Annual Report

2024

GHEL

Green Housing & Energy LLimited

Table of Contents

Foreword

The second year of operations at GHEL has been a year of great development and growth. The company almost doubled in size with respect to the number of employees as well as the value of its assets. GHEL's field presence also got a boost as it is not operating through 80 branch offices nationwide. The past year has seen large investments in customizing and finalizing new renewable energy programs that complement GHEL's established programs and can provide clients with even more attainable solutions to various socio-economic problems of rural life. Through this approach and its cross-sectional products and services, we are confident we have created a new and comprehensive model for rural development.

At the end of the 2011-12 fiscal year GHEL was happy to celebrate the inception of one of its brainchild projects. The Green and Low Cost Housing Program was successfully launched after two years of research and development on housing construction, design and technology as well as the needs of low and medium income people. GHEL's housing project is the first of its kind to cater to the rural population and the soaring popularity of the houses has proven to us that all the hard work and careful preparations will bear fruit. The construction of GHEL's signature houses started in Muradpur Village in the Bogra District, where also the production facilities are located.

GHEL is continuously investing in the development and advancement of its employees and the empowerment of women and other underprivileged groups through organizing technical trainings on renewable energy. Throughout the year GHEL has participated in training of 3,965 partner employees and 8,750 female villagers through its partnerships with ASA, AUP and Citi Foundation. GHEL is also glad to announce that it has established new international partnership to promote its objective of technology and knowledge transfer for sustainable development of the industry in Bangladesh.
As concluding remarks for the year ending June 2012 I must express my gratitude and excitement over GHEL's current situation as it sets an excellent and well deserved starting point for further growth and for reaching the objectives for developing rural Bangladesh.

I would like to show special appreciation for everyone that has worked with us throughout the year as well as to those that have joined us more recently. The growth of GHEL is a testament to the hard work, skill and dedication of its people. In addition I wish to thank our business and funding partners for supporting us and contributing to our work and mission.

Best wishes,

Dr. Mostaq Ahmmed
Managing Director
Green Housing and Energy Limited (GHEL)

Company Information

Company Name: Green Housing & Energy Limited (GHEL)

Web Address: www.ghelbd.org or www.ghel.org

Key Person: **Founder and Managing Director:** Dr. Mostaq Ahmmed, an expert in microfinance, SME and Social Business. He is also founder of the Paris based Social Business Think Tank ICMSE (International Center for Microfinance and Social Enterprise), which is creating and building linkage program with Corporate Businesses and Financial Institutions and Investors.

Date of Establishment: 2010

Registration Number: C 82133/10

Legal Status: Joint Stock Registered Company and Registered at BOI also

Registered Capital: 500 Million BDT

Business Scope: Alternative green and renewable energy answers the scarcity of clean energy and its availability, Low cost housing, SME and Agro-business Development.

Employees: GHEL is presently working in 60 districts around Bangladesh. The total number of employees currently stands at around 300 and over 75% of them are engineers.

Number of Head Office Staff: 35

Number of Field Staff: 250

Number of Rural Women Oriented: 8,750

Number of Branch Offices: 80

Company Overview

Green Housing & Energy Limited (GHEL), is a sister concern of International Center for Microfinance and Social Enterprises Ltd. (ICMSE), which is dedicated to Social Enterprises Development by linking corporate social capital venture funds with new technologies for sustainable development.

Green Housing and Energy Ltd. is getting technical assistance from INES (a French National Solar Institution) and technological support from Taiwan based institute "AFTA Technology". GHEL addresses a range of socio-economic problems amongst low-income people through its renewable energy, housing and capacity building programs.

The Ultimate Goal

1. Overcome the dependency on fossil fuel by offering alternative green energy
2. Comes up with innovative solutions and offering the best and cleanest technology at an affordable price.
3. To contribute to make Bangladesh a role model in renewable energies and sustainable housing projects.
4. The initial and most meaningful goal of GHEL is to ultimately alleviate poverty by offering cross-sectional solutions that support income generation and empowerment of low-income people in Bangladesh:
    - *By reducing energy and electricity expenses*
    - *By supplying and promoting green energy*
    - *By providing low-cost sustainable houses equipped*
    - *SME and Business Development Services*
    - *Skill Training and Capacity Building*
5. Access to modern technology and customized solutions of e- and mobile banking services for isolated low-income people.
6. To invest in agro-business development to increase the productivity of the agricultural sector and secure the livelihoods of farmers as well as future food security.
7. Technology integrated in a smart Business Model combining social impact initiatives, gathered synergies from complementary partnerships and constant low-cost preoccupations lie at the core of GHEL's goal.

Mission: Creating Social Business Projects and Small & Medium Enterprises for fighting poverty.

Vision: Resource Mobilization and Technology Transformation for Creating Social Enterprises.

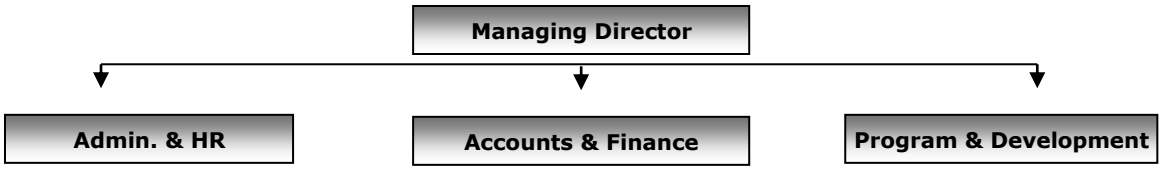
- GHEL has initiated to set up a Battery Production Plant, SME & Business Development Services, and Low Cost Housing Program with other activities.
- Major technologies transformation for producing Solar Module and providing low cost power solutions.
- Collective efforts for drastic carbon emission reduction and community people empowerment in Bangladesh through community plantation program.
- Provide skills training to 10,000 rural women entrepreneurs.
- Setting up a training center for Solar Technicians and Civil Engineers.

Objectives

- To promote, develop and extend renewable energy technologies such as solar power, biogas etc.
- To reduce poverty through creating social enterprises and carrying out campaign for the utilization of energy for productive purposes.
- To train rural women entrepreneurs and introducing affordable technologies for rural people.
- To set up assembling units for renewable energy products and technology
- To set up local production of sustainable construction material and solar batteries
- Offering SME funding and capacity building business development services

GHEL Showroom ASA Tower, Dhaka:
GHEL MD Dr. Mostaq Ahmmed, Mr. Alauddin Ahmed, Md. Shafiqual Haque Choudhury, Mr. Mahbubul Alam, Father Tim and Mrs. Taherunnesa Abdullah, Mrs. Rabeya Akter Choudhury.

Management Structure



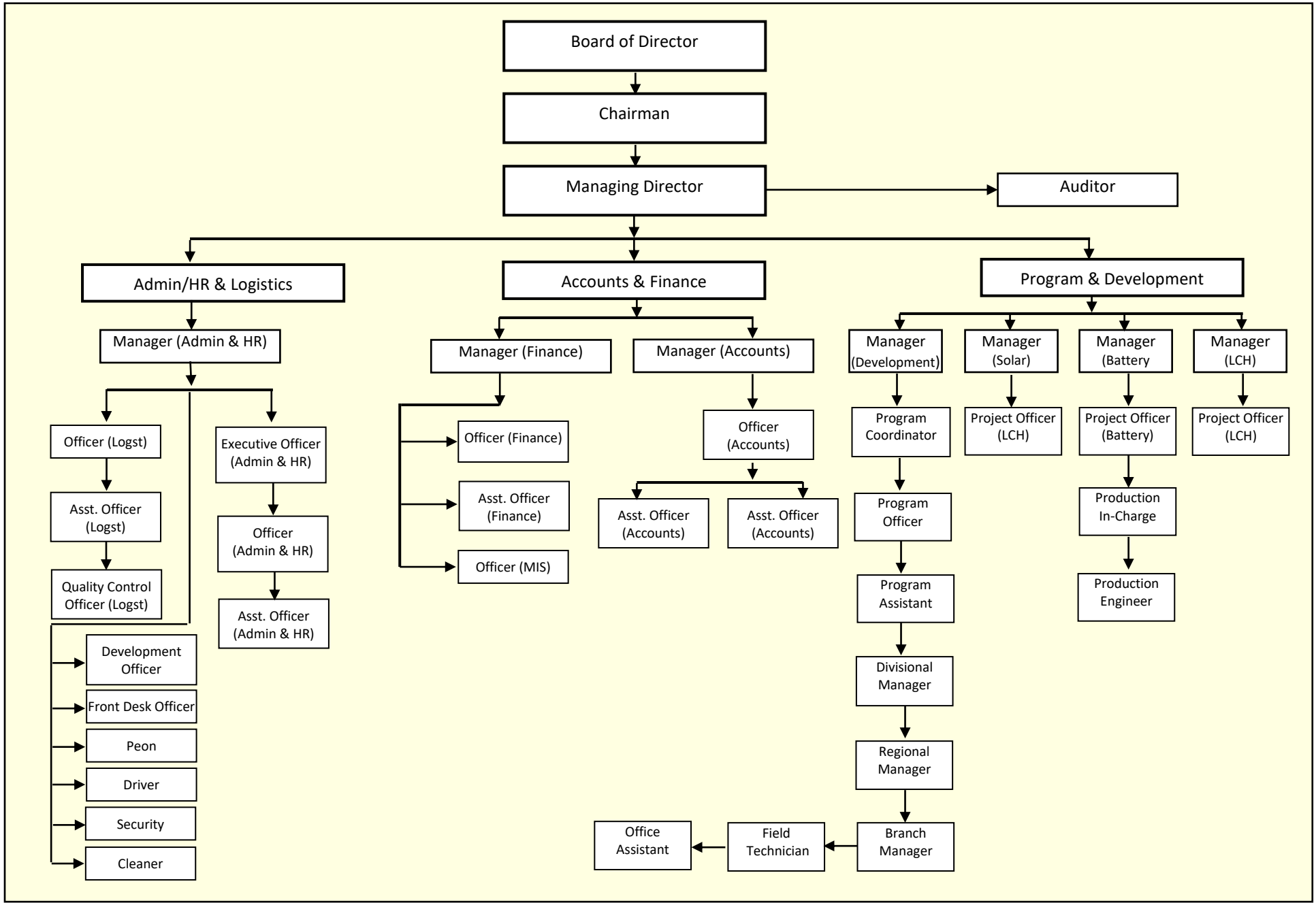
Admin. & HR covers the administrative department, human resources, communications, governance and sustainability.

