

ENERGY & POWER

So-Called Scandal



- Why Bangladesh Needs Smart Grid?
- Solar Sector Needs Policy Intervention
- Captive Power Still Financially Attractive



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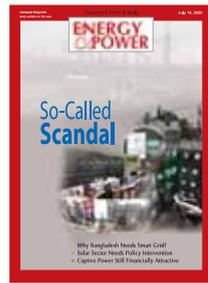
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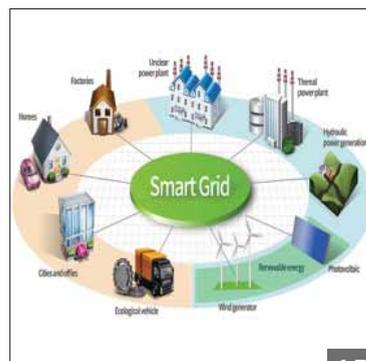
EDITORIAL

Complaints about electricity bills are not new in Bangladesh. However, the frequency of allegations has come down a lot by now with the partial automation of the billing system. Unfortunately, the government attracted a widespread criticism over the electricity billing most recently. It is popularly termed as a 'ghost' bill. Due to the Covid-19 pandemic, the government exempted the late payment surcharge for the months of March, April and May if the consumers pay the bills for three months by June 30. As soon as the utility companies started distributing the three-month bills together, many consumers found those hugely inflated. And, they started raising allegations. Thanks to the utility companies recognized the 'mistakes' and they have their own clarification about the wrongdoings. However, the so-called ghost bills would be only one per cent of the total bills distributed. The companies already corrected most of the bills and now working on few others while the wrongdoers had to face actions. The government has also taken initiatives to completely automate the system, which it believes would solve the problem. It would help solve the ghost bill problem as well as generate more revenue for the utilities.

h i g h l i g h t s



43



15

Bangladesh now possesses installation capacity of over 20,000 MW grid-connected power and 3,000 MW off-grid captive power generation capacity. The highest demand for grid power never exceeded 13,000 MW. Still power supply disruptions are regular phenomenon. It also takes time in restoration of power whenever hit by natural disaster. The system managers often seek excuses of transmission systems'...

COVER



9

Complaints about electricity bills are not unusual in Bangladesh. But this time the 'ghost' power bills distributed among the consumers during the COVID-19 pandemic have attracted widespread criticism. The allegations were especially against the bills those prepared without taking meter readings. Such bills were adjusted after taking readings in December or June last. The billing system has significantly improved by now as compared to what prevailed in last 10-15 years. But it could not be made completely error-free. Automation of the ...



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Greenpage

Encouraged by the readers and patrons, the EP would continue bringing out Green Pages to contribute to the country's efforts in its journey towards environment-friendly energy.

Content

- 31 SOLshare among Ashden Award Winners
- 33 France to Provide €100m to Bangladesh for Renewable Energy
- 33 British FDI Sought in Green Financing
- 34 IEA Calls to Boost EU's 'Green' Recovery
- 34 German Govt to Agree National Hydrogen Strategy



Content

- 5 **WORLD WATCH**
Latest Development in World
- 6,8 **SNAPSHOT**
Latest Development
- 9 **COVER**
So-Called Scandal
- SPECIAL ARTICLE**
- 15 Why Bangladesh Needs Smart Grid?
- ARTICLE**
- 17 Solar Sector Needs Policy Intervention
- REPORT**
- 19 Power Billing System to Go Online in Future: Nasrul
- 20 Japan to Limit Financing of Overseas Coal Power Plants
- 21 Beximco-IOC Joint Venture for LPG Business in Bangladesh
- 23 Mega Power Projects in Progress for 3,840MW: Nasrul
- 26 LPG Export to India Remains Suspended Due to Pandemic
- 27 Bangladesh Earns Huge Success in Green Energy
- 28 BD Seeks \$6.4b Chinese Fund for New Projects
- 45 MAN Completes Power Plant Expansion in Faroe Islands
- CLIMATE**
- 37 Back Clean Energy, UN Chief Urges
- 37 IISD Launches 'Sustainable Recovery 2020' Campaign
- 38 Environmentalists For Big Budget to Weather Climate Change
- 38 DNV GL Approves Shell's Carbon Capture Technique
- 39 IEA Report Appears to Acknowledge 2050 Net Zero May Be Beyond Us
- 39 'DTEK Renewables Wins Climate Bonds Initiative's
- SPECIAL REPORT**
- 41 Can Power from Palm Oil Waste Replace Fossil Fuels in Asia?
- INTERVIEW**
- 43 Md. Kausar Ameer Ali; Managing Director, DESCO

Siemens Sees up to 20pc Drop in Business in 3 Months

Siemens saw the volume of business contract by as much as 20 per cent in the three months to June and activity in 2021 would stay below 2019 levels, the chief financial officer told a media.

Ralf Thomas said that the company's financial third quarter, which runs April to June, "will be a big challenge for us, as for most other market participants as well" due to the coronavirus crisis, report agencies.

"However, it will not be a bottomless fall," he said, adding that the business volume of short-cycle activities had likely contracted by between 10 per cent and 20 per cent in the period.



German engineering company

Shell CEO Does Not Rule Out Moving Headquarters to Britain

Royal Dutch Shell is not ruling out moving its headquarters from the

Netherlands to Britain, the oil company's chief executive Ben van Beurden said in a Dutch newspaper interview published recently.



Van Beurden

Anglo-Dutch consumer products giant Unilever said last month it plans to ditch its dual Anglo-Dutch legal structure and create a single entity in Britain.

Van Beurden did not explicitly say Shell wants to move its headquarters, *het Financieele Dagblad* said.

"You always need to keep thinking," Shell's Van Beurden told the newspaper. "Nothing is permanent and of course we will look at the business climate. But moving your headquarters is not a trivial measure. You cannot think too lightly about that." A Shell spokesman confirmed the CEO's comments to Reuters and said the company was looking at ways to simplify its dual structure, as it had been doing for many years.

Shell has a complex Anglo-Dutch holding structure with a tax residency and headquarters in the Netherlands and a registered office in Britain.

Unilever's decision to move followed the scrapping in 2018 of a plan by Dutch Prime Minister Mark Rutte to do away with a 15% dividend withholding tax.

Halliburton, TechnipFMC Develop Subsea Acoustic Sensing System

Halliburton Co. and TechnipFMC have developed Odassea, which they claim is the

first distributed acoustic sensing solution for subsea wells.

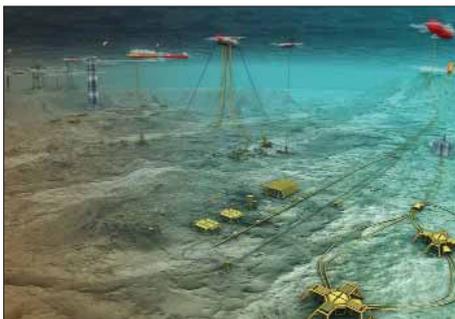
It is said to allow operators to conduct intervention-less seismic imaging and reservoir diagnostics to reduce costs, while at the same time improving reservoir understanding.

The Odassea service integrates hardware and digital systems to provide digital capabilities in subsea reservoir monitoring and production optimization.

Halliburton is supplying the fiber optic sensing technology, completions and analysis for reservoir diagnostics, while TechnipFMC provides the optical connectivity from the topsides to the completions.

Through this collaboration, they claim, operators can speed up their full-field subsea fiber optic sensing, design, and execution.

Trey Clark, vice president of Halliburton Wireline and Perforating, said the service "allows our customers to monitor reservoir performance in real-time."



The partners are already delivering solutions featuring the technology to multiple subsea projects at all stages, from conceptual design through execution and installation.

US Energy Sec Heads to Texas

The U.S. Secretary of Energy Dan Brouillette is travelling to San Antonio, Texas, recently

to meet with energy stakeholders in the region and discuss the current state of energy markets, the U.S. Department of Energy (DOE) has revealed.

Secretary Brouillette will head to Houston, Texas, with the U.S. Under Secretary of Energy, Mark W. Menezes, where they will hold a roundtable discussion with independent oil producers, according to the DOE.

Brouillette and Menezes will also tour the DOE's Strategic Petroleum Reserve Big Hill Site in Winnie, Texas, with state and local officials.

In a statement posted on his official Twitter account, Brouillette said the energy industry in Texas is "critical" to the energy supply and security of the United States. He also outlined that the DOE has invested over \$213 million in the state to fund energy projects.

PDB Launches First Online Training

through Google Meet video conference.

PDB chairman Md Belayet Hossain inaugurated the training course styled "Transformer Relay Protection, Setting Coordination, Fault Analysis and Power Transformer Commissioning."

Speaking at the inaugurating ceremony, Md. Belayet Hossain said that online course can augment the PDB training program to great extent, said a press release.

He also added that ensuring appropriate course curriculum, eligible candidates and proficient trainer will bring success to produce skilled engineer.

Bangladesh Power Development Board, Member Administration Md Zahurul Haque presided over the virtual inauguration ceremony.

Among others, Member of Planning and Development, Mustaq Muhammad, Member of Finance Selim Abed, Member of Company Affairs, Nurun Nahar Begum, Member of Production, Md Zakir Hossain and Member of Distribution, ABM Abdullah were also present at the occasion.

Among others, General Manager (training), chief engineers and concerned officers were present at the program.

Bangladesh Power Development Board (PDB) has organized first online training course recently

Petromax Refinery Losing Business

company also produces small quantities of diesel, petroleum and kerosene. It buys condensate from the Rupantarito Praktik Gas Company.

Shahjibazar Power, a sister concern of Youth Group, holds a 90 percent share of Petromax Refinery with an investment of Tk90 crore.

In the fiscal year 2013-14, Petromax earned Tk362.35 crore and made a net profit of Tk20.59 crore. The following year, fiscal year 2014-15, the company earned a maximum of Tk764.26 crore and made a net profit of Tk72.88 crore. Since then, its business has declined.

In the first three quarters of the 2019-20 financial year, revenue of the company fell by 12 percent to Tk379.93 crore. Further, it posted a loss of Tk5.12 crore from its refinery business.



Petromax started commercial operations in 2013. Octane is its main product, but the company

Summit Signs Agreement with BSH to Combat Covid-19

Covid-19. On behalf of Summit Group and Bangladesh Specialized Hospital (BSH) Lt Gen (Retd) Engr Abdul Wadud and Al Emran Chowdhury respectively signed the agreement.

Summit Group signed an employee healthcare service agreement with Bangladesh Specialized Hospital (BSH) to combat Covid-19. Along with Summit its partner JERA, Japan's largest energy company, provided four ventilators and one RT-PCR Machine to BSH.

Summit Corporation and Summit Holding along with its subsidiaries employ over 6,000 people, said a statement.

Founder Chairman of Summit Group of Companies Muhammed Aziz Khan said, "Employees of Summit are its best assets. I am delighted that we are signing this healthcare service agreement with BSH that would take care of our Bangladeshi employees, staff and workers given COVID care is absolutely in short supply in the world."

Vice-Chairmen of Summit Group Md Farid Khan and Md Latif Khan; Directors Azeeza Aziz Khan, Fadijah Khan and Salman Khan; Advisor Rear Admiral Riazuddin Ahmed (Retd), MD & CEO of Summit Communications Md Arif Al Islam, MD of Summit Gazipur II Power Engr Mozammel Hossain, MD of Summit Technopolis Abu Reza Khan, MD & CEO of Summit Bibiyana Power SM Noor Uddin, Chairman of BSH Dr Mahbubur Rahman Chowdhury and other senior officials of BSH were present at the virtual signing ceremony.



Young Man Electrocuted

A young man was electrocuted in Kendua Upazila of Netrokona district recently.



The deceased was identified as Oli Mia, 22, son of Alek Mia, a resident of Ramnagar Paschim Para Village in the upazila.

Locals said Oli came in contact with a live electric wire while tried to repair his auto-bike in a shop at Rampur Market, which left him dead on the spot.

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Nat’l Oil-Gas Committee Calls Rally Sept 26

National Committee to Protect Oil, Gas, Mineral Resources,

Power and Ports has expressed solidarity with 6-point demand including to scrap deadly coal-fired power projects here.

They came up with the solidarity at a virtual meeting. Member Secretary of national oil-gas committee Anu Muhammad chaired the meeting attended by the representatives from around the world also attended.

Speaking on the occasion, Professor Anu Muhammad said, “Instead of resolving the Corona disaster, when the people of Bangladesh are facing medical crisis, job crisis and food crisis, the government has continued to work on deadly coal projects including Rampal, Matarbari in the interest of some foreign groups.”

He also added, “Without allocating necessary funds for health care and food supplies, the country has made huge allocations for the devastating Rooppur nuclear power plant. Despite having good alternatives, it is enacting laws to increase the price of electricity whenever it wants to impose the burden of costly waste and import-dependent power generation system on the people.”

The government is talking about the gas crisis and by setting up coal and nuclear power, it is taking the country to a terrible danger. On the other hand, it is subsidizing the power traders by Tk 10,000 crore a year.

The speakers further said that when the country is facing the threat of climate change, the government is making Bangladesh more vulnerable by setting up coal-fired power plants across the coast.

Gas Fields Company Workers Observe Strike

Workers of Bangladesh Gas Fields Company Ltd have observed

a four-day strike protesting the decision of cancelling Eid-ul-Azha bonus.

They also staged a demonstration in front of the head office of the company at Birasar in Brahmanbaria recently.

Bangladesh Gas Fields Company Employees Union organized the protest.

The workers went on the strike from 8:00 am to 10:00 am and they will continue this for the next four days.

Murshedul Alam, general secretary of Bangladesh Gas Fields Company Employees Union, said, "We are working at the time of this coronavirus disaster. The company’s production has not been disrupted. In this situation, the decision of the management board to cancel our Eid-ul-Adha bonus is inhumane. We demand the cancellation of this decision. If our demands are not met within the next four days, we will call for a strong movement in all the gas fields under Bangladesh Gas Fields Company Ltd."

Inflated Power Bills: 4 DPDC Officials Suspended

Dhaka Power Distribution Company

Ltd (DPDC) has suspended four of its officials after they were found to be involved in bill inflating activities in a primary investigation.

Besides, 13 meter readers and one meter supervisor were also terminated from their contract for their alleged involvement, said top officials of the company entrusted with responsibility of distributing electricity in central and south-east part of Dhaka city and Narayanganj.

The four officials are executive engineer Helal Uddin, sub-divisional engineer Md Raihanul Alam, assistant engineer Mujibul Rahman Bhuiyan, and computer data-entry coordinator Jasmin Ahmed.

"We have taken action against them on the basis of the recommendation of an inquiry committee," Bikash Dewan, managing director of DPDC.

Final action will be taken after completion of final investigation, he added.

DPDC officials said it sent letters to all their 36 divisional engineers seeking explanation about their roles in preparing the electricity bills which a large number of consumers said were exaggerated.

A huge unrest created among the consumers for receiving their inflated electricity bills in the last three months during the time of coronavirus.

BD Starts Importing Cleaner Marine Fuel from July

Bangladesh will start importing cleaner marine fuel with 0.5 per cent sulfur content from July instead of 180 CST high sulfur fuel oil with

3.5 per cent sulfur as per the International Maritime Organization, or IMO, guideline.

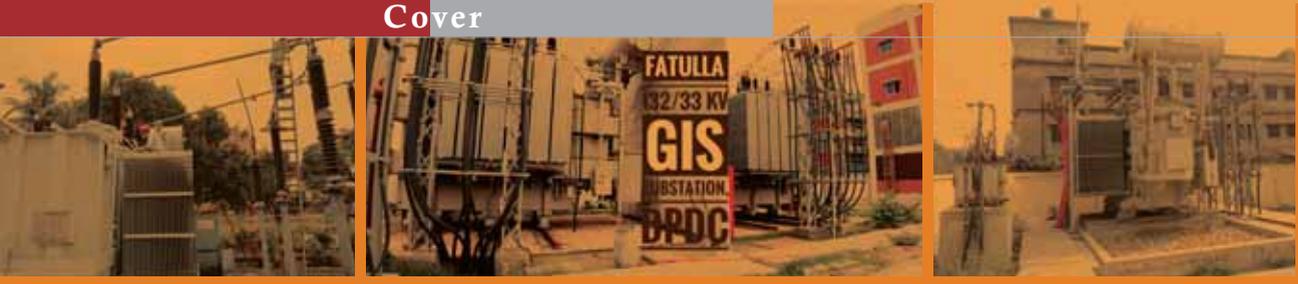
State-run Bangladesh Petroleum Corporation, or BPC, has already floated tender to import around 75,000 tonnes of cleaner marine fuel during July-December, 2020, a senior BPC official said.

