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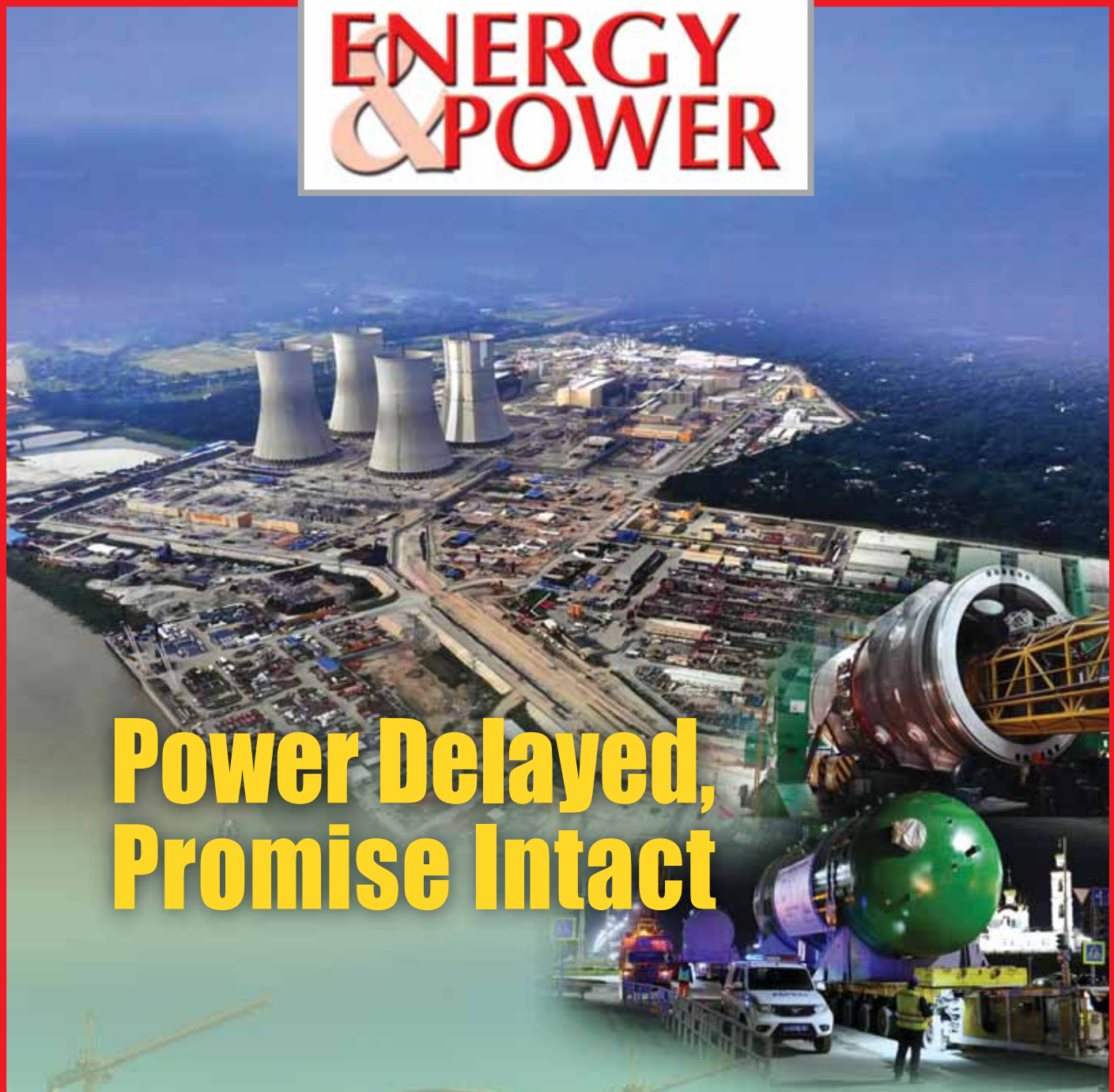
July 16, 2025

ENERGY & POWER



Power Delayed, Promise Intact

- US Tariffs: Let's Hope For The Best
- Energy Crisis Deepens Investment Woes In Bangladesh
- Rooppur In The Dark: Why Transparency Matters In Nuclear Power

JERA MEGHNAGHAT POWER LIMITED

718MW CCPP at Meghnaghat, Narayanganj – largest gas based IPP in Bangladesh

About JERA

Japan's largest power generation company, producing about 30% of the Japan's electricity

Energy for a New Era

Upstream Development Fuel Procurement

- Upstream Investment **6 Projects**
- LNG Procurement from **15 Countries**
- LNG Fleet Carriers **22 carriers**

LNG Receiving & Storage Terminals

- LNG Tank Capacity in Japan **6.65 million kL**
- Equivalent to **Approx. 30%** of LNG tank capacity in Japan
- LNG Receiving Terminals in Japan **11 terminals**

Domestic Power Generation

- Thermal Power Station **26 stations**
- Power Generation Capacity **Approx. 61GW** Largest in Japan
- Power Generation Output **Approx. 235 TWh**
  Equivalent to approx. 33% of power generation in Japan

Overseas Power Generation

- Number of projects **In more than 10 Countries**
  Approx. 30 Projects
- Power Generation Capacity **Approx. 13.7GW**
  (Output Corresponding to Equity)
- Renewables Development Capacity **Approx. 3.5 GW**
  (Included in the Power Generation Capacity)

Mission
To provide cutting edge solutions to the world's energy issues

2035 Vision
Clean energy platform of renewables and low greenhouse gas thermal power

Goal: Zero CO_2 Emissions 2050

PRODUCT NOTE

ABB LV Titanium Variable Speed Motor

The easiest way to realize benefits of variable speed operations

The new platform of ABB's IEC low-voltage variable speed motors go beyond traditional setups with a fully integrated motor and built-in speed control. This all-in-one solution delivers IE5 efficiency, consistent performance in demanding applications, and a compact design for easy installation and space savings.

LV Titanium VSMs are engineered as fully integrated solutions

With a built-in drive, VSMs can be configured to deliver the most favorable operational profile for both equipment and processes. They allow the operating speed to ramp up and down smoothly, minimizing mechanical stress, reducing starting currents, and extending equipment lifespan. Upgrading from DOL connected fixed speed motors to drive controlled variable speed operation can produce major energy savings and other benefits – and LV Titanium VSMs make this transition very simple.

Compact design

LV Titanium Variable Speed motors offer very high power density, which means they are more compact and lighter in weight than induction motors with the same power level. Thanks to their forced air-cooling fan, LV Titanium can operate over a wide speed range and full torque down to low speeds.

Plug-and-Play convenience

Plug-and-play functionality means there is no need for commissioning. Variable speed motors consist of a fully integrated motor and drive that delivers fast and easy installation. From the widely used Modbus communications protocol through digital and analog connections to control panel options, LV Titaniums are ready for the age of connectivity.

Global support you can count on

As a leading manufacturer ABB has the expertise and resources to design fully integrated solutions that deliver both great reliability and robustness. ABB ensures to build solutions to match customer-specific needs and applications, with a high customization offering.

Key segments and applications

LV Titanium is suitable for a variety of applications, including pumps, fans, and compressors used in segments such as food and beverage, and water and wastewater.

Technical information - LV Titanium	
Output	1.5 - 30 kW
Motor type	Permanent magnet (PM)
Shaft heights	71 - 160*
Efficiency class	IE5 and IES 5
Voltage/frequency	380 - 480 V & 50/60 Hz
Application	Pumps, compressors, fans and more
Frame material	Cast iron
Cooling	TEBC, IC416
Ambient condition	-20°C - +50°C
Protection	IP55 as standard
Communication and ports	Modbus RTU, 4 DI, 1DO, 2AI, 1 RO, +10V & +24V supply

*Will be released in phases.

TAS group

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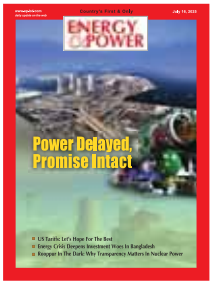
37

Originally, the generation from the first unit of Rooppur Nuclear Power Plant was slated for 2023, but that deadline came and went. If it doesn't begin operation in 2026, multi-dimensional pressures will only worsen. Bangladesh will miss out on the benefits of clean, carbon-free energy. Once operational, Rooppur will not only power homes, but it will also power national pride. ...Professor Dr. Md. Shafiqul Islam tells EP



ENERGY & POWER

EDITORIAL

The Rooppur Nuclear Power Plant was supposed to mark a new era for Bangladesh—an ambitious leap into the world of nuclear energy. Years later, the dream is still alive, but the journey has been bumpy. Sanctions on Russia, delayed payments, and equipment bottlenecks have slowed things down. Now, the first unit might finally load fuel in December 2025 if international inspectors give the go-ahead. What's remarkable is that despite the delays, the cost hasn't spiraled out of control, a rare achievement in big projects like this. But the real cost may be something harder to measure: time lost, public confidence shaken, and opportunities missed. One of Rooppur's biggest weaknesses has been the lack of clear communication. The public has been left in the dark too often, with vague updates and official silence. That's troubling for a project that deals with nuclear fuel and national security. Leadership is the other missing piece. After political changes pushed Rooppur out of the spotlight, the project seems to have lost its urgency. But nuclear power isn't something you can put on pause. It demands steady hands, technical expertise, and unwavering commitment.

Rooppur is more than a plant—it's a promise. A promise of cleaner, more reliable energy. A promise of Bangladesh stepping confidently into the future. That promise is still within reach, but only if the people in charge bring transparency, professionalism, and purpose back to the table. Now is the time to deliver—not just electricity, but trust.

highlights

COVER

17

9

Despite presenting itself as reform-oriented, the budget for FY2025–26 under-delivers in a sector facing acute structural challenges. It offers no credible plan to address the gas shortage, falls short on renewable energy implementation, and neglects the energy needs of the private sector—the engine of Bangladesh's exports, employment, and economic growth. ... More in Analysis

The start of operations at the Rooppur Nuclear Power Plant, Bangladesh's most ambitious and costly infrastructure project to date, may be pushed back once again. Still, hopes are high that fuel loading for the first 1,200 MW unit could begin by December this year, pending a final round of inspections and sign-off by a team of global and local experts.

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Green page

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.


Govt Targets 3,000MW Solar Power from Rooftops by December

Bangladesh Slashes Import Duty on Solar Inverters

Contents

Contents

Fugro to Support Deepwater Gas Project for Eni in Eastern Mediterranean

Fugro has been awarded a contract to run a comprehensive site characterization program for an Eni operated development of a deepwater gas project in the Eastern Mediterranean.

This award marks an important survey campaign for Fugro in the region, supporting the ambitions of the Republic of Cyprus to become a regional gas producing and exporting country and contribute to enhanced energy security and affordability for Europe.