Companies Accounts and Finance is responsible for internal and external accounting of the organization, financial management & controlling.

Program & Development is responsible for direct contact with the consumers, sells, distribution and production.

Green Housing & Energy Limited

Organogram



Ownership and Share Holding Structure:

GHEL is committed to setting up Social Impact Business Projects for employment generation and fighting poverty. GHEL is supporting the local SME initiatives through social capital investment, technical supports, skills training, technology transformation and building the value chain with corporate sectors. As a result of that GHEL is established with strong measurable social commitment with likeminded people and expert on board and Board Members are committed that expected profit of the company's social business projects would not be more than 20% and out of that 3%-5% would be invested in different human resource development, skills training and capacity building female entrepreneurs. At the same time the Board has agreed that they will not take out any profit from the company at least for 3 years and all the profits will be reinvested for the various projects. After 3 years, the board will decide about the shares and determine the further strategy how to distribute the dividends among the Directors. The GHEL Board also delegated power to the Managing Director for mobilizing funds from local and international sources so any interested individuals or institutions are most welcome to join GHEL either with equity or soft loan for scaling up its various ongoing projects or initiating new one. The current GHEL ownership and shareholding structure is as follows:

Ownership Structure

Sl.No.	Shareholders	Shareholding
1.	Dr. Mostaq Ahmmed – Founder and Managing Director of GHEL	50%
2.	International Center of Microfinance and Social Enterprise Ltd. (ICMSE)	30%
3.	Ms. Rafiza Rahman	20%

GHEL Board Members

Dr. Mostaq Ahmmed
Chairman &
Managing Director

Rafiza Rahman

Nominee Director of ICMSE

Dr. Mostaq Ahmmed – Founder & Managing Director of GHEL

Dr. Mostaq Ahmmed, an expert in microfinance, SME and Social Business, is the Deputy Chief Operating Officer of ASA International. He is also founder of the Paris based Social Business Think Tank - International Center for Microfinance, SME and Social Enterprises (ICMSE), which is creating and promoting Social Businesses in Bangladesh through building linkage program with Corporate Businesses and Microfinance Institutions.

He was respectively Manager of the Training and Technical Support Department at FINCA International and Director of Planet Finance-France and Deputy General Manager and Head of the International Training & Information Department at ASA, which is the largest MFIs in Bangladesh operating with 7 million clients. He has also worked in Bangladesh and in several other countries on research and development projects revolving around the relations between European countries and least developed countries (LDCs).

In addition, he is leading numerous microfinance projects and provided technical assistance to different MFIs, Banks and NGOs located in developing countries. Some of the projects include, but are not limited to Microfinance & Health in Benin, Microfinance & ICTs, Microfinance and Capacity Building in Argentina, Morocco, China, India, Pakistan, Togo, Benin and Ivory Coast. He has provided several technical consultancy services to World Bank, IFC, UNDP-Bulgaria, Save the Children, UNECEF, UNESCO, European Union, Citi Bank, State Bank of Pakistan and The State Bank of Angola etc.

Dr. Mostaq Ahmmed has a Masters Degree of Social Sciences from Dhaka University in Bangladesh, a Masters Degree in International Relations and European Politics from the University of Liege, and a PhD. in International Relations from Washington University-USA. He has written many reviews and articles on various issues regarding Development Policy, Poverty and Micro Finance those are: a) Fighting Poverty with Innovative Business Strategy (Published by ASA), b) Key To Achieving Sustainability, (Published by ASA) c) Micro Finance Training Handout (Published by ASA) d) Microfinance Training Methodology (Published by PlaNet Finance) e) Microfinance and Product Diversification (Published by ICMSE). Those are synthesis of his personal views coupled with his professional experiences, which have been written with devotion and knowledge.

He is the visiting professor and Chair for Social Business Studies at HEC-France which is top most and number one Business School in Europe. He was also involved at ULB in Belgium where Dr. Mostaq Ahmmed has conducted several course on “Microfinance and Sustainable Development Program”.

Rafiza Rahman – Nominee Director of ICMSE

Rafiza is an expert in development journalism and microfinance, heading the department of finance and administration as well as responsible for the communication department at ICMSE. She is an assistant instructor at the Press Institute of Bangladesh, where she worked for five years and carried out several training activities. Rafiza has written many reviews and articles on various issues regarding development, poverty and micro finance.

She has a M.S.S. degree in Mass Communication and Journalism from the University of Dhaka in 1994 and has Masters degree in European Microfinance Program from the Université Libre de Bruxelles in Belgium, 2007. Mrs. Rafiza Rahman is highly specialized in micro savings product and management and has carried out intensive research on ASA Product Diversification and Savings Program.

Governance and Monitoring

GHEL has robust governance processes in place for monitoring of its operations on branch, cluster and head office level as well as mechanisms for carefully monitoring its investment objects under the Enterprise Development Program. Top management is continuously developing these processes and mechanisms and the following organs are each involved in monitoring and supervision to make sure all operations follow the corporate policy of conduct.

1. Board of Directors
2. Technical Advisory Team (shadow board consisting of outsiders + MD)
3. Central management team (heads of departments + MD)
4. Central monitoring team (especially appointed company internal monitoring unit)
5. Internal risk management and cost control team (Accounts and Finance Department)
6. Both internal and external auditing answering only to the Board of Directors

Additionally supervision and monitoring of the 80 branch offices is coordinated through 15 regional offices and five cluster heads.

Our Working Area in Bangladesh:

GHEL offices are divided into four categories: Head Office, Cluster Head, Regional Office and Branch Office. Currently, GHEL is working in 5 Clusters throughout Bangladesh. Through 15 Regional Offices and 80 Branch Offices, we cover the entire region of Bangladesh and provide support to our customers.

Dhaka Cluster

Regional Office: Dhaka
Branch Offices: Kapasia, Dawlatpur, Raipura, Mawna, Sagardighi.

Regional Office: Mymensingh
Branch Offices: Haluaghat, Mymensingh, Kendua, Nalitabari, Dharmopasha, Fulbaria.

Regional Office: Shylet
Branch Offices: Shunamgonj, Habigonj, Azmeriganj, Tekerghat, Katkhal.

Faridpur Cluster

Regional Office: Faridpur
Branch Offices: Tepakhola, Shakhipur, Shibchar, Kotalipara, Satla.

Regional Office: Khulna
Branch Offices: Morolgonj, Dakope, Sharonkhola, Mongla, Mathbaria, Pathorghata.

Regional Office: Chadpur
Branch Offices: Matlab, Changarchor, Nandonpur, Kalir Bazar.

Chittagong Cluster

Regional Office: Chittagong
Branch Offices: Mirshorai, Shantirhat, Ramgor, Hiako, Sobornochar.

Regional Office: Sandip
Branch Offices: Sandip, Sagoria, Shiberhat, Guptochora, Hatia.

Regional Office: Cox's Bazar
Branch Offices: Dhurung, Kutubdia, Pekua, Ukhia.

Barisal Cluster

Regional Office: Barisal
Branch Offices: Bakergonj, Dhamura, Agalizara, Batazor.

Regional Office: Patuakhali
Branch Offices: Patuakhali, Golachipa, Kalapara, Rangabali, Amtoli, Amkhola.

Regional Office: Mehendigonj
Branch Offices: Hizla, Mehendigonj, Lalmohon, Majhkajirchar, Nalbunia, Tekerhat.

Bogra Cluster

Regional Office: Bogra
Branch Offices: Bottola, Natuarpara, Niamotpur, Godagari, Ullahbharartkhali, Sherpur, Shajahanpur, Chatmohor.

Regional Office: Kurigram;
Branch Office: Patgram, Hatibandha, Tushvander, Trimohini, Pochakata, Kawnia.

Regional Office: Jamalpur

Branch Offices: Kalihati, Bakshigonj, Melandhaha, Dewangonj, Sanondobari.

GHEL Working Areas

Map No. 3711 Rev. 2 UNITED NATIONS
January 2004

Department of Peacekeeping Operations
Cartographic Section

Human Resources

GHEL operates through 80 branches and 15 regional offices in 65 of the country's districts. The Dhaka Head Office employs 35 people while almost 250 people are employed in the field operations.