The bid submission deadline is July 5. The validity of the offer should be until October 2, 2020. The shipment of the fuel should be on the cost and freight, or CFR, basis in Chattogram.

This is the country’s first tender to import marine fuel with 0.5 per cent Sulphur content.

The BPC has moved to import this fuel in line with the decision of the cabinet committee on economic affairs.

The ministry of environment and forests has long been instructing the state corporation to import cleaner gasoil and marine fuel for safer environment. BPC will import half of its total marine fuel requirement through tender and the remaining half through negotiation with the suppliers, said the BPC official.

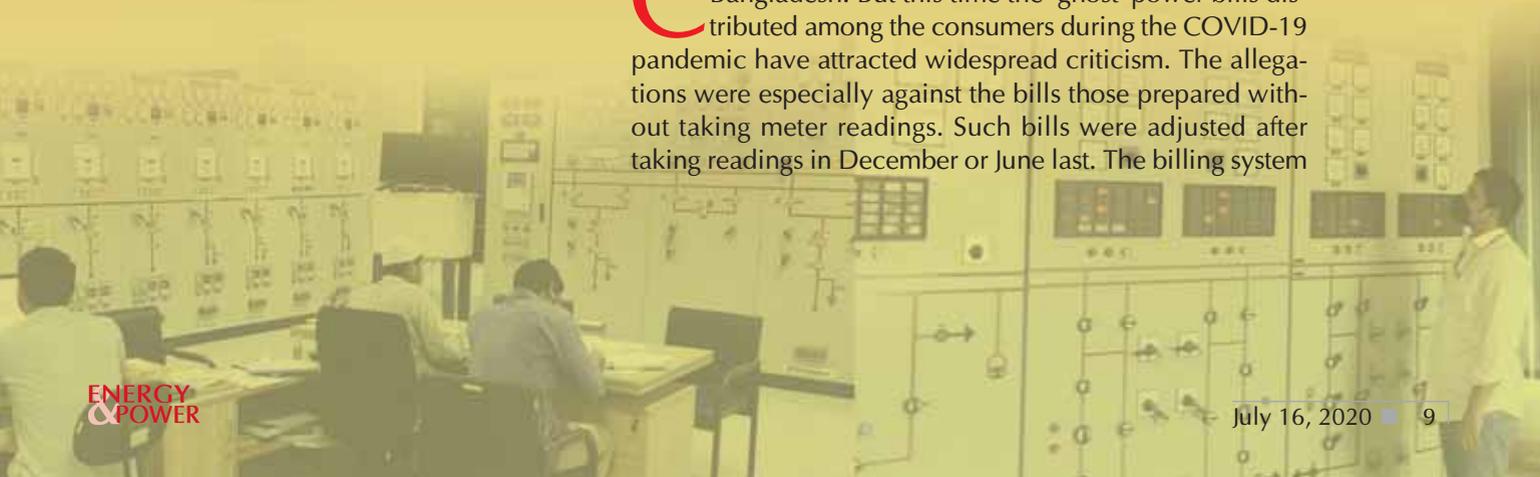


So-Called Scandal

Mollah Amzad Hossain



Complaints about electricity bills are not unusual in Bangladesh. But this time the 'ghost' power bills distributed among the consumers during the COVID-19 pandemic have attracted widespread criticism. The allegations were especially against the bills those prepared without taking meter readings. Such bills were adjusted after taking readings in December or June last. The billing system





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system has significantly improved by now as compared to what prevailed in last 10-15 years. But it could not be made completely error-free. Automation of the billing system has helped reduce the grievances of the users remarkably. But the criticism over the ghost bills grew enormously.

The first coronavirus infection was reported in Bangladesh on March 8 this year though the outbreak took place in China in late December, 2019. The government of Bangladesh announced general holidays from March 26 to prevent the spread of the virus. After extending the holidays in phases, it ended on May 5, 2020. But the power and gas supplies like other utility services remain as usual. No major supply disruption was reported till now. Neither there was any glitch in gas supply. The power and gas utilities drew special rosters of their employees continued the services, taking the risks of getting infected. However, the utility companies could not prepare the monthly bills



Customers wait outside a closed sub-station of the DPDC in Azimpur to recharge their prepaid electricity cards during lockdown

for domestic, commercial and industrial users on the basis of actual meter reading like the normal practice due to the pandemic. There were, of course, some exceptions. Some companies managed to take some meter readings. Other companies prepared separate bills without taking separate meter readings during the months of March, April and May. But two power distribution utilities carrying out business operations in Dhaka Metropolitan and adjoining areas sent consolidated bills of three months in May. As a result, many consumers re-

ported they received ghost bills. Considering the financial difficulties of the general people during the pandemic, the Ministry of Power, Energy and Mineral Resources (MPEMR) had announced special concession for payment of electricity and gas bills for domestic consumers for the months of March, April and May within June without any late payment surcharge. Later, it has been extended till end July. For prepaid meter users, the vending machine facilities and other facilities were kept available. But the industrial consumers

kept out of the exemption. Bangladesh Energy Regulatory Commission (BERC) ordered fresh revision of the power tariff for all categories of consumers before the outbreak of the pandemic. The revised tariff came into effect from March 1, 2020.

The total number of power consumers (domestic, commercial and industrial) in Bangladesh now is 37 million. Most of these belong to Bangladesh Rural Electrification Board (BREB), which operates through its 80 Polli Bidyut



132kV outdoor GIS with panel at Uttara 132/33/11 kV grid substation

Samities (PBSs). Though uninterrupted services could be maintained, yet 100% meter reading could not be done. On the other hand, barring the West Zone Power Distribution Company Limited (WZPDCL), others issued in end May and early June consolidated bills for March, April and May. Different companies used different methods of issuing bills. DPDC sent average bills for each month on the basis of meter readings taken in May. DESCO followed a different method. They could manage taking meter reading of approximately two-thirds of their consumers and, based on that, it issued bills for all consumers for the month of April. WZPDCL continued issuing monthly bills as usual during the pandemic. Other companies sent consolidated bills of three months.

The complaints about excess and ghost bills started pouring in from the consumers. In a quick response, the government and the utilities stated that each of the bills will be corrected after checking if the consumers approach them. The consumers have been advised to get in touch with the distribution utilities in case of any confusion about the bills. State Minister for Power, Energy and Minerals Resources Nasrul Hamid in virtual meetings assured the consumers that none would have to pay the excess bill. Every mistake will be corrected. He informed through media that if the consumers are not happy with the dealings of the distribution companies, they can directly reach him for remedies. The EP investigation evidenced that though the discussion about ghost bills grew to almost an epidemic proportion, yet the actual volume of complaints was found to be

only 1% per cent of the total consumers. It also found that the household consumption of electricity during the 66 days of general holidays was higher than that of the normal time as the people stayed at home more than normal time due to the pandemic. However, many utilities took corrective actions in many instances through their own monitoring even before receiving the complaints.

Majority of the individuals who are concerned about the bills while sharing opinion with the EP identified three reasons behind the criticism over the power bills. Increased power tariff just before the outbreak of coronavirus is the main reason for excess power bill. Apart from the life line users, all users got higher bills even after consuming same volume of electricity. The second reason is that all consumers get monthly bill, but during the pandemic, most of the consumers got consolidated bills for three months. This is why the bills appeared extraordinarily higher than the expectation. The immediate reactions of most of the consumers were about ghost bills. But later, when they realized that the bills were for three months, most of them accepted it. Finally, 1-3% of the consumers appeared to have genuine grievances about the bills. Usually the bills are processed in computers through giving data input taken from the

meter reading. But this time, mistakes might have created for using manual data in computers instead of meter reading data. Finally, remedial measures have been already taken after reviewing each case. Consumers are now satisfied with the government for taking into account their complaints and taking remedial measures. This has been reflected through revenue earnings. Most consumers have paid the bills for the month of June. Distribution companies expected the remaining consumers to pay the bills by end July.

BREB Chairman Major General Moin Uddin (Retd.) said that there were some genuine allegations against the bills of PBSs unlike those in urban areas. Around 500 compliant centers were set up across the PBSs franchise areas for receiving and addressing those up to the satisfaction of the consumers. Grievances of all the consumers have been duly addressed.

Engineer Bikash Dewan, Managing Director of DPDC, said it is true that we could not correct bills of all the consumers. We identified two reasons for this. One is negligence and the other is willful mistakes. Administrative actions have been taken against the officials for their negligence. Willful mistakes have been conducted at Banasri and Adabar. Two Superintending Engineers have been temporarily suspended for this.

DPDC has 13 lakhs consumers. Mistakes have been identified in the bills of 12,000-15,000 consumers. Of these, 5,000 consumers have complained to us. We addressed those complaints. Till all consumers are brought under the prepaid metering



Consumers of DESCO maintaining social distance at DESCO premises while recharging their prepaid cards

system, the billing issues cannot be completely resolved.

The complaints against power bills of consumers of DESCO, also a power distribution utility serving some areas in Dhaka, is less than those of DPDC. Engr. Md. Kausar Ameer Ali, MD of DESCO, informed the EP that “we, on

our own initiative, started checking and amending the bills as soon as complaints against the wrong power bills started emanating”. DESCO takes meter reading of its consumers in four cycles. In March, three cycles could be completed and only one was left to be done. But in April, meter reading could not be taken at all. In May, bills were served on the basis of 100% meter reading. But in some houses, where the residents were not there, mistakes have taken place. “Some incidents of wrong billing also happened in some industries. But as soon as these came to the notice of DESCO, our officials rushed to the consumers and corrected the bills. Our consumers are satisfied with our prompt actions.”

MD of WZPDCL Engr. Md. Shafique Uddin told the EP that the complaints were few in our franchise areas of 21 districts. This is because we could send



Locals in Kamalnagar upazila of Laxmipur district formed a human chain against 'exorbitant' electricity bills distributed by the PBSHVDC at Bheramara, Kushtia

them bills prepared on actual meter readings taken in March, April and May, apart from ensuring uninterrupted power supply during the pandemic. Yet, we promptly addressed the complaints as and when received.

DG of Power Cell Engr. Mohammad Hossain mentioned that the incentive for deferred payment of bills without surcharge was provided during the pandemic in appreciation of the difficulties of the consumers. Ghost bills are nothing new in the power industry. There has been too much discussion about it this time. But the government took prompt actions against the willful offenders.

Nasrul Hamid, State Minister for Power, Energy and Mineral Resources, said that Bangladesh like all other countries of the world is passing through a never-experienced-before crisis. We managed to keep all other services going, excepting

meter reading. But we have been assuring the consumers right from the outset that all genuine grievances would be logically resolved. We left no stone unturned. Around 90% complaints have been addressed. Some mischief mongers have also been punished.

On threadbare analysis, it ap-

peared that most of the minor percentage of wrong bills were due to human errors. But at the same time, utilities did not spare those who conducted the willful mistakes. Various administrative actions have been taken against the offenders. But we must also realize that it is not possible getting rid of all billing issues so soon. The government is proceeding with a plan for bringing all consumers connected to 0.4 KV lines, excepting the life line users under prepaid metering. Industries would be brought under the automatic meter reading (AMR). The State Minister is optimistic that by 2023, all the consumers can be brought under the prepaid metering system. We are considering the possibilities of procuring prepaid meters from two local manufacturers for expediting the process. Distribution utilities are continuing installation of the prepaid meters.

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Why Bangladesh Needs Smart Grid?

Saleque Sufi

Bangladesh now possesses installation capacity of over 20,000 MW grid-connected power and 3,000 MW off-grid captive power generation capacity. The highest demand for grid power never exceeded 13,000 MW. Still power supply disruptions are regular phenomenon. It also takes time in restoration of power whenever hit by natural disaster. The system managers often seek excuses of transmission systems' constraints and old, out-dated distribution networks. In any modern power system 25-30% spinning reserve is an accepted phenomenon, but there

are very few countries that can afford having around 50% spinning reserve. For lack of adequate demand, a significant portion of the capacity is kept idle and still the aggregate buyers pay capacity charge which in turn inflates cost of generation. Many would say smart grid is one of the way of mitigating and managing the issue. Bangladesh is also speaking about smart grid since 2010, but in reality very little has been done till mid-2020 to plan and implement. In Bangladesh, BPDB is a single buyer of the electricity. It buys all power from public and private sector owned and operated generators, and delivers power to consumers through various utilities.

BPDB has contracts with the producers. Due to the higher spinning reserve, BPDB has to count huge capacity charge for the idle generators. Industries, one of the major segment of consumers, rely on their own captive generation as grid power is not yet reliable for different reasons. Consequently, the generation cost increases. BPDB has no option but to pay subsidy and seek regular power tariff adjustment by Bangladesh Energy Regulatory Commission (BERC). Experts have reasons for terming the excessive spinning reserve as a double-edged sword.

The country has started setting up prepaid meters for the domestic consumers. But that program did not achieve desired momentum. The recent scam of ghost bills during the Covid-19 pandemic could be avoided if prepaid meters for majority

consumers could be installed by now.

Power Grid & Smart Grid

Power grid is a complete network that includes transmission lines, transformers, distribution substation and all accessories used for delivering power from the generators to residence and all other users. The first ever power grid was built in 1895 and as of now about 9,200 grids are delivering over 1 million megawatts of power to the consumers. A simple power grid is a one-way traffic from generation to end use. But with evolution of technology, digital transformation has happened to the power system. The new digital technology enables a two-way communication between utilities and all the consumers. This is what we call smart grid. Smart grid consists of advanced digital system, automation, computer and control ensuring to perform a "two-way" communication between the utilities and consumers.

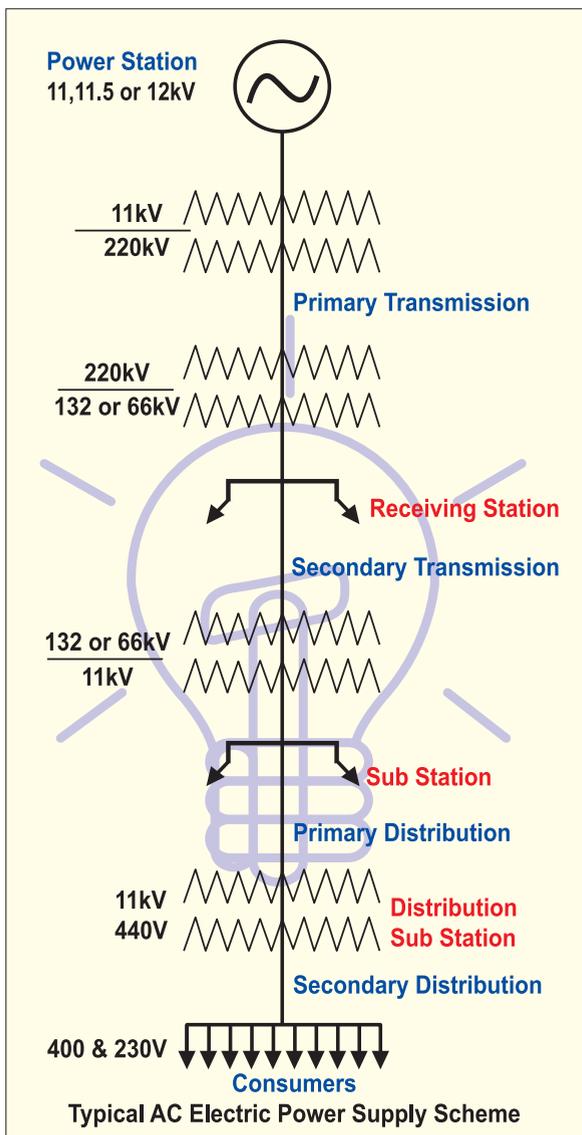
The utilities know about power disruption only when the consumers complain about it. But in case of smart grid, the utilities will instantly respond to the affected areas as the components of smart grid provide enough data from the power transformer, main transmission and distribution system and finally from the meters of the users.