The project will draw on Fugro's comprehensive offshore and deepwater geophysical and geotechnical expertise, as well as the company's environmental services.

The award reflects Fugro's deep understanding of the region's surface and subsurface characteristics and its long-standing relationship with the client.

Geo-data acquisition is scheduled to commence in the third quarter of 2025.

Turkey Raises Gas Prices for Industry by 7.9%

Natural gas prices in Turkey will increase from July 2, 2025 by 24.6% for households and by 7.86% for industrial consumers. This was announced by the state-owned company BOTAŞ on its official website.

The changes in tariffs are explained by the need to achieve budgetary goals.

As stated in the company's statement, the adjustment applies to wholesale natural gas prices, which directly affects the final prices for different categories of consumers.

Economist and former chief economist of the Central Bank of Turkey Hakan Kara emphasized that since March 2024, when the interest rate was raised to 50%, gas prices have already risen by almost 150%. In his opinion, such growth contradicts the declared policy of curbing inflation.

The price increase is causing concern amid already high energy costs, which are putting pressure on both businesses and consumers. This decision is expected to have an impact on the overall inflation rate in the country and increase financial pressure on households during the summer.

UAE Offshore Contractor Orders Two Deepwater WROVs

Forum Energy Technologies will supply two work class ROVs (WROVs) to UAE-based contractor CCC (Underwater Engineering).

The FET Perry XLX-C 3,000-m systems will be used for construction, drill support, pipeline and platform inspection, survey, salvage and cleaning services.

Forum Energy Technologies (FET) will supply two work class ROVs to UAE-based contractor CCC.

The FET Perry XLX-C 3,000-m systems, which will be manufactured at FET's facility in Kirkbymoorside, northern England, will be used for subsea construction, drill support, pipeline and platform inspection, survey, salvage and cleaning tasks. The first is due to be delivered in November followed by the second next June.

Tavis Letherby, CCC (UE) ROV/survey manager, said the company ordered the WROVs to suit the host vessel's maximum working depth capability of 3,000 m. He also said the purchase of the XLX-C 200-HP systems will complement the DPIII Wadad Aletheia dive support and construction vessel, ensuring its full potential for subsea operations.

Santos Secures New LNG Supply Contract

Under the agreement, Santos will supply roughly 0.5 million tonnes of LNG per year for two years from 2026.

"This contract reinforces our ability to leverage our flexible LNG portfolio to achieve great outcomes for Santos and our customers," Santos CEO Kevin Gallagher said.

"It further complements recent mid-and long-term LNG sales and purchase agreements, underscoring Santos' robust LNG portfolio and strong customer relationships in the region.

"We continue to see very strong demand in Asia for high heating value LNG from projects such as Barossa and PNG LNG, as well as for reliable regional supply.

"Santos remains committed to supporting the energy security and emissions reduction strategies of our valued customers across Asia."

Govt to Procure 1 Cargo LNG, 30,000 MTs Fertilizer

The government recently approved separate proposals for procuring some one cargo LNG and 30,000 metric tons of fertilizer to meet the growing demands for the country.

The approvals came from the 26th meeting of the Advisers Council Committee on Government Purchase held at Bangladesh Secretariat with Finance Adviser Dr Salehuddin Ahmed in the chair.

Following a proposal from the Energy and Mineral Resources Division, Petrobangla would procure one cargo LNG from the spot market through following international quotation method from Vitol Asia Pte Limited Singapore with around Taka 531.56 crore with per MMBtu LNG costing $12.62.

Titas Gas to Convert Tk 282.74cr Deposit into Preference Shares for Govt

Titas Gas has decided to convert a deposit of over Tk 282.74 crore into non-cumulative preference shares in favor of the government.

According to a recent disclosure on the Dhaka Stock Exchange (DSE) website, the company's board approved the conversion of Tk 282.74 crore into 28.27 crore non-cumulative preference shares, each with a face value and issue price of Tk 10.

The shares will be issued in favor of the Finance Division under the Ministry of Finance.

The move comes at a time when Titas Gas continues to suffer losses. The company reported a loss of Tk 236.07 crore in the January–March quarter of 2025, widening from a Tk 212.04 crore loss in the same quarter of the previous year.

As of May 31, 2025, the government held a 75 percent stake in the company, while institutional investors owned 14.89 percent.

Foreign investors held 0.03 percent and the general public 10.08 percent, according to DSE data.

Sayedul Alam Becomes New MD & CEO of Summit LNG Terminal

Summit has appointed Md Sayedul Alam as the new Managing Director and Chief Executive Officer (CEO) of Summit LNG Terminal Co. (Pvt.) Ltd. ("SLNG").

SLNG is Bangladesh's second Floating Storage and Regasification Unit (FSRU), with a capacity to regasify 500 million standard cubic feet per day (mmcfd) and store 138,000 cubic meters of LNG.

It is a joint venture between Summit and Mitsubishi Corporation, with lead financing from Sumitomo Mitsui Banking Corporation (SMBC). SLNG sits within Summit's wider portfolio, supported by its international partners, including JERA. SLNG operates under a long-term vessel support services agreement with PSA Marine, Singapore.

Since 2018, Mr. Alam has been instrumental in the success of the SLNG project. As Project Director, he led the development and commissioning of the offshore terminal in Moheshkhali, Cox's Bazar, working alongside engineering and marine partners including Geocean Entrepose, MacGregor AS, and PSA Marine.

The terminal connects to the national grid through a six-kilometer subsea pipeline. Prior to this appointment, Mr. Alam served as the Terminal Manager, ensuring SLNG's exceptional operational availability and reliability.

With over three decades of experience in the maritime and energy sectors, Mr. Alam brings specialized expertise in offshore and onshore LNG and LPG terminal development.

He has held senior roles with MOL Tankship Management Asia (Singapore), Ocean Tankers (Singapore), and K Line (Japan), gaining broad international exposure.

Father, Son Die from Electrocution

A man and his son died from electrocution while retting jute in a waterbody in Chandpur Sadar recently.

The deceased are Abdur Rob Tapadar, 60, of Kaddipachgaon area and his son Sayem Tapadar, 23.

Shah Alam, a relative, said Rob got electrocuted after coming into contact with a live wire that had fallen into the water. Sayem also got electrocuted as he tried to save him. They were declared dead at Chandpur Sadar Hospital, said OC Bahar Mia.

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Chinese National Killed in Barapukuria Coal Mine Accident

A Chinese national lost his life recently after being crushed by a hydraulic jack deep inside the Barapukuria Coal Mine in Dinajpur.

The deceased was identified as Wang Jiang Gou, a shift manager in the facility.

Deputy General Manager (DGM-Mine Operations) of the industry Khan Zafar Siddique said the machinery was being transferred to another phase on completion of coal extraction from phase-1305.

Jiang Gou was accidentally crushed under the jack deep inside the mine, leaving him critically injured, Zafar said.

He was rushed to Rangpur Medical College Hospital where doctors declared him dead, the DGM said.

Sub-inspector of Barapukuria Police Outpost Mintu Chandra Roy said Chinese authorities will decide where the deceased will be cremated.

Meeting on PPPA's Oversight Role in Energy Sector

Chief Executive Officer of PPPA Muhammad Rafiqul Islam and ADB Consultant Sultana Afroz held a meeting at the Public Private Partnership Authority (PPPA) office in Dhaka recently.

A strategic meeting under the 'Dhaka Power System Expansion and Strengthening Project' and 'PPP Capacity Building on Oversight and Gender Mainstreaming' was held at the Public Private Partnership Authority (PPPA) office in Dhaka, says a press release.

The meeting was held between Chief Executive Officer of PPPA Muhammad Rafiqul Islam (Secretary) and Sultana Afroz, Consultant, ADB.

Mashiur Rahman, Associate Project Officer (Energy), ADB, and DESCO Chief Engineer Jyotish Chandra Roy and Sub-Divisional Engineer Md Ali Ahsan were present at the meeting.

The ADB loan review mission focused on strengthening institutional capacity, ensuring effective PPP oversight and promoting gender-responsive project implementation.

Reaz Uddin Appointed as MD & CEO of Summit Meghnaghat and Meghnaghat II Power Companies

Summit Group has appointed Md Reaz Uddin as the Managing Director and Chief Executive Officer (CEO) of Summit Meghnaghat I Power Company Limited (337 MW Combined Cycle Power Plant) and Summit Meghnaghat II Power Company Limited (583 MW Combined Cycle Power Plant).

Summit Meghnaghat I is a joint venture between Taiyo Life Insurance (Japan), JERA (Japan) and Summit, while Summit Meghnaghat II is a joint venture between GE (USA), JERA (Japan) and Summit.

Mr. Reaz Uddin has been a valued member of the Summit since 2011. Prior to this appointment, he served as the Chief Executive Officer (CEO) of Summit Meghnaghat II Power Company Ltd., and as the Chief Operating Officer (COO) of both Summit Meghnaghat I Power Company Ltd. and Summit Bibiyana Power Company Ltd., says a press release.

He brings over 32 years of extensive experience in power generation, having led high-level negotiations, executed large-scale infrastructure projects, and managed plant operations and maintenance (O&M) teams.

Throughout his career, Mr. Uddin has played a key role in the development, financing, construction, and operation of power plants totaling over 2,000 MW, and has contributed to bring foreign project financings exceeding USD 1.1 billion into Bangladesh.

BERC Reduces LPG, Auto Gas Prices for July

The Bangladesh Energy Regulatory Commission (BERC) has reduced the price of Liquefied Petroleum Gas (LPG) at the consumer level.

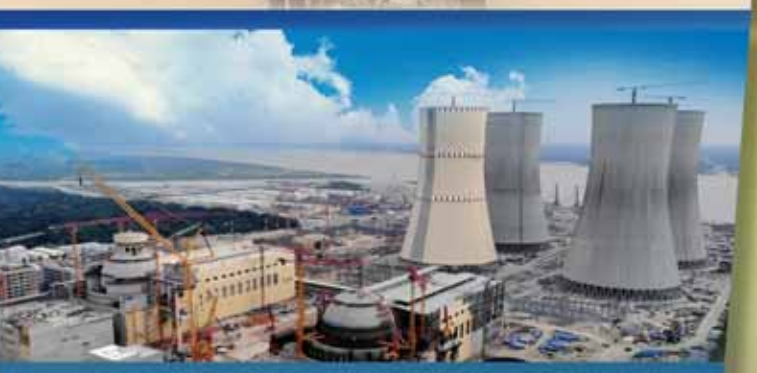
BERC Chairman Jalal Ahmed stated that for the month of July, the price of a 12 kg LPG cylinder has been set at Tk 1,364, a decrease of Tk 39 from its previous price of Tk 1,403.