GHEL Senior Management:

Name	Designation
Dr. Mostaq Ahmmed	Managing Director
Alamgir Hossain	Program Manager
Md. Afser Hossain	Head of M&E, SME in-charge
Rashidul Akhter Maruf	Accounts Manager
Md. Abullah Al Faruk	Head Of Logistic & Control Monitoring
Ayesha Nargish	Head of HR & Administration

GHEL Regional Managers by region:

Region	Regional Manager
Bogra	Mrittunjoy barman
Bogra (Biogas)	Shahinur Islam
Chadpur	Shirazul Islam
Dhaka	Md.Mokaddes Ali
Jamalpur	Md.Jamiur Rahman
Khulna	Shafiqul Islam
Kurigram	Md.Sharif Hosain
Mehendigonj	Md. Fayej Ullah
Mymanshing	Md.Ashraful Islam
Patuakhali	Mahabub Alam
Sylhet	Md.Salek Miah

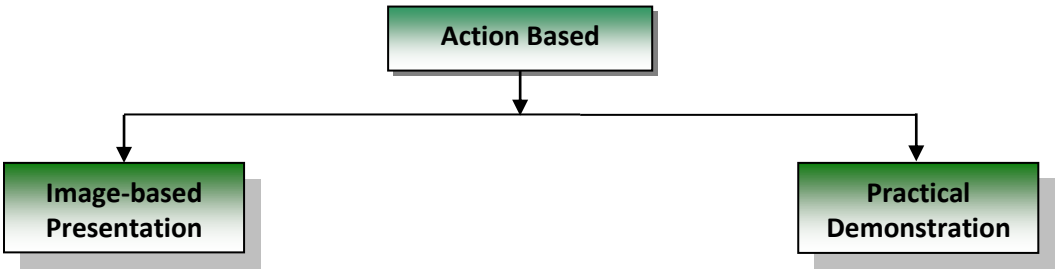
Senior and regional management has regular meetings to evaluate performance and to determine the course of operations. GHEL is constantly developing its staff through training sessions and on the job training. Developing the skill of our human resources is and will remain a driving factor in GHEL's strategy both for internal program development but also to be able to assure the best technical training and orientation for our clients.

Training and Technical Support

GHEL offers a variety of training programs designed to help management, officials and front line staffs learn more about Microfinance, SME, Agro-businesses and Solar Energy technical and operational issues. The Managing Director of GHEL Dr. Mostaq Ahmmed is highly reputed Training Expert who has taken initiative for strengthening Training and Technical Support Department of GHEL. For the smooth functioning and effective coordination of all the GHEL clients' service center, GHEL Management/Technical Team are providing leadership training courses for ensuring quality management at the field level operation since solar training is critical because solar energy is such a broad, deep and often misunderstood topics. To date GHEL has organized 650 training sessions. During these sessions GHEL has provided training to 3,965 ASA staff and 8,750 rural women.

Training Methodology:

The trainings are based on action based learning and under the action based there are two wings one is (i) Image-based presentation which training designed especially for those people who are not literate. The other one is (ii) Practical demonstration and it focuses on flip chart presentation along with learning by doing approaches.



Objectives:

- To ensure some technical skill training for rural female entrepreneurs on business development, income generating activities and solar system to develop their technical know-how for improving their business entities and the economical condition as well.
- To ensure sustainable rural SME and enterprises development and sound operation of the energy utilities.
- To encourage public and private sector participation in the development and management of the microfinance, SME and energy sector.
- To provide better and effective service to the customers

Awareness & Campaigning Activities:

Through leaflet, brochure and poster GHEL is doing their campaigning activities in rural areas. The GHEL trainings are an integral part of the company's awareness and promotion activities. GHEL is aiming to increase the awareness of the social, economic and environmental impact of its different products and services as well as to educate the clients and the staff of partner organizations on renewable energy technology.

Specialization Building & Construction:

Building and construction:

Building and construction by GHEL represents a transformative approach to infrastructure development, integrating innovation and sustainability to enhance communities. The achievements in civil construction and soil felling you've described represent significant milestones in infrastructure development. Here's a breakdown of what these accomplishments entail:

Civil Construction of 206,500 cubic feet (CFT): Civil construction refers to the engineering and construction activities related to infrastructure projects such as buildings, roads, bridges, and utilities. Achieving a total of 206,500 cubic feet indicates the scale and scope of the projects undertaken. This volume likely includes various types of structures, each requiring meticulous planning, design, and execution to meet functional and safety standards.

Soil Felling of 3,049,200 cubic feet (CFT): Soil felling typically refers to the excavation or removal of soil or earth materials from a construction site. This process is essential for preparing the ground for building foundations, utility trenches, and other groundwork necessary for construction projects. Excavating 3,049,200 cubic feet of soil indicates extensive earth-moving activities, essential for creating stable and level surfaces upon which structures can be safely built. Here's a closer look at our impactful projects:

3 Mini Grid Structures: The GHEL Mini Grid is an off-grid solar energy system installed and managed by the company and so far three such a Mini Grid plants have been set up by GHEL at Kutubdia, Char Kajol and Char Bishwash Island. The GHEL Mini Grid is installed in those islands for supplying green energy to the villagers and local enterprises with a collective need of electricity of at least 100 KW.

GHEL Mini Grid energy is generating from solar energy and distributed to participating households. A power capacity of 100 KW can provide up to 500 households with 18 hours of electricity per day.

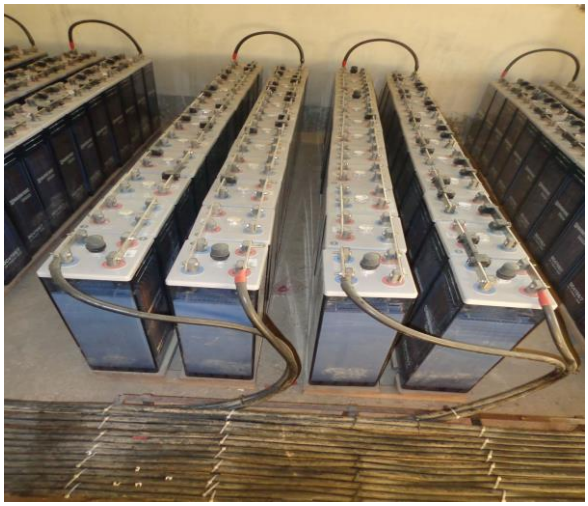
These monumental installations are more than just power grids; they are keystones of connectivity and reliability. Designed to meet the growing energy, each Mega Grid ensures uninterrupted electricity supply, supporting local industries and improving quality of life for residents.

47 SIP (Solar Irrigartion Project): Our commitment to energy-efficient construction is evident in the 47 SIP buildings we've erected. These structures not only provide superior insulation but also reduce energy consumption, demonstrating our dedication to sustainable building practices and environmental stewardship.

5 Nino Grid Installations: The GHEL Nano Grid is a hybrid construction of an off-grid solar energy system. Compared to the GHEL Mini Grid the power capacity of the GHEL Nano Grid is lower, ranging from 30 to 50 KW. The GHEL Nano Grid plant for collective use also provides participating beneficiaries with clean and affordable energy supply to the small villages in the off grid areas.

The 30 KW GHEL Nano Grid can provide energy for up to 150 households and beneficiaries.

GHEL Nano Grid Plant is supplying AC electricity as a result of that rural population not only able to lighting their houses but also they can use all the electrical appliances beside running small workshop and enterprises in the remote location. As off today GHEL has installed 4 Nano Grid Plants in different locations.



Low-Cost Housing: Recognizing the need for affordable housing, GHEL has constructed 20 low-cost housing. These homes are designed to be both economical and comfortable, offering dignified living spaces for families while addressing housing shortages in the region.

700 Bio Gas Units: In our commitment to renewable energy, we have implemented 700 Bio Gas units. By converting organic waste into clean energy, these units not only reduce environmental impact but also provide sustainable fuel for households, promoting self-sufficiency and reducing reliance on traditional fuels.

Featured Projects and Business Units

PV Power Plant Patgram Limited (PVPPL): GHEL commitment to renewable energy, the PV Power Plant Project stands as a beacon of progress. Harnessing solar energy, this initiative not only contributes to the local grid but also reduces carbon footprint, paving the way for a greener tomorrow.

The Project work involves setting up of a 5MWp solar photovoltaic (PV) based grid connected Solar PV power plant by PVPPL at Banglabari, Patgram, Lalmonirhat. Project site (except Lichi garden and Eid Gha) is situated by the side of river Dhorola.

There is a PDB 33/11 KV 2x5/6.67 MVA substation approximately 2 Km away from the proposed project site. Capacity of existing Patgram 33/11 KV substation is 100 MVA.

Under annual development plan. The PV Power Plant Patgram Limited (PVPPL) has started to build the 5 MWp solar power plant at Patgram as per the signed PPA and IA dated 29th of February 2018.

Together, these projects in Patgram encapsulate our vision of holistic development, where infrastructure meets innovation, and progress meets sustainability. Each endeavor is a testament to our belief that through collaborative efforts and forward-thinking initiatives, we can build a future where prosperity and environmental stewardship go hand in hand.

Ecotourism

Green Housing and Energy Limited (GHEL) is a form of tourism that involves visiting natural areas in a way that conserves the environment, sustains the well-being of the local people, and involves interpretation and education. Ecotourism aims to promote responsible travel to natural areas that conserves the environment, sustains the well-being of local people, and often involves educational components to raise awareness about environmental and cultural issues. It typically involves activities such as wildlife viewing, birdwatching, hiking, and staying in eco-friendly accommodations that prioritize sustainability and minimal environmental impact.