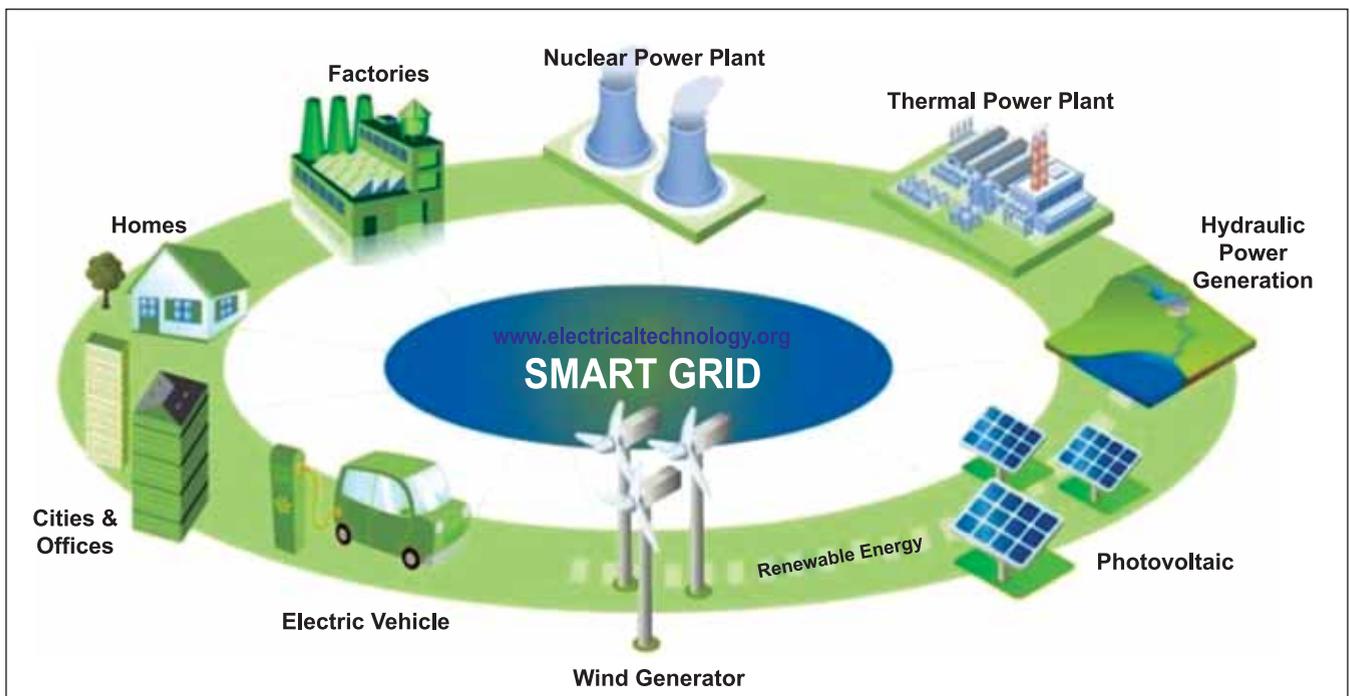
What is Required for Transforming Typical Power Grid to Smart One?

The advanced technologies those can transform the power grid to smart one are:

- Fully automated and integrated two-way communication between the overall components of the power grid;
- Automated control for distribution faults and repairs;
- Advanced management panel, decision support software and mechanism; and
- Accurate sensing and measurement technologies.

The upgraded technology of smart grid would have well organized automation equipment and control system whose response would be accurate for meeting the rapidly increasing demand of power. This would completely eliminate the requirements of meter readers going from door-to-door for taking meter readings





and other information about the system users.

Smart grid also ensures efficient transmission and distribution of electric power. It can restore supply after disruption. It also ensures lower cost of operation, maintenance, management and electricity for both utilities and consumers. It also lowers power tariff and rates due to reduced peak demand. Smart grid provides better options for integration of renewable energy for self-power generation systems. Finally, it improves the security and protection.

Deployment of digital technology in smart grids ensures the reliability, efficiency and accessibility to the consumers regarding all utilities those contribute towards economic stability of a nation. The basic applications are:

- Improving the adeptness of transmission lines;
- Recovering after any forced outage / disturbances in lines and feeders;
- Reducing cost;
- Reducing peak demand;
- Ability to be integrated with renewable energy sources on a large scale.

Conclusion

The government is well on course for achieving political vision for providing grid power access to all by 2021. With

this end in view, the power grid has been extended to almost the entire country, excepting few isolated islands and chars. Power generation has been increased by manyfold. But simultaneously with the increased generation, the transmission system and distribution networks could not be modernised to make the power system reliable and dependable. Unless significant works are done at an expedited pace, achieving sustainable supply of modern power to all by 2030 (SDG7 Target) may not be achieved.

From the generation point of view Bangladesh has huge surplus capacity now. If one looks at the demand of grid power, it remained almost flat over the past few years as the industries do not consider it prudent to risk their operation by depending on unreliable grid supply. Moreover, the works of power transmission and distribution system modernization progressed at snails' pace. Complete digitization of power system, smart grid and artificial intelligence are now essential.

Power disruption for different reasons are not uncommon, but smart grid system has the capability for securing the system on the spot by handling emergencies as they possess the ability for automatic rerouting in the event of any fault current. Smart grids not only pro-

vide links between consumers and the utilities, but they enable users to manage the electricity usage systematically like people use online banking from anywhere anytime.

With the help of smart meters, consumers are not required waiting for a month for electricity bills, but can see the reading and receive bills daily online. There is no chance of theft and pilferage.

While planning and adopting smart technology, Bangladesh must be extremely careful in selecting the appropriate technology and installations must be done by experts having proven past track records.

The Covid-19 is still in force and still no one knows how long it would continue. The post-Covid world will be much different. Not only power supply, all utilities will have to embrace smart technology, artificial intelligence and automation. Bangladesh power system must also develop core competence of its human resources for implementation of power system digitisation, operation and maintenance.

EP

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Saleque Sufi;
 Contributing Editor, EP

Solar Sector Needs Policy Intervention

Syed Mansur Hashim

With the advent of the global pandemic Covid-19, the Bangladesh economy has had its share of downturn. The Bangladesh Solar and Renewable Energy Association (BSREA), which is the representative body for renewable energy companies has seen its business evaporate over the span of the last quarter. The association has reached out to the government for the preservation of this fledging industry because solar technology has played a major role in bringing electricity to millions of off-grid people through solar-home system (SHS). Up to 6 million SHS have been installed in remote areas that has brought economic benefits to some 3 crore people.

This is a sector that has massive potential but requires policy support to weather the current depression in demand due to Covid. If the renewable industry is to develop, a series of policy support measures need to be initiated, particularly if the government plans for energy from renewables are to be met. Meeting the goal of generating 10 percent power from renewable energy by 2021 can only happen if policy initiatives are taken to implement a range of projects that will enable BSREA to recover and preserve its presence. For instance, 'My Town, My Village' project envisions the introduction of solar irrigation pumps and setting up PV-diesel hybrid mini cold storage that would go a long way in cutting down the import costs associated with fossil fuel, help players involve in renewables to survive the Covid-induced economic downturn.

The association has requested the ministry of finance to adopt pro-

grams that would fast-track projects whereby solar electrification of cyclone shelters, primary and secondary schools, etc. are expedited. The Awami League had given extra emphasis on solar power in the last election manifesto and the fledging solar industry could rebound as a sector if innovative projects like 'Floating Solar Power Plants' were prioritized. In a deltaic country like Bangladesh with millions of hectares of land that constitute natural water bodies, such projects could help expedite reaching the said government target of power generation through renewable energy by 2021.

Although the State Minister for Power, Energy and Mineral Resources Nasrul Hamid stated on July 14 that incentives will continue to encourage renewable energy in the country, faster adoption of specific programs are necessary to preserve the gains that have been made in the realm of RE. Yes, power generation in the sector is expanding under some 23 projects that will generate about 1.220MW of electricity. However, given the fact that retail demand has fallen in the domestic market due to the economic hardships brought on by the Covid, it becomes all the more necessary to have the government draw up contingency plans for the industry – that goes beyond subsidies and large-scale

projects, which are inevitably long-term in nature.

The Renewable Energy Policy – 2008 states that the government will generate a tenth of total electricity from renewables. This is 2020 and there is much to be done. For this fledging industry to thrive, it will require the same level of support the government gave for the development of the independent power producers (IPPs) a decade ago. Initiatives were taken to expedite development of land, make changes to bring transmission lines closer to plants generating electricity, efforts made to develop river ports to facilitate the faster movement of raw materials (e.g. diesel using river tankers). All in all, the right policy support regime was put into place because those power plants had to be up and running to feed an energy-starved economy.

Of course, the nature of off-grid renewable energy will require a wholly different approach but the industry as a whole requires the state to change its procurement plans and expedite it in many ways. Green financing from donor, multilateral and other international financial institutions can be tapped to get access to funds required. All these are suggestions that can be looked into. What is clear, however, that

in the time of Covid, decisions cannot be postponed, rather, bold, rapid decision-making is required so that the RE industry can build on the laurels of the past and be a proactive partner in the development of the country.

EP

Syed Mansur Hashim;
Deputy Editor, EP





পাওয়ার গ্রীড কোম্পানী অফ বাংলাদেশ লিঃ POWER GRID COMPANY OF BANGLADESH LTD.

(An Enterprise of Bangladesh Power Development Board)

Head Office: Aftab Nagar (Beside NLDC Building), Badda, Dhaka-1212, Bangladesh

মানসম্পন্ন বিদ্যুৎ নিরবচ্ছিন্নভাবে দেশের সকল মানুষের নিকট পৌঁছে দেয়াই আমাদের অঙ্গীকার

- * গ্রীড উপকেন্দ্র, গ্রীড লাইন ও টাওয়ার জাতীয় সম্পদ, তা রক্ষা করা সকলের দায়িত্ব।
- * গ্রীড উপকেন্দ্র, সঞ্চালন লাইন ও বৈদ্যুতিক টাওয়ারের গুরুত্বপূর্ণ যন্ত্রাংশ চুরি প্রতিরোধে সহায়তা করুন, বিদ্যুৎ বিপর্যয় থেকে দেশকে বাঁচান।
- * উচ্চ ভোল্টেজের বৈদ্যুতিক টাওয়ার ও লাইন হতে নিরাপদ দূরত্ব বজায় রাখুন।
- * বিদ্যুতের গ্রীড লাইন ও টাওয়ার হতে নিরাপদ দূরত্বে স্থাপনা নির্মাণ করুন।
- * বৃক্ষ রোপনে গ্রীড লাইন ও টাওয়ার হতে নিরাপদ দূরত্বে স্থান নির্বাচন করুন।
- * বিদ্যুৎ ব্যবহারে সাশ্রয়ী হোন। আপনি বিদ্যুৎ সাশ্রয় করলে তা অন্য একজন ব্যবহার করতে পারে। এমনকি সাশ্রয়কৃত বিদ্যুৎ গুরুতর অসুস্থ কারও জীবন বাঁচানোর কাজে লাগতে পারে।
- * বিদ্যুৎ অপচয় রোধে সচেতনভাবে ফ্যান, বাতি ও অন্যান্য বৈদ্যুতিক যন্ত্রপাতি ব্যবহার করুন।
- * বিদ্যুৎ সাশ্রয়ী (LED/CFL/T5) বাল্ব ব্যবহার করুন।
- * যথাসম্ভব দিনের আলো ব্যবহার করুন।
- * বিকাল ৫:০০ টা হতে রাত ১১:০০ টা পর্যন্ত সময়ে বিদ্যুতের চাহিদা বেশী থাকে। এ সময় দোকান, শপিংমল, বাসা-বাড়ীতে আলোকসজ্জা হতে বিরত থাকুন।



IOCs Get Renewal of VAT Waiver

The National Board of Revenue (NBR) has reinstated the VAT exemption for the international oil companies on local production and supply of gas, condensate and other petroleum products.

Although their contract with the government has such a provision to enjoy the waiver, VAT at a rate of 15 per cent was imposed after the 2012 VAT and supplementary duty act came into force last year.

The NBR on Sunday issued a statutory regulatory order (SRO) exempting VAT with retrospective effect from July 01, 2019 imposing some conditions.

The order made the submission of financial statements

with monthly amount of exempted VAT to the field-level VAT office of the NBR mandatory to enjoy the exemption.

A senior tax official said the VAT has been withdrawn to uphold the spirit of the production sharing contract between the government and IOCs.

The IOCs have been enjoying the exemption since 1993 to keep the prices of gas affordable to the consumers, he added.

"We held a series of discussions with Petrobangla, IOCs, including Chevron, in this connection last year," he said.

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Power Billing System to Go Online in Future: Nasrul



Electricity billing will be online in future as part of upgrading the system, which will help stop 'inflated' electricity bills', state minister for Power, Energy and Mineral Resources, or MPEMR, Nasrul Hamid said recently.

He said the office management system will be online too. Mr. Hamid was speaking at the inaugural ceremony of a basic training program for power sector engineers organized by Bangladesh Power Management Institute, or BPMI.

He also accused the state-run electricity distribution companies of delaying in installation of smart pre-paid meters

for the consumers.

If the pre-paid meters were installed, we could avoid the recent mess over the billing against electricity consumption of household consumers, he said.

Some 61,265 electricity clients across the country raised allegation until July 05 against inflated electricity bills out of around 40 million consumers across the country.

Four state-run electricity distribution companies have so far taken different punitive measures against some 290 of their employees on the basis of the allegations.

EP

'Big Data Bring Good Electricity Management'



Speakers at a recent seminar said that the 'big data' system would help adopting balanced policies for the power sector and good electricity management.

They came up with the remarks at an online seminar styled "Big Data and Electricity Management", organized

by Bangladesh Energy and Power Research Council (EPRC).

Prime Minister's power and energy adviser Dr Tawfiq-e-Elahi Chowdhury was present as chief guest while State Minister for Power, Energy and Mineral Resources Nasrul Hamid spoke as special guest.

It will become more convenient to adopt balanced policies if information is taken from big data with the help of Bangladesh Bureau of Statistics (BBS), said Dr Tawfiq-e-Elahi Chowdhury. Towards this direction, the given six clusters can be further analyzed, he added.

Speaking as the special guest, Nasrul Hamid said that smart pre-paid meters, SCADA electricity use system will help in determining the pattern of power consumption with big data

and electricity management.

Distribution companies should be sincere about data collection and application as 97 percent of the people have been brought under electrification, said Nasrul Hamid.

"Big data analysis is one of the most advanced decision making strategies and its importance is immense," said the state minister welcoming DPDC's pre-payment data and satellite data analysis.

EP

Japan to Limit Financing of Overseas Coal Power Plants

Japan said recently it would tighten rules for investment in foreign coal-fired power stations on environmental grounds, but stopped short of ending government funding for projects.

The move comes with the world's third-largest economy under fire for financing projects to build coal plants at home and abroad -- notably in Southeast Asia.

Economy, Trade and Industry Minister Hiroshi Kajiyama told reporters the government "has decided to tighten" the

rules for supporting investment.

Countries seeking investment would be required to change their "behavior" towards decarbonisation, Kajiyama said, but added that the new policy was not about cutting back funding.

"There are developing nations in the world that can only choose coal as an energy source," he said.

Further details were not immediately available. The government currently provides funding to Japanese companies if their projects meet certain criteria -- such as when a foreign country has no options but to choose coal due to economic reasons.

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Furnace Oil Price Cut to Tk 34 Per Liter

The government has slashed furnace oil price in local market by 19 per cent to Tk 34.03 per liter from the previous price of Tk 42 per liter.

The price cut is retrospectively effective from June 26 in line with the instruction from the Energy and Mineral Resources Division under the Ministry of Power, Energy and Mineral Resources, said a senior official.



The state-run Bangladesh Petroleum Corporation (BPC) board will approve the price cut of furnace oil in its next meeting, he added.

Prices of other petroleum products, including diesel, kerosene, petrol and octane, however, remain unchanged.

Import price of furnace oil by the private sector currently hovers around Tk 17 per liter. With the newly-imposed tax by the National Board of Revenue (NBR), the price will be around Tk 29 per liter, market insiders said.

Furnace oil is mostly used in power plants in the country, and mainly consumed by privately-owned power plants.

EP

RNPP: Rising Infections Among Workers



More and more workers of different sub-contracting firms at Rooppur Nuclear Power Plant in Ishwardi upazila are getting infected with the novel coronavirus.

Upazila Health Officer Dr AFM Asma Khatun said 103 people in the upazila have been diagnosed with the virus till July 6. Of them, around 90 workers were infected with Covid-19 in the last three days.

The majority of the workers who tested positive for coronavirus work at Paharpur Cooling Tower Ltd, a sub-contracting firm of the Rooppur project.

The number of Covid-19 patients has increased as over 800 employees of the sub-

contracting firms at the plant gave samples to the labs of different government and private institutions for Covid-19 testing in the last few days, said the doctor, adding that the number of infected workers is increasing every day.

Most of the Covid-19 patients are the workers of Paharpur Cooling Tower Ltd, a sub-contracting firm of the plant, said Dr Asma Khatun, adding that the authorities of different sub-contracting firms at Rooppur Nuclear Power Plant have collected samples of several hundred workers and sent those to the lab of a private institution in Dhaka for coronavirus testing but they are yet to get copy of the test reports from the private institution.