This adjustment follows the last price revision on June 2, when the 12 kg cylinder price was reduced by Tk 28 to Tk 1,403. BERC also reduced the price of auto gas. For July, the consumer-level price of auto gas, including VAT, has been set at Tk 62.46 per liter, a reduction of Tk 1.84.

The previous auto gas price adjustment was also made on June 2, when it was reduced by Tk 1.27 to Tk 64.30 per liter, including VAT.

Power Delayed, Promise Intact

Mollah Amzad Hossain



The Rooppur Nuclear Power Plant, Bangladesh's most ambitious infrastructure project, is still facing delays, slowed by sanctions on Russia, blocked payments, and equipment delivery setbacks. Hopes now rest on fuel loading beginning in December 2025, if the IAEA gives its approval. Despite lacking global oversight, the project has managed to avoid cost overruns. But without clear communication and strong leadership, progress has stalled. Even so, many still believe Rooppur can help power a more secure and self-reliant energy future for Bangladesh.

Summit Power International is transforming Bangladesh's infrastructure with innovative solutions across sectors. Backed by global partnerships and foreign investments, we set new standards in development. At Summit, we empower communities and build a stronger, more prosperous future.

Empowering Communities
Sustainable Progress
Innovation

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The long-anticipated start of operations at the Rooppur Nuclear Power Plant (RNPP), Bangladesh's most ambitious and costly infrastructure project to date, may be pushed back once again. Still, hopes are high that fuel loading for the first 1,200 MW unit could begin by December this year, pending a final round of inspections and sign-off by a team of global and local experts. Even if that milestone is reached, it will take at least another 12 months before the unit is provisionally handed over and commercial operations can begin. Full synchronization and production at designed capacity might not happen until the end 2026. In the meantime, preparations for completion of construction and installation of equipment and accessories in the second unit are expected to move forward.

Across the globe, 35 countries have already entered the nuclear power club. Bangladesh and Turkey are now in a quiet race to become the 36th. Turkey, using the same VVER-1200 reactor technology, is building a 2,400 MW plant and also has its sights set on beginning test runs this December.

According to officials at the contractor and the Nuclear Power Generation Company Bangladesh Limited (NPGCBL), while groundwork for Rooppur began back in 2011, actual construction didn't get underway until 2017. The second unit followed about nine months later. Now, the first 1,200 MW unit is in its final stretch, with testing and inspection activities in full swing. Construction on the second unit is also moving ahead steadily.

Industry insiders emphasize that the project has remained under strict international oversight from day one, in keeping with global protocols for the peaceful use of nuclear technology. Both the International Atomic Energy Agency (IAEA) and Bangladesh's own Atomic Energy Regulatory Authority are supervising progress. As part of this tightly controlled process, the IAEA must grant final clearance before any fuel can be loaded into the reactor.

According to the Bangladesh Atomic Energy Commission (BAEC), a 25-member inspection team—comprising international and Bangladeshi experts—is scheduled to arrive in August. Over two to three weeks, they'll conduct a detailed review of the unit's infrastructure, nuclear and environmental safeguards, transmission setup, and safety protocols, both technical and operational. After their mission concludes, the team will submit a final report. If all boxes are ticked, a green light will be given for fuel loading to begin in the first 1,200 MW unit.

Nuclear Fuel Supply

Under the main agreement, the contractor will supply fuel for the first three years of operation. Russia has committed to supplying nuclear fuel for the entire lifespan of the plant. However, a final long-term fuel supply agreement between Bangladesh and Russia has yet to be signed. Experts believe this must be finalized before or at the time of fuel loading.

The first shipment of nuclear fuel arrived from Russia by air on September 28, 2023. It was transported to Rooppur the next day and is currently stored on-site. Fuel for 1,200 MW unit has been imported and stored according to international safety standards.

On October 5, 2023, Russia formally handed over the nuclear fuel supply certificate to the Prime Minister of Bangladesh. Separate ceremonies were held in Dhaka and Rooppur, with Russian President Vladimir Putin joining the Ganabhaban event virtually, alongside Prime Minister Sheikh Hasina.

Officials say the initial fuel load will last for three years, but one-third of the uranium fuel must be replaced annually. As such, Bangladesh will need to import additional fuel a year after the plant begins operations, continuing in phases.

Spent Fuel Storage and Return to Russia

Russia has agreed to take back the spent (used) nuclear fuel, and an umbrella agreement between the two countries has already been signed. According to the Ministry of Science and Technology, efforts are underway to finalize a detailed agreement within this year.

However, Russia will not collect the spent fuel immediately after use. It must be stored temporarily in Rooppur. A project official stated that no separate facility is needed for now, as there is a spent fuel pool adjacent to the reactor within the reactor building. This pool can store spent fuel for up to 10 years.

Delays Continue

The wait for electricity from RNPP may stretch further. Although transmission lines have been constructed, the plant is not yet connected to the national grid. Due to missed deadlines, the Russian

contractor has been granted an additional two years.

Officials confirmed that project extensions became necessary after failing to meet the original timelines. The extension was approved in February last year. Initially, Unit 1 was due by October 2023 and Unit 2 by October 2024. The new deadlines are December 2026 for Unit 1 and December 2027 for Unit 2.

On June 20, the Bangladesh Atomic Energy Commission signed the revised contract with the Russian contractor.

Project officials cited several contributing factors to the delays: the COVID-19 pandemic, the Russia-Ukraine war, travel restrictions on experts, and equipment delivery issues. Bangladesh is also required to contribute 10% of the project's annual cost, but foreign currency shortages have at times hindered timely payments.

Due to international sanctions on Russia, Bangladesh can not transfer the installments interests on Russian loans for Rooppur NPP project for last couple of years. Bangladesh has been paying the committed interests on loans as per Contract but Russia could not receive the funds due to international sanctions. For last several years, Bangladesh continue to deposit the payments in a separate bank account with Sonali Bank in Bangladesh. The accumulated amount is nearly one billion US Dollars already. However, the Russian Government continues to support the Project so far. However, it has certain impacts on cash flow for the contractors working for Rooppur NPP. It may be mentioned, that the construction of Rooppur 2,400 MW Nuclear Power Plant Project has been implemented with approximately US$ 12.65 Billion. Government of Russia has agreed to provide 90% of the fund support for implementing the project.

However, work is now back on track. Most previous delays were attributed to the pandemic and the war, prompting the contractor to request an extension. Phase-wise power generation is expected to begin next year.

Largest Infrastructure Project in Bangladesh's History

The RNPP is the largest infrastructure project in Bangladesh's history. It is being developed by the Bangladesh Atomic Energy Commission under the Ministry of Science and Technology, with financial and technical support from Russia. Located in Ishwardi, Pabna, the plant comprises of two 1,200 MW units of nuclear power plants. The estimated cost is $13 billion for the project implementation.

The General contractor for the Rooppur NPP is Atomstroyexport, a subsidiary of Russia's state corporation Rosatom.

A joint coordination committee, comprising of officials from both countries, oversees the project's strategic decisions. During a meeting in Dhaka last year, the committee agreed to a two-year extension for the project implementation, which took time to finalize.

Initially, the Ministry of Science and Technology approved a 1.5-year extension, but the contractor rejected it. Ultimately, an additional six months extension was granted, pushing the deadline to June 2027.

Despite the extension, the contractor is not permitted to increase the project cost. However, the plant is not yet operational, it is not generating revenue, and the government must cover operational expenses, raising the eventual cost of electricity generation.

Project Director Dr. Md. Kabir Hossain stated, "There have been no new delays. Work is now proceeding as planned. Previous delays were due to the pandemic and the war, which led the contractor to seek an extension. We hope power generation will begin step by step from next year."

Another source noted that work slowed somewhat following political changes in August last year. Fuel loading must wait until December, after which test production will begin.

First Unit of Rooppur to Begin Operation This Year

Russian Ambassador to Bangladesh Mr. Aleksander Khozin has expressed hope that the first unit of Rooppur NPP will begin operation by the end of this year. He stated that construction is progressing rapidly and preparations for the inauguration are in the final stages. His comments were made during a Russia Day event in Dhaka.

The ambassador said, "This year marks the 80th anniversary of Russia's victory in World War II, as well as 80 years since the establishment of the Soviet nuclear industry. At this historic moment, progress on the Rooppur project carries special significance for us."

He emphasized that Rooppur is not only a technological milestone but also a symbol of the Russia-Bangladesh partnership, ushering Bangladesh into a new energy era.

PPA Still Pending

One unresolved issue is the pricing of electricity from RNPP. More than eight years into the project, no Power Purchase Agreement (PPA) has been signed between Nuclear Power Company Bangladesh Limited (NPCBL) and the Bangladesh Power Development Board (BPDB). Talks began late last year, and a meeting was held earlier this year on the issue. Despite BPDB's experience drafting PPAs, no draft has been prepared for Rooppur due to the unique complexities of nuclear power pricing.

Experts stress that setting the power price must consider project's capital and operational costs, loan terms, debt service liabilities, project duration, decommissioning expenses, and safety-related costs.

Professor Dr. Shafiqul Islam from the University of Dhaka's Department of Nuclear Engineering said, "I conducted a cost analysis in 2020–21. Based on a 60-year plant life and a load factor above 90%, I estimated the electricity cost at BDT 7 per kWh. But the dollar exchange rate was lower then, and costs have since risen. Now, the price will likely exceed BDT 10 per unit."

He recommended that NPCBL form a techno-economic committee of experts to determine a fair cost of power generation, based on which the PPA can be formally proposed to BPDB.

Sector experts agree that signing the PPA without further delay is essential.

Electricity Evacuation & Readiness

Whereas developed nations typically use N-1 redundancy to ensure grid safety for nuclear plants, Russian and Bangladeshi experts agreed that Rooppur requires N-2 redundancy for secure power evacuation.

Initially, some of Rooppur's transmission lines were to be financed through India's Line of Credit. However, inflated pricing by Indian contractors caused delays, and the work is now being carried out with domestic funds at roughly half the original cost. Rooppur officials initially blamed PGCB (Power Grid Company of Bangladesh) for the delay, though plant construction delays were also a factor.

Reportedly:

The 230 kV double-circuit Rooppur–Baghabari line was completed in June 2022.

The 90 km 400 kV single-circuit Rooppur–Bogura line became operational in April 2024.

The 51 km 400 kV double-circuit Aminbazar–Kaliakoir link line was completed in June 2024.

The 160 km 400 kV single-circuit Rooppur–Gopalganj line became operational in June 2025.

Land segments of the 400 kV double-circuit (150 km) Aminbazar–Kaliakoir line and 230 kV (156 km) Rooppur–Dhamrai line have been completed.

Construction of a 7 km river-crossing (230 kV and 400 kV) over the Jamuna River is underway, with a December 2025 completion target.

All transmission arrangements needed to evacuate electricity from the first unit are now complete. Fuel loading is expected in December 2025, with commercial production starting about six months later. Fuel loading for the second unit is scheduled for December 2026, with commercial operation to follow in another six months.