Green Garden Hotel, Restaurant & Party Centre:

The eco tourism centre in Shahjahanpur is great place to learn and experience green lifestyle, technology and products! People can learn about bio tech and renewable energy along with organic farming.

The resort has hotels, restaurant, party-center, catering, meeting-room and conference facilities with very reasonable prices and swimming pool. People can also visit duck farm. There is also a beautiful picnic spot.

The farm resort has a malta(mandarin) garden at 5 bigha land which is a beautiful place for hanging out with family and friends.

Facilities we are offering

- Accommodation of 20 rooms (Single & Double) with WIFI, Ac, Intercom & Hot water facilities.
- Parking availability & Meeting & Conference room
- Play Zone & Cycling facilities & Rural Village Trip.
- Pick & Drop up facility from Bogra bus stand to Green Garden.
- 24Hrs Restaurant Services & round the clock security.

GHEL ECO TOURISM: CHOR KAJOL

This beautiful island is a union of Galachipaupzilla under the Patuakhali District. It is famous for its islandic views. This Island is in the middle of the riverTentulia. The land is very fertile and known for harvesting.

Almost 29,140 people live in Charkajol Island. The people who love nature and rivers must go to this island. This place is great for eco tourism. People can enjoy absolutely fresh vegetables, fish and organic

Facilities we are offering

- Accommodation of 03 rooms (Single & Double) with WIFI facility.
- Bed & Breakfast
- Accommodation facilities for 09-10 persons & Round the clock security.
- Cycling, Side seen of Greenish Island with River view, Boat Journey, Fishing facilities.

GHEL ECO TOURISM: CHAR-BISWAS

Charbiswas is a Union of Galachipa Upazilla under the Patuakhali District. Charbiswas is a beautiful Island. It is famous for its natural beauty. It is located in the middle of the river of Tentulia.

Bangladesh is one of the most fertile countries in the world and this island is renowned for its intense fertile land. It is rich in crops and greeneries. It is a pleasant tourist spot. There are around 25,000 people living in this island.

Facilities we are offering

- Accommodation of 03 rooms (Single & Double) with WIFI facility.
- 24 hour WIFI & LED Television
- Bed & Breakfast

- Accommodation facilities for 09-10 persons.
- Cycling, Side seen of Greenish Island with River view, Boat Journey, Fishing facilities. Site Seeing & Round the clock security.

GHEL ECO TOURISM: KUTUBDIA

Kutubdia is an upazila of Cox's Bazar District in the Division of Chittagong, Bangladesh. The upazila consists of an island in the Bay of Bengal, off the coast near Chakaria, Cox's Bazar.

Facilities we are offering

- Accommodation of 05 rooms (Single & Double) with WIFI facility.
- Bed & Breakfast
- Accommodation facilities for 15-20 people.
- Side visit in 3 beaches.
- Cycling, Side seen of Greenish Island with River view, fishing facilities.
- Round the clock security.

HIGHER EDUCATION:

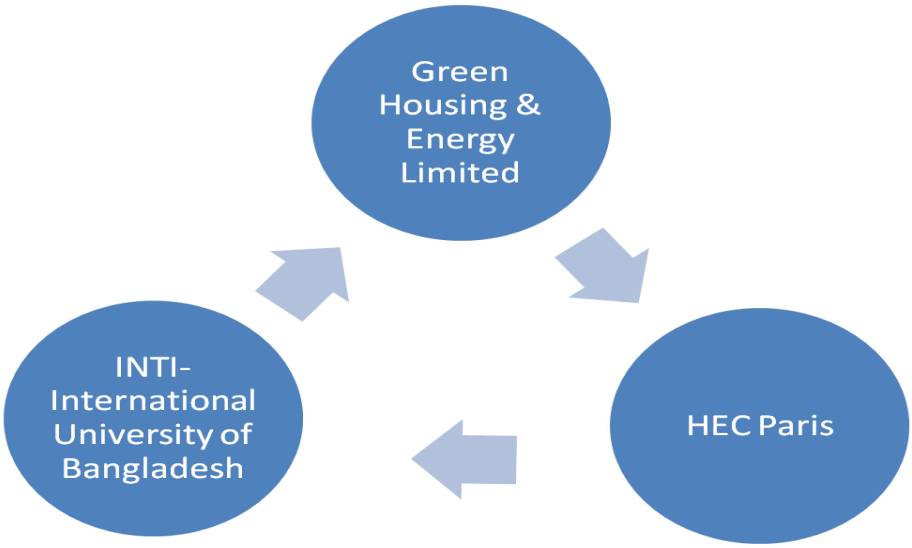
At Green Housing & Energy Limited (GHEL), we recognize that sustainable development begins with empowering individuals and communities with the knowledge, skills, Technology and resources they need to thrive. That is why we are proud to introduce our Training and Resource Center, dedicated to providing comprehensive support for community development initiatives. Under Green Housing & Energy Limited (GHEL) learning program, we have established 3 trainings center in France, Nigeria and Morocco and running 40 primary schools in rural area in Bangladesh. One of our on going project is Establishment of **"INTI-International University of Bangladesh".**

Project Overview: Hope Education Group Company Limited in partnership with Green Housing & Energy Limited aims to establish a cutting-edge "INTI-International University of Bangladesh " and willing to contribute in Higher Education Section Bangladesh. The university will be dedicated to Research, Technology and Introducing best practices in grater scale in higher education sector.

Project Objectives:

- To establish an excellent educational institution in Bangladesh to Introduce Innovative and Modern educational method and curriculum to address the global demand of issues related to the Sound Economic growth & sustainability in Bangladesh.
- To focus on advanced Science & Technology such as AI and Space Science education and having specialized program.
- To foster research and development in renewable energy technologies, energy efficiency, and environmental sustainability to explore new demand of affordable technology.
- To provide high-quality education and training programs to produce skilled professionals.
- To promote awareness and advocacy for sustainable living practices among students, faculty, and the community.
- To create a platform for collaboration and knowledge exchange between Bangladesh, China and Malaysia in the field of Higher Education.
- Agricultural Development for addressing the new global challenges in food security.
- Human resource and development and Leadership program.
- Health Education and Management.

Diagram of Partnership



Grid Tide PV Power Plant Projects:

Green Housing and Energy Limited (GHEL) is in the process to a PV Power Plant with a capacity of 5MW Grid connected at Banglabari, Patgram, Lalmonirhat. The Government of Bangladesh (GOB) to provide electricity to 100% of households in Bangladesh by 2025. Accordingly, considering the importance of the project to provide Electricity facility in remote areas, it has initially agreed to provide lending support to GHEL from BIFFL for the successful implementation of the project.

The Project work involves setting up of a 5MWp solar photovoltaic (PV) based grid connected Solar PV power plant by PVPPL at Banglabari, Patgram, Lalmonirhat. Project site (except Lichi garden and Eid Gha) is situated by the side of river Dhorola.

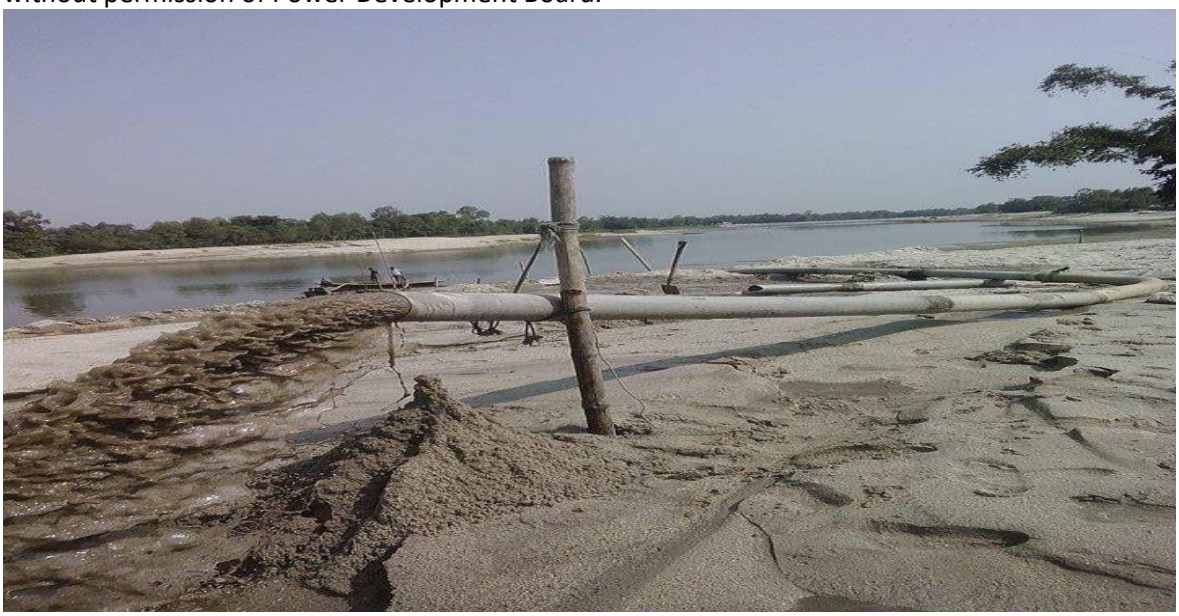
There is a PDB 33/11 KV 2x5/6.67 MVA substation approximately 2 Km away from the proposed project site. Capacity of existing Patgram 33/11 KV substation is 100 MVA. Under annual development plan. The PV Power Plant Patgram Limited (PVPPL) has started to build the 5 MWp solar power plant at Patgram as per the signed PPA and IA dated 29th of February 2018.

