

INNOVATION IN POWER SECTOR IN THE DEVELOPING COUNTRY

A CASE OF ELECTRO GROUP IN BANGLADESH.

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PURPOSE

PIMPORTANCE of uninterrupted power supply has always been a very fundamental factor for the effectiveness of firms' production especially in the developing country context. The main purpose of this study is to examine contemporary strengths and challenges of power supply in Bangladesh.

Findings: The study reveals how a private company in supply power has been successfully generating and supplying energy across the country while also complying with environmental and ethical standards. The company has assimilated relevant technology and resources; and developed skilled and knowledgeable professionals. Currently, the company is confronting competitive pressure as the number of new competitors are increasing in this sector. Government also creates pressure by bringing unpredicted changes in regulatory norms. Overall, the prospect for investment in power sector is high as the demand for electricity is increasing because of emerging industrialization.

Methodology: The study has employed a case study focusing on Electro Group Limited, one of the leading energy corporations in Bangladesh. In-depth interview with the key personnel of the company, and secondary resources have been analyzed.

Research Implications: Crisis in power-supply has been an alarming issue in Bangladesh, but there has been relatively little scholarly research in this context.

Practical Implications: This study would provide insightful information for entrepreneurs and policy makers in energy sector.

Originality/Value: Considering the existing research in the context of power-supply of Bangladesh, this study has been relatively a newer concept in Bangladesh, which provides new practical information for practitioners and guidelines for future researchers.

Key Words: Bangladesh, Electro Group, Power Sector, Energy, Electricity.

Power Sector in Bangladesh

Electricity supply has been considered as one of the key factors for economic growth and improvements in living standards of the developing countries (European Commission, 2003). Bangladesh is a developing country with a population around 150 million. In addition to huge population, the density of population,

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which is already five times than that of any other ‘mega’ country (>100 million), jeopardizes the situation even more (Streatfield and Karar, 2008). Although population is increasing at a high pace, generation of electricity, ironically, is not increasing as expected. Only 49 percent of the country’s population has access to electricity, which is very low compared to other developing countries in the world. The per capita generation is 220 KWH (Ministry of Power, Energy, and Mineral Resources, Bangladesh, 2011).

Being the most usable form of energy, electricity becomes one of the most important issues for the economic development of a country (European Commission, 2003; Rahman, 2011). Therefore, the government of Bangladesh has given top priority to development of the sector considering its importance in the overall development of the country (Alam and Rubel, 2011). The government has set the goal of providing electricity to all citizens by 2021. The government of Bangladesh has initiated a Power and Energy Sector Development Roadmap (2010-2021) which targeted to produce 8,500 MW by 2013; 11,500 MW by 2015, and 20,000 MW by 2021 in order to realize the government’s vision to provide electricity to most of the population at a reasonable price, and to achieve overall socio-economic development of the country. It is to mention that at present, 48.5% of the total population of Bangladesh is enjoying the electric facilities. As of April 2010, the total numbers of transmission and distribution lines are recorded to 8,359 km and 266,460 km respectively. However, 53,281 villages have only got this facility so far. In Bangladesh per capita generation is 220 KW hr which is comparatively lower than other developing countries in the world (<http://electrogroupbd.com/index.php/home#>).

It has been observed that public and private sector produces 63% and 37% of electricity respectively. Public sector produces electricity through Bangladesh Power Development Board (BPDB), Ashuganj Power Station Company Ltd. (APSCL), and Electricity Generation Company of Bangladesh (EGCB). On the other hand, private sector produces power through small independent power producers and rentals that government buys at a constant price. BPDB individually produces 46% of the total production.