Conclusion

Fuel loading for the first unit of the Rooppur Nuclear Power Plant is expected by December 2025, depending on the outcome of the IAEA's inspection mission in August 2025. But Rooppur is more than just another power project—it touches on issues of national pride, energy security, and strategic sovereignty. While progress has been made, the project has been slowed by a range of challenges, most notably the international sanctions on Russia following the Ukraine war. Payments routed through Sonali Bank couldn't be processed, and the delivery of critical equipment from third countries faced unexpected hurdles.

Unlike other large infrastructure ventures in Bangladesh, Rooppur has moved forward without the benefit of international consultants. Instead, responsibility for oversight fell to newly appointed local officials, which inevitably caused further delays. Even so, Rooppur is far from alone—nuclear projects worldwide often face setbacks. One example is a 3,200 MW nuclear plant in the UK, originally slated for completion in 2025, now delayed until 2032 and plagued by massive cost overruns.

In Rooppur's case, one silver lining is that the contractual terms prevent any increase in the total project cost, despite the delays. But the cost of time lost—the missed opportunities, delayed returns, and rising operational burdens—is still considerable.

Globally, nuclear energy projects depend on transparency and the open flow of information. In this regard, Rooppur has fallen short. The contractor and implementing agencies have not made public communication a priority, which is deeply unfortunate. Going forward, the authorities must do more to ensure transparency and keep the public informed about the plant's progress and implications.

The biggest challenge now is not just to bring the plant online, but to build steady leadership, ensure professional management, and maintain institutional stability. Safeguarding the compensation and status of plant personnel and securing the facility itself must remain top national priorities.

Since the fall of the Awami League government amid widespread protests, Rooppur seems to have lost some of its standing as a national priority. Yet, there is still strong public hope that this landmark project will reclaim its place at the heart of Bangladesh's development goals. EP

Energy Crunch Worsens Crisis Facing Bangladesh's Industries

Saleque Sufi

Industries in Bangladesh—particularly export-oriented large, medium, and small enterprises—are currently grappling with a multi-dimensional and deepening crisis. Spiraling inflation, high bank borrowing rates, and shrinking export markets—largely due to the eroding competitiveness of Bangladeshi goods—have created daunting challenges. A persistent crisis in energy and power supply has forced many SMEs and mid-sized industries to shut down. Meanwhile, foreign direct investment (FDI) has virtually dried up due to the uncertain energy scenario and unstable political climate. Domestic investment has also taken a serious hit.

Industry owners, in an increasingly desperate situation, have rung the alarm bell. They are urging the government to introduce urgent contingency measures to support local industries. If the current conditions persist, more factories will close, mass layoffs will follow, export earnings will fall, and the broader economy will suffer serious setbacks.

To make matters worse, the US government has announced a 35% additional tax on Bangladeshi exports to the US market. If ongoing trade talks with the US fail to yield a win-win outcome, Bangladesh's exports could face a total tax burden of up to 50% (35% + existing 15%). In such a scenario, Bangladesh's products would be unable to compete with those of Vietnam, Sri Lanka, India, or Pakistan.

Regardless of the negotiation outcome, the interim government must engage with all stakeholders to devise and implement a package of fiscal and financial incentives for industries. It's time to assess how industrial performance can be improved through reliable power and gas supply.

How Additional US Taxes Could Affect Bangladesh's Export-oriented Industries

Former President Trump, in an effort to reduce the US trade deficit, introduced a policy of significantly increasing import duties and taxes on foreign goods. On April 2, 2025, the US proposed an additional 37% tax on imports from countries like Bangladesh, potentially subjecting Bangladeshi exports to a staggering 52% total tax burden. However, the US allowed countries until June 30 to renegotiate trade agreements. Vietnam and the UK have already reached agreements; India is reportedly close to concluding one.

Bangladesh's negotiations over the past three months have led to a marginal reduction, from 37% to 35%, in the proposed additional duty. Talks with the Office of the United States Trade Representative (USTR) must now aim for a final deal by July 31, 2025. A favorable outcome would be capping the additional duty at no more than 20%, similar to Vietnam's terms.

Bangladesh's ready-made garments (RMG) sector contributes approximately 87% of its total exports. The US is the country's largest RMG buyer, with export value reaching US$7.34 billion in FY2024–25. According to the US trade delegation, Bangladesh's total exports to the US amounted to US$8.36 billion, while imports from the US were only US$2.21 billion. President Trump's administration is focused on reducing this US$6.15 billion trade deficit. USTR is also pressing Bangladesh to lower import duties, VAT, and advance income tax (AIT) on US goods.

There may be other geopolitical motives at play. Bangladesh could consider increasing imports from the US at lower tariff rates as a strategic concession. Still, even if the US imposes a 20% additional tax, Bangladesh's export sector would face serious competitive challenges. The country must urgently diversify its export markets and product base, while also reducing the cost of production across industries.

The best course of action involves prioritizing reliable energy and power supply, lowering borrowing rates, and adjusting tariffs on imported industrial raw materials to support manufacturers.

Current State of Power and Energy Supply to Industries

Bangladesh's manufacturing industries require uninterrupted and sustainable supplies of electricity and fuel. Over the past 15 years, the country has made significant investments in expanding power generation. Yet, due to poor planning and lack of long-term strategy, reliable power supply to key industrial hubs remains elusive.

Industries have been encouraged to opt for captive power generation using gas or alternative fuels. Many have done so, but even here, they struggle due to poor-quality gas supply, forcing them to rely on more expensive options like diesel or compressed natural gas (CNG). These additional inputs drive up production costs.

Power distribution utilities such as DPDC and DESCO are in a position to supply quality electricity to industries in their respective areas. However, many industries located within the REB franchise areas do not receive consistent or quality electricity.

The core problem lies with the gas supply. Process industries—ceramics, glass, and textiles, for instance—are heavily dependent on natural gas. Bangladesh is facing a severe gas shortage. Petrobangla has acknowledged a daily demand of 4,000 million cubic feet per day (MMCFD), but supply is limited to 2,800 MMCFD. Of this, 1,800 MMCFD comes from local production, and 1,000 MMCFD from imported LNG. Alarmingly, local production is declining by about 200 MMCFD annually.

There is no scope to increase LNG imports before 2028, and that too depends on securing a contract for a new floating storage re-gasification unit (FSRU) by December 2025. Petrobangla's current initiatives to boost local production are unlikely to bridge the deficit. The government has also failed to decide on evacuating gas from the stranded Bhola field. Consequently, no substantial increase in gas supply to industries is expected in the near future unless bold and pragmatic policy decisions are made.

What Can Be Done?

It is now widely acknowledged that the gas supply chain suffers from more than 10% system loss—mostly due to theft and unauthorized usage. Thousands of illegal connections exist. Even authorized users often tamper with meters or bypass them. A vigorous, all-out campaign to combat system loss could recover 150–200 MMCFD of gas, which can then be redirected to industries.

The government should seriously consider phasing out gas use in domestic cooking and for CNG vehicles. Industrialists themselves must support gas utilities in eliminating illegal use by rogue operators within their own sectors.

Industries must also explore alternatives such as Liquefied Petroleum Gas (LPG) and Synthetic Natural Gas (SNG). The government should provide incentives for acquiring the necessary technology and importing required equipment. However, in the long run, industries like ceramics, glass, and even composite textiles may struggle to remain viable in Bangladesh. The country should focus on developing secondary and tertiary industries with lower energy demands.

Conclusion and Recommendations

In light of the challenges outlined above, the following measures are recommended:

- Assess and resolve REB/PBS limitations in delivering reliable, quality electricity to industrial areas, with the goal of achieving 100% reliance on grid power.
- Identify and eliminate bottlenecks in gas supply to key industrial hubs such as Gazipur, Tongi, Ashulia, Savar, and Narayanganj.
- Immediately act to evacuate gas from the Bhola field and overcome barriers to further exploration in Chattak and Tengratilla.
- Prioritize exploration of the Chittagong Hill Tracts (CHT) gas prospects.
- Eliminate gas system loss through enforcement and phase out its use for cooking and CNG.
- Offer incentives for transitioning to LPG and SNG, especially for energy-intensive sectors.
- Encourage adoption of solar and renewable energy in industrial operations.
- Take a political decision on utilizing domestic coal reserves, in a controlled and environmentally conscious manner.

Bangladesh's industrial survival and export competitiveness now hinge on a coordinated policy approach involving energy security, fiscal reform, and strategic international engagement. Without these, the country risks losing its industrial edge in an increasingly competitive global market. EP

Saleque Sufi
Energy Expert

Budget FY26: A Missed Opportunity To Resolve Bangladesh's Energy Crisis

Dr. AKM Asaduzzaman Patwary

The national budget of Bangladesh for the fiscal year 2025–26, proposed at Tk 7.9 trillion, reflects a complex interplay of economic priorities and mounting challenges. It arrives at a time when demands from various sectors far outstrip the availability of resources. Energy remains a critical input for most industrial and economic activities. A stable and uninterrupted energy supply is intrinsically tied to productivity, industrial growth, and overall economic resilience. Yet, a closer look at the energy and power sector allocations reveals a worrying disconnect between fiscal priorities and the severity of the ongoing energy crisis.

In recent times, energy security has become a pressing concern, driven by supply constraints and steep tariff hikes. Against this backdrop, the allocation of only Tk 225.2 billion to the Power and Energy sector—down 0.8 percent from the previous year—underscores a stark mismatch between fiscal planning and pressing on-ground realities. Rather than tackling the deepening energy crisis that continues to cripple industrial output—especially in key export-oriented sectors—the budget appears conservative, reactive, and lacking in strategic depth. This cautious approach overlooks the urgent need to ensure a reliable and predictable energy supply for the private sector, which is vital for sustaining industrial productivity and broader economic stability.

Compounding the concern is a significant 23.9% reduction in the Annual Development Program (ADP) allocation for the Power and Energy sector, despite persistent load shedding, gas shortages, and rising industrial costs. Within the ADP, the Power Division received a relatively larger share than the Energy and Mineral Resources Division, which was allocated a mere 0.9% of the total ADP, insufficient to address the country's critical energy constraints. The Power Division's budget dropped by 30%, while development spending declined by over 6% amid rising recurrent costs. The number of ADP projects also fell from 53 to 40, indicating a sharp decline in ambition at a time of rising energy demand. The power sector urgently needs cost rationalization, especially as numerous unplanned and inefficient power plants continue to drain resources and should be gradually phased out.