The project site has been already protected by the fencing and 50 Bigha land has covered by 9 feet high industrial boundaries for safety and security purposes. The GHEL has communicated with world renowned company for the Solar Panels, Inverters, Meters and Transformer and have collected all required specification as per the PPA listed items.

At the same time PVPPL also got the approval of the Meters from the BPDB. The BOQ has been finalized and crossed checked with expert team and now LC opening is under process.

Benefits of GHEL PV Power Plant Patgram Limited (PVPPL):

- 7-8 hours uninterrupted power supply has to be ensured.
- Build 33 LV feeder express from Patgram 33/11 KV substation to proposed project at Patgram.
- Setup necessary protective device for sending and receiving point of power consumption.
- Guarantee not to build any load shed without permission of Power Development Board.



PV Power Plant Project- LAMA

The GHEL 20 MW PV POWER PLANT in Lama, Chittagong, represents a significant renewable energy initiative poised to contribute to Bangladesh's energy landscape. The GHEL 20 MW PV POWER PLANT represents a robust investment in renewable energy infrastructure in Lama, Chittagong, leveraging solar PV technology to generate 20 MW of electricity for grid connection.

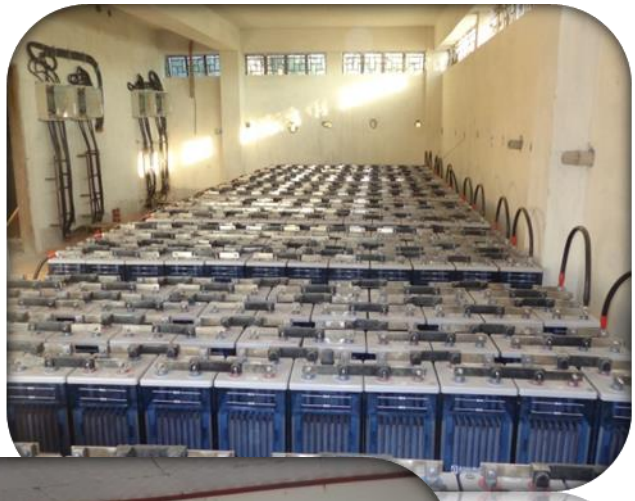
With significant progress made in site approval and impending issuance of the LOI, the project is on track to contribute positively to Bangladesh's energy security while adhering to regulatory and financial requirements.

GHEL Mini Grid

About the Program

The GHEL Mini Grid is an off-grid solar energy system installed and managed by the company and so far three such a Mini Grid plants have been set up by GHEL at Kutubdia, Char Kajol and Char Bishwash island.

The GHEL Mini Grid is installed in those islands for supplying green energy to the villagers and local enterprises with a collective need of electricity of at least 100 KW. GHEL Mini Grid energy is generating from solar energy and distributed to participating households. A power capacity of 100 KW can provide up to 500 households with 18 hours of electricity per day.



The technology for the solar panels, charge controllers and inverters are imported from GHELs trusted international partners from Germany. GHEL ensures the highest quality of sensitive technologies used for controlling and monitoring the generation and distribution of power.

As part of GHELs pioneering sustainable village model GHEL has started a pilot program of GHEL Mini Grid and Smart Micro Grid plants. Through collective distribution and centralized monitoring these plants are designed to provide power to an entire community. this systematic approach to energy supply is an efficient way of making electricity more available to the villages.

GHEL can offer a more affordable distribution channel to the households unable to invest an independent Solar Home System and enjoying for having AC supply for using all kinds of electric appliances. the GHEL Mini Grids can further provide villages with collective benefits-such as powering irrigation pump for improved cultivation or supplying schools with energy to support computerization and other residential and commercial activities.

Benefits of GHEL Mini Grid

The benefits of GHEL Mini Grid are the same as GHEL Solar Home System.

- Long-term **health benefits** of clean energy
- A **cheaper** long-term source of electricity
- **Increased number of hours** for working and studying
- **Increased productivity, income and education levels** of the population in rural areas
- **Decrease national dependency** on fossil fuels and decrease the levels of carbon emissions

GHEL Low Cost Housing

GHEL believes that housing solutions specifically designed for rural living conditions will have a significant impact on the economic situation and social status of families. The durability of GHEL Low Cost Housing as well as the affordable prices and customized mode of payment corresponds perfectly to the needs of low and middle-income people living in rural areas in Bangladesh.

In addition to providing comfortable living conditions, the houses are designed to be suitable to accommodate home grown businesses. The aim is to increase inhabitants' living standards as well as to foster their productivity by providing them facilities in which to set up their own SMEs.

Benefits of GHEL Low Cost Housing

- GHEL Low Cost Housing benefits from a **higher durability and longevity** than traditional houses. All the parts are prefabricated and the structures are of extremely **good quality**.
- The houses are **eco-friendly and resistant to changes in weather** since they are built with concrete blocks made from cement, sand and stones
- Designed for low-income people, GHEL Low Cost Houses are **40% cheaper** than traditional houses.
- The houses are seismic **shock-absorbing and solid** enough to endure earthquakes and cyclones.

Features of GHEL Low Cost Housing

All our houses are equipped with eco-friendly sanitation and water purification system. The GHEL Solar Home System and the GHEL Biogas Plant can be integrated in the houses to further decrease environmental impact and offer savings in living expense.

GHEL Solar Irrigation Pump

The solar powered pumping system consists of a solar panel that powers an electric motor, which in turn powers a bore or surface pump. The water is pumped from the ground or stream and stored into a raised tank.

GHEL has launched its first Solar Irrigation Pump at Muradpur in Bogra district in 2012. It has already installed 40 such irrigation pumps and will install another 100 Solar Irrigation systems by 2021. Each irrigation pump supplied 8,00,000-15,00,000 liters of water per day for irrigation and covering 80-120 bigha land. But upcoming Irrigation Pumps will be bigger size with minimum 1.8 to 2.2 million Liters. of water supply per day for irrigation and drinking water purposes.

The GHEL Irrigation System is completely solar powered and widespread adoption of this technology would significantly reduce government expenses on agricultural subsidies for diesel. These green and sustainable irrigation systems has been revolutionized irrigation and crops production in Bangladesh. The irrigation pumps have a life span of at least 15 to 20 years with minimum service and the initial investment can be returned with a very satisfactory outcome – environmentally, economically and socially.

The GHEL Solar Irrigation program for improved and sustainable irrigation for agro-business development which must be implemented in as many as villages possible.

GHEL Solar Water Pump has a capacity of 600,000 L/day, that is to say enough to supply a 120-bigha land. On top of that, GHEL Solar Water Pump can be installed in a house to provide its household with purified drinking water.

The water quality is tested by GHEL and the maintenance of the construction is provided by our experts. The household can access running drinking water up to six hours a day (based on a daily solar recharge of eight hours).

GHEL Solar Water Pump can be used for two purposes, namely agriculture irrigation and pure drinking water supply. In fact, solar water pumps offer a cheap and clean alternative to diesel pumps for farmers located in remote areas.

Solar Street Light

Most solar lights turn on and turn off automatically by sensing outdoor light using solar panel voltage. Solar streetlights are designed to work throughout the night. Many can stay lit for more than one night if the sun is not in the sky for an extended period of time. Older models included lamps that were not fluorescent or LED.

Solar lights installed in windy regions are generally equipped with flat panels to better cope with the winds. Modern designs use wireless technology and fuzzy control theory for battery management. The street lights using this technology can operate as a network with each light having the capability of performing the turning on and off of the network Solar Panel.

The Solar Panel:

The Solar Panel is one of the most important parts of a solar street light, as the solar panel can convert solar energy into electricity that the lamps can use. There are two types of solar panels commonly used in solar street lights: mono-crystalline and polycrystalline. The conversion rate of mono-crystalline solar panels is much higher than their poly-crystalline counterparts. Solar panels also vary in wattage systems.

Lighting Fixture:

LEDs are usually used as the primary lighting source of modern solar street lights, as the LED will provide much higher luminosity with lower energy consumption. The energy consumption of an LED fixture is at least 50% lower than the HPS fixture counterpart which is widely used as the lighting source in traditional street lights. A lack of warm-up time in LEDs also allows for use of motion detectors for additional efficiency gains.

Rechargeable Battery:

Batteries will store the electricity generated by the solar panel during the day and provide energy to the fixture during the night. The life cycle of the battery is very important to the lifetime of the light and the capacity of the battery will affect the backup days of the lights. There are two types of batteries commonly used in solar-powered street lights- gel cell deep cycle batteries as well as lead acid batteries. Lithium-ion batteries are also popular these days as they are compact in size and not prone to theft due to their lack of use in other situations unlike lead acid batteries.

Pole:

Strong poles are necessary to all street lights, especially to solar street lights as there are often components mounted on the top of the pole: fixtures, panels and sometimes batteries. However, in some newer design, the PV panels and all electronics are integrated in the pole it self. Wind resistance is also a factor.

GHEL Solar Home System

The lack of access to reliable energy source is currently the main impediment for rural development as that is way GHEL has already installed around 30,000 Solar Home Systems. Consequently, there is great potential for development of the renewable energy sector in the country and the interest among consumers is ever increasing, especially when the products are offered in conjunction with a microcredit.