EP

Timely Execution of Key Scheme Boosts Rural Electrification

While a large number of power sector projects have been limping for years, the government has seen a great success in timely execution of its initiative for bringing 2.5 million new rural subscribers under the electricity coverage.

Success came not only in terms of timely implementation of the initiative, but also in terms of keeping the project cost below the estimate.

The optimistic picture was obtained after performance eval-

uation of a key rural electrification project namely "Connecting 25 lakh new subscribers through expansion of rural electrification," Planning Ministry officials said.

The scheme has been able to create an example as most other schemes fail to meet their deadline even after a repeated time extension and cost hike, think officials of Implementation monitoring and evaluation division (IMED) that has done the evaluation.

EP

Coal, LNG-Based Power Plants to Have Huge Unused Capacity to Trigger Crisis: Study

Bangladesh's current master plan to increase power-generating capacity, that accommodates increasing dependence on expensive, imported coal and LNG, puts it on course for even deeper financial stress.

It will emanate from the power sector and percolate through the entire economy, similar to the strains already being felt amid the Covid-19 pandemic in some other countries as well.

This was highlighted in a study report conducted by the Institute of Energy Economics and Financial Analysis -- a highly reputed international energy research organization.

According to the study, Bangladesh will have 58 per

cent surplus power in 2029-30 if it keeps adhering to the existing power system master plan 2016 where special emphasis was laid to build power plants powered by imported coal and LNG.

Power Division officials said the country's current power generation capacity is 22,000 MW while maximum demand is 12,000-13,000 MW leaving an idle capacity of between 9,000 MW-10,000 MW.

The IEEFA study said Bangladesh will be stuck in a vicious circle of an obligation for making "capacity payment" for unused power to private power plant owners without receiving their electricity.

EP

Barapukuria Coal Mining Uncertain for Labor Unrest

Coal production from the Barapukuria mine in Dinajpur may be obstructed due to a delayed shifting to the new phase caused by labor unrest.

The country's first coal power plant, located near the mine, also may be forced shut again, after 2018, because of the coal shortage as the stock has started depleting.

If that happens, the northern region of the country may face a massive power supply disruption after August, sources at the power division told The Business Standard.

Currently, the yard has 1.50 lakh tonnes of coal in stock, which may not be enough to meet fuel needs after 27 days if the plants run in full capacity.

Barapukuria Coal Mining Company Limited (BCMCL), a subsidiary of the state-owned oil company Petrobangla, has been extracting



Beximco-IOC Joint Venture for LPG Business in Bangladesh



Dubai's IOC Middle East, a wholly-owned subsidiary of Indian Oil Corporation, and Ras Al Khaimah-based RR Holdings, the holding company of Beximco LPG of Bangladesh, have signed an agreement for the formation of a 50:50 joint venture company (JVC) for LPG business in Bangladesh.

LPG (liquefied petroleum gas) market in Bangladesh has seen a five-fold growth in the past five years and is expected to grow at a CAGR (compound annual growth rate) of 12-13%.

The JVC will draw strength from the core competencies of IndianOil and the local expertise of Beximco.

As per the business plan, the JVC would begin functioning by acquiring Beximco's existing LPG assets.

Dharmendra Pradhan, minis-

ter for Petroleum & Natural Gas and Steel of India, said that the agreement is a major milestone in the annals of India-Bangladesh cooperation when a group company of Indian oil based in Dubai is joining hands with one of the most promising LPG companies in Bangladesh through its holding company in UAE for LPG business in Bangladesh.

Salman Fazlur Rahman MP, Private Industry and Investment adviser to the Prime Minister of Bangladesh, said, "The JVC should serve as a testament to the remarkable investment potential of Bangladesh. At a time when the entire world is grappling with the severe economic consequences of the Covid-19 pandemic, this investment also reflects the resilient and enduring friendship between Bangladesh and India."

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coal from the mine phase by phase since 2005.

Production from the last phase ran out last May when the country was under a long holiday to curb the Covid-19 outbreak countrywide.

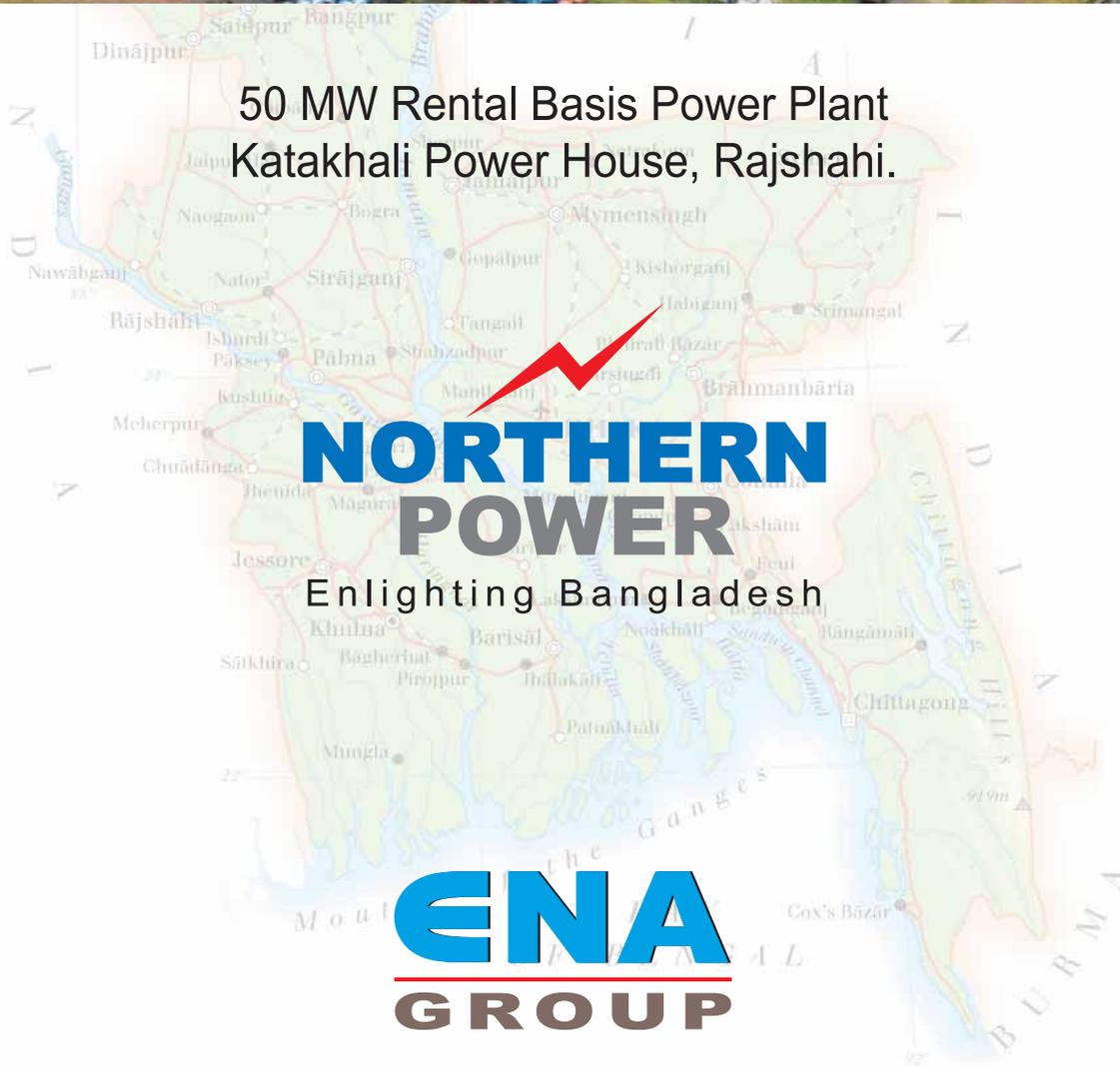
Generally, preparing a new phase takes two to three

months. However, this time it may take some more time to start production from the new phase because the mine developer, China National Machinery Import and Export Corporation (CMC), has placed some conditions regarding local labor.

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50 MW Rental Basis Power Plant
Katakali Power House, Rajshahi.



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POWER PLANT : Northern Power Solution Limited, Katakali Power House, Rajshahi, E-mail : npsl@enagroup.net

Post-Covid-19 Era Offers Huge Opportunities for BD: Aziz Khan

Muhammed Aziz Khan, founder and Chairman of Summit Power International Limited, Summit Holdings Ltd and IPCO Developments (Bangladesh) Limited, has said there will be huge opportunities for Bangladesh in the post-Covid-19 scenario that the country needs to utilize.

Talking about the impact of COVID-19 on infrastructures in Bangladesh at a virtual Cosmos Dialogue recently, Aziz Khan said the pandemic will bring new life and new culture.

He said here is shortage in demand and supply and this will

encourage other countries to supply to Bangladesh and also take goods from the country.

"Bangladesh will be in a much stronger position to negotiate with the importers of garments which is a basic goods", he added. "We will have possibility to have better contracts".

Describing different infrastructural development in the country, Aziz Khan said Bangladesh now generates 20,000 MW of electricity, Padma Bridge and three ports are coming up which will connect the country with the rest of the world.

EP



RNPP Unit 2: A Major Phase in Manufacturing of RPV Completed

Manufacturing of upper semi-vessel of Reactor Pressure Vessel (RPV) for the Unit 2 of Rooppur Nuclear Power Project has achieved

significant progress.

Welding of two shells of the upper semi-vessel at circumference has been completed at the Volgodonsk Branch of AEM Technology Atomash in Russia recently.

The process took 25 days and was conducted at a welding stand at a temperature of 150-300 degrees. A total of 4,027



Mega Power Projects in Progress for 3,840MW: Nasrul



State Minister for Power, Energy and Mineral Resources Nasrul Hamid has said mega projects having 3,840 MW power generation capacity are being implementing at Payra, Maheshkhali and Matarbari areas aimed at ensuring power and energy security in the country.

"Considering land availability, fuel transportation facilities and load centers, the government has been developing Payra, Maheshkhali and Matarbari areas as 'Power Hubs' by establishing mega projects," he said while exchanging views with young teachers and students of Cumilla University at a webinar recently.

Social Research Group of

Cumilla University organized the live webinar titled "The Future of Bangladesh's Energy Sector" which was moderated by Assistant Professor Krishna Kumar Saha.

The state minister said the construction work for setting up coal-fired Rampal 1,320 MW Maitri Super Thermal Project, Matarbari 1,200 MW Ultra super Critical Coal Project and Payra 1,320 MW project are going in full swing.

"The power and energy section will be more secured due to the interest and awareness of the young generation. Of course, awareness will ensure efficiency and economical use of electricity and energy," Nasrul Hamid said.

EP

kilograms of flux and 3,057 kilograms of wire of 4 mm diameter were used for welding.

After welding operation, it was moved to a furnace for heat treatment, where it is to be heated at a temperature of up to 270 degrees Celsius for 4 days. The next step in manufacturing is welding of shells and the head of the lower semi-vessel.

The reactor represents a verti-

cal cylindrical body with an elliptical head, containing the Core and the Internals. On top, it is sealed with a cover with drive mechanisms and regulating mechanism installed on it. In the upper part of the vessel, there are nozzles for the coolant input and output, as well as nozzles for emergency supply of the coolant if the circuit is depressurized.

EP



সিলেট গ্যাস ফিল্ডস লিমিটেড

(পেট্রোবাংলার একটি কোম্পানি)

Sylhet Gas Fields Limited

(A Company of Petrobangla)

Head office: Post office: Chiknagool, Sylhet-3152



গ্যাস জাতীয় সম্পাদ। এর অপচয় রোধ করে জাতীয় দায়িত্ব পালন করুন।

Request for Expressions of Interest (EOI)

Ref. no.: SGFL/Drilling/Workover/3DSeismic/EOI/Consultancy/Foreign/P&D-03

Dated: 07-07-2020

1.	Ministry/Division	: Ministry of Power Energy & Mineral Resources / Energy & Mineral Resources Division
2.	Agency	: Sylhet Gas Fields Limited (SGFL) (A Company of Petrobangla)
3.	Name of procuring entity	: Sylhet Gas Fields Limited (SGFL)
4.	Title of Service	: Consultancy Services in eleven categories for Gas Well Drilling Projects, Gas Well Workover Project and Three Dimensional Seismic Survey Projects under Sylhet Gas Fields Limited (SGFL).
5.	Procuring entity district	: Sylhet
6.	Expression of interest for selection of	: Consulting Firm
7.	EOI Ref. No.	: SGFL/Drilling/Workover/3DSeismic/EOI/Consultancy/Foreign/P&D-03
8.	Date	: 07-07-2020

KEY INFORMATION

9. Procurement method : Quality and Cost Based Selection (QCBS)

FUNDING INFORMATION

10. Budget and source of funds : SGFL own fund / Gas Development Fund

PARTICULAR INFORMATION

11.	Project/Program name	: Package-A Project-1 Drilling of well no. Kailashtila-8 (Exploratory well). Project-2 Drilling of well no. Sylhet-10 (Exploratory well). Project-3 Drilling of well no. Rashidpur-11 (Exploratory well). Project-4 Workover of well nos. Sylhet-8, Beanibazar-1 and Kailashtila-7. Package-B Project-5 3D Seismic survey at Beanibazar Gas Field. Project-6 3D Seismic survey at relinquished area of Block-13 & 14.
12.	EOI closing date and time	: 10-08-2020 and 12:00 hrs (BST)