Moreover, the budget fails to address Bangladesh's overwhelming dependence on natural gas, particularly in energy-intensive sectors such as textiles, chemicals, and steel. Despite this structural vulnerability, there is no clear roadmap for domestic, foreign, or offshore exploration—an essential pillar for long-term energy security. With industries facing prolonged power outages, low gas pressure, and rising input costs—leaving many textile and dyeing units operating at just 30–40% capacity or shuttered entirely—the absence of emergency support, a short-term gas supply plan, or any move to restart closed Independent Power Producer (IPP) projects signals a critical failure in policymaking. What began as a supply-side issue has now escalated into a threat to Bangladesh's industrial competitiveness and demands urgent, strategic intervention.

The government has taken some commendable steps, such as repealing the Quick Enhancement Act

and restoring the Bangladesh Energy Regulatory Commission's (BERC) authority over tariff regulation—moves that have been welcomed for improving transparency. However, there is still no clear operational roadmap for implementing these reforms. Many power generation and transmission projects continue to face delays and rising carry-over costs, while execution capacity remains weak. The shift in budgetary focus from development to operational spending suggests a continuation of status quo policymaking. Meanwhile, under IMF guidance, energy subsidies have been slashed from Tk 62,000 crore to Tk 37,000 crore, raising additional concerns. Yet countrywide energy infrastructure—including gas pipelines for industrial zones—remains a critical, unmet need.

At the same time, the government has set an ambitious target of meeting 30% of energy demand from renewable sources by 2040. However, actual renewable output remains below 5%, underscoring a major gap between policy ambition and implementation. The budget offers no specific funding commitments for renewable energy and continues to impose high VAT and import duties on solar components, stifling growth in the sector. Additionally, the plan to import 6.5 million tonnes of LNG—while exempting VAT on LNG imports and reducing tax at source on electricity payments—reinforces the country's overdependence on external fuel sources. This reliance exposes the economy to global price volatility and further escalates production costs for the private sector. Diversifying LNG import sources can help cushion the impact of price shocks on local users, while low-cost liquid fuel import options also deserve attention in the budget.

Though the Energy Division witnessed a 107% rise and a 115.5% increase in development allocation to Tk 2,086 crore, it still lacks a clear strategic direction. Meanwhile, the

Power Division registered an 872% increase, yet this too has not translated into a concrete policy shift. No substantial progress has been made to resolve the persistent gas crisis, and the target of drilling 100 new wells by 2028 remains far off. Domestic gas exploration remains stagnant, and clean energy deployment lacks the incentives needed for meaningful scaling. These gaps are worsened by budget cuts in the Power Division and sluggish progress on renewable energy, raising serious doubts about the government's long-term commitment to a secure and industry-supportive energy strategy.

Despite presenting itself as reform-oriented, the budget for FY2025–26 under-delivers in a sector facing acute structural challenges. It offers no credible plan to address the gas shortage, falls short on renewable energy implementation, and neglects the energy needs of the private sector—the engine of Bangladesh's exports, employment, and economic growth. The lack of urgency, weak allocations, and vague reform directions reflect a reactive posture rather than a proactive energy strategy. What the country critically needs is long-term energy mapping aligned with its growth trajectory as it approaches economic graduation. This budget fails to chart a concrete path forward to resolve the energy impasse and ignite an industrial and economic revival. Without an efficient and forward-looking energy sector strategy, the country risks further fiscal strain and banking-led deficits with a host of unintended consequences.

Given the circumstances, there is an urgent need for an integrated energy and resource extraction strategy that prioritizes both local and offshore gas exploration. In parallel, establishing an Energy Sector Finance Fund and securing low-cost external financing from institutions such as the Islamic Development Bank (IDB) and International Islamic Trade Finance Corporation (ITFC) can help address the current shortfall in the Gas Development Fund. The government must also encourage technology transfer and foster joint ventures between local and international oil companies (IOCs) to accelerate offshore exploration and ensure sustainable energy security. Above all, a timely, integrated energy sector roadmap that forecasts the country's energy needs over the next two decades—across industrial, power, fertilizer, and other key sectors—is essential to steer Bangladesh's economic path after graduation in 2026.

EP

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Energy Crisis Deepens Investment Woes in Bangladesh

Engr. Khondkar Abdus Saleque

It is well understood that Bangladesh's uncertain energy security has severely impacted both foreign direct investment (FDI) and domestic investment. Chronic gas shortages mean a large portion of gas-based power plants cannot operate for most of the year. Only two of the seven state-owned fertilizer plants remain functional. Many small and medium industries have shut down, while most large industries are struggling to keep operations running.

This crisis is largely the result of the absence of a long-term strategic plan, poor coordination among key stakeholders, the neglect of skilled professionals in the energy and power sectors, and a heavily politicized and corruption-prone management system. Over the past year, the interim government has failed to grasp the full scope and complexity of the crisis. While some of their actions have brought marginal improvements, they have not addressed the root causes. As a result, the energy and power sectors continue to function in a "business-as-usual" mode.

A newly elected democratic government is expected to take office in early 2026. For it, the energy and power sectors must be among the highest priorities. Bangladesh urgently needs a reliable and uninterrupted supply of electricity and gas to drive economic growth. Without consistent, transparent policies, sustained inflows of both foreign and local investment will remain elusive. If the current energy crisis continues, the country will face worsening unemployment and dwindling export earnings. There are no magical solutions—only sound strategies and vision. Let us hope the political leadership has both.

Present Situation of Power and Energy Supply Chain

Over the past 25 years, Bangladesh's power and energy sector has expanded significantly, but this growth did not follow an integrated and comprehensive master plan. Although the government developed two Power System Master Plans (PSMP 2010 and 2018) with JICA's support, and more recently the Integrated Energy and Power Master Plan (IEPMP 2023), none of these plans were seriously implemented. Inadequate data and flawed assumptions further weakened the planning process.

As a result, the power supply chain continues to suffer from a lack of primary fuel. Bangladesh has depleted most of its natural gas reserves—a mono-fuel resource. It also faces constraints in importing alternative fuels like coal, LNG, and liquid fuels. This failure is evident in the sector's inability to consistently generate even 16,000 MW of electricity, despite having an installed generation capacity of 30,780 MW (including grid and non-grid sources). Meanwhile, superior-quality domestic coal lies untapped, significant onshore and offshore petroleum reserves remain unexplored, and renewable energy potential remains neglected.

The public sector power plants account for 44% of the total generation capacity. Power plants in many areas like Ghorashal, Shiddhirganj, and Sirajganj suffer from poor gas supply. However, some of the ageing plants are fuel-inefficient and should be retired or modernized.

The above two plants are based on imported coal and are located at Payera Patuakhali and Rampal, Bagerhat. They suffer from the dollar crisis and coal transportation challenges. Rampal Power plants also suffered from frequent technical constraints. The challenges of coal transportation added to the cost of generation. For both the plants coal needs to be transported in half filled

coal carriers increasing the cost of generation.

The private sector has the capacity to contribute 37% to the total generation now. Some of the plants recently installed at Meghnaghat are highly fuel efficient. But there are issues of gas supply both from supply constraints and gas transmission issues.

Imports can contribute 10% of the total capacity. Interim government could manage to clear outstanding dues of Adani Group. Import remains a bit of concern for BPDB responsibilities of payment on time.

Total Installed Capacity of Grid Power: 27,426 MW. Adding 2800 MW Captive, Renewable and Off grid HFO = 30,780 MW.

The 2800 MW capacity of captive generation figure differs with information received from the BERC. This needs to be checked and verified. All impediments for supplying power to industries grid power must be resolved, enabling saving of some gas now being used in captive generation.

The Bangladesh Power Development Board (BPDB) requires about 2,100 MMCFD of gas to operate all gas-based power plants. However, the current gas production and distribution infrastructure can supply no more than 1,200 MMCFD—even during peak summer months. This shortfall forces the use of furnace oil-based peaking plants, which are costlier. BPDB also struggles to make payments to independent power producers (IPPs), many of whom receive capacity payments under their contracts. The dwindling supply of proven gas reserves makes it increasingly difficult for Petrobangla to meet the needs of the power sector, fertilizer plants, and industries. The current administration must urgently revisit the national fuel mix, giving top priority to long-term sustainability.

Recommendations

The current government must make strategic decisions to mine domestic coal. All feasible options for boosting gas production from onshore and offshore fields should be pursued. Simultaneously, the barriers to increasing the share of renewable energy must be addressed. Bangladesh is under no international obligation to reduce emissions and faces no embargo on using its own fossil fuels.

Given the country's geographical limitations and current geopolitical conditions, Bangladesh cannot ensure long-term energy security as a net energy importer. It has already suffered from price shocks and supply disruptions. Until 2040, Bangladesh could feasibly maintain a 75:25 fuel mix between domestic and imported fuels—provided it develops sound, realistic plans and executes them with professionalism.

The stranded gas reserves in Bhola must be urgently connected to the national grid. Within six months of assuming office, the new government must engage a reputable international EPC contractor to construct a gas transmission pipeline from Bhola to the national grid in Khulna. This is a technically complex task, well beyond the capacity of local contractors. If initiated by end-2026, the pipeline could be commissioned by early 2029.

Present Power Generation Capacity Till 31 May 2025

Public Sector	Installed Capacity MW	No of Power Plants
BPDB	6,351	41
APSCL	1,394	05
EGCB	1,032	04
NWPGCL	1,401	07
B-R Power Gen	472	03
RPCL	182	03
CPGBL	1,130	01
Sub Total	11,982 MW	64

Joint Venture	Capacity MW	No of Plants
BCPCL (JV of NWPGCL and CMC, China.	1244	1
BIFCL (JV of BPDB and NTPC, India	1244	1
Sub Total	2478	2

Private Sector	Generation Capacity MW	No of Plants
IPPs	9,999	62
SIPPs (BPDB)	0,000	00
SIPP(REB)	130	03
15yr Rental	0,000	00
3-5 yr rental	0,000	00
Rental (No Electricity no payment	181	03
Subtotal	10,310	68

Import	Supply Capacity MW	Source of Supply
Bheramara HVDC	1000	India
Tripura	160	India
Jharkhand (Adani Power)	1496	India Private Sector
Sub Total	2656	03

An accredited reservoir specialist company should also be engaged to accurately assess Bhola's gas reserves. Establishing this infrastructure would encourage international oil companies (IOCs) to invest in petroleum exploration across the southern region. Supplying gas to greater Barishal and Khulna could trigger an industrial transformation across southern Bangladesh.

Other gas prospects such as Chattak and Tengratilla should be developed on a priority basis. With the dispute with NIKO reportedly resolved, pending formalities must be completed swiftly so that BAPEX can resume operations. Furthermore, strategic partners should be engaged to help BAPEX explore gas-rich areas in the Chittagong Hill Tracts, including Joldi, Kasalang, Sitapahar, and Patiya. Deeper layers of existing gas fields also present untapped potential and should be assessed for commercial viability.