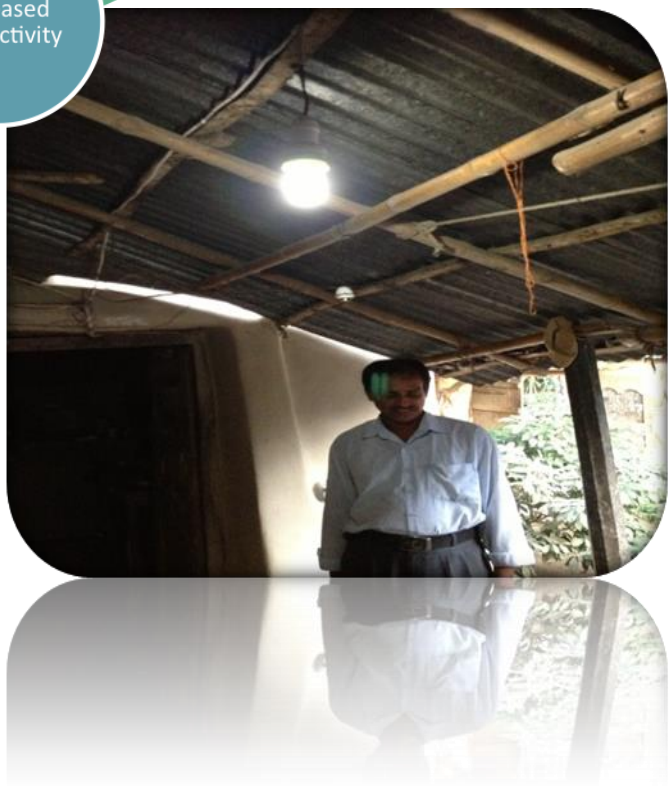
The propensity to install Solar Home Systems is highly responsive to income levels – a 1 % increase in income is reflected by a 12 % increase in probability of installing the product. This shows the market interest and potential for distribution of solar home systems as the rural population is rising from poverty.

Moreover, GHEL guarantees high quality of its Solar Home Systems with competitive warranties for all components. Maintenance for the GHEL Solar Home System is provided free of charge by trained local GHEL technicians for 3 to 5 years depending on the component. Solar panels have a life span of 20 years and are very durable and easily maintained.

Benefits of GHEL Solar Home System

Components of the GHEL Solar Home System

The GHEL Solar Home System consists of a solar panel, a solar battery, a charge controller, an inverter and low-energy lights. Depending on the electricity need of the client GHEL offer Solar Home Systems ranging from 20 to 120 watt.



Solar panels must be mounted on stable constructions and at an optimal angle to the sun. GHEL technicians will assess the correct positioning of the panel and install the panel and the mounting rack accordingly. The installation and training on use and maintenance are all included in the price of the GHEL Solar Home System.

GHEL guarantees high quality of its Solar Home Systems with competitive warranties for all components. Maintenance for the GHEL Solar Home System is provided free of charge by trained local GHEL technicians for 3-5 years depending on the component.

Product	Warranty
Solar Panel	20 yrs
Battery	5 yrs
Charge Controller	3 yrs
Other accessories	1 yr

GHEL Smart Micro Grid

About the program

The GHEL Micro Grid is a hybrid construction of an off grid solar energy system and a biogas production plant. Compared to the GHEL Mini Grid the power capacity of the GHEL Smart Micro Grid is lower, ranging from 30 to 50 kW. The additional GHEL Biogas Plant for collective use also provides participating beneficiaries with clean and affordable fuel for cooking purposes. The 30 kW GHEL Micro Grid can provide energy for up to 250 households or 1250 beneficiaries.

The GHEL Smart Micro Grid requires the land area to be suitable for the installment of the GHEL Biogas Plant. For a village to be nominated for the installment of the GHEL Smart Micro Grid, a demand for electricity and biogas for a minimum of 50 households is needed to meet the supply from the 30 kW plant.

GHEL Enterprise Development

Taking a step beyond grass root poverty reduction, GHEL has introduced an Enterprise Development program as a response to the need of capacity building within the SME sector. The program mobilizes capital and consultancy expertise to be channeled to SMEs that currently do not have access to this kind of support. The GHEL enterprise development model has four key components:

1. **Equity or debt financing by GHEL**
2. **Skill training by industry experts and consultants**

3. Technological and operational support systems

4. Legal, administrative and market support

The GHEL Enterprise Development program targets SMEs in a broad range of industries. Through its 80 branch offices in rural and semi-urban areas, GHEL is well equipped to assess the market potential and valuation of ventures in an overarching range of sectors and regions. Each branch carefully reviews local entrepreneurs and SMEs and nominates the most viable ventures to the GHEL head office. A skilled team of SME development experts then evaluates the business opportunities and allocates equity of 300,000 to 7,000,000 BDT (corresponding to 20-50 % of total equity capital) or debt funding to the most promising prospects.

Prospective industries include:

Agro-business
Pathology and Diagnostic Institutions
Housing and construction
Hospitality
Engineering and workshops
Food processing and preservation
Land development
Mini garments
Retail and wholesale
etc.

GHEL is committed to making a real impact in SME development and industrialization by offering comprehensive value adding support. GHEL aims to facilitate both domestic and international expansion of its investment objects. This objective will be met by continuously offering the following value adding support:

Value adding activity	Components	Objective
Skill training	Individual training, knowledge and capacity building through workshops, consulting and introduction of industry best practice.	Improving and developing competitive advantages and encourage innovation.
Technology transfer	Technology development for key business activities and introduction of software and advanced technologies for supporting activities.	Increasing professionalism, productivity and efficiency.
Legal support	Education on legal issues and ownership structures, assistance in incorporation, expert legal advice and auditing support.	Facilitating business operations, competition and employment (especially with regards to expansion).
Market research	Raising awareness of domestic and international market research (customer, industry, partner and competitor research).	Strategy development and market focused management.
Administrative support	Skill and human resource training, recruitment support, software introduction and training, introducing viable options to admin management (such as outsourcing).	HRM, streamlining operations, allowing management to focus on key business drivers.

GHEL Biogas

The most important component of the GHEL Sustainable Village Model is the Biogas program. The goal of the project is tackle the environmental and health issues caused by fuels and firewood burning for cooking. Biogas is bio-fuel that originates from the biological breakdown of organic matter in the absence of oxygen. In an average-sized village of 400 households and 2000 villagers and initial target of 100 biogas plants installation in each village could supply clean Biogas for cooking purposes. With a target of 25% annual incensement rate can cover entire village which will ensure within five years be free of health hazardous cooking practices. This will significantly decrease diseases related to indoor air population.

At present 89% of households rely on biomass as an energy source for cooking purposes in rural households over 99% of fuel for cooking consists of biomass compared to 61% in urban households. Burning biomass is harmful both to the health and the environment. Indoor air pollution due to smoke produced from this kind of fuel effects more than 130 million people and causes almost 46000 deaths per year in Bangladesh (World Bank, 2011). Additionally, dependencies on these fuels increase air pollution, global warming and deforestation. In Bangladesh forests have decreased by 50% since 1970 and this can in part be ascribable to the dependency on wood for cooking. the adoption of Biogas for cooking purposes can substantially reduce the use of wood or other fuels and cut the carbon emissions of the households.

GHEL has so far installed around 760Biogas Plant in several Districts in Bangladesh for addressing the climate changes issues and reducing the CO2.

Benefits of GHEL Biogas

- Biogas is a **eco-friendly** source of energy,
- Beneficiaries experience long term **health benefits**
- More **affordable source of energy** (compared to e.g. kerosene and wood) in the medium to long term

Types of Biogas Plants

GHEL offers two types of Biogas Plants according to the client's need:

1. The GHEL Biogas Plant for household cooking purposes

Size of the plant	*Kg of cow dung needed*	*Biogas production (h)*	*Price (BDT)*
1.6 m^3	40-50 (4 cows)	3-4	27,000
2.0 m^3	50-55 (6 cows)	4-5	30,000
2.4 m^3	60-65 (7 cows)	5-6	33,000
3.2 m^3	80-85 (10 cows)	6-8	39,000
4.8 m^3	120-130 (14 cows)	10-12	45,000

2. The GHEL Biogas Plant for industrial purposes

GHEL can design and provide Biogas Plants of any size depending on the client's needs and capacit

Improved Cook Stove

Improved cooking stove (ICS) is an upgraded version of the traditional stove that results in higher thermal efficiencies. Traditional stove are the most common utensil for cooking in Bangladesh, however it causes several environmental and health problems due to the smoke generated by the use of fuel and fire wood and agricultural residues. The exposure to biomass smoke provokes health hazards, such as child pneumonia and lung cancer. ICS's objective is to keep pollution free environment in rural areas, reduce deforestation improve hygienic condition of kitchen and develop skill manpower through training course of improved stoves to the unemployed men and women of the country.

Besides, the use of improved cooking stove leads to a wide array of advantages, such as saving 50% of the fuel usage, saving cooking at least by 50% immediate reduction of the air pollution and the Carbon Dioxide Emission and maintaining proper nutritive values of the cook food.

GHEL has so far installed around 6000 improved cooking stove in 6 Districts in Bangladesh for addressing the climate changes issues and saving the cost of cooking in the rural areas.