Inspirational Journey of Electro Group

Engineer Md. Ansar Uddin, Managing Director and successful entrepreneur of Electro Group, is one of the dynamic professional in the power sector of Bangladesh. He obtained B.Sc. in Engineering (Electrical and Electronics) degree from Khulna University of Engineering and Technology (KUET) in 1984. In 1992 he established the generator servicing company “Electro Mechanical Service Limited (EMSL)”. Currently, the company has expanded with full-fledged Offices at Dhaka (capital of Bangladesh) as well as other districts, such as, Chittagong, Comilla, Khulna, Barisal, Faridpur, Rajshahi, Mymensingh, Sylhet, Bogra and Cox’s Bazar. There are about 125 service engineers rendering round the clock services throughout the country. Subsequently Md. Ansar Uddin started importing complete emerging generating sets from European countries. He became the agent of world famous generator brand “SDMO” of France. During his business visits in European countries, he observed that generator companies bring major items, such as, engines and alternators, from different manufacturers, then those are assembled as complete generating sets with brand names of foreign companies. After observing this trend, he got inspiration of assembling generating sets in Bangladesh.

In 2004, he established the generating set assembling company “EM Power Limited (EMPL)”. EMPL is assembling and marketing generating sets of various capacities starting from 5 KVA to 2000 KVA with the brand name of ELECTRO. So far about 800 sets of assembled generators have been installed in important government and private organizations, and about 250 engineers and technicians are working in EMPL currently. Md. Ansar Uddin continued his simultaneous effort in manufacturing other items of power sector. In 2002, he established Energy Meter Co. Ltd (EMCL), wherein about 100 people are working presently. EMCL started assembling KWHr meter branded as “ELECTRO”.

Md. Ansar Uddin has been striving relentlessly for alternative power source in Bangladesh. He had realized the immediate requirements of using solar energy in Bangladesh. So, he carried out extensive research along with related experienced engineers of research and development (R&D) department of Electro Group. Having repeatedly visited some solar panel manufacturing factories, he keenly observed

the manufacturing process of solar panels, and realized that manufacturing of solar panels in Bangladesh is possible by importing raw materials from abroad.

In 2009 he established Electro Solar Power Limited (ESPL) for manufacturing and marketing solar panels. Simultaneously, he also established Electro Battery Company Limited (EBCL) specially to manufacture solar batteries and industrial batteries. Around 150 engineers and technicians have already started working in ESPL and EBCL. Recently, these two companies have started their activities. For the fulfillment of this aim, heavy recruitment has started. Md. Ansar Uddin is firmly committed to “Quality” and “Service”. The products of Electro Group have been observed as equal to imported ones in quality and performance (www.electrogroupbd.com).

Table 1: Significant Events in Electro’s Early History

Date	Event
1992	Electro was founded by Engineer Md. Ansar Uddin. He established the Generator servicing company “Electro Mechanical Service Limited” (EMSL).
2004	EM Power Limited (EMPL) was established. Through his business visits in European countries, Md. Ansar Uddin observed that generator companies bring major items, such as, Engines and Alternators, from manufacturers, then those are assembled as complete generating sets under the brand names of foreign companies. So he seriously thought of assembling generating sets in Bangladesh.
2002	Energy Meter Co. Ltd. (EMCL) started assembling KWHr meter branded as “ELECTRO”.
2009	Electro Solar Power Limited (ESPL) and Electro Battery Company Limited (EBCL) got established. Md. Ansar Uddin had realized the immediate requirement of using solar energy in Bangladesh due to heavy crisis of power in Bangladesh. For this reason, Electro Solar Power Limited (ESPL) was formed. In the same year, Electro Battery Company Limited (EBCL) was also established.

Source: Electro Website, 2013.

By 2010, Electro group had become a valuable electrical parts manufacturing company in Bangladesh. The mission of Electro group is to create a long-term, sustainable value for Bangladesh. It is believed that they would achieve their mission by manufacturing, developing, marketing, and supporting products that deliver rapid returns through lower costs and improved customer responsiveness. Their motto is to enable their customers obtaining best satisfaction, and also to attain the business objectives through their dedicated endeavor.

Electro Group and Business

Accessibility of commodities across different countries is one of the positive outcome of globalization. Timely production is the precondition of availability of commodities in time. In order to maintain the balance, availability of power supply (Electricity) is very critical for uninterrupted production process. As power technology solutions play the crucial role for uprising the business as effective and competitive, Electro Group has always been in the forefront of dealing with the latest power solution and technology products to meet the crucial requirement.