Petrobangla and the Energy and Mineral Resources Division (EMRD) must also proactively negotiate Chevron's proposal to explore Blocks 12 and 13. Chevron already operates the Bibiyana, Jalalabad, and Moulvibazar gas fields, and is familiar with the technical challenges in Bangladesh. A win-win contract could be mutually beneficial.

Fuel Mix for Power Generation

Fuel	Installed Capacity MW	% of Total Generation
Natural Gas +LNG	11.826 .00	43.12%
Furnace Oil	6,641.20	20.87%
Coal	5,683.00	20.72%
Power Import	2.656.00	09.68%
Diesel	828.00	02.28%
Renewable Energy	784.00	2.79%
Hydro Electricity	230.00	0.84%

We also hope the interim government will finalize the new bidding round for offshore production-sharing contracts (PSCs) and complete the onshore bidding process. The incoming government must prioritize this. By 2027, at least 10 drilling rigs should be operational across onshore and offshore sites. If this is achieved, Bangladesh's energy portfolio could look significantly better by 2030.

LNG import strategy also needs re-evaluation. The interim government misjudged the cancellation of the third FSRU (Floating Storage Regasification Unit) contract, which had been negotiated under a special act. Over the past year, it failed to engage a contractor or even issue a tender. The matter is now in court, but it would be advisable to resolve the dispute outside of litigation, if possible.

Similarly, the blanket cancellation of letters of intent (LOIs) for grid-connected solar projects was a misstep. Each case should have been reviewed individually. It is unlikely the interim government can resolve these issues before leaving office. The incoming administration must assess all challenges in the energy transition and build institutional capacity to scale up renewable and clean energy.

Conclusion

The following can be recommended in order of merit:

- Professionally review the IEPMP with the help of Bangladeshi experts to develop a rational, integrated energy and power system master plan.
- Decide on mining domestic coal, preferably for use in power generation and industry.
- Immediately evacuate stranded gas from Bhola and integrate it into the national grid.
- Prioritize development of Chattak and Tengratilla gas fields.
- Select and engage a strategic partner for BAPEX to explore gas prospects in the Chittagong Hill Tracts and deepen exploration of existing fields.
- Do not delay PSC bidding for both offshore and onshore exploration.
- Take pragmatic steps to advance FSRU and land-based LNG terminals.

To achieve all this, Petrobangla and its affiliated organizations must prioritize human capital—appointing qualified, experienced professionals to the right roles. In short, a paradigm shift in management and execution is imperative if Bangladesh is to overcome its energy crisis. EP

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Belém And Its Challenges Await COP30

Bruno Abbud

As the UN climate summit nears, the host city of Belém struggles with the daily realities of the Amazon.

At 2 p.m. on a sweltering May afternoon, the air at the famous Praзa do Relygio is thick with heat, humidity, and the familiar rhythms of carimby music pulsing from a vendor's speaker. Vultures soar above this downtown area near the iconic Ver-o-Peso market, as a construction worker, drenched in sweat, operates a power saw. Its sharp whine pierces through the sounds of the crowd, serving as a visceral reminder: The global climate summit, known as COP30, is approaching.

With just five months to go before the United Nations Climate Change Conference opens in the heart of the Brazilian Amazon, Belйm is a city in transformation. Dust clouds hover over roads torn up for repaving. Sidewalks are being redone, and cranes dot the skyline. Since the announcement in December 2023 that Belйm would host COP30, state and federal authorities, public banks, and companies, including mining giant Vale, have launched 38 infrastructure projects totaling over $1.3 billion, according to local media.

At one construction site near the port, workers labor under the sweltering sun. "We're about 200 now, but they're hiring. Another 500 should be arriving soon," Ricardo Brito, 42, told AQ. Brito was installing handrails and improving the pavement for passengers who would disembark there during COP30. He works for the construction company Pinheiro Sereni Engenharia, which was contracted for COP30-related projects. Not all of them are on formal contracts. "When this is over, we'll be back on the job hunt," added his colleague Dorivaldo da Silva, 48. Still, they expressed pride in being part of a transformation they hope will leave a legacy beyond the summit.

Nowhere is the frenetic pace more visible than at Belйm's international airport. Its expansion, budgeted at nearly $85 million, aims to triple its capacity. But it remains open to the public, resulting in an overwhelming mix of noise and dust. Jackhammers compete with loudspeaker announcements as passengers dodge workers carrying planks and paint buckets. Hammering on the roof, a drill roaring nearby, and the whine of saws create a chaotic symphony as hurried couples, anxious elders, and visibly uncomfortable children navigate the modest two-story terminal. Ceiling panels are visibly misaligned, signs of the speed at which everything is moving. Yet for all the dust and delays, the ambition is clear: to prepare the city to welcome leaders from nearly 200 countries.

Under pressure

Further downtown, a new park along Tamandarй Avenue features one of the most controversial COP30 installations: the "eco-tree," a metal frame meant to support climbing plants not native to the Amazon. The plants, however, have withered under the relentless sun, prompting online jokes. "Those plants can't handle this much sun," said 70-year-old Maria Oliveira, who sells medicinal herbs. Recently displaced from her longtime spot near Ver-o-Peso to make way for renovations, she said, "They moved us, and now our business is hurting."

Oliveira harvests plants from Belйm's 39 river islands, but extreme heat has changed her work. "I used to restock three times a week. Now, just once. It's too hot." COP30, she said, has only added to the difficulty: "We used to sell 10 bundles a day. Now, sometimes, we don't sell one." Construction work in

the neighborhood has pushed the vendors to a less visible area with less tourist traffic.

The sentiment is echoed by Ricardo de Souza, 59, who sells Amazon nuts. His daily gross sales dropped from $540 in December to $107 in May. Construction disruptions are partly to blame, but climate change also plays a role. Last year's drought, one of Brazil's worst, doubled nut prices. The drought affected around 60% of Brazil's territory, raising the price of energy and affecting agricultural output more broadly. In the Amazon region, it dried up massive rivers, such as the Rio Negro, and left populations dependent on water trucks to access drinking water. It also intensified fires, which destroyed 17.9 million hectares in the Amazon in 2024.

Down at Pedra do Peixe, a riverside port, fishermen lounge in hammocks between shifts. "I came here when I was 11," said Manoel Trindade, 63. "There used to be more fish, and it wasn't this hot." At the nearby market, Maria Loura, 57, another erveira (herbalist), said she has had to reduce her hours due to the heat. "By 4 p.m., I feel like I'm burning. I have to go home, take a shower, and jump in the pool. I built one just to survive."

Still, she sees COP30 as a needed opportunity. "The world needs fixing. But real fixing. Not just people eyeing our minerals."

Climate conference meets everyday reality

For many in Belйm, COP30 is still a vague concept. "I thought it was the Olympics," said Sara Alexandre, 54, laughing. A lifelong resident, she said, climate change is impossible to ignore. "People are fainting from the heat. That didn't used to happen."

A federal initiative will add 6,000 cruise ship berths to accommodate guests, mirroring the city's annual religious pilgrimage, Cнrio de Nazarй, which draws millions. Yet housing prices have already spiked. "Everyone's moving out to rent their homes," Alexandre said. "I heard someone's asking 2 million reais

COP30 to Stay in Amazonian Belem Amid Housing Fears: Organizers Reassure

Despite rising anxiety over sky-high hotel rates and a shortage of places to stay, the upcoming COP30 climate summit will go ahead as planned in the Amazonian city of Belem, according to the event's CEO.

Ana Toni, who heads the COP30 organizing team and serves as Brazil's national secretary for climate change, confirmed on Thursday that there are no plans to shift the venue, despite speculation.

"Let's be very, very clear—it's all happening in Belem," she told AFP during the UN climate meetings in Bonn, Germany.

Her statement comes as frustration grows among country representatives and civil society groups, who fear that the accommodation crisis may exclude poorer delegations from participating fully in the conference, scheduled for November 10–21.

Held in the capital of Brazil's northern Para state, the event will bring tens of thousands of participants to a city not built for large-scale international conferences. This has triggered fears of price gouging by hotels and property owners, making it nearly impossible for many to confirm bookings.

Over the past two weeks, negotiators and advocacy groups attending technical talks in Bonn have repeatedly raised alarms about the affordability and availability of lodging in Belem. Some even floated the possibility of relocating the conference to a larger city, such as Rio de Janeiro.

Toni acknowledged the concerns but emphasized that hosting COP30 in the heart of the Amazon is an essential part of Brazil's climate diplomacy.

"We fully understand that having a COP in a very different place—in the middle of the Amazon, in a smaller city—is leading many people to be very anxious about the logistics," she said. "But there is no discussion about having it in any other place."

She added that while transport and other logistics are largely under control, the cost of accommodation remains the biggest concern.

"It is the private sector—it is not something that the government controls," she explained. "But the Brazilian government is taking measures... to ensure that the prices of accommodation are controlled." Still, many remain uneasy.

"Everybody's concerned because, at this point, five months to the date, everybody should have hotels—and no one has," said Claudio Angelo of the Brazilian Climate Observatory, a network of environmental organizations.

He warned that some delegations are now considering scaling back, especially those from small island states or developing nations with limited resources.

"There's a real risk that the event becomes inaccessible to those who most need to be heard," one civil society delegate said privately.

As the countdown to COP30 continues, organizers are racing against time to reassure participants that Belem, while remote and unfamiliar to many, will be ready to welcome the world. EP

($358,000) for an apartment. That's absurd."

Some are trying to capitalize on the conference. The Faray Motel, once known for adult films and discreet rendezvous, has rebranded as "Hotel COP30." Rooms have been redecorated with caiman-themed art, and rates will soar to $1,000 per night. "We're adapting", said receptionist Joel Santos, 62.

Layers of history, layers of inequality

Founded in 1616, Belйm bears the imprint of centuries of Indigenous, colonial, and immigrant histories. Ancient tools unearthed in the region date back 6,000 years. The city's neighborhoods still feature 200-year-old Belle Йpoque buildings with European symmetry, though now corroded by time and tropical humidity. In one forgotten square, a weathered plaque quotes 17th-century Jesuit priest Antynio Vieira, who likened Belйm's surroundings to the Tower of Babel. "There were only 70 languages there, but in the Amazon River, the tongues are so many and so diverse that no one knows their names or number."

Modern Belйm is home to 1.3 million people and a renowned food scene, but it faces serious challenges. Just six in 10 residents have access to treated sewage, placing it among Brazil's worst cities for sanitation. Ana Maria Corrкa, 38, lives beside the Murutucu Canal, where COP30-related sanitation works are underway. "They're paving the avenue, but our house still has no sewage," she said. Her neighbor's house cracked from the vibrations. "The upper floor is sinking," said Maria do Socorro, 65. No repairs have been guaranteed by Consyrcio Canal Murutucu, the consortium responsible for the works outside her house.

Elsewhere, in Gentil Canal and Vila da Barca, low-income areas face similar issues. A beloved soccer field is now buried under construction debris. "We don't play anymore," said Fernando Carvalho, 23, showing photos from past tournaments.