GHEL Solar Accessories and Battery Optimizers Company Products

GHEL has started importation, assembly and distribution of solar accessories and modern renewable energy technology such as new generation LED lights and battery optimizers.

These initiatives are part of a joint venture and partnership with Korean technology company Sigmatns Co. Ltd. The objective of this partnership is to import patented technology for the renewable energy sector and to initiate technology and knowledge transfer into Bangladesh.

GHEL Solar Lantern

The GHEL Solar lantern is a complete LED based solar lantern system. The lantern is charged by through a rechargeable battery connected to the power generating PV panel. The lantern itself is portable and designed for both indoor and outdoor use. the GHEL Solar lantern system includes a phone charger and has a duty cycle of minimum 5 hours per day.

GHEL guarantees high quality of its Lanterns with competitive warranties for all components. maintains are provided free of charge by trained local GHEL technicians for 3-5 years depending on the component. Solar panels have a life of 20 years and are very durable and easily maintained. GHEL offer a 20 year warranty for the solar panel.

Benefits of Solar Lenterns:

1. Long term health benefits of clean energy supply
2. A cheaper long term source of electricity
3. Increased number of hours for working and studying
4. Increased productivity, income and education levels of the population in rural areas
5. Decreased national dependency on fossil fuels and decreased levels of Carbon Emission.

By using solar energy for electricity production households can experience long term health and cost benefits of using a green and renewable source of energy instead of fossil fuels. local production of energy reduces the dependencies on the unreliable or in remote areas unavailable national power grid.

Citi—GHEL Solar Project for Rural Microenterprises

Bangladesh is suffering from a severe energy crisis which has proven one of the key hurdles to economic and social development. Since the national grid is inaccessible to 70 % of the nation's rural regions increased use of alternative energies is perhaps the only realistic solution to the energy shortage. The Citi—GHEL Solar Project for Rural Microenterprises was introduced in 2011 in selected villages around the country to give these communities access to electricity. The program was initiated by AUP, financed by Citi Foundation and executed by GHEL. The objectives of the project were kept in line with the key focus areas of Citi Foundation – the development of micro entrepreneurs and microenterprises.

Objectives

- Direct support to microfinance clients by offering Solar Home Systems by which their families would have increased access to electricity.
- Enterprise development support to micro entrepreneurs by providing them training to enable the acquisition of new skills – making their businesses more productive and raising the income level of the entrepreneur.

Together with the Solar Home Systems, GHEL provided free training on their installation, functions and maintenance to women from remote rural locations. This approach allowed for further female empowerment – both economic and social – through additional income generating activities.

Target Population

The beneficiaries of the program have been mainly micro entrepreneurs and their households. The initiative targeted the villages of Motlab and Changarchor in Chadpur District. These villages did not have access to the national electricity grid which severely restricted the people and the local entrepreneurs in their daily activities and business development efforts. Households in selected villages were provided with 20W Solar Home Systems and micro enterprises with 40W Solar Home Systems in order for them to be able to extend their business hours. The solar home systems are distributed to 141 microenterprises and 369 rural households.

Key Activities

1. **Distribution of Solar Home Systems for microenterprises (40 watt)**
2. **Distribution of Solar Home System to microentrepreneurs (20 watt)**
3. **Training of women on the installation and maintenance of Solar Home Systems**
4. **Campaigning and raising awareness on the benefits of using alternative energy in order to minimize the dependency on non-renewable energy**

GHEL Construction Materia

Besides GHEL Green Low Cost Housing program, GHEL set up a factory to produce its own blocks used for the construction of the houses. Blocks differ from traditional bricks since they are not burned in ovens.

Government and development organizations have recently fostered the use of blocks in order to cut carbon emissions, the main global warming pollutant. Blocks do not need to be cured in ovens. The carbon footprint is thus reduced and forests are preserved.

Blocks are fire resistant, seismic shock-absorbing and solid enough to endure cyclones. The production process is easier than brick-making since blocks are not burned in ovens. The blocks have an appealing aesthetic with an elegant profile and offer endless number of architectural design.

On top of that, the setting up of block production units in rural areas will fill the lack of sustainable and quality materials for constructions.

Not only will the blocks be used for the construction of GHEL Green Low Cost Housing, but also for educational, medical, agricultural and business facilities. GHEL strongly believes in its mission to lay the first stone of the village of tomorrow so as to improve the quality of life of low-income people and protect the environment.

Annexure

Annexure 1: Balance Sheet

GREEN HOUSING & ENERGY LIMITED

Statement of financial position

As at 30 June 2023

Particulars	Notes	Amount in Taka	
		30 June 2023	30 June 2022
Assets			
Non-Current Asset		**197,585,605**	**209,171,155**
Property, Plant & Equipment	3.00	169,916,622	181,885,369
Capital Work in -Progress	4.00	26,838,823	26,455,626
Preliminary Expenditure		830,160	830,160
Current Assets		**328,930,545**	**346,540,700**
Loan to Beneficiaries	5.00	210,820,152	210,820,152
Loan to PVPPL	6.00	7,783,689	6,825,000
Account Receivable	7.00	52,705,038	52,705,038
Inventories	8.00	10,351,110	13,206,764
Advance, Deposit & Prepayment	9.00	6,312,736	6,312,736
Other Receivables		-	2,027,036
Debit Service Reserve Account	10.00	-	-
Current Account Inter project	11.00	40,130,378	53,639,679
Cash & Cash Equivalents	12.00	827,442	1,004,295
Total Assets		**526,516,150**	**555,711,855**
Shareholders' Equity & Liabilities			
Equity		**61,735,706**	**85,530,502**
Paid Up Capital	13.00	17,415,400	17,415,400
Share Money Deposit	14.00	8,444,850	7,644,850
Reserve Fund	15.00	14,435,672	27,944,973
Retained Earnings	16.00	21,439,784	32,525,279
Non-Current Liabilities		**350,572,149**	**350,279,578**
Long Term Loan from IDCOL	17.00	283,852,078	283,852,078
Grant from IDCOL		37,596,571	37,596,571
Long Term Loan from IDCOL(Biogas)	18.00	9,442,896	9,442,896
Long Term Borrowings	19.00	-	-
Bank Loan	20.00	19,680,604	19,388,033

Particulars	Notes	Amount in Taka	
		30 June 2023	30 June 2022
Current Liabilities		**114,208,295**	**119,901,775**
Account Payable	21.00	14,167,986	19,506,452
Loan from Others	22.00	4,751,112	5,061,112
Other Liabilities	23.00	5,227,714	5,272,728
Short term Borrowings		90,061,483	90,061,483
Provision for Bad Debts	24.00	-	-
Total Shareholders' Equity & Liabilities		**526,516,150**	**555,711,855**

The notes and annexures on pages 06 to19 are an integral part of these financial statements.

Director **Managing Director**

Signed in terms of our report of even date.

Sajeed Iqbal Chowdhury ACA
Enrolment No.1914
Partner
M I Chowdhury & Co.
Chartered Accountants
DVC:

Place: Dhaka
Dated:

Annexure 2: Note – Fixed Assets

GREEN HOUSING & ENERGY LIMITIED

Fixed Assets Schedule

As on 30 June 2023

Solar Home System **Annexure - A**

Sl. No.	Particulars	COST			Rate %	DEPRECIATION			Written down value as on 30 June 2023
		Opening balance as on 01.07.2022	Addition during the year	Closing balance as on 30.06.2023		Opening balance as on 01.07.2022	Depreciation Charged during the year	Closing balance as on 30.06.2023	
01	Land	18,421,196	-	18,421,196	-	-	-	-	18,421,196
02	Furniture, fixture and decoration	1,556,920	-	1,556,920	10	1,323,993	23,293	1,347,286	209,634
03	Computer & office equipment	1,564,543	39,540	1,604,083	15	1,518,807	12,791	1,531,599	72,484
04	Vehicle	18,054,965	-	18,054,965	10	15,291,766	276,320	15,568,086	2,486,879
05	Mobile Phone	8,850	-	8,850	20	8,850	1	8,851	(0.80)
06	Electric Equipment	119,330	56,520	175,850	15	94,333	12,228	106,561	69,289
07	Electricity Prepaild Meter Station	527,009	-	527,009	15	521,631	807	522,437	4,572
08	Generator	1,215,000	-	1,215,000	10	526,095	68,891	594,986	620,015
	Branch Office:	-	-	-	10	-		-	-
9	Furniture & Fixtures	1,424,690	-	1,424,690	10	976,100	44,859	1,020,959	403,731
10	Electric Equipment	600,243	-	600,243	15	565,126	5,268	570,393	29,850
11	Office Equipment & Tools	379,093	-	379,093	15	332,545	6,982	339,527	39,566
12	Cookeries items	37,006	-	37,006	15	35,440	235	35,675	1,331
13	Water pump	84,234	-	84,234	15	83,374	129	83,503	731
14	Solar Battery	13,838,300	-	13,838,300	15	8,813,383	753,738	9,567,121	4,271,179
15	Solar Battery Charge and Controller	1,231,708	-	1,231,708	15	757,672	71,105	828,778	402,930
16	Solar Cable	1,486,490	-	1,486,490	15	1,005,460	72,155	1,077,614	408,876
17	Solar Inverter	630,900	-	630,900	15	400,376	34,579	434,954	195,946
18	Solar panel	59,708,288	-	59,708,288	10	17,716,888	4,199,140	21,916,028	37,792,260
19	Solar Pole	1,277,200	-	1,277,200	10	578,300	69,890	648,190	629,010
20	Solar Street Light	585,860	-	585,860	10	253,677	33,218	286,896	298,964
		-	-	-		-	-	-	-
Total Taka		**122,751,825**	**96,060**	**122,847,885**		**50,803,816**	**5,685,627**	**56,489,443**	**66,358,442**
Total (30.06.2022)		**122,687,620**	**64,205**	**122,751,825**		**44,440,120**	**6,363,696**	**50,803,816**	**71,948,009**