INFORMATION FOR APPLICANT

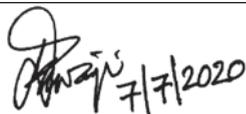
13.	Brief description of assignment	: Sylhet Gas Fields Limited (SGFL) shall appoint the international Consulting Firm in order to provide the consultancy service in eleven categories for 3 Gas Well Drilling Projects, 1 Gas Wells Workover Project and 2 Three Dimensional Seismic Survey Projects (as stated above) under SGFL. During the implementation of Drilling, Workover and Seismic projects, the Consulting Firm (Consultant or Expert) shall be engaged on behalf of SGFL in order to monitor and supervise the project activities and to deliver the appropriate suggestions and recommendations for the improvement of the related services and reports. The tender will be considered in two different Packages namely Package-A (Drilling and Workover projects) and Package-B (Seismic projects) as stated above. The Consulting Firm shall submit their EOIs separately for Package-A & Package-B with project basis information (i.e., Project-1, Project-2, Project-3 & Project-4 in Package-A; Project-5 & Project-6 in Package-B). The EOIs for Package-A & Package-B will be received and evaluated separately by the authority of SGFL. One can submit EOIs either for both Package-A & Package-B or for single Package. Engaging different Drilling Contractor or Service Provider, four drilling and workover projects (as mentioned above) will be executed by SGFL. Similarly engaging the International Seismic Service Provider, the SGFL will execute the acquisition, processing & interpretation of 3D seismic data using state-of-the-art technology for its Beanibazar Gas Field (191 sq. km) and relinquished area of acreage block-13 & 14 (865 sq. km) (total 1056 sq. km). The Seismic Service Provider shall, with their own personnel and equipment, delineate different hydrocarbon reservoirs and identify structural and stratigraphic prospects in the area. The emphasis is given to get clear and reliable seismic image for the deep hydrocarbon resources upto eight kilometers below the surface. This Consulting Firm shall have to provide the valuable consultancy services for the betterment of the performance of these project activities. The planned consultancy service is estimated 42 Man-month for Package-A and 17 Man-month for Package-B. The brief scope of the service of the Consulting Firm is to provide the services as (1) Drilling/Workover Supervisor, (2) Petroleum Geologist and (3) Petroleum Engineer (Completion) for Package-A (Drilling/Workover projects) and (1) 3D Seismic Design & QC, (2) 3D Seismic Survey Data Acquisition Expert, (3) 3D Seismic Data Processing Expert, (4) 3D Seismic Data Interpretation Expert, (5) Petrophysical Analysis Expert, (6) Petroleum System Modeling (Basin Modeling) Expert, (7) Geology & Static Modeling Expert and (8) Reservoir Engineering & Dynamic Modeling Expert for Package-B (Seismic projects). Resource/Reserve estimations (using updated PRMS guideline) have to be monitored appropriately while executing the seismic projects.
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14. Experience, resources and delivery capacity required	<p>The Consulting Firm should be internationally reputed consultancy service provider in oil/gas sector specialized in drilling, workover and high resolution 3D seismic imaging to establish subsurface geological model and reservoir engineering model for hydrocarbon exploration and production. The required experience and qualification (but not limited to) of the Consulting Firm (and its Consultant) are as follows:</p> <p>For Package-A:</p> <ul style="list-style-type: none"> - The Consulting Firm shall have the overall experience a minimum of 15 years. - The Consulting Firm should have the consultancy service experience in Drilling/Workover activities a minimum of 05 projects since 2000. - The Consulting Firm shall have dedicated Experts on (1) Drilling/Workover Supervisor, (2) Petroleum Geologist, (3) Petroleum Engineer (Completion). - Drilling Supervisor, Petroleum Geologist and Petroleum Engineer Experts shall have the related consultancy service experience a minimum of 10 gas/oil wells since 2010. - The Consultants should have experience on using the related updated/latest software (e.g., TechLog, PowerLog etc or equivalents). <p>For Package-B:</p> <ul style="list-style-type: none"> - The Consulting Firm shall have the overall experience a minimum of 15 years. - The Consulting Firm should have the related 3D seismic service experience a minimum areal coverage of 5,000 sq. km since 2000 and have a full complement of staffs capable of completing the assigned job successfully. - The Consulting Firm shall have dedicated Experts on (1) 3D Seismic Design & QC Expert, (2) 3D Seismic Survey Data Acquisition Expert, (3) 3D Seismic Data Processing Expert, (4) 3D Seismic Data Interpretation Expert, (5) Petrophysical Analysis Expert, (6) Petroleum System Modeling (Basin Modeling) Expert, (7) Geology & Static Modeling Expert and (8) Reservoir Engineering & Dynamic Modeling Expert for Package-B (Seismic projects). - The Consultants should have experience on using the related updated/latest software (e.g., Geoland, Petrel, Techlog, PowerLog, PetroMod, Tigress, Omega, GeoEast etc or equivalents). - Seismic Design & QC, Acquisition, Processing and Interpretation experts would have the related 3D seismic service experience a minimum areal coverage of 500 sq. km since 2005. - Basin Modeling, Geological Modeling and Reservoir Modeling Experts should have the related modeling and interpretation experience a minimum of 05 models and resource/reserve estimation (industry software based) involved with 3D seismic data since 2005. - Petrophysical Analysis Expert shall have minimum petrophysical interpretation experience (industry software based) of 05 gas/oil wells involved with 3D seismic data since 2005. <p>Considering the Package-A and Package-B, the Experts shall have a minimum of Bachelor Degree in related subject while the PhD degree will get preference. The affiliation with related professional association is required. The experiences (years, areal coverage, no. of projects, no. of models, no. of wells, no. of offices, no. of working countries, English language skill etc) and educational qualifications of all categories of Experts and Firm can be shown in a summary table. The seismic experiences (3D and 2D separately) with dynamite source and vibroseis source should be mentioned clearly.</p> <p>The Consulting Firms from all countries, except the countries those have no diplomatic relationship with Bangladesh, are eligible to submit EOI. The interested Consulting Firm should submit the EOI (3 copies) on any working day (Sunday to Thursday) between 09:00 and 17:00 hrs BST to the address below before the EOI closing time with the following information and documents indicating their eligibility:</p> <ul style="list-style-type: none"> • Background of the Firm with registration year, country, brochures etc • Experiences (general, drilling, wells, seismic, models etc) of the Firm and Experts • Documents in favor of experiences (Firm & Experts) • Curriculum Vitae (CV) of relevant Experts • Audited financial reports for the last two years • Number of permanent key professional employees with qualifications • Types of major software and equipment used
15. Others details	<p>Any Firm having joint venture agreement with other international firm will be taken into consideration. In that case, the Firm should provide the copy of joint venture agreement including scope of services that the other Firm will provide. The EOIs will be opened in presence of the representatives of the participating firms, if any, on 10-08-2020 at 12.15 hrs (BST). In case of any unavoidable circumstances such as strike, civil commotion, natural calamity, govt. declared holiday etc EOIs will be received and opened on the following working day. Upon receipt of EOIs, the interested Firms that are deemed best suited to perform the assignment will be short-listed. Thereafter Request for Proposal (RFP) document will be sent to the short-listed firms. This tender would be processed following the PPA-2006 & PPR-2008. The aforesaid EOI notice would be available at: Petrobangla website: www.petrobangla.org.bd; SGFL website: www.sgfl.org.bd and CPTU website: www.cptu.gov.bd</p>

PROCURING ENTITY DETAILS

16. Name of the official inviting EOI	: Mr. Swarup Kanti Dewanji
17. Designation of the official inviting EOI	: Deputy General Manager (Procurement)
18. Address of the official inviting EOI	: Sylhet Gas Fields Limited (SGFL), Head Office, Post Office: Chiknagool, District Sylhet, Bangladesh
19. Contact details of the official inviting EOI	: Tel: +88 0821 760801; H/P: +88 01730006946, +88 01713301012, E-mail: dgmpr@sgfl.org.bd
20. Place of receiving and opening of EOI proposals	: Sylhet Gas Fields Limited (SGFL), Head Office, Post Office: Chiknagool, District Sylhet, Bangladesh.

The authority of SGFL reserves the right to accept or reject any or all EOIs without showing any reason.


Deputy General Manager (Procurement)

LPG Export to India Remains Suspended Due to Pandemic

Export of LPG or liquefied petroleum gas to neighboring India has remained halted for about three and a half months due to the coronavirus pandemic, market insiders said.

LPG export to India has remained suspended since the first day of the nationwide shutdown on March 26, chief executive officer of Omera Petroleum Ltd Shamsul Haque Ahmed said.

During the shutdown or lockdown in both the countries,

almost all types of transportation including air, rail, public transport as well as movement of private vehicles were restricted excepting some critical travel services.

However, public and private offices in the two countries have recently reopened on a limited scale.

Bangladesh initiated exporting LPG commercially to India from the first week of January this year with an initial consignment of around 1,000 tonnes per month.

Two privately-owned Bangladeshi firms-- Omera Petroleum and Beximco LPG-- are now exporting LPG to Tripura, the landlocked northeastern state of India, by road.

EP



ERL Resumes Operation as Private Sector Starts Buying Furnace Oil

Eastern Refinery Ltd (ERL), the lone crude oil refinery of the country, resumed its operation this week as the private sector started taking furnace oil from the stocks.

Local Summit Group took around 10,000 tonnes a couple of days back, facilitating the refinery to back into operations, ERL managing director Md Akterul Hoque said.

He expected that the private sector would continue taking furnace oil to run their power plants.

The ERL, a wholly-owned subsidiary of state-run Bangladesh

Petroleum Corporation, or BPC, had to suspend its operation due to inadequate demand for the fuel oil amid Covid-19 pandemic.

ERL's oil storage capacity was saturated due to the muted domestic demand as a result of the ongoing coronavirus pandemic and subsequent limited scale of business and commercial operations.

The BPC had to cancel one 100,000 tonne Murban crude oil term cargo from Abu Dhabi National Oil Company, or ADNOC, this month as the consequence.

EP

Titas to Bring Over 2.8m Consumers Under Prepaid Meters



In an intensified move to ensure rational use of natural gas, Titas Gas Transmission and Distribution Company Limited (TGT-DCL) has embarked on a plan to bring over 2.8 million consumers under prepaid metering system in phases to reduce wastages of this natural resource.

"We have a plan to install over 2.8 million prepaid meters under Titas's jurisdiction in phases, as the state-owned company has already installed 0.2 million (two lakh) meters and proposed for another 1,20,000," Managing Director of TGT-DCL Ali Mohd. Al Mamun said.

He said the Titas has already installed 0.2 million prepaid

meters in the city financed by the Japan International Cooperation Agency (JICA) and a Revised Development Project Profile (RDPP) will be sent to the Executive Committee of the National Economic Council (ECNEC) for approval.

"The RDPP for setting up another 1,20,000 pre-paid meters between 2020 and 2022 was endorsed by the ministry's steering committee, and it will be sent to the planning commission for approval," Mamun said. He said that after the approval of the RDPP, the Titas will start setting up prepaid meters in the city's five areas- Paltan, Ramna, New Market, Khilgaon and Segunbagicha.

EP

Green Jobs, Closing Gender Gaps Key Issues for Future Work: UN

If countries, communities, and households are going to have a chance to recover and get back to having a decent and sustainable means of livelihood, then the future of work must be addressed and it must be done quickly," said Wignaraja, also Assistant Administrator & Director of the Regional Bureau for Asia and the Pacific of UNDP.

With a view to facilitating South-South cooperation and accelerating Bangladesh towards a more robust economy

with consideration of the many challenges it is facing, the UNDP in collaboration with its Bangkok Regional Hub launched the Future of Work Lab over a virtual program, said UNDP recently.

Deputy Resident Representative of UNDP, Van Nguyen delivered the welcome remarks at the session, followed by official inauguration by Wignaraja.

Located in Bangladesh, the Lab will support the Asia Pacific region.

EP

Bangladesh Earns Huge Success in Green Energy

The government has developed power generation strategy based on fuel diversification to enhance energy security.

Thanks to sincere commitments and efforts of the present government led by Prime Minister Sheikh Hasina, Bangladesh has attained outstanding success in the field of green energy as it secured the second position in producing renewable energy (RE), especially off-grid solar solutions.

"Bangladesh is now generating 630.96 megawatts (MW) electricity from renewable sources of which 397.03 MW power come from the solar system," State Minister for Power, Energy and Mineral Resources Nasrul Hamid said recently.

He said the government has developed power generation strategy based on fuel diversification to enhance energy

security.

According to REN21's Renewables 2020 Global Status Report (GSR) published recently, Nepal topped with 11 percent access to electricity from off-grid solar solutions, while Bangladesh and Mongolia jointly ranked second position with eight percent power from the same sources.

"One successful business model for the deployment of off-grid solutions is the concept of peer-to-peer electricity trading or 'swarm electrification', which had been tested among rural households in Bangladesh," the report said.

In the wake of the extraordinary economic fallout of the Covid-19 pandemic, the International Energy Agency (IEA) predicts energy-related CO2 emissions are expected to fall by up to 8 percent in 2020, it said. **EP**

ABB to Implement Marlim FPSO Topsides Control Package

ABB will supply Yinson with electrical, control, and telecommunication equipment and services onboard the FPSO Anna Nery.

Yinson is converting the vessel - a crude oil tanker built

in 2002 - for a new 25-year lifespan as an FPSO on Petrobras' Marlim 2 oil field in the Campos basin offshore Brazil.

ABB will use the ABB Ability System 800xA control system with select input/output (IO) for integrating all the production modules into a combined integrated safety and control system.



Revised Charges Pull Down Profits of Titas Gas

The net profit of Titas Gas Transmission & Distribution Company Limited has dropped 27 percent in the first three quarters of the current financial year as the minimum charges were replaced with demand charges at consumer level.

However, the sale of gas has increased by 28 percent during this period.

An official of Titas Gas said that it has withdrawn the minimum charges in all consumer levels from July 1, 2019, and imposed a demand charge of Tk0.10 per

cubic meter, causing a drop in the profit.

Despite the sale quantity of Titas Gas remained the same, the sales figure rose due to an increase in gas prices. The company receives distribution charges only for distributing gas.

The Bangladesh Energy Regulatory Commission (BERC) has increased gas prices which came into effect on July 1, 2019. It also fixed the distribution charge of Titas Gas at Tk0.25 per cubic metre which was Tk0.22 earlier. **EP**

Experts Recommend Rental, Quick Rental Power Be Phased Out

The national demand for electricity is not growing with increasing supply.

This is due to slow-paced industrialization and construction of 100 economic zones as well as a lack of development of power dependent transport systems like the metro rail.

The economic disruption due to Covid-19 may further shrink industrialization in the country - which may widen the gap between supply and demand.

Considering all these, noted economists and experts have

recommended, at a webinar, that the government gradually phase out rental and quick rental power and not renew agreements for them any longer.

The Dhaka School of Economics - an undergraduate and postgraduate institution of University of Dhaka - arranged a webinar on the "Power and Energy Sector in the Proposed Budget for FY2020-21" on Saturday. Dr AKM Nazrul Islam, Associate professor of Dhaka School of Economics, moderated the webinar. **EP**

Select IO is an Ethernet-based, single-channel input output system under which field signals are digitally marshaled in 'smart' junction boxes. By using the company's xStream engineering approach alongside digital marshaling, select IO will reduce project time, ABB said,

allows the project team to de-couple the hardware and software tasks and fully standardize the cabinet design.

Cabinets can then be installed and terminated at a much earlier phase during construction. **EP**

RNPP Graft Case: SC Stays Contractor's Bail Order

The Supreme Court recently stayed for 16 weeks a High Court order that granted bail to contractor Asif Hossain in a case filed over corruption in purchasing furniture and household items for the officials of Rooppur Nuclear Power Plant in Pabna.

Chamber judge of the Appellate Division of Supreme Court Justice Md Nuruzzaman passed the order after virtually hearing a petition filed by the Anti-Corruption Commission, seeking a stay

on the HC order. ACC lawyer Advocate Khurshid Alam Khan told The Daily Star that Asif Hossain, managing director of construction company -- Mujib and Sons -- cannot get release from jail following the SC stay order.

The apex court stayed the HC bail order, considering the gravity of the offence allegedly committed by Asif, he added.

Barrister FM Kamal appeared for Asif during the hearing on ACC's petition. Following a bail petition filed by Asif, the HC bench of Justice Md Nazrul Islam Talukder on June 29 granted ad-interim bail to him in the case.

EP



IFC Provides Omera with \$20m Funding

The International Finance Corporation will lend \$20 million to Omera Petroleum in order to help the Bangladeshi company meet funding requirements to face the challenges posed by the coronavirus pandemic.

The funding will help Omera, a subsidiary of Mobil Jamuna Bangladesh, enhance storage and filling capacity and overcome challenges resulting

from the ongoing limited access to foreign currency.

The loan's tenure is four years and it will be paid back on a quarterly basis by Omera, which has been engaged in import, storage, bottling and distribution of liquefied petroleum gas (LPG) since 2015.

"The IFC's support will help us respond to the challenges resulting from the Covid-19 pandemic and it will allow us to finance foreign currency liability for LPG import," said Md Akter H Sannamat, chief financial officer of Omera.

The interest rate is attractive and preferential, he said.

EP



BD Seeks \$6.4b Chinese Fund for New Projects

Bangladesh now wants Chinese funds for nine new projects worth US\$ 6.4 billion.

The Economic Relations Division has recently sent a letter to the Chinese government seeking investment fund for these projects, said finance ministry officials.

The government sought \$1.6 billion for the construction of the first phase of the Payra sea port and \$1.2 billion for the construction of the country's longest bridge to link Barisal with the island district of Bhola, according to the letter.

The authorities also sought \$853 million for the Teesta river comprehensive management and restoration project and \$805.35 million for the project on the "Expansion

of Strengthening of Power System Network under DPDC area (PGCB part)."

The other projects of the list are the establishment of Sheikh Hasina Institute of Information technology and hi-tech park, procurement of oil tankers, upgrades of Barisal-Kuakata highway to four-lane, construction of high-tech rural bridge across the country, and the construction of sewerage collection system under Dasherbandi STP catchment of Dhaka city.

The proposal was made in line with the discussions held at the first meeting of the Investment Cooperation Working Group held in Dhaka recently, finance ministry officials said.

EP

India to End Central Control of Gas Prices

India will gradually end central controls on gas pricing as it seeks to attract foreign investment and technology to lift local output, oil minister Dharmendra Pradhan said recently.

India, which is a large emitter of greenhouse gases and has multiple gas pricing regimes, aims to raise the share of gas in its energy mix to 15 per cent by 2030, from 6.2 per cent.

"This is an incentive we are giving to investors to come to India and take advantage of pricing and marketing freedom and produce more and invest more," Pradhan said at the BNEF summit.

To boost gas usage, India is expanding infrastructure including building new liquefied natural gas (LNG) import plants and connecting households with an expanding gas pipe network.

New Delhi said recently that no authorization was needed to set up LNG dispensing facilities for vehicles.

India's top gas importer Petronet LNG said it wants to partner with fuel and gas retailers on LNG stations along highways for long-haul trucks and buses.

Petronet wants to set up 5 LNG stations in the fiscal year ending March 2021, and 300 by 2023. It eventually aims to have 1,000 LNG stations across India, it said on its website.

EP

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Green page

SOLshare Among Ashden Award Winners

SOLshare has been recognized by the Ashden Awards amongst some of the world's most practical and scalable low carbon innovators. SOLshare is the winner of the Ashden Award in the category of Energy Access - Finance & Business Model Innovation.

SOLshare, founded in 2014 in Dhaka, Bangladesh, is a so-



cial enterprise and dubbed as 'the

AirBnB of the energy off-grid space'.

SOLshare has created a revolutionary new approach to bring affordable solar electricity to everyone in Bangladesh and beyond. We believe that our smart peer-to-peer grids can be the future for energy utilities globally.

SOLshare interconnects solar home

systems, monetizing excess solar energy in real time with mobile money and empowering rural communities to earn a direct income from the sun by turning passive consumers into active prosumers.

Ashden spotlights and supports climate and energy innovators around the world – including businesses, non-profits and public sector organizations which are delivering proven, ready-to-scale climate solutions.

SOLshare was among 11 winners at the annual Ashden Awards [announced on 2 July] all of whom were chosen from over 200 applicants for their work creating resilience, green growth, and fairer societies.

SOLshare is only the fourth Bangladeshi company to ever receive this award. The last Bangladeshi organization to win was Grameen Shakti, now a strategic partner of SOLshare's, who won the prestigious award 12 years ago.

'Renewable, Green Energy to Ensure Energy Security in Future'

State Minister for Power, Energy and Mineral Resources Nasrul Hamid recently said renewable energy and green energy will ensure energy security in the future.

"The government has been cooperating for expansion of renewable energy," he told this at a virtual conference recently in the city as the chief guest.



Nasrul Hamid said it is possible to advance with a concept for setting up rooftop or floating solar power plants, as Bangladesh has no scope for large

scale solar power plant due to an agro-based economy.

"The government has approved net metering guidelines in 2018 and now the power division has been working on wind and waste," the state minister added.

He said Bangladesh under the leadership of Prime Minister Sheikh Hasina has made a remarkable success in power sector as it secured second position in accessing power from Renewable Energy (RE) especially off-grid solar solutions.

EP

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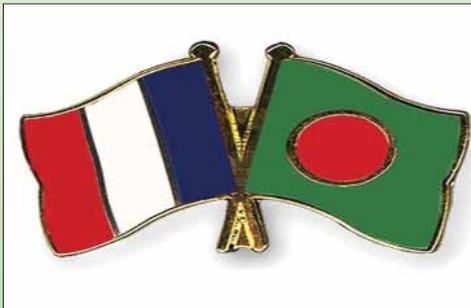
**ENERGY
POWER**

প্রকাশনা

France to Provide €100m to Bangladesh for Renewable Energy

France is going to provide €100 million to Bangladesh for energy efficient, renewable energy, and environment friendly projects.

A Credit Facility Agreement (CFA) has been signed virtually between the government of Bangladesh and the Agence Française de Développement (AFD), according to a press release of Economic Relations Division (ERD).



The FCA was signed on June 15.

Dr Gauranga Chandra Mohanta, Additional Secretary of ERD and Daniel Vain, Country Director of AFD signed the loan agreement on the behalf of the Government of Bangladesh and AFD respectively.

The loan will be provided for long-term

debt financing and catalyzing private sector participation through the implementing agency Infrastructure Development Company Limited (IDCOL).

IDCOL is a public financial institution specializing in the financing of infrastructure and renewable energy projects and developing intervention into new green segments.

It is a loan the government of Bangladesh, with a repayment period of twenty years and a grace period of seven years.

A concessionary rate six months' euro LIBOR + 35 percent will be offered as a rate of interest under this CFA.

This CFA aims to contribute to Bangladesh's transition to a less carbon-intensive economy.

EP

BDGL Brings in Modern Glazing Technology

Bangladesh Double Glazed Ltd (BDGL) has brought latest glazing technology in the country to provide energy-efficient, pollution-free and sustainable glazing solutions.

Glazing solutions refer to door and win-



dow works in buildings. Such technology aims at increasing the buildings' energy performance by reducing the need for artificial heating, cooling and lighting, according to a statement.

As a leading glazing solution provider, BDGL offered 'economy in investment' since the buildings with double-glazed windows can be cooled with air conditioners of lesser cooling capacity, saving up to 30-40 per cent on the monthly electricity bills.

In addition, BDGL's glazed products are able to keep external sounds at bay. They can reduce the levels of outdoor noise emanating from traffic and other sources by 50-80 per cent, giving dwellers complete peace of mind. The company began production in its own factory in December 2017.

EP

Greenpage

British FDI Sought in Green Financing

Bangladesh has sought fresh foreign direct investment from the United Kingdom (UK) in its green financing businesses, clean technologies, renewable energy and IT-enabled services.

"UK investors should specially focus on investing in green financing businesses, clean technologies, renewable energy and IT-enabled services in the post-pandemic trade and investment partnership between Bangladesh and the UK", said Bangladesh High Commissioner to the United Kingdom Saida Muna Tasneem.

The Bangladesh envoy was addressing as the special guest at a virtual meeting



co-hosted by Bangladesh Investment Development Authority (BIDA) and British Business Group (BBG) aiming at reviving post-COVID British FDI to Bangladesh, said a press release issued by Bangladesh mission in London recently.

The high commissioner also recommended to BIDA for creating a special 'focal point' for facilitating green financing, clean technology, recycling and renewable energy projects – the priority sectors in the UK's overseas investment.

Terming the BBG, a group of British multinational investors in Bangladesh, 'as brand ambassador' to promote fresh British investment in Bangladesh, Tasneem encouraged BIDA to provide all-out support to the BBG so they can re-invest their retained profit in Bangladesh.

EP

SOLshares Closes \$1.1m Financing Round with Partners

Bangladesh-based off-grid solar energy marketplace firm SOLshare is closing a US\$ 1.1 million financing round. IIX Impact Partners - one of the most successful debt and equity crowd funding platform for impact investing - has supported the company through its network of impact investors.

Current investors innogy New Ventures LLC - the venture capital investment arm of the German utility firm innogy SE- and EDP Ventures, the investment arm

of Portuguese based utility firm EDP, are also part of the round, as well as new angel investors from around the world.

SOLshare is the AirBnB of the energy access space working toward an energy future fueled not by fossil fuels but by democratization, by decentralization and decarbonization.

To date, the Bangladeshi company has set up 30 peer-to-peer solar electricity trading grids in Bangladesh and India empowering remote communities by allowing them to share electricity seamlessly and fully embedded in a mobile money platform.

Funding will be used to bring smart solar microgrids to off-grid, underserved communities in Bangladesh, putting SOLshare on track to positively impact 2.5 million people by 2023.

EP



IEA Calls to Boost EU's 'Green' Recovery

The International Energy Agency (IEA) recently called for the European Union to accelerate low-carbon building renovations and introduce schemes to encourage consumers to replace inefficient old cars and fridges as part of a post-pandemic "green" recovery.

Setting out its policy recommendations for the EU, the IEA said new policies would help ensure the European Commission's proposed 750 billion euro recovery fund boosts clean energy and avoids a sustained rebound in emissions after the pandemic, report agencies.

As the Commission aims to steer the bloc towards becoming climate neutral by 2050, the IEA said energy-saving stimulus investments should be a "prime target".

Low-carbon building renovations -

guided by stricter EU building standards - would help cut bills for Europe's 513 million energy consumers, while public schemes could encourage consumers to replace old cars and refrigerators with new, efficient ones.

The IEA said the virus-induced drop in fuel prices is an opportunity for the EU to phase out fossil fuel subsidies and reform taxes to favor low-carbon energy. Planned changes to EU state aid rules next year should enable public investments in large hydrogen and lithium-ion battery projects.

The Commission has said EU recovery spending must "do no harm" to its aim to cut net greenhouse gas emissions to zero by 2050 - down from more than 4 billion tonnes of CO₂ equivalent today.

EP



German Govt to Agree National Hydrogen Strategy

The German government is poised to agree Wednesday on a long-term strategy for increasing production and use of hydrogen as part of a plan to cut the country's greenhouse gas emissions.

While hydrogen is currently produced almost exclusively from fossil fuels, the government plans to encourage its production from excess electricity generated by renewable energy sources.

Experts say this so-called green hydrogen could help smooth out the problem of solar and wind power's fluctuating supply, and replace fossil fuels in indus-



trial processes that require high temperatures such as steel making.

The government plans to invest 9 billion euros (\$10.2 billion) to promote hydrogen production and use, including 2 billion euros that will go toward projects in developing countries.

Germany's transport minister, Andreas Scheuer, told the Funke Media group that the widespread use of technology such as hydrogen-powered engines in buses and trucks is necessary if the country wants to meet its emissions reduction targets in the transportation sector.

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দেশের উন্নয়ন অগ্রযাত্রার গর্বিত অংশীদার-

নর্থ-ওয়েস্ট পাওয়ার জেনারেশন কোম্পানি লিমিটেড (এনডব্লিউপিজিসিএল)

গণপ্রজাতন্ত্রী বাংলাদেশ সরকারের মাননীয় প্রধানমন্ত্রী শেখ হাসিনার দূরদর্শী পদক্ষেপে সরকারের বিদ্যুৎ উৎপাদন লক্ষ্যমাত্রা পূরণে এনডব্লিউপিজিসিএল-এর প্রধান নির্বাহী কর্মকর্তা প্রকৌঃ এ. এম. খোরশেদুল আলম- এর সুযোগ্য ও গতিশীল নেতৃত্বে বিদ্যুৎ কেন্দ্র নির্মাণ প্রকল্প গ্রহণ ও বাস্তবায়নে এবং বিদ্যুৎ কেন্দ্র পরিচালনা ও সংরক্ষণে অত্র কোম্পানি অনবদ্য ভূমিকা পালন করে আসছে। ফলশ্রুতিতে, 'বিদ্যুৎ ও জ্বালানি সপ্তাহ ২০১৮'-এর উদ্বোধনী অনুষ্ঠানে দ্রুত বিদ্যুৎ উৎপাদন বৃদ্ধির স্বীকৃতি স্বরূপ মাননীয় প্রধানমন্ত্রী এনডব্লিউপিজিসিএল-কে পুরস্কৃত করেন।

নর্থ-ওয়েস্ট পাওয়ার জেনারেশন কোম্পানি লিঃ দ্রুততম সময়ে শক্তিশালী ব্রান্ড ইমেজসহ দেশের নেতৃত্বশীল বিদ্যুৎ উৎপাদনকারী সংস্থা হিসেবে ইতোমধ্যে পরিচিতি লাভ করেছে।



দ্রুত বিদ্যুৎ উৎপাদন বৃদ্ধির স্বীকৃতি স্বরূপ মাননীয় প্রধানমন্ত্রী শেখ হাসিনার হাত থেকে পুরস্কার গ্রহণ করছেন কোম্পানির প্রধান নির্বাহী কর্মকর্তা

এক নজরে নর্থ-ওয়েস্ট পাওয়ার জেনারেশন কোম্পানি লিমিটেড

কোম্পানি গঠন : আগস্ট ২৮, ২০০৭

বিদ্যুৎ উৎপাদন শুরু : নভেম্বর ০৩, ২০১২

চলমান বিদ্যুৎ কেন্দ্র সমূহঃ

- সিরাজগঞ্জ ২২৫ মেঃওঃ কন্সট্রাক্ট সাইকেল পাওয়ার প্লান্ট (১ম ইউনিট)
- খুলনা ২২৫ মেঃওঃ কন্সট্রাক্ট সাইকেল পাওয়ার প্লান্ট
- ভেড়ামারা ৪১০ মেঃওঃ কন্সট্রাক্ট সাইকেল বিদ্যুৎ কেন্দ্র
- সিরাজগঞ্জ ২২৫ মেঃওঃ কন্সট্রাক্ট সাইকেল পাওয়ার প্লান্ট (২য় ইউনিট)
- সিরাজগঞ্জ ২২৫ মেঃওঃ কন্সট্রাক্ট সাইকেল বিদ্যুৎ কেন্দ্র (৩য় ইউনিট)
- সিরাজগঞ্জ ৪১৪ মেঃওঃ কন্সট্রাক্ট সাইকেল বিদ্যুৎ কেন্দ্র (৪র্থ ইউনিট) (যৌথ মালিকানা)
- মধুমতি ১০০ মেঃওঃ এইচএফও চালিত বিদ্যুৎ কেন্দ্র
- পায়রা ১৩২০ মেঃওঃ তাপ বিদ্যুৎ কেন্দ্র, ১ম ইউনিট (১ম পর্যায়)

মোট বিদ্যুৎ উৎপাদন ক্ষমতাঃ ২৪৩৫ মেঃওঃ

চলমান উন্নয়ন প্রকল্পসমূহঃ

- পায়রা ১৩২০ মেঃওঃ তাপ বিদ্যুৎ কেন্দ্র, ২য় ইউনিট (১ম পর্যায়) (যৌথ মালিকানা)
- রূপসা ৮০০ মেঃওঃ কন্সট্রাক্ট সাইকেল বিদ্যুৎ কেন্দ্র নির্মাণ প্রকল্প
- সিরাজগঞ্জ ৭.৬ মেঃওঃ গ্রীড কানেক্টেড ফটোভোল্টায়িক সোলার বিদ্যুৎ কেন্দ্র প্রকল্প
- পায়রা ১৩২০ (২ দ্ব ৬৬০) মেঃওঃ তাপ বিদ্যুৎ কেন্দ্র (২য় পর্যায়) (যৌথ মালিকানা)
- পাবনা ৬০ মেঃওঃ গ্রীড কানেক্টেড ফটোভোল্টায়িক সোলার বিদ্যুৎ কেন্দ্র প্রকল্প
- পায়রা ৩৬০০ মেঃওঃ এলএনজি টু পাওয়ার প্রকল্প (যৌথ মালিকানা)

চলমান উন্নয়ন প্রকল্পের মোট সক্ষমতাঃ ৬৪১৩.৬ মেঃওঃ

ভবিষ্যৎ প্রকল্পসমূহঃ

- সিরাজগঞ্জ ১০০ মেঃওঃ গ্রীড কানেক্টেড ফটোভোল্টায়িক সোলার বিদ্যুৎ কেন্দ্র প্রকল্প (যৌথ মালিকানা)
- পায়রা ৫০ মেঃওঃ বায়ু বিদ্যুৎ কেন্দ্র প্রকল্প (যৌথ মালিকানা)
- যমুনা ১২৫ মেঃওঃ গ্রীড কানেক্টেড ফটোভোল্টায়িক সোলার পাওয়ার প্লান্ট প্রকল্প (যৌথ মালিকানা)
- দীঘিপারা ১০০০ মেঃওঃ আন্ট্রা সুপার ট্রিটিকাল তাপ বিদ্যুৎকেন্দ্র প্রকল্প (যৌথ মালিকানা)

ভবিষ্যৎ প্রকল্পের মোট সক্ষমতাঃ ১২৭৫ মেঃওঃ

এনডব্লিউপিজিসিএল-এর যৌথমালিকানাধীন কোম্পানিসমূহঃ

ক্র. নং	যৌথ মালিকানাধীন কোম্পানির নাম	অংশীদারী প্রতিষ্ঠান	এনডব্লিউপিজিসিএল-এর মালিকানা/শেয়ার
১.	বাংলাদেশ-চায়না পাওয়ার কোম্পানি লিঃ	চায়না ন্যাশনাল মেশিনারি ইমপোর্ট এন্ড এক্সপোর্ট কর্পোরেশন (সিএমসি), চায়না	৫০%
২.	সেফকর্প নর্থ-ওয়েস্ট পাওয়ার কোম্পানি লিঃ	সেফকর্প ইউটিলিটিজ (গ্রোঃ) লিঃ, সিঙ্গাপুর	২৯%

২০২৫ সাল নাগাদ এনডব্লিউপিজিসিএল-এর
বিদ্যুৎ উৎপাদন লক্ষ্যমাত্রাঃ ১০,০০০ মেঃওঃ প্রায়



নর্থ-ওয়েস্ট পাওয়ার জেনারেশন কোম্পানি লিঃ

আইএসও ৯০০১:২০১৫, আইএসও ১৪০০১:২০১৫ আইএসও ৪৫০০১:২০১৮ সনদপ্রাপ্ত

(বাংলাদেশ বিদ্যুৎ উন্নয়ন বোর্ডের একটি প্রতিষ্ঠান)

Back Clean Energy, UN Chief Urges

United Nations chief Antonio Guterres recently urged world leaders to favor clean energy solutions as they pour money into their economies to save them from a coronavirus-induced meltdown.

Governments should exit coal, stop subsidizing other fossil fuels, and pressure polluting industries to clean up



their act in exchange for bailing them out, the UN Secretary-General told an International Energy Agency conference by video link.

"Today I would like to urge all leaders to choose the clean energy route for three vital reasons -- health, science and economics," Guterres said.

"Bailout support to sectors such as industry, aviation and shipping should be conditioned on alignment with the goals of the Paris Agreement," he said.

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Gas Boom Risks 'Perfect Storm' For Climate, Economy: Report

Global natural gas capacity under construction has doubled in a year according to new analysis that warned recently the investment boom in the world's fastest-growing fuel risks a "perfect storm" of climate chaos and stranded assets.