An environmental paradox

Belйm is at the center of Brazil's climate contradictions. While preparing to host

the world's foremost climate summit, the state of Parб is also home to the country's largest illegal gold mines, which poison rivers and devastate forests. In 2024, deforestation in this state reached 1,271 square kilometers—almost the size of two New York Cities. Wildfires cloaked much of Brazil in thick black smoke for weeks.

Belйm is also seen as a logistical hub in Brazil's plans to drill for oil in 47 offshore blocks hundreds of kilometers out at sea, in the fragile ecosystem of the Amazon River's mouth—a biologically rich, poorly studied marine area. In May, Brazil's environmental regulator Ibama, approved the final step before simulated seabed drilling.

Back in Belйm, another COP30 project—the widening of Rua da Marinha, recently financed by a $45 million loan from Brazil's development bank BNDES—cuts through a preserved forest. The worksite is a red dirt clearing, with a felled log lying among Amazonian trees. "It's going farther into the forest," said a worker, pointing to a stream that will be buried and an aзaн grove set for removal. Some of the cleared trees have been transplanted to the City Park, also under construction for the climate summit, including a 15-meter samaьma tree symbolically planted there by President Luiz Inбcio Lula da Silva in February.

According to engineer Beatriz Rosa, who oversees Vale's environmental compliance in the City Park, construction waste is being sent to the Aurб landfill on Belйm's outskirts. There, 21-year-old Henrique Adriano, who has scavenged recyclables since age 10, described life near the dump: "Our street's impassable, no asphalt, just mud. Cars slide off the road every day. Sometimes the school bus can't even get through, and class gets canceled."

For Belйm, COP30 is both an opportunity and a reckoning. The investments may bring lasting improvements, but also reveal long-standing neglect. The climate conference will spotlight not only global environmental challenges but also the daily realities of the Amazon's urban poor.

As preparations continue, Belйm's people are bracing for change—hopeful, cautious, and determined to make sure their voices are not lost amid the sound of jackhammers and the promises of progress.

Reprint from Americas Quarterly EP

Bruno Abbud

Abbud is a journalist based in São Paulo. He has written recently for Sumaúma, Ojo Público and Deutsche Welle, and was an O Globo correspondent. EP

Senior Chevron Executives Meet Key Officials to Reaffirm Partnership with Bangladesh

Chevron's new President of Base Assets and Emerging Countries, Javier La Rosa, on July 1 reaffirmed Chevron's longstanding partnership with Bangladesh during meetings in Dhaka with key Government of Bangladesh officials.

"I am pleased to be here in Bangladesh, engaging with our valued Government of Bangladesh stakeholders on day one of my new role," said La Rosa.

During his visit, Javier La Rosa and Eric M Walker, Chevron Bangladesh Managing Director and President met with Power & Energy Adviser Dr. Fouzul Kabir Khan, among others.

"We have a strong partnership with the Government, Petrobangla and people of Bangladesh, a partnership that has supported Bangladesh's energy security and fueled economic growth for 30 years," said La Rosa. EP

Eastern Refinery Sets Record in Oil Refining, Increases Capacity

Eastern Refinery Limited (ERL), the state-owned oil refinery, refined the highest amount of fuel in its history last fiscal year.

ERL refined 1.535 million metric tons of crude oil in the fiscal year 2024-25, setting a new record in the company's 57-year history and exceeding its annual refining capacity for the first time.

This was revealed at a press conference held at the ERL head office in the city's Patenga area recently.

ERL Board of Directors Chairman and Senior Secretary to the Ministry of Home Affairs Nasimul Gani, Bangladesh Petroleum Corporation (BPC) Chairman Amin ul Ahsan, BPC Secretary Shahina Sultana, and ERL Managing Director Engineer Md. Sharif Hasnat was present at the event.

ERL Chairman Nasimul Ghani said, Due to uninterrupted supply, efficient management and the concerted efforts of all concerned, we were able to refine more oil than the target this time. This is a significant achievement for this 57-year-old refinery."

The review shows significant progress in refining activities this time compared to the previous year. EP

Bangladesh Clears All Dues to Adani Power

Bangladesh has cleared all outstanding dues to India's Adani Power, making a one-time payment of $437 million in June for electricity imports.

Officials familiar with the matter said the payment covers all receivables owed to Adani Power up to 31 March of this year.

Bangladesh Bank officials said Adani Power's largest single payment was cleared so far in June. Previously, the company typically received an average of $90-$100 million per month from Bangladesh.

According to sources, with the clearance of all outstanding bills, including arrears, delayed interest and other charges, the cross-border power purchase agreement between Bangladesh and Adani Power has returned to a normal financial and legal state.

Concerns raised by Bangladesh regarding the agreement have also reportedly been resolved, the sources added.

According to Bangladesh Power Development Board (BPDB), Adani Power supplies electricity to Bangladesh from its Godda power plant in Jharkhand, India. EP

Rooppur NPP Approaches Integration with National Grid

The Rooppur Nuclear Power Plant (NPP) has taken a significant step towards full operational readiness, as the main and auxiliary transformers of its first unit have been successfully commissioned.

This milestone marks the upcoming integration of Rooppur NPP with Bangladesh's national electricity grid.

The main step-up transformers are engineered to convert the 24-kV electricity produced by the turbine generator into 400 kV for efficient transmission to the national grid. Each transformer is capable of transmitting up to 1,599 MW, well above the unit's designed power output of 1,200 MW, ensuring both reliability and surplus capacity.

Weighing approximately 400 tonnes per phase, the installation required over 150 kilometres of cabling.

In addition, auxiliary transformers, responsible for powering all internal systems of the power unit, have also been commissioned. EP

BUET Power Force's Month-Long Freshers' Festival: ELECTRAZE

The Electrical and Electronic Engineering department of the '23 batch organized a series of events called ELECTRAZE to welcome the new students of the EEE '24 batch at the Bangladesh University of Engineering and Technology (BUET).

These events took place from May to June and culminated in a grand celebration evening on June 19th.

ELECTRAZE was not just a typical freshers' program; it transformed into a month-long festival that engaged all students within the EEE Department.

The festivities kicked off on April 23rd with a Senior-Junior Ice-Breaking Session. Throughout May, various competitions added unique elements to the festival.

Events like Calculus Rumble and Quiz Odyssey showcased students' exceptional talents during the Brain Brawls segment. Meanwhile, the Tactical Playoffs segment featured traditional sports such as football, cricket, table tennis, badminton, and chess. The Gamers' Gauntlet segment allowed students to compete in popular video games, including EA SPORTS FC and eFootball.

On May 22nd, two significant events, ELECTRAZE—Squid Game and Watt-A-Hunt, took place across the campus. The enthusiastic participation and eagerness of the future engineers in these events, themed around anime, Game of Thrones, and Feluda, were remarkable.

The grand celebration evening on June 19th at the BUET Central Auditorium included captivating cultural performances, awards, and memorable speeches from alumni. EP

Chevron-Sponsored AUW Summer School Welcomes 101 Young Girls to Explore the World of STEM

Asian University for Women (AUW) inaugurated its Math and Science Summer School 2025, funded by Chevron, in a vibrant ceremony held at its rooftop campus on M.M. Ali Road, Chattogram recently.

This year's program brings together 101 talented college girls from across Bangladesh for a month-long fun-based practical learning experience focused on STEM education.

Since its launch in 2019, the Chevron-sponsored AUW Math and Science Summer School has played a pivotal role in inspiring young women to pursue higher education and careers in Science, Technology, Engineering, and Mathematics (STEM).

This year's cohort will engage in courses on Mathematics, Physics, Chemistry, Computer Programming, and Public Health, taught by both local and international faculty members with strong academic backgrounds.

The inauguration ceremony was graced by the Chief Guest, Dr. Nurun Nahar Chowdhury, ndc, Additional Secretary, Energy and Mineral Resources Division (EMRD), Government of Bangladesh. In her address, she emphasized the vital importance of STEM education in driving national progress and empowering young women across the country. EP

RMG, Textile Leaders Urge Gas Policy Reforms to Boost Output

Leaders from Bangladesh's leading ready-made garment (RMG) and textile industry associations have urged the government to exempt industrial and captive gas-run facilities from seeking re-approval from Titas Gas Transmission and Distribution Company Ltd during internal rearrangements provided their hourly load, monthly load, and outlet pressure remain unchanged.

"Removing the requirement for prior approvals will help the industry adopt more energy-efficient and high-performance machinery. We believe this will significantly boost energy efficiency, enhance production, and contribute to valuable foreign exchange earnings," they added.

The leaders recently made this appeal in a joint letter to Muhammad Fouzul Kabir Khan, Adviser to the Ministry of Power, Energy and Mineral Resources.

The industry leaders warned that procedural delays and restrictions in the current gas connection approval process are hurting production and costing the country valuable export earnings.

They stated that most factories are established with BIDA's approval and built with significant investment in infrastructure, imported machinery, and utilities, often backed by bank financing. But despite this, companies are unable to fully utilize their installations and meet export targets.

Industry leaders argued that frequent restructuring or machinery replacements are required to improve efficiency or respond to changing buyer demands. However, the current requirement to seek prior approval from gas distribution companies for any rearrangement within factory premises causes unnecessary delays. EP

Govt to Import Refined Oils for Jul-Dec at Tk 10,006 cr

The advisory council committee on government purchase, in a recent meeting, approved the procurement of refined petroleum fuel oil from six countries at a cost of Tk 10,006.63 crore.

The fuel from Thailand, the United Arab Emirates, Indonesia, Malaysia, China, and India will be consumed for the period of July to December of the current calendar year.

Additionally, the committee also approved importing 25,000 tonnes of octane to be supplied by PT Bumi Siak Pukako Zapin of Indonesia at Tk 208.63 crore and one cargo of Liquefied Natural Gas to be supplied by Vitol Asia Pte Ltd of Singapore at Tk 269.029 crore. EP

Petrobangla Picks 7 Banks for LNG Imports Backed by WB Guarantee

State-run Petrobangla has selected seven local and foreign commercial banks to facilitate the import of expensive liquefied natural gas (LNG), backed by a repayment guarantee from the World Bank (WB), as Bangladesh seeks to secure its future energy supplies and ease pressure on foreign exchange reserves.

Following a competitive tender, Petrobangla shortlisted three foreign banks - Germany's Deutsche Bank, the Development Bank of Singapore, and Standard Chartered - and four local banks - Prime Bank PLC, Eastern Bank PLC, Dutch-Bangla Bank, and the City Bank PLC - to provide financial support for LNG imports starting in 2026.

"These banks and financial institutions were selected from among 31 banks and 11 consortia that submitted bids," a senior official said recently.