GREEN HOUSING & ENERGY LIMITIED

Fixed Assets Schedule

As on 30 June 2023

Solar Irrigation — **Annexure - A**

Sl. No.	Particulars	COST			Rate %	DEPRECIATION			Written down value as on 30 June 2023
		Opening balance as on 01.07.2022	Addition during the year	Closing balance as on 30.06.2023		Opening balance as on 01.07.2022	Depreciation Charged during the year	Closing balance as on 30.06.2023	
01	Land	2,165,659	-	2,165,659	-	-	-	-	2,165,659
02	Solar panel	29,083,230	-	29,083,230	5	11,199,679	894,178	12,093,857	16,989,373
03	Solar pumping saystem	17,216,283	-	17,216,283	10	11,638,206	557,808	12,196,014	5,020,269
04	Module mounting structure	12,140,348	-	12,140,348	5	4,470,681	383,483	4,854,165	7,286,183
05	Cable & accessories	2,699,857	-	2,699,857	5	994,223	85,282	1,079,505	1,620,352
06	Boring & related work	7,105,200	-	7,105,200	10	4,803,115	230,208	5,033,324	2,071,876
07	Furniture & Fixture	53,498	-	53,498	10	28,276	2,522	30,798	22,700
08	Supply testing, installation & transportation	4,263,880	-	4,263,880	20	4,263,880	-	4,263,880	-
Total Taka		**74,727,955**	**-**	**74,727,955**		**37,398,061**	**2,153,481**	**39,551,542**	**35,176,413**
Total (30.06.2022)		**74,727,955**	**-**	**74,727,955**		**35,085,008**	**2,313,052**	**37,398,061**	**37,329,894**

GHEL Training Center — **Annexure - A**

Sl. No.	Particulars	COST			Rate %	DEPRECIATION			Written down value as on 30 June 2023
		Opening balance as on 01.07.2022	Addition during the year	Closing balance as on 30.06.2023		Opening balance as on 01.07.2022	Depreciation Charged during the year	Closing balance as on 30.06.2023	
01	Building	1,255,900	-	1,255,900	3	37,677	36,547	74,224	1,181,676
02	Electrical Equipment	1,110,000	-	1,110,000	5	55,500	52,725	108,225	1,001,775
03	Furniture & Fixture	512,000	-	512,000	10	51,200	46,080	97,280	414,720
04	Cookeries Item	30,000	-	30,000	20	6,000	4,800	10,800	19,200
05	Generator	50,000	-	50,000	20	10,000	8,000	18,000	32,000
Total Taka		**2,957,900**	**-**	**2,957,900**		**160,377**	**148,152**	**308,529**	**2,649,371**
Total (30.06.2022)		**2,957,900**	**-**	**2,957,900**		**-**	**160,377**	**160,377**	**2,797,523**

GREEN HOUSING & ENERGY LIMITIED

Fixed Assets Schedule

As on 30 June 2023

Solar Mini-Grid Project (SMG) - Kutubdia

Annexure - A

Sl. No.	Particulars	COST			Rate %	DEPRECIATION			Written down value as on 30 June 2023
		Opening balance as on 01.07.2022	Addition during the year	Closing balance as on 30.06.2023		Opening balance as on 01.07.2022	Depreciation Charged during the year	Closing balance as on 30.06.2023	
1	Land	11,246,301	-	11,246,301	-	-	-	-	11,246,301
2	Furniture	219,980	-	219,980	20	130,201	17,956	148,157	71,823
3	Office Equipment	883,990	-	883,990	20	766,177	39,271	805,448	78,542
4	Generator	2,771,517	-	2,771,517	10	1,198,453	157,306	1,355,760	1,415,757
5	Office building	5881500	-	5,881,500	5	1,369,474	225,601	1,595,075	4,286,425
6	Solar Panel	7,735,326	-	7,735,326	5	4,130,306	180,251	4,310,557	3,424,769
7	Battery & accessories	9,973,393	-	9,973,393	14	6,459,874	491,893	6,951,767	3,021,626
8	Panel & accessories	3,226,780	-	3,226,780	5	932,774	114,700	1,047,474	2,179,306
9	Inverter & others	15,174,650	-	15,174,650	14	10,745,838	620,034	11,365,872	3,808,778
10	Electric pole & distribution line	2,677,650	-	2,677,650	5	1,066,274	80,569	1,146,842	1,530,808
11	Computer and IT equipment	115,410	-	115,410	20	91,109	4,860	95,969	19,441
12	Electric equipment	165,302	22,510	187,812	5	28,076	7,987	36,063	151,749
13	Other Assets	5,510	-	5,510		-		-	5,510
Total Taka		**60,077,309**	**22,510**	**60,099,819**		**26,918,557**	**1,940,427**	**28,858,984**	**31,240,835**

Total (30.06.2022)		**60,070,459**	**6,850**	**60,077,309**		**24,743,062**	**2,175,495**	**26,918,557**	**33,158,752**

GREEN HOUSING & ENERGY LIMITIED

Fixed Assets Schedule

As on 30 June 2023

Solar Mini-Grid Project (SMG) - Char Kajal & Char Biswas

Annexure - A

Sl. No.	Particulars	COST			Rate %	DEPRECIATION			Written down value as on 30 June 2023
		Opening balance as on 01.07.2022	Addition during the year	Closing balance as on 30.06.2023		Opening balance as on 01.07.2022	Depreciation Charged during the year	Closing balance as on 30.06.2023	
01	Land & land development	2,430,463	-	2,430,463	-	-	-	-	2,430,463
02	Solar panel	13,000,000	-	13,000,000	5	4,355,000	432,250	4,787,250	8,212,750
03	Battery	125,660	-	125,660	14	93,016	4,570	97,586	28,074
04	Inverter	24,696,916	-	24,696,916	10	15,806,028	889,089	16,695,117	8,001,799
05	Energy Meter	837,040	-	837,040	5	203,880	31,658	235,538	601,502
06	Furniture & Fixture	70,354	-	70,354	20	70,354	-	70,354	-
07	Motor Vehicle	203,160	-	203,160	20	195,749	1,482	197,231	5,929
08	Office Building	5,608,930	-	5,608,930	5	1,864,744	187,209	2,051,954	3,556,976
09	Distribution line	7,393,160	-	7,393,160	5	1,772,791	281,018	2,053,809	5,339,351
10	Electrical Equipment & Accessories	8,512,911	-	8,512,911	5	1,865,843	332,353	2,198,196	6,314,715
	Total Taka	**62,878,594**	**-**	**62,878,594**		**26,227,406**	**2,159,630**	**28,387,036**	**34,491,558**
	Total (30.06.2022)	**62,878,594**	**-**	**62,878,594**		**23,901,320**	**2,326,085**	**26,227,406**	**36,651,188**
	Grand Total as on 30 June 2023	**323,393,583**	**118,570**	**323,512,153**		**141,508,215**	**12,087,317**	**153,595,532**	**169,916,621**
	Grand Total as on 30 June 2022	**323,322,528**	**71,055**	**323,393,583**		**128,169,509**	**13,338,705**	**141,508,214**	**181,885,369**

Partnership Agreement with IDCOL

About IDCOL:

Infrastructure Development Company Limited (IDCOL) was established on 14 May 1997 by the Government of Bangladesh (GOB). The Company was licensed by Bangladesh Bank as a non-bank financial institution (NBFI) on 5 January 1998. Since its inception, IDCOL is playing a major role in bridging the financing gap for developing medium and large-scale infrastructure and renewable energy projects in Bangladesh. The company now stands as the market leader in private sector energy and infrastructure financing in Bangladesh.

IDCOL is managed by a seven-member independent Board of Directors comprising four senior government officials, three prominent entrepreneurs from the private sector and a full time Executive Director and Chief Executive Officer. It has a small and multi-skilled work force comprising economists, financial and market analysts, engineers, lawyers, IT experts and accountants. IDCOL's stakeholders include the government, private sector, NGOs, multilateral institutions, academics and the people of Bangladesh at large.

GHEL has signed up a participation agreement with IDCOL for refinancing its Solar Home System Program and under this agreement GHEL will get the credit support for 10 years time period at the rate of 6% for as many as Solar System GHEL could installed. Along with that GHEL has honored to have a sectioned letter of 150 million BDT loan support for its battery production plant.

International Business Partners:

INES, ICD, EDHEC and HEC, Woord en Daad, Citi Foundation, Sigmatns Co. Ltd.

Local Business partners:

ASA, IDCOL

Other Partners:

AFTA, UN Sustainable Energy for All

More Information on:

www.ghelbd.org
www.ghel.org

Green Housing & Energy Limited

House No: 16 (1st floor)
Road No: 7, Merul Badda DIT Project
Dhaka-1212
Bangladesh

Phone: +88-02-55053512
E-mail: contact@ghel.org
Website-www.ghelbd.org