Globalization has led the world economy into a competitive position and allowed different nations to be a part of it. In this situation, availability of electricity has become an absolute necessity for the survival of business and living.

Nowadays Bangladesh is going through a very crucial situation in generation and sourcing adequate power. It needs at least 8000MW power daily, whereas, it is now able to produce only 4000-5000MW

power, thus, facing about 3000-4000MW power crisis daily. Bangladesh needs more power to run itself economically fast and sound, but capability of generating about 3000MW extra power daily would be very difficult to carry out for Bangladesh. So it needs to find out the other sources to solve this problem.

“Obviously, you will use electricity that comes from plants for your industrial units, but please use electricity that comes from solar panel for your official purposes,” said Prime Minister Sheikh Hasina (The Daily Star, February 15, 2010).

Electro group has always been in forefront to apply the latest power solutions and technology products to the demanding requirements of today’s marketplace. It has brought out a renewable energy method to win the people of Bangladesh using the solar energy related products.

“Switching to this renewable energy method is much more beneficial, as the country’s electricity supply is always lagging behind demand,” said Dr. Tawfiq-E-Elahi Chowdhury, Energy Adviser to the Prime Minister, in conference in Ruposhi Bangla Hotel (The Daily Star, April 5, 2012).

“Our goal is to make Bangladesh a solar energy rich nation, which can be achieved when 51 percent or more of the population utilizes solar power,” said Dipal C Barua, President of the Bangladesh Solar and Renewable Energy Association (BSREA) (The Daily Star, April 5, 2012).

Corporate Objectives

The corporate objectives of the company are well defined and realistic. The company provides the client with a total turnkey solution based on their worldwide expertise, and the pooling of knowledge in cases of joint ventures.

“When we started our generator assembling business, our first target was the corporate client of our country. We had basically two targets then, the first one was to create our image to that client as a power generating tycoon, and the other one was to create some business relationship through our service with those companies, because we also knew that we need them for our business purpose. Actually, we tried to make a corporate chain of relation.” said Md. Ansar Uddin in a personal interview session (Managing Director, Electro group).

The company had successfully built partnerships with the top ranked engines (Parkins, Yanmar, DEUTZ, Volvo, John Deere) and alternator manufacturer (Mecc Alte) in the world. The company started growing fast and took a leading position by maximizing its market shares, and expanding its operations by adding new products, which reflected the latest developments in technology.

Maximization of operational profitability by providing the best price/performance ratio, without compromising with quality and ethics of the business was the objective of Electro group. It encouraged expansion and growth with internal financial and human resources, as regards financial resources, shareholders/partners adhered to share value growth instead of dividends. For human resources, managers and partners were promoted from within; hiring outsiders has been only common to new ventures requiring unavailable expertise or nationalities.

Fields of Activity

Electro assembles European standard diesel generator in dedicated factory at Ashulia (a suburban area near Dhaka), imports the engine and alternator from the country of origin as follows: DEUTZ-Germany, Yanmar-Japan, John Deere-France/USA, Perkins-UK, Volvo-Sweden, Mecc Alte-Italy. Electro group has set up their own R&D department to do some customized electronics products and upgrading them as well. Electro Mechanical Services Ltd. is also working with turbine and solar energy system to protect environment. Electro group has the factory to manufacture the energy meter, and imports all the necessary accessories from overseas.

Market Focus

Guided by the corporate objective, and backed-up by leaders in its field, the portfolio of Electro group enables the establishment to address different segments in Bangladesh namely: government

agencies, tourism sector (mainly Hotels and Restaurants), military field, industrial sector, medical/health care, banking sector, engineering and architecture, financial sector, media and information sector, universities and educational institutions, civil aviation, and many others.