The selected banks will form a consortium to provide Petrobangla with a stand-by letter of credit (SBLC) worth US$200 million, valid for up to 12 months, in favor of long-term LNG suppliers under existing sales and purchase agreements (SPAs).

They will also offer an additional SBLC worth $50 million, valid for up to 90 days, for spot LNG suppliers under master sales and purchase agreements (MSPAs).

In addition, the banks will provide a $100 million credit line in the form of short-term loans with up to a 12-month tenor to help Petrobangla meet payment obligations for specific LNG cargoes under the SPAs and MSPAs. EP

Energypac Hosts Dialogue with Bankers

Energypac Group recently hosted a strategic business dialogue in the capital to strengthen ties with its banking partners amid ongoing macroeconomic and geopolitical headwinds, said a press release.

The event titled 'Energypac Bankers' Meet' brought together over 150 senior representatives from 29 banking institutions and Energypac Group and its concerns.

At the event, Energypac Group presented its long-term business roadmap, outlining the group's strategy for stability, recovery and long-term growth.

The session was led by Energypac Group directors Rezwanul Kabir, Pramiti Anasuya Alam, Energypac Power Generation PLC CFO Aminur Rahman Khan, Energypac Engineering CFO Golam Mohammod and Energypac Power Venture CFO Mahabub Hasan, among others.

The meeting was a two-way conversation allowing banking representatives to actively engage with the company's leadership.

Energypac Power Generation managing director and chief executive officer Humayun Rashid was present. EP

Trilateral Deal a Milestone in Energy Cooperation, Says Nepal Envoy

The trilateral energy deal under which Bangladesh has started importing hydroelectricity from Nepal is a milestone in Nepal-Bangladesh ties, said Nepalese Ambassador Ghanshyam Bhandari.

Bangladesh has started importing hydropower from Nepal through the use of the Indian grid under a five-year deal.

The import will be from June 15 to November 15 every year.

"Our relationship, right from the political, top political level to the grassroots level, has been quite a smooth sailing, not just from 1972, when we established the diplomatic relationship, even before that".

"We have a similar culture. We eat similar food, speak similar languages, because we have the roots of our languages in the Sanskrit tradition. So these are all good things that we are so proud of." EP

Green page

Govt Targets 3,000MW Solar Power from Rooftops by December

Over the next three to six months, solar panels will be installed in all government offices, schools, colleges, madrasahs, and hospitals across the country, under the government's National Rooftop Solar Program.

The Power Division announced the initiative in a circular issued on 7 July, stating that the program aims to add around 3,000 megawatts of electricity to the national grid by December through rooftop solar installations on public buildings.

The government will implement the scheme under two investment models: the capital expenditure (CapEx) model for government offices and the operating expenditure (OpEx) model for educational and healthcare institutions.

Under the OpEx model, schools, colleges, madrasahs, and hospitals will not have to bear any costs.

The solar systems will be connected to the grid without batteries in most cases. However, batteries may be installed at some educational and healthcare institutions depending on demand.

Net metering will be used to adjust the electricity bills, balancing electricity sent to the grid and electricity consumed from it, with settlements made every three months.

According to the circular, the solar systems will vary in size from 10 kilowatts to several megawatts depending on the available roof area of the respective buildings.

The Power Division noted that Bangladesh currently generates only 5.6% (1,563.7 megawatts) of its electricity from solar power, significantly lower than neighboring countries.

To address this, the government has set targets to meet 20% of its electricity demand from renewable sources by 2030 and 30% by 2040, as outlined in the Renewable Energy Policy 2025. EP

Bangladesh Slashes Import Duty on Solar Inverters

Bangladesh has cut the import duty on solar inverters from 10% to 1% to reduce project costs and support utility-scale and rooftop PV systems under its net metering scheme.

The government said the duty cut would reduce project costs and attract more investment in clean energy. Officials noted that the domestic PV sector had long called for the move, which was enacted on June 22 with the passage of the fiscal year 2025-26 budget law.

Inverters account for about 15% of total costs in solar power projects, said Dipal C. Barua, chairman of the Bright Green Energy Foundation. "The duty cut will help lessen project cost and increase affordability," he added.

Mostafa Al Mahmud, president of the Bangladesh Sustainable and Renewable Energy Association, said the exemption was a long-standing demand of stakeholders raised across multiple government forums.

"As the government lowered import duty on inverters, the other taxes will also go down," he said. He added that authorities must now ensure storage systems are more widely available to support green power generation.

The government is now reviewing its net-metering policy to encourage rooftop PV adoption by households and businesses. EP

HC Seeks Time-Based Action Plan on Solar Panels in City's Rooftops

The High Court recently asked the relevant authorities to formulate and implement a time-based action plan for the installation of adequate and effective solar panels on the rooftops of every building in Dhaka city.

The HC bench of Justice Md Akram Hossain Chowdhury and Justice Foyej Ahmed passed the order after hearing a writ petition filed by the Bangladesh Environmental Lawyers Association (BELA).

The court also asked the Power Division of Power, Energy and Mineral Resources Ministry, Rajdhani Unnayan Kartripakkha (Rajuk) and the Sustainable and Renewable Energy Development Authority (SREDA) to submit a progress report within six months.

The court also asked the authorities to make functional the solar panels already installed on all residential and commercial buildings in Dhaka city.

It also issued a rule asking the government to explain as to why the failure of the authorities to operate the existing solar panels installed on the roofs of residential and commercial buildings in Dhaka city effectively is contrary to the constitution and existing laws, plans, and policies, should not be declared unconstitutional, illegal and against public interest. EP

Türkiye Installed 2.8 GW of Solar in First 5 Months of 2025

A strong start to solar installations in 2025 helped the country's cumulative solar capacity surpass 22.6 GW by the end of May.

Tьrkiye's cumulative solar capacity reached 22,648 MW at the end of May, according to figures released by the government's Ministry of Energy and Natural Resources.

The figure represents continued momentum in the country's solar growth. At the end of last year, solar capacity stood at 19.8 GW, meaning over 2.8 GW were deployed across the first five months of this year.

The growth of the past months was mainly driven by commercial and industrial installations. "In our view, it's the latest dynamics with regulated retail rates, that have seen substantial increases in the last year, that are driving these upticks in installations, particularly in the C&I segment," Wood Mackenzie analyst Juan Monge Artacho says.

The ministry's latest update adds that solar capacity at the end of May 2024 was 14,995 MW, meaning over 7.6 GW of solar were added across the twelve calendar months. EP

Green page

Negative Power Prices Set to Increase as Solar Output Rises to Record High

The frequency of negative power prices is predicted to reach record levels across parts of Europe after solar output hit new highs in the second quarter this year. That was the key takeaway from a new report on the European electricity market from energy data analyst Montel Analytics.

The study highlighted a growing trend of negative prices across Europe, with Sweden's SE2 price zone recording the largest number (506 hours) in the six months to the end of June. This was driven by unusually strong hydro inflows, transmission bottlenecks, changes to flow-based market coupling and the continued increase in renewable capacity.

The trend of below-zero prices was driven primarily by rising levels of solar generation, which hit a record high in the three months to June.

Total solar output for Q2 was 104.4TWh, with Germany (29.0TWh), Spain (15.8TWh) and France (9.9TWh) the biggest contributors. The largest increases versus Q2 2024 were observed in Germany (4.9TWh, 20%) and GB (2.1TWh, 40%), with France, Switzerland, Romania and Belgium seeing growth rates of 30% or more.

While solar outturn was high, coal/lignite sunk to a record quarterly low of 52.5TWh, a 11% drop on Q2 2024. The biggest contributor to the decline was Poland, which saw a 22% and 16% drop in coal and lignite generation respectively versus Q2 2024, while Italy, Spain, Romania and Hungary also saw large falls in relative generation. EP

CPD Urges Review of Solar Project Cancellations Amid Chinese Investors' Concerns

The Centre for Policy Dialogue (CPD) recently urged the interim government to reconsider its recent decision to cancel 37 solar power plant projects, warning that the move could severely undermine investors' confidence, particularly among Chinese stakeholders.

The recommendation came during a seminar titled 'Recent Challenges for Chinese Overseas Investment in Bangladesh's Renewable Energy Sector: Way Forward', held at a Dhaka hotel on Monday.

The cancelled projects, worth over US $6 billion and totaling more than 3,287 megawatts in capacity, were approved under the previous Awami League government.

The interim administration has cited political considerations and allegations of irregularities as reasons for the cancellation.

Chinese investors, who had committed significant funding to several of the projects, expressed alarm during the event.

Representatives from Jinko Solar, Chint Solar, and the Chinese Renewable Energy Industries Association (CREIA) joined Bangladeshi officials and sector leaders in voicing concern.

Presenting the keynote paper, CPD Research Director Dr Khondaker Golam Moazzem and Program Associate Abrar Ahammed Bhuiyan noted that 15 of the affected companies had already acquired land, meaning the cancellations could lead to financial and legal complications. EP

BSREA Urges Review of Scrapped Solar Plans

The Bangladesh Sustainable and Renewable Energy Association (BSREA) recently urged the interim government to reconsider its cancellation of 31 letters of intent that the past regime had signed with potential investors in solar power projects without adopting any tender process.

A letter of intent is a document outlining the preliminary understanding between two or more parties who intend to enter into a formal agreement.

It is essentially a blueprint for a deal, setting out key terms and conditions before a legally binding contract is finalized.

Recently, the Centre for Policy Dialogue (CPD) also sought a review of the letters of intent.

The floating of tenders seeking bids for 55 new solar power projects was a positive development, but these did not draw foreign investors as expected, said the association.

"In some cases, only one bidder has shown interest, while in others, no one has participated at all," said Mostafa Al Mahmud, president of the association, at a press conference at the Dhaka Reporters' Unity. EP

Green page

Evitex Apparels Achieves LEED Certification

As of June 2025, Evitex Apparels Ltd — a concern of Evince Group — has earned Gold Certification under LEED v4.1 for Operations and Maintenance, marking a significant step in sustainability for Bangladesh's rapidly growing RMG sector.

Evince Group, a leading garments manufacturer in Bangladesh, continues to priorities sustainable practices, according to a press release.

Shah Rayeed Chowdhury, director of Evince Group and BGMEA, stated,

"BGMEA has developed a Sustainability Vision 2030 with the SDGs as key KPIs. Through active efforts, we aim to build a greener and more productive RMG industry. Evince aspires to lead this revolution with sustainability at the core."

Shah Adeeb Chowdhury, another director of Evince Group, added, "Evitex Dress Shirt Ltd is already Platinum certified under LEED v4.1, and now Evitex Apparels Ltd has received Gold. We believe sustainability is the way forward. Our goal is to achieve LEED certification for all our concerns. We're committed to working with BGMEA to meet SDG goals and promote ethical sourcing."

Bangladesh currently has 248 LEED-certified RMG factories — 105 Platinum and 129 Gold — