0
Sec Key :YXQIZ
Dr By :Operator

THANKS FOR USING ATP KIOSK(i"EASYPAY)
DESIGNED & DEVELOPED BY
IDEA INFINITY IT SOLUTIONS PVT LTD

WBSIEDCL
KIOSK:<GOPALNGAR CCC>

(GOPALNAGAR CCC)
Money Receipt
For any Complaints /Query Dail
19121 (Toll Free)

KIOSK ID :315710201
Receipt No :1620100051276
Pay Mode :Cash
Pay Date :05/06/2021 11:18:28 AM
Bill Period for :JUN2021-AUG2021
Consumer ID :154047712
BP No :0012975353
Name :TEACHER INCHARGE OF
J.N.M.S.
Bill Amount :Rs.20482
Paid Amount :Rs.20480
(Twenty thousand Four hundred Eighty 0
nly)
Excess Pay (If Any) :Rs. 0
Less Pay (If Any) :Rs. 2
Sec Key :xbHWY
Dr By :Operator

THANKS FOR USING ATP KIOSK(i"EASYPAY)
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YEAR 2019 - 22

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Lead Auditor

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ENERGY AUDIT REPORT

For the Year 2018-19



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Date:24/04/2019



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Supriyo Kayal
Lead Auditor EMS & Energy



ABBREVIATION

A	Amps
AC	Air Conditioner
AC	Alternating Current
AMET	Academy of Maritime Education and Training
CFL	Compact fluorescent lamp
CIP	Comprehensive Inspection Programme
DC	Direct Current
HSD	High Speed Diesel
Hz	Hertz
kg	Kilogram
kVA	kilo-volt-ampere
kW	kilo Watts
kWh	kilowatt hour
kWp	Kilowatt peak
LED	Light Emitting Diode
LPG	Liquefied Petroleum Gas
MMS	Module mounting structure
MPPT	Maximum Power Point Tracker
NAAC	The National Assessment and Accreditation Council
SEC	Specific Energy Consumption
TV	Television
V	Volts
W	Watts
W/m²	watt per square metre



OVERVIEW OF THE COLLEGE

Nahata Jogendra Nath Mondal Smriti Mahavidyalaya is a co-educational institution. The history of this institution is a history of progress. This college is mainly built for the purpose of education and development of the poor and falling behind students. In 1983, an all-out effort was undertaken in the area by the Government of West Bengal to expand higher education in rural Bengal and realize the aspirations of the people. Nahata Jogendranath Mondal Smriti Mahavidyalaya was affiliated to Calcutta University and this was established on 1st July 1985 with the efforts of the then Education Minister Mr. Kanti Biswas and the late Mr. Shantimoy Ghosh and with the sincerity and cooperation of people from all sections of the society. Late Mr. Rakhil Bhowmick and Mr. Hari Mohan Bhowmik donated land for the establishment of the college. Nahata High School donated classrooms and office rooms free of cost for almost two and a half years to run the college. At that time, high school teachers also taught college students responsibly. Nahata Jogendranath Mandal Smriti Mahavidyalaya has become an inexhaustible achievement in the development of the area for the past 30 years. Presently, the college is under the West Bengal State University and till now the college is running with graduate level courses in sixteen subjects and with PG courses in Bengali. Post-Graduate Bengali department reading-reading has started from the academic year 2018-2019. The NCC department of the college is progressing successfully. Apart from this, every year the college continues to play its leading role by participating in various folk festivals including the local agricultural fair and health fair and establishing cordial relations. The college also helps in raising public awareness by organizing blood donation camps, dengue prevention, thalassemia screening and health screening camps. The College is committed to the goal of holistic education and social upliftment.



Vision

To serve the needs of the locality by providing higher education with a multifaceted human-centred approach to the socially, economically and other backward class masses for a better educational environment and holistic development.

Mission:

M1: To create an enlightened society by educating the local younger section of the society and make them competent for the development of the nation.

M2: To orient the local younger generation with multidisciplinary courses and make them capable of pursuance of higher studies and research activities.

M3: To provide quality education to all the students of the area for integrated growth and personality development.

M4: To create a quality youth force through value education beyond their syllabus so that they bear the responsibility to fight against ignorance, illiteracy and other social evils.

M5: To explore the qualities and talents of the students and provide them with facilities for pursuance of their talents at the state and national levels and also shape their talents into professional skills.



Energy Policies:

- + Phased manner changing of normal conventional lights to energy efficient LED lights. All new lights procured will be LED lights only.
- + Timely switching off and switching on of street lights.
- + Optimum use of air conditioners. Switch on as and when required.
- + Phased manner replacement of electrical appliances like ACs, Fridge, etc. with Energy efficient (Higher star rating) appliances.
- + Activate power management features on your computer and monitor, so that it will go into a low power “sleep” mode when you are not working on it.
- + Minimum use of ground water by reduced hours of pumping.
- + Regular checking of leakage in water pipe lines and taps.
- + Save water and save electricity stickers placed at prominent places.
- + Conduct of different awareness campaign on “Save Water”, “Save Trees” & Save Electricity through lectures/different competitions etc.
- + Vermi composting is also in practice for disposing the wet waste from canteen and also other biodegradable wastes.
- + Tree plantation in Campus.
- + Ensuring ban on single use plastic bags in campus.
- + Encourage use of public transport & Car-pooling (i.e. reduced vehicular use in the campus).
- + Waste collection bins (i.e. burnable, non-burnable & recyclable) and their management.
- + Ensuring proper e-waste management.



EXECUTIVE SUMMARY

The purpose of this Energy Audit was to seek opportunities to improve the energy efficiency of the NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA. Reducing the energy consumption despite improving the human comfort, health and safety were of primary concern.

Beyond just identifying the energy consumption pattern, this audit sought to detect and categorize the most energy efficient appliances. Additionally, some daily practices relating common appliances have been shared which may help reducing the energy consumption. Data collection for energy audit of the campus was carried out by the Auditor Team. The Energy Audit Report accounts for the energy consumption patterns of the institution on actual survey and detailed analysis during the audit.

The work comprehends the area wise consumption traced using suitable equipment. The analysis was carried out by our team with the support of the staff members from NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA. The report provides a list of possible actions to preserve and efficiently access the available source, resources and their saving potential was also identified. We look forward towards optimization that the authorities, students and staff members would follow the recommendations in the best possible way. The report is based on certain generalizations including the approximations wherever necessary. The views conveyed may not reveal the general opinion. They merely represent the opinion of the team guided by the interviews of clients. We are happy to submit this Energy audit report to the NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA.

Objectives of Energy Auditing

The energy audit provides the vital information base for overall energy conservation program covering essentially energy utilization analysis and evaluation of energy conservation measures. It aims at:

- ✚ Identifying the quality and cost of various energy inputs.
- ✚ Assessing present pattern of energy consumption in different cost centres of operations.
- ✚ Relating energy inputs and production output.
- ✚ Identifying potential areas thermal and electrical energy economy.



- ✚ Highlighting wastages in major areas.
- ✚ Fixing of energy saving potential targets for individual cost centres.
- ✚ Implementation of measures for energy conservation & realization of savings

Methodology:

- ✚ Methodology adopted for achieving the desired objectives viz.: Assessment of the current operational status and energy savings include the following:
- ✚ Discussions with the concerned officials for identification of major areas of focus and other related systems.
- ✚ Team of engineers visited the site and had discussions with the concerned officials to collect data / information on the operations and load distribution within the plant and same for the overall premises. The data was analysed to arrive at a base line energy consumption pattern.
- ✚ Measurements and monitoring with the help of appropriate instruments including continuous and / or time-lapse recording, as appropriate and visual observations were made to identify the energy usage pattern and losses in the system.
- ✚ Trend analysis of costs and consumptions.
- ✚ Capacity and efficiency test of major utility equipment's, wherever applicable.
- ✚ Estimation of various losses
- ✚ Computation and in-depth analysis of the collected data, including utilization of computerized analysis and other techniques as appropriate were done to draw inferences and to evolve suitable energy conservation plan/s for improvements/ reduction in specific energy consumption.



ENERGY AUDIT - ANALYSIS

1. ENERGY CONSUMPTION

To understand the Energy Consumption trends and for analysing the average monthly consumption we have collected electricity energy bills from July 2021 to June 2022

The details of “**Meter Connection**” at “**NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA**” are as follows-

Name - The Principal NAHATA JOGENDRA NATH MONDAL SMRITI MAHAVIDYALAYA

1.1 Summary of Monthly Electricity Consumption and Total Bill Amount

To understand the Energy consumption trend and for developing the baseline parameter we have collected monthly energy bill for the 12 months i.e. from July 2022 to June 2023

Electrical Instruments:

Particulars Quantity

Bulb and

Tube light 204

Fan 180

AC 07

Refrigerator 04

Micro Oven 02

Computer, Printer 35

TOTAL 432

* Electricity measured as Units and

** Fuel used for DG set measured in Litre

ANALYSIS

There should be regular maintenance schedule of equipment like pumps, exhaust fans and IT equipment. Electronics such as computers, printers, scanners, etc. more than 3 year or 5 years (as per their life) should be replaced with new computers/laptops. Ideal Temperature should be maintained for all electronic appliances.



AREAS FOR IMPROVEMENT

Lighting System:

- All “conventional FTL (46 Watt) should be replaced by energy efficient LED Tube Light fixture (20 Watt).

Ceiling Fan and Exhaust Fan:

- Replacement of “conventional ceiling fan 80 Watt” by energy efficient star rated fan or BLDC based energy efficient fan (20 to 25 Watt) in “admin building, class rooms, Auditorium Hall laboratories and faculties cabin” have great potential for energy saving.

Air Conditioning System:

- Reduced the infiltration from door and window in air conditioning area

Energy Management Workshop and Training:

- Conduct awareness and training programs for faculty, student and non-teaching staffs. Conduct seminars, workshops and exhibitions on energy management education.
- This policy will be communicated to students, teaching and nonteaching staff through internal communication channels and will be made available to public through college website.



Mr. S. Kayal

Lead Auditor EMS & Energy (EnMS)

NBQP(QCI) registered Principal Auditor

***** **END OF THE REPORT** *****



CERTIFICATE

ENERGY AUDIT

YEAR 2018-19

proudly presented to

**Nahata Jogendranath Mondal Smrirti
Mahavidyalaya**

P.O. Nahata, PS. Gopalnagar, Dist. 24 PGS (N)

has achieved the energy use standards with the least
environmental impact during the year 2018-19.



MR. SUPRIYO KAYAL
Lead Auditor