Capital expenditure on liquefied natural gas (LNG) facilities has surged from \$82.8 billion to \$196.1 billion over the last 12 months, according to a report by Global Energy Monitor.



Following a string of divestments from high-profile LNG funders, the report warned that at least two dozen projects were recently cancelled or are in serious financial difficulty.

"LNG was once considered a safe bet for investors," said Greg Aitken, research analyst at Global Energy Monitor.

"Not only was it considered a climate-friendly fuel, but there was substantial governmental support to make sure that these mega-projects were shepherded to completion with all the billions they needed.

"Suddenly the industry is beset with problems," Aitken said.

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Forest Harvesting in Europe Threatens Climate Goals: Study

Annual forest harvesting in 26 European countries increased nearly 50 percent during 2016-2018 compared to an average of the four previous years, a trend that could threaten the European Union's climate goals, according to a study by the European Commission.

Researchers at the Joint Research Centre in Italy analyzed 15 years of satellite data, documenting a dramatic shift in forest harvesting to meet increased demand for wood, they reported in the journal *Nature*.

Biomass was reduced by 70 percent, they found, leading to less CO₂ captured from the atmosphere and stored in trees. From 2000 through 2015, forest harvesting in Europe decreased due to concerted EU

preservation efforts.

"The sharp increase in the harvest of biomass is reducing the total forest carbon stock at EU level relative to a hypothetical continuation of previous harvest levels," lead author Guido Ceccherini said.

"At the EU level, the forests continue to remain a carbon sink, but less than before."

The European Union has pledged to reduce greenhouse gas emissions at least 40 percent by 2030. Forests represent about 10 percent of carbon capture potential.

While forest harvesting varies by country, the rise was particularly dramatic in Scandinavian countries (Sweden, Finland) and Eastern Europe (Latvia, Estonia).

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IISD Launches 'Sustainable Recovery 2020' Campaign

IISD's 'Sustainable Recovery 2020' campaign advocates for public spending that minimizes impacts on nature, accounts for climate risks, improves social cohesion, and stimulates green innovation.

The 'Sustainable Recovery 2020' website features simulations, commentaries, and blogs that highlight how to achieve a sustainable recovery.

The International Institute for Sustainable Development (IISD) has launched a website, 'Sustainable Recovery 2020,' and a corresponding campaign. In response to the economic stimulus packages launched in 2020, the cam-

campaign advocates for public spending that minimizes impacts on nature, accounts for climate risks, improves social cohesion, and stimulates green innovation.

The 'IISD Sustainable Recovery 2020 campaign' website serves as a resource for those focused on pandemic response measures. It features simulations, commentaries, and blogs that highlight how to achieve a sustainable recovery. Using the 'Sustainable Asset Valuation,' (SAVi), the campaign is working to analyze societal impacts of green stimulus packages and measures, such as stimulus finding for climate-resilient retrofits of buildings and energy efficiency.

EP

Environmentalists for Big Budget to Weather Climate Change

Civil society leaders at a recent press conference demanded allocation of at least one per cent of GDP in the national budget to weather the impacts of climate change.

Network on Climate Change in Bangladesh (NCC,B), a platform of 19 non-governmental organizations, held the press conference at Dhaka Reporters Unity (DRU).

In a written statement, read out by NCC,B Research and Advocacy Officer Md Mahbubur Rahman, recommended increasing the development budget to 10 per cent in crusading the climate change and reduction in the operational costs.

Member secretary of Unnayandhara Trust Aminur Rosul Babul, DRU President Rafiqul Islam Azad, journalist Nikhil Chandra Bhadra and Al Imran, among others, spoke on the occasion.

Their five-point demands include formation of a climate change commission comprising the prime minister and civil society people to ensure transparency and accountability of climate funds, levying of green tax on transports and air trips to create climate funds and launching of local climate fiscal framework at district levels in line with Bangladesh Climate Fiscal Framework introduced by the Ministry of Finance.

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DNV GL Approves Shell's Carbon Capture Technique

DNV GL has qualified Shell's technology for a full-scale demonstration project to remove carbon emissions at a waste-to-energy conversion plant in Oslo.

Gassnova, Norway's state agency for carbon capture and storage projects, is supporting the project, which tested Shell's CANSOLV CO₂ carbon capture technique at Fortum Oslo Varme's plant at Klemetsrud.

The long-term goal is to capture around 400,000 metric tons/yr (440,924 tons) of CO₂ at the site for subsequent injection into subsurface geological formations west of Norway.

This will help the country meet its target of reducing emissions by close to 55% by 2030, compared to 1990 levels.

The Varme plant incinerates domestic and international sorted household and indus-

UK 'Increasingly Likely' to See +40°C Temperatures



Temperatures in Britain could exceed 40 degrees Celsius every three or four years by 2100 if greenhouse gas emissions continue unabated, research published recently has found, as climate change increases the likelihood of scorching heat waves.

The modelling study by Britain's Meteorological Office found that emissions are dramatically increasing the likelihood of extremely warm days in the UK, particularly in the southeast.

Without climate change, a summer in which the mercury went above 40° Celsius (104 Fahrenheit) somewhere in the UK would be expected around once in hundreds, or even thousands of years, the researchers found.

But sweltering 40°C days have already become more likely with global warming, and are currently estimated to

occur every 100 to 300 years, they reported in the journal *Nature Communications*.

If the present high rates of greenhouse gas emissions continue, these extremes could occur every three to four years by 2100, the study concluded.

Even under a mid-range emissions scenario, they could still happen around every 15 years.

Lead author Nikolaos Christidis said the rate of change in the expected frequency of these high temperatures was "remarkable".

"Exceeding extreme temperature thresholds like the 40C in the UK would be accompanied by severe impacts — on public health, transport infrastructure," he told AFP, adding that a key motivation for the study was to help build the country's resilience to such events.

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trial waste. Excess heat is used to produce district heating and electricity.

DNV GL worked with Shell and Fortum Oslo Varme to verify application of its recommended practices; DNVGL-RP-A203 Technology Qualification and

DNVGL-RP-J201 Qualification procedures, for carbon dioxide capture technology.

These practices are said to provide a systematic approach to technology qualification in a way that ensures traceability throughout the process.

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UAE's Move to Merge Energy, Infrastructure Ministries Could Foster Sustainability: MEED

Following the news that vice-president and Prime Minister of the United Arab Emirates (UAE) and ruler of Dubai, Sheikh Mohammed bin Rashid al-Maktoum, announced a government restructuring;

Jennifer Aguinaldo, Energy & Technology Editor at MEED, part of GlobalData, comments: "This move reflects the changing nature of previously independent sectors and their growing interdependence primarily through a sharing of limited resources, be it human or fiscal capital.

"Equally important, the increased convergence of energy and the various technologies that enable the delivery of sustainable infrastructure – whether in terms of smarter buildings, roads or railways – also validates the merging of the two ministries.

"It must be noted that transport and industry account for an estimated 34% and 47%, respectively, of energy consumption in the Gulf Cooperation Council (GCC), while residences account for the third-largest share (10%). It is foreseeable that policy making and legislative functions will expand under the combined ministry to include optimizing the use of energy, water and land, among others, to facilitate federal infrastructure projects and deliver, in a more cohesive way, the country's stated sustainable development objectives.

"The new ministry could also pave the way for centralized planning in terms of UAE-wide infrastructure such as the Etihad Railway, or the enactment of one instead of seven regulations – one for each emirate – related to electric vehicles."

EP

DTEK Renewables Wins Climate Bonds Initiative's

DTEK Renewables has been awarded a 2020 Green Bond Pioneer Award by The Climate Bonds Initiative, in recognition for being the first Ukrainian company to issue green bonds.

Awarded to companies, organizations, financial institutions and governments, the Green Bond Pioneer Awards (GBPA) are the premier international recognition of best practice and innovation in green finance.

They are presented by The Climate Bonds Initiative (CBI), an

investor focused not-for-profit which is seeking to mobilize \$100 trillion in bonds to tackle climate change.

The CBI said: "The addition of a Ukrainian non-financial corporate to a growing group of entities issuing green bonds is a welcome and encouraging sign of market development and shrinking barriers to entry. Further, the Ukraine's energy mix is dominated by fossil fuels – and DTEK's placement represents a key step in a right direction in this regard."

In November 2019, DTEK Re-

IEA Report Appears to Acknowledge 2050 Net Zero May Be Beyond Us



A study into the clean energy tech innovation rate required to keep global heating under control may suggest concepts such as lithium-air could yet keep us to the mid-century ambition, but it is also starting to contemplate the temperature rise to be expected if we only achieve net-zero by 2070.

Perhaps the most sobering aspect of the technology innovation report published recently by the International Energy Agency (IEA) is how the advent of Covid-19 appears to have quietly pushed back the deadline for combating global heating.

Under the 'sustainable development scenario' outlined in today's Special Report on Clean Energy Innovation, the IEA considers the technological advancement required to reach a net-zero-carbon world by 2070, rather than the 2050 deadline outlined in so many previous publications.

newables issued its inaugural green bond at a value of EUR 325m, offering 8.50% senior notes with a term of five years. The placement was a landmark debut for the company, the region and the sector, cementing DTEK's place as a pi-

Reaching net zero in 50 years' time would give us a 66% chance of limiting the global average temperature rise to 1.8 degrees Celsius, is the chastening conclusion reached.

Enabling less-than-zero-carbon technology at scale beyond that point, however, could give us a chance of the dreamed-of 1.5 degrees Celsius ambition this century. And that is the point of the 185-page study, to consider the rate of clean energy technological innovation required to hit such goals. For example, under the sustainable development track, the IEA estimates almost 35% of the emissions savings required would have to come from technologies currently at the large prototype and demonstration stages. Around 40% would have to come from tech which has already been developed but is not yet commercially available.

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ioneer in the Ukrainian renewables market.

The transaction became the first ever single "B" green bond issued in EUR, and the first issuance by a renewable company from Central and Eastern Europe.

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Can Power from Palm Oil Waste Replace Fossil Fuels in Asia?

Eco-Business

Then came the biomass industry. Although Asia's rising coal consumption was not as controversial a topic as it is today, Singapore-headquartered company Provident Biofuels recognised in 2011 that burning biomass residue such as kernel shells could help slash emissions from coal combustion, and started buying the materials from mills in Indonesia and Malaysia to sell it to power producers across the region.

Traditionally, some of the kernel shells were used by factories themselves for their own purposes, particularly in Indonesia. Faced with an unreliable power supply, they installed boilers to combust them to generate their own electricity.

But about half of the roughly 7 million tonnes of the kernel shells coming out of Indonesian mills each year are excess and cannot be put to any use. Not only do these materials attract insects that can wreak havoc on plantations, but they also eventually pose a fire threat due to the methane they generate if left to rot.

To avoid such risks, mills used to pay companies to dispose of their kernel shells. Mixed with concrete, they have been used to pave roads and in foundations of buildings, but often they were discarded in irresponsible ways, said Douglas Tay, director at Provident Biofuels.

"There are only so many roads that you can build. If the [biomass] industry did not exist, the mills would still be dumping [PKS] in rivers, the sea or in open fields," he told Eco-Business.

Tay said the company has also had positive impacts on local communities in Indonesia and Malaysia through the jobs it provides, as it needs to hire thousands to procure PKS and transport them to the company's stockpiles where they get screened and loaded onto vessels for shipping. "We provide about 8,000 jobs, directly and indirectly through logistics partners," he said.

Other than the carbon dioxide produced during transportation, there is no additional environmental impact from burning palm kernel shells.

Ryuu Lee, manager, trading of renewable energy sources, Hanwa, Thailand

Today, companies pay the mills for the shells they supply, but the materials remain cheap. They can also easily be handled in bulk and transported while requiring minimal processing. But it is their high calorific value—they release high amounts of energy as heat when burned—and their low moisture content compared to other agricultural biomass types that make them attractive to power generation businesses.

"PKS are almost like natural biomass pellets. The costs of making them ready for combustion are almost zero. When they are dried, moisture levels go down to 20 per cent, and their calorific value is equal to that of low-grade thermal coal," explained Tay.

Climate savers?

According to Ryuu Lee, who manages the trade of renewable energy sources for Japanese trading company Hanwa in Thailand, PKS are a renewable energy source in that new fruit bunches will grow to replace those that are harvested. As this happens, oil palms remove the carbon emitted when the shells are burned.

This makes their combustion carbon neutral, with net emissions only pumped into the atmosphere during shipping, he said, adding PKS also emit less nitrogen oxide and sulfur oxide than coal when burned.

And unlike other biomass materials, PKS do not have the issue of timing. Burning PKS may release large amounts of carbon all at once, but it does not take long for new fruit bunches to grow and absorb carbon back out of the atmosphere, and oil palms are harvested up to three times a year.

Forests cut down to produce wood chips or pellets, on the other hand, can take decades to capture the same amount of greenhouse gases released. The same applies to residues from the wood and furniture industry used to make pellets, which could instead be recycled.

"Other than the carbon dioxide produced during transportation, there is no additional environmental impact from burning palm kernel shells," said Lee, whose company buys kernel shells from Provident Biofuels to sell them across the region.

Palm Kernel Shells

In Asia, PKS are burned for utility-scale power production mainly in Singapore, South Korea and Japan. Both South Korea and Japan subsidise their use for power generation.

According to Daichi Kamite, general manager and head of corporate planning at eREX, an electric power company that operates four biomass power plants in Japan, the Japanese government pays a feed-in tariff for electricity produced from PKS, which it regards as a form of renewable energy.

Bonar Silalahi, head of industrials and consumer goods, sector solutions group at UOB, a Singapore bank that has provided finance for Provident Biofuels, commented: "In [Asia], the use of palm kernel shells as an alternative to fossil fuels can help to address rising greenhouse gas emissions. In addition, the use of palm kernel shells as a biofuel can also help the industry to better manage the discarded waste material generated during the production of palm oil."

However, exactly how much carbon switching PKS with coal can save has not been worked out yet.

According to Naruhito Sugiura, forest campaigner at environmental group Friends of the Earth in Japan, it is their transport emissions which make it questionable whether kernel shells can help shrink climate impacts at all.

PKS should be burned locally to cut coal use in palm oil-producing countries instead, said Sayoko Iinuma, of the Global Environmental Forum (GEF), a Tokyo-headquartered non-profit organisation.

But most coal-burning nations already rely

on coal from beyond their borders, and often from far away places, generating transport emissions in addition to those released when coal—the world’s dirtiest fossil fuel—is combusted. South Korea sources 90 per cent of its coal from overseas, while Japan imports 99 per cent of it, with most imports coming from Australia.

While the industry has yet to finalise its emissions analysis, Lee said he could “confidently” say that carbon emissions could be slashed by at least 75 per cent if kernel shells were burned instead of coal, adding the amount of emissions savings the materials could deliver depended on where they were combusted.

The problem is that power from PKS is not cheap. At 24JPY/kilowatt-hour, the electricity price that the shells can achieve is more than double than the market price in Japan, said Kamite.

While this makes the cost of generating electricity from PKS more expensive than solar and onshore wind energy, biomass comes with a significant advantage, explained Lee. “Solar and wind energy are intermittent renewable energy sources. You cannot control them, so they are difficult to handle. But electricity from PKS is available 24/7, and can be turned on and off at will,” he said.

Energy experts say battery storage, pumped hydropower, cross-border energy sharing and emerging technologies such as green hydrogen will eventually solve the issue of fluctuating clean energy output, but most countries today still grapple with the challenge.

Will PKS be able to replace coal completely in Asia? Probably not, said Tay. Japan alone burns more than 100 million tonnes of coal a year, whereas kernel shells currently exported from Malaysia and Indonesia only amount to about 4 million tonnes. Ultimately, they can only reduce the amount of coal that is burned by a few per cent.

Not everyone agrees PKS should be burned for power. Grant Rosoman, a global forests solutions senior adviser with Greenpeace International, said: “The burning of any biomaterial is the lowest value use and releases the stored carbon back into the atmosphere.”

“Rather than burning them for electricity, other higher-value uses of PKS and any

compounds they contain should be prioritised and explored, especially with rapid advances and innovations in bioeconomy technology,” he told Eco-Business.

Studies have shown the energy value of PKS significantly increases if they are converted to bioenergy through thermochemical processes, where organic materials chemically decompose at elevated temperatures, rather than combusted.

Rosoman said the palm oil sector should also consider returning PKS to the soil to increase carbon and substitute chemical fertiliser instead of shipping them over vast distances for power production. “The burning of PKS should be an absolute last resort,” he noted.

Meanwhile, there are concerns in South Korea, where biomass is heavily subsidised, the biomass industry could hurt efforts to adopt solar and wind technologies. A recent report by Korean environmental advocacy group Solutions for our Climate warns if large quantities of renewable energy certificates are issued for biomass in the country, it could negatively affect the competitiveness of the clean energy market, discouraging utilities from investing in renewables.

Sustainability Efforts

It is unsurprising that an industry which buys waste from a sector associated with various environmental and social ills has come under scrutiny. Tay said clients are increasingly demanding that PKS be sourced responsibly, with some calling for certification by a third party.

“Our customers require us to get better information from the mills, so we will try to provide them with that information. But it will take time,” he told Eco-Business.

Provident Biofuels, which currently exports about 1 million tons of PKS a year, started its traceability efforts earlier this year. So far, the company has visited three mills with independent auditors and eventually wants to ensure the mills it sources from treat their workers fairly, comply with environmental regulations and are not built on stolen land. The firm will also verify an environmental impact assessment was conducted, and that the mills have a proper license to operate. However, it will only be able to trace the materials back to where it procures them,

and not beyond. Where the mill procures the fresh fruit bunches from is beyond the company’s control, said Tay.

He explained at 0.3 per cent, the economic value of PKS made up only a sliver of the mill’s total income, making it difficult for the company to influence how and where fruit bunches are sourced. “We are way too small to have an impact. However, it is clear that the industry could benefit from greater supply chain transparency,” he said.

Environmentalists are worried. Soo-Jin Kim, senior researcher at Solutions for our Climate, said any analysis of carbon emission reductions that PKS could deliver should take emissions from land use changes from carbon-rich rainforest or peat to monoculture tree plantations into account.

Tay, however, pointed out the shells’ low economic value would be unlikely to incentivise farmers to convert more forests. “Nobody would grow additional oil palms for such a small increase in profit as this would be akin to buying an office building to be able to collect its rubbish,” he said.

But as demand for the materials skyrockets, environmentalists believe the industry could eventually eat into forests. Sugiura of Friends of the Earth said: “If the value of PKS increases, it might drive plantation development.”

Kamite said the quantity of PKS Japan imported had increased significantly over the years, from 540,000 tonnes in 2015 to 1.8 million tonnes in 2018. Lee shared demand for the shells has been growing so fast that Hanwa is looking as far as Nigeria to procure them.

Greenpeace’s Rosoman said any production, trade and processing of kernel shells must only be from transparent supply chains with verified NDPE—no deforestation, no peatland, no exploitation—sources.

As the sector expands, its sustainability credentials will improve in step, Tay said.

“We’re trying to clean up the palm oil supply chain. We provide the rural economy with jobs and our business principles have improved governance and compliance in the industry. Without us, there would be more waste and more coal burning. As we grow, so the sector’s environmental and social performance grows too,” he said.

EP

'Captive Power Still Financially Attractive'

It may not be possible to get rid of gas-based captive power even after modernizing and upgrading the transmission grid and distribution networks. Even after taking into account the present enhanced price of natural gas, the generation cost of captive power is lower by at least Tk 2.0 per unit than the grid power. Unless the price of grid power becomes competitive to gas-based captive power, the industrial demand for grid power cannot be increased. Bangladesh Energy Regulatory Commission (BERC) has to initiate the process for this.

Md. Kausar Ameer Ali, Managing Director of Dhaka Electric Supply Company Limited (DESCO) said this in an exclusive interview with Energy & Power Editor **Mollah Amzad Hossain**.

The COVID-19 pandemic is still there in full spate. The utility service providers like the rest of the world kept going during this unusual period. What are the experiences of DESCO? What is new you have learnt during this pandemic?

Please note that the capacity of the power distribution utilities has remarkably advanced. It has been possible to meet the increased demand for the consumers as the generation capacity has also significantly increased. Preparing and sending bills after taking meter readings during March and April was really challenging. DESCO usually send bills to its consumers in four time cycles every month. Following that we could send bills in three time cycles in March. In April we could not take any meter reading. But in May, it was possible sending bills to all taking 100% meter reading. It was possible amending the bills of 1% users having issues.

There is no better option than compre-

hensive digitization of power distribution system is the most important lesson learnt during the pandemic. Like all other sectors, billing methods for power needs complete overhauling. We had actually planned for introducing Advance Metering Infrastructure (AMI). The pandemic in fact taught us to expedite that process.

But we must mention that our appropriate strategy enabled us to continue seamless services to the consumers during the pandemic.

Consumers have numerable complaints about electricity bills for the months of March, April and May 2020. How many complaints DESCO received? Was it possible to address all?

I have already mentioned how we managed taking meter reading. While preparing bills for the month of April, we observed that the power use was 20% higher than that of April 2019. Hence, the bills were charged 20% higher. About 99% of the users could be served with right bills. In our investigation, it appeared that issues were created for industries which closed shutters or residences from where occupants left temporarily. We amended those bills which appeared wrong in our assessment. Besides, we talked with consumers on line and sending our officials who took remedial actions as soon as we received the complaints. The consumers expressed deep satisfaction for our prompt customer services despite few complaints about the bills.

You have provided various digital options for the payment of bills. Besides, what percentage of your consumers are using prepaid meters? How long will it take to bring 100% consumers (excepting, of course, the industrial consumers)



Md. Kausar Ameer Ali

DESCO is implementing a plan for bringing all consumers connected under LT i.e. 0.4 kv under prepaid metering. And HT meaning industrial consumers are being brought under Automatic Meter Reading (AMR) system.

under prepaid metering system?

DESCO is implementing a plan for bringing all consumers connected under LT i.e. 0.4 kv under prepaid metering. And HT meaning industrial consumers are being brought under Automatic Meter Reading (AMR) system. Three out of 10 lakhs of domestic consumers of DESCO are already using prepaid meters. Another 4,000 are being provided with meters soon. We are expecting that by 2022, all domestic consumers can be brought under prepaid metering with provisions for digital payments.

But it is worth mentioning that DESCO have abandoned plans of manufacturing own prepaid meters for continued evolution of technology of prepaid meters

It has not been possible for ensuring uninterrupted quality supply of power to all consumers so far. But the government has a plan for achieving this within few years. What kind of plan DESCO has for this? How long will it take to achieve?

Please bear in mind that for achieving this target, upgrading of infrastructure and smooth communication with consumers need facilitating. There was no shortage in our capacity for catering to demand up to June 2020 which we achieved through upgrading some substations. DESCO had two 132/33 KV substations. In addition to upgrading those two, we have added 5 more new substations. By 2025, all 132 KV lines would be laid underground. Works for taking all 33 KV overhead lines underground is ongoing for the last two years. About 100 KM more needs to be laid. We are expecting to complete this by end 2021. Already 400 KM 33 KV lines have been laid so far.

For supplying uninterrupted quality power supply to users, 33/11 KV substations are crucial. The existing feeders are too long. Consequently, initiative has been taken to split these into 425 smaller feeders. Again, each of the substations will be connected with two feeders. This will create redundancy to the extent that if one feeder malfunction, the other would automatically take care. On the other hand, engineers and technicians are being trained on how substations can be repaired without suspending power supply through feeders. For ensuring uninterrupted quality power supply of Baridhara, Gulshan and Banani, we have initiated actions for taking the entire system underground. The works will be completed by 2023. But at least 15 years will be required for taking the entire DESCO system underground. But within 2 years, quality uninterrupted supply to industrial areas and within 3 years to all domestic and commercial users can be ensured.

Well-coordinated development of generation, transmission and distribution is essential for achieving power system security of supply. Bangladesh could

never do this in a coordinated manner. You have worked in all segments of power value chain. From your vast experience, will you mention why it did not happen? What should be done for achieving this?

In my opinion, lack of finance and absence of appropriate planning are the

In my opinion, lack of finance and absence of appropriate planning are the reasons for this not happening. Proper attentions were not given to transmission and distribution when all the impetus were directed towards generation. Repairs were only carried out under compulsion during forced outages. Demand side management was the main focus of power system management. Bangladesh now comfortable surplus in generation though there exist constraints in transmission and distribution. It has now been possible to launch necessary works in transmission and distribution for injection of additional investment. The scattered locations of industries in the past also created problems for power transmission and distribution.

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Bangladesh now comfortable surplus in generation though there exist constraints in transmission and distribution. It has now been possible to launch necessary works in transmission and distribution for injection of additional investment. The scattered locations of industries in the past also created problems for power transmission and distribution. The decision for bringing all new cluster of industries in special economic zones would facilitate upgrading transmission and distribution infrastructure in planned manners.

The government had a plan to take out industrial sector in phases from reliance on off-grid captive power generation. But this could not be started even. Rather industries in new areas are requesting for gas for captive power generation. The reason for this is lesser cost of captive power than grid power. Do you think that it will be possible to take our industries back to grid power if quality uninterrupted power supply to them can be ensured?

We have to work on win-win pricing formula for attracting industries to grid power. We cannot bring industries back to grid power from captive generation until price is made comparable and competitive. The unit cost of grid power is Tk 7.00. The cost of the same for captive even taking the present gas price is Tk 5.00. It will matter little if the price adjustment is not made even after ensuring quality uninterrupted grid power supply to industries.

For some special nature 24/7 industries, captive power generation would continue to remain essential. They will need captive power as stand by source in addition to grid supply. Japanese investors at Araihaaz have been given facilities for captive power generation. But BPDB will set up the station and operate. But for all other new industries, grid power supply should not be compromised. Otherwise, all investments of distribution utilities for ensuring quality uninterrupted power supply would run the risks of not getting the return.

There are talks of stalling all baseload power plants in the pipeline on excuse of surplus power generation capacity

now. What is your opinion?

Such suggestions are not right, I believe. The present spinning reserve is little over 30%. But that cannot be a justifiable reason for stalling all baseload power plants in the pipeline. 40% of our grid connected power generation is now liquid fuel based. These plants can be gradually retired with the phased commissioning of the baseload power plants. That will assist in reducing the cost of generation. We have observed that the cost of generation reduced during the pandemic even after paying capacity charges to the idle liquid fuel based power plants as the demand depleted. This is encouraging.

Some experts are suggesting for abandoning some large imported coal based power projects under implementation and going for LNG instead. What are your views?

Please note that oil price after crashing to all time low for shutting down economic activities for the pandemic impacts have started peaking again. Price of LNG also depleted. But I do not believe price of gas and LNG would remain at the present level for a long time. But coal still has huge reserve world over though many countries have cut down its use for environmental concerns. Coal price in the global market would remain stable for at least 100 years. But there is no such guarantee for oil and gas.

When Bangladesh planned furnace oil contingency power plants, the price was Tk 26 per liter but by the time the plant came into operation, the price grew to Tk 50.

The power distribution utilities have a major role in the implementation of the government Road Map for ensuring efficient use of energy by the domestic, commercial and industrial consumers. What is DESCO doing for achieving this? What are your plans for achieving it?

DESCO has not yet started working for ensuring efficient use of energy. But this is in our vision. For this, the government has to do many changes in its existing policy including introduction of star rat-

ing of appliances. Before providing any new connection, there must be thorough checking whether the consumer ensured for efficient use of energy. We will start working for encouraging consumers for efficient energy use under consumer relation management program in future. Gradually, we will develop this into a precondition for getting new connection.

Power distribution utilities have a significant role in expanding contribution of renewable energy in the fuel mix. The example is India. What is the plan of DESCO for expanding renewable energy portfolio?

DESCO is pondering how through innovations and introducing rooftop solar power, utilization for industries to enhance the contribution of renewable energy.

DESCO has started setting up Supervi-

sory Control and Data Acquisition (SCADA) system for central monitoring of operation and customer services. When it will come into operation? What additional benefits consumers would get from it?

The installation works of SCADA will be completed by 2021. It will be possible managing the power system digitally when it comes into operation. It will be possible ensuring better customer services. On the other hand, DESCO has started working for GIS mapping of its entire distribution system. When this work will complete, it will be possible taking instant decision on customers' application for new connection. This will be another forward step for advancing the customer services for DESCO.

EP

Report

MAN Completes Power Plant Expansion in Faroe Islands

MAN Energy Solutions has completed the expansion of the 'Sund' power plant near Tórshavn, the Faroese capital, and successfully handed the plant over to local energy supplier, Elfelagi SEV.

With this, four MAN 9L51/60 engines have been successfully integrated into the islands' hybrid energy-system and will complement the existing power station with an additional 37 MW power generation, as well as district heating capacity.

To supply electricity to the almost 52,000 islanders, SEV relies on an intelligent combination of renewable energy sources, storage solutions and power-plant engines to ensure grid stability.

Danish power-plant specialist, Burmeister & Wain Scandinavian Contractor A/S (BWSC), was primarily responsible for construction of the Sund power plant, which is the largest of the Faroe's three engine-driven power plants.



Besides these, SEV also operates other, hydroelectric power plants as well as several wind farms and energy-storage solutions. In this way, all available resources of the islands can be optimally used for power supply.

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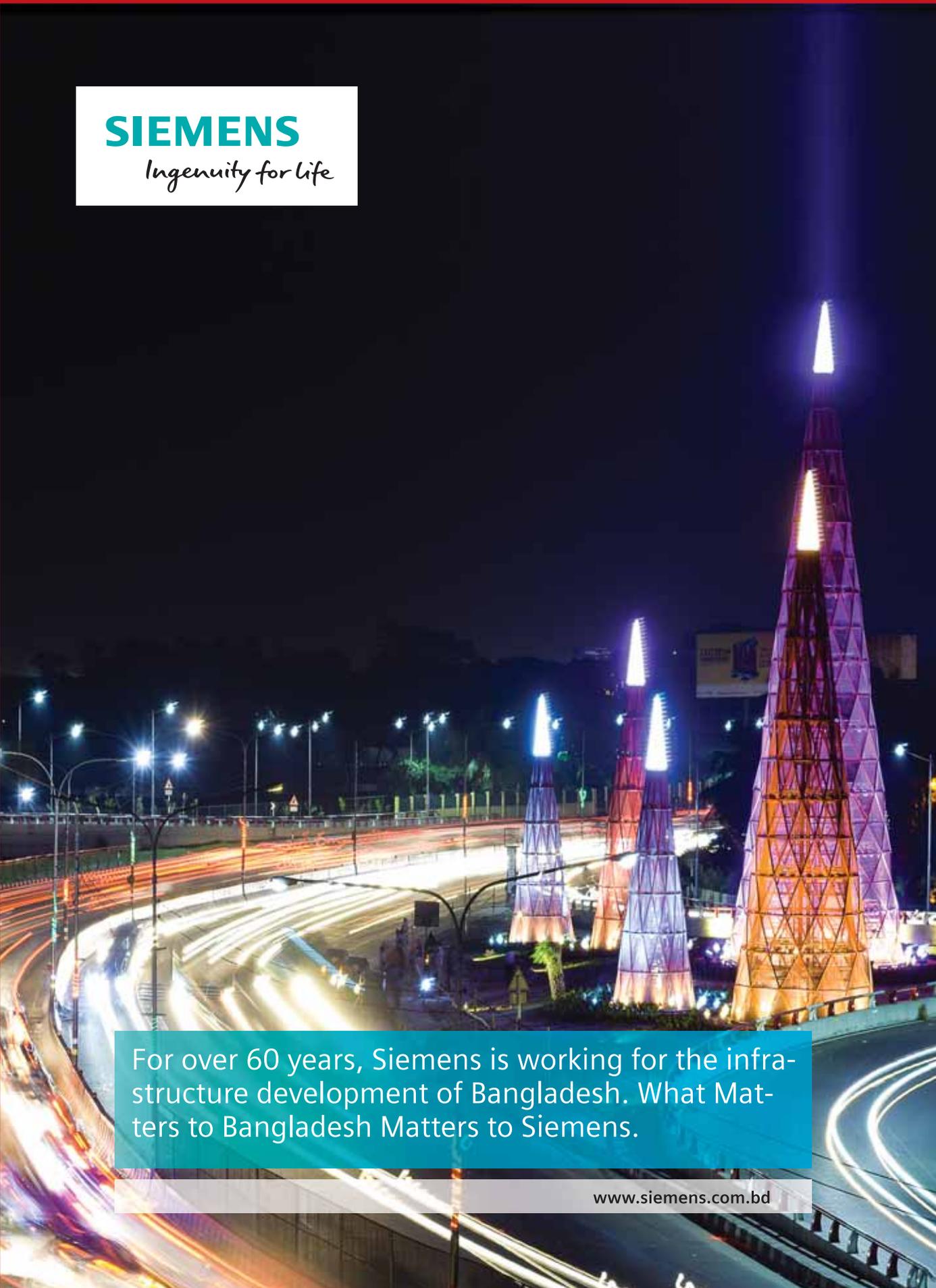
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