Electro's Strategy

Uncompromising quality has been the prime asset of the company. Its assurance to clients for quality product, and providing secure future for employees makes it stand out from others. It believes that reputation for quality does not happen by chance, it has to be developed gradually over time. Electro group began its sound reputation of delivering quality products and services since 1992, building on a foundation of techniques and controls put together over years of successful operations.

There are many energy device manufacturing companies in Bangladesh, such as, Rafim Afroz Energy, Grameen Energy, and many more, but among these companies, Electro has made a very decent position in the market. A number of product related factors has been contributing to the success of the current position. Essentially, Electro's main target is to manufacture or import the environment friendly products. Electro group has already come up with a bundle of products that require no input like fuel, gas, coal, etc., except the sun light. Electro group has created many solar related products like, solar panel (photovoltaic cell), solar batteries, solar inverter, and many more pertinent products. At Electro, the new product development process is overseen by a product development and research unit, which consists of a group of adroit senior engineers who try to invent the required new product or try to upgrade the existing product. When the concept of a new product is being developed by a team of senior researchers, some teams of engineers work to establish a product model which would be the design or architecture of that product. Finally, the most effective design is chosen for customers with a hope to yield maximum benefits. Electro tries to maintain sustainable relationship with the customer through post-sale services. If there is any complaint from a customer, the company has a policy to send a service team in order to solve that issue quickly and efficiently. This team consults with the research and development team in order to identify the problem which is faced. Then the R&D teams investigate the reason of the problem in depth. The question may arise whether the fault occurred due to the customer or due to the manufacturer? If they find any minor fault related to manufacturing, a team is immediately sent with the required device or part to that customer again to get it changed. In this way, R&D team is also able to rectify that fault for all of their existing and upcoming products. By taking this action, Electro used to get two benefits from those customers who faced the problem. Firstly, the customers will be satisfied by the sincerity of Electro, and the customers will be very loyal to the company. Secondly, the company gets the opportunity to refurbish their product's faults.

“Customers are our source of income, because if they are not satisfied, they will not purchase our product, and also they will not help us to increase our customer base” said Engr. Md. Nazeeb Mahfuzin (Manager, R&D team, Electro group) in a personal interview session.

Pricing is also very much important for any product in Bangladesh. While manufacturing any product, price sensitivity has been one of the prime concerns, of the manufacturer. Whether local people would be able to purchase or not ensures attractiveness of the product. The market research team has been playing a very crucial role to set up the optimal price for their products so that the price sensitive people can easily afford the product, and also it should not be considered as a cheap product. Following these strategies, Electro has been able to reach a good number of customer bases.

“Our target is to convert Electro into a famous brand for solar related devices, because there are many similar companies that are running their operations in this field. Our marketing research team is trying a lot to make it a trustable brand, and we hope that we will reach that position when a man says to his relative or neighbour to not to get confused to have the Electro's product” said Engr. Abdullah Al Yousuf in a personal interview session (Executive Engineer, Marketing & Installation, Electro group).

Marketing Challenges of Electro Group

Products and Services

Electro Mechanical Service Ltd. (EMSL) established in 1992 with the Private Limited Liabilities, is a progressive, forward thinking company, and has been the distributor of SDMO, France brand generator in Bangladesh for over a decade since 1994. Over 3500 Diesel Generators are running successfully all over Bangladesh. Electro group is also the distributor of DEUTZ, Germany brand engine in Bangladesh. To provide adequate after sales service and parts support, EMSL has extensive network throughout Bangladesh. They are continuously investing in both business process improvement, and research and development to ensure that their products will continue to be the customer's first choice. They also started to work with renewable energy (Solar & Wind energy) to save environment.

EM Power Ltd. (EMPL), one of the sister concerns of EMSL is the first generator assembling plant in Bangladesh. Electro's assembled generator brand name is "Electro". While maintaining the standard of quality, they wish to standardize their products to the European standards. With this view they are importing main components of generator i.e., engines, alternator, controller, magnetic contractor, circuit breaker, etc., from Europe. For fabrication, welding, painting, capacity measurement, they have their own arrangements. Their factory is located at Gazipur.

Energy Meter Company Ltd. (EMCL), another sister concern of EMSL is one of the most modern meter assembling plants in Bangladesh. They assemble superior quality meter (single phase and three phase, analogue and digital) with unique design, and high performance with stable accuracy under the brand name "Electro Meter". All tests, and calibrations are being performed by computerized test bench.

Electro Solar Power Ltd. (ESPL)

In the same year of 2009 Electro Solar Power Ltd. (ESPL) started assembling solar panel by importing solar cells (Exhibit 4) from worldwide renowned manufacturers. To supply complete Solar Home System (SHS), ESPL has developed own facilities for solar charger, junction box, mounting structures, battery, and other accessories. ESPL has furnished world class means and technology for its own assembling plant for which, they believe, they will reduce dependency on global market, and will provide cost advantage than the imported ones to the end users. It was the first-ever solar panel assembling plant in the country.

"It's a positive initiative. Such ventures will facilitate the country's economic development; ESPL's initiative would support the government's goal of meeting a part of the electricity demand through green energy. The government aims to meet 5 percent of the country's energy demand through green energy by 2015, and 10 percent by 2020." Said Dr. Tawfiq-E-Elahi Chowdhury, Energy Adviser to the Prime Minister while inaugurating the plant at Ashulia in Savar (The Daily Star, May 1, 2010).

Electro Battery Company Limited (EBCL)

In 2009 Electro Battery Co. Ltd. (EBCL), a sister concern of ELECTRO Group started manufacturing and marketing batteries under the brand name of "ELECTRO" especially solar battery, industrial battery, automotive battery, etc. Since starting, EBCL has been manufacturing solar battery to support solar sector. With enormous appreciation in manufacturing solar battery, and the massive motivational support by Telecom sector, EBCL introduced VRLA Battery for BTS reserve power source. The product designed and developed based on the latest technology is suitable for local environment and power condition. EBCL is persistently investing in R&D for continuous development of the product. As a consequence, EBCL is facing low warranty problem from customers. To ensure highest support to the valued clients of telecom industry, EBCL maintains its skilled and efficient service team. They are ready to provide prompt solution of power back-up whenever required.

Price

For the matter of pricing, Electro group always maintained a price that is affordable to all classes of people (Exhibit 2). The overall price of the products are quite affordable than that of the other

companies. They have a large market research team which works on analyzing the pricing of the other company's product. At the end of the case there is an exhibit (Exhibit 2) where the comparison between the prices of the products of Electro and the other company has been shown.

Promotion

In the big cities, billboard ads. are also very effective media to attract the corporate clients. So it will be also very effective media to send their messages to the potential buyers. For choosing prime location, crowded areas like shopping malls would be the most important locations of the billboards.

Activation Programs

Moreover to promote "ELECTRO", the company sponsors various fairs and participates in it. It also sponsors various sports events like golf tournaments to build awareness.

Sales Promotion

Electro conducts sales promotion for the value proposition, special occasions, customer's satisfaction, which increases customer count and average basket value, and achieves the monthly or yearly target, and also competitive advantage. Engineer Abdullah Al Yousuf is one of the energetic members of Marketing and Installation team of Electro. A lot of information has been provided by him about Electro's sales promotion. Mr. Abdullah informed that they organized a village fair in the 'Rash Utsav' in Manikgonj district (a district in Dhaka Division). *Rash Utsav* is a traditional fair of Hindus and they usually organize a Rash fair in that territory every year. A lot of village people come to that fair with their family and friends. Electro team thought to sell their solar panel and also make a market in Manikgonj. As the demand of solar panel would be extensive in village compared to urban areas, so they contacted the 'Rash Utsav' organizers and informed them about their interest to be the title sponsor of that fair. The organizers agreed with their proposal and made a two days contract with them. In the fair Electro team thought of increasing their sales, thus, they organized two concerts so that people take much more interest. They hired two famous folk singers (Mamtaz and Abdul Kuddus Boyati) for both the days.

"We thought these two singers are the heart of village people. That's why we took them, and we found a great response from the people of Dhulivita village", said Abdullah Al Yousufin, in a personal interview session (Executive Engineer, Marketing & Installation, Electro group).

Not only from that village but also from the other villages also there was a huge participation. Electro team also set up a vendor shop of solar panels. There was a huge response, as they could sell about 13 panels between those two days, and found above 500 customer's database from which later they sold 78 panels.

Personal Selling of Electro

The sales force of Electro ensures sales, and provides their quality service for customer satisfaction, and building a strong customer base. However, some illegal selling activities by the seller have been observed. The reason for this kind of activity could be because of the high targets set by the company itself. A seller in sales division usually has minimum 100 electric meters selling target per month. Although the target is almost unattainable for a seller, the company wants to increase its sales volume to ensure high profit margin. To achieve the sales target, the seller usually takes some illegal steps by building connection with the employees of the government power division [Bangladesh Power Development Board (BPDB), Dhaka Power Distribution Company Limited (DPDC)]. The government employee has the authority to issue new electricity connection, and their work is to check the electric meters to issue the customer's monthly electricity consumption bill. The seller of Electro takes the advantage of their authority, and makes a deal with the employees that if they force the new customers to take the ELECTRO meter, he would give them the half of his incentive bonus for selling every meter. For this opportunity of extra income, the government employees involve themselves into corruption. They pursue the new customers to purchase the ELECTRO meter, and then only they would get the new electricity connection for their home or industry. To avoid this sort of problems, the customer used to take the meters prescribed by the officers. Due to this process both the seller and the government employees got the extra income, and overall Electro group maintained its sales volume.

Place

Electro has spread its business all over the Bangladesh. Especially for solar panel their target is in the villages, because electricity condition in those areas is very poor. Thus, a very big market has been created for Electro over there. Electro is now moving into the hill tract areas. The hill tracts' people are the big market for the solar panels. But for the generators Electro's main target is to catch the corporate clients. So not only in Dhaka, but they also look for factories or companies all over the country. Once a corporate client is involved with electro, they try to retain the customer for a long period of time with their quality products. Electro's electric meter is frequently running in about 30 districts in Bangladesh. Electro meter has already gained the trust of the masses by its performance, longevity, and accuracy. Electro batteries are divided mainly in two parts: Car batteries and operation batteries. Telecom companies purchase the operation batteries for their server maintenance, whereas banks purchase batteries to run their ATM booths. Electro car battery has created a demand into every district of Bangladesh.

“Now in our country car batteries are in great demand because the number of cars are increasing day by day, and most of the batteries are Chinese. The price of those batteries have increased, and importers decreased their number of batteries import. If we take this situation as an opportunity then we will capture the battery market.” said Engr. Abdullah Al Yousufin in a personal interview session, Executive Engineer, Marketing & Installation, Electro group.

Ordinary batteries that have been found in the market are not capable to show the high time performance, but Electro batteries are different from them.

Challenges of Electro Group

In the context of scarcity of power, it became very obvious that Bangladesh needs alternative source of energy to be competitive in the business world. It was predicted that there is chance of ensuring a good profit out of this trend. Observing the huge demand for alternative source of power, many companies are planning to come into this business. Government's regulation on Bangladesh Standards & Testing Institution (BSTI) compliance is also a threat for Electro group.

Prospects in Future

When considering Electro Group as a partner in the process of execution, installation, supports and maintenance of power sector, and turnkey projects, it is important to capitalize on the strengths of the establishment.

Electro has been considered one of the leading companies in the field of precision power and environmental control systems. They have wide coverage and outlets in local markets. Besides, it acquires experience and adequate professional human resources to keep up its activities. Its commitment to high standards and ethical values has been reflecting long term planning with persistent perspective. Electro is a profitable and stable organization by its business strategy. It transfers available expertise and knowledge gained in the course of action throughout different territories. Electro as a company has unlimited backup from manufacturers, and has wide range of reliable product portfolios and controllable spare parts stocks (levels controlled by manufacturer). Electro has already gathered a long experience in power generation in Bangladesh, therefore, they are planning to enter into a foreign country with a similar environment as that of Bangladesh. Electro generally recruits the best engineers and technical experts from all over the country. In recent time, the company has been able to generate such good amount of capital that it could invest into any profitable firm for further expansion and diversification. Electro has professional management team that has the ability to provide round the clock after sales service. It makes its strong market reputation regarding product quality and reliability.

“We hope that there will be no problem in marketing locally-assembled solar panels” said Dr. Tawfiq-E-Elahi Chowdhury (The Daily Star, May 1, 2010).

In the coming years, Electro Group will continue to expand its local and regional operations to better serve its customers and partners. Most importantly, employees of Electro Group look forward to working with their customers to help meet their needs as they take on the challenges of their respective industries

or businesses. Already Electro group has secured its position in Bangladesh, and they want to sustain the position in the long run. There are a good number of competitors like Rafim Afroz Energy Services Ltd., Grameen Shakti, Bestway Powertech Ltd., Electro Com Ideas & Technologies Ltd., Intraco Group, etc. existing in the market. Because of the attractiveness of the customer base and demand, there is a huge probability of having potential competitors in the near future.

“Universal energy access would create a step change in poverty reduction in the developing world, and help billions out of the darkness and drudgery that so many are forced to endure on a daily basis”, according to the case of UN International Year of Sustainable Energy for All 2012, (Practical Action, 2012).

Besides Bangladesh, many other countries in South Asia are facing the similar problems of electricity crisis, and demand for alternative source of power is continuously rising. Analyzing this trend Electro group is now thinking to set up its manufacturing plant in other countries as well. Electro group has a plan to set up a photovoltaic plant in Maldives by 2014.

“We are going to operate our business in Maldives as well. All the formalities from Maldives have been done but some processing is still needed from our country. With Solar Marine we will jointly setup the manufacturing plant. Solar Marine is the famous solar energy research firm in Maldives.” said Engr. Md. Ansar Uddin in a personal interview session (Managing Director, Electro group).

Electro group has an immense plan to make large volume wind power energy. For that they have invaded about 100 acre of land in Cox’s Bazaar district besides the Bay of Bengal. From that project they are hoping to produce minimum 250MW of electricity, and to sell the electricity to the corporate clients and also to the government. It has been anticipated that by 2020 they would be able to start the project.

Questions

1. How initiatives from the private sector contribute to the current problems in power supply of Bangladesh?
2. What are dominant challenges of the power sector in Bangladesh?
3. How to improve power supply of Bangladesh?
4. What other suggestions you have to offer to remain sustainable in the competitive market for Electro Group?

References

- Alam, M.K. and Rubel, A.H. (2011), Simulated Energy Scenarios of the Power Sector in Bangladesh, *ASA University Review*, Vol. 5, No. 2, pp.101-110.
- European Commission (2003), *The Energy Challenge of the 21st Century: The Role of Nuclear Energy*, Brussels: Scientific & Technical Committee Euratom (STC), European Commission, Accessed on June 14, 2013, ftp://ftp.cordis.europa.eu/pub/jp6/docs/euratom_challenge_21stcentury.pdf.
- <http://electrogroupbd.com/index.php/home#>, Accessed on June 14, 2013.
- Ministry of Power, Energy, and Mineral Resources (2011), Power Division: Ministry of Power, Energy and Mineral Resources, Government of the People Republic of Bangladesh, Accessed on June 14, 2013, <http://www.powerdivision.gov.bd>.
- Practical Action (2012), “Poor people’s Energy Outlook 2012 – Energy for Earning a Living”, Practical Action Publishing Ltd. Schumacher Centre, Accessed on May 16, 2013, <http://Poor%20people's%20energy%20outlook%202012.pdf>.
- Rahman, K.M.M. (2011), Electricity Scenario in Bangladesh, Dhaka: Unnayan Onneshan – The Innovators, Accessed on June 14, 2013, http://www.unnayan.org/documents/RightsParticipation/electricity_scenario.pdf.
- Streatfield, P.K. and Karar, Z.A. (2008), Population Challenges for Bangladesh in the Coming Decades, *Journal of Health, Population and Nutrition*, Vol. 26, No. 3, pp.261-272.
- The Daily Star, (2012), Renewable Energy Platform Launched, Accessed on June 14, 2013, <http://archive.thedailystar.net/newDesign/news-details.php?nid=229037>.
- The Daily Star (2010, May 1), Country’s 1st Solar Panel Assembling Plant Opens, Accessed on June 14, 2013, <http://archive.thedailystar.net/newDesign/news-details.php?nid=136732>.

Exhibit 1: Electro Group's Corporate Customers

Telecommunication	Financial Institution/ Banking Sector	Real Estate Sector	Health Sector
Grameen Phone Limited (Telenor)	Sonali Bank Ltd.	Assurance Developments Ltd.	Apex Pharma Ltd.
Banglalink	Commercial Bank of Ceylon PLC.	Concord Real Estate	Popular Medical Centre
Robi Axiata Limited	BRAC Bank Ltd.	Ventura Properties Ltd.	Aristo Pharma Ltd.
Government Sector	Mutual Trust Bank Ltd.	Alian Properties	IbnSina Specialized Hospitals
Dhaka City Corporation	Dutch Bangla Bank Ltd.	Genetic Ltd.	Square Hospitals Ltd.
Foreign Ministry	Jamuna Bank Ltd.	Office Home Solutions (Pvt.) Ltd.	Hamdard Laboratories
UN Mission	NCC Bank Limited.	Urban Design & Development Ltd.	Garments & Textile Sector
PWD	Trust Bank Ltd.	Keari Limited	Square Knit Fabrics Ltd.
Department Store/ Shopping Malls	Bank Asia Limited.	Nandan Park Ltd.	Pantex Dress Ltd.
SAPNO, ACI Logistic Ltd.	IDLC Finance Ltd.	Confidence Design & Construction Ltd.	Trz Garments Ltd.
NANDAN Mega Shop	Southeast Bank Ltd.	Sheltec	Pride Textiles Ltd.
DIT Market	Shahjalal Islami Bank Ltd.	Icon Architects Ltd.	Karim Group
Social Islami Bank Ltd.	Intex Builders Ltd.	Southern Poshak Shipla Ltd.	Fujiama Textile Ltd.
		Bashati Consortium Ltd.	

Source: Compiled from the website of Electro Group: www.electrogroupbd.com.

Exhibit 2: Price Comparison between the Products of Electro Group and the Others

Products	Price of Electro (in BDTK*)	Price of others (in BDTK*)
Solar Panel (per watt)	75 TK	85 TK
Battery 165 ah (ips)	16000 TK	17500-18000 TK
Battery 130 ah (solar)	14000 TK	13000-14000 TK
Meter (single phase)	1300 TK	1500 TK
Meter (triple phase)	5500 TK	6000 TK
Generator 7.5 kva	4.6 lac	5 lac
Generator 10 kva	5.5 lac	6.5 lac
Generator 30 kva	8.5 lac	10 lac
Generator 50 kva	12.7 lac	12 lac
Generator 100 kva	15 lac	16 lac
Generator 200 kva	26 lac	28 lac
Generator 400 kva	52 lac	55 lac
Generator 600 kva	70 lac	85 lac
Generator 800 kva	1 crore 5 lac	1 crore 10 lac

Source: Adapted from the Marketing and Sales Division of Electro Group.

**Assuming Bangladeshi currency TK 78 = US\$ 1.00*

Exhibit 3: Some Product of Electro Group

EM Power Ltd. – Assembled Generator



Energy Meter Ltd. – Assembled Meter



Assembled Solar Panel



Assembled Battery



Source: Compiled from Electro Website: www.electrogroupbd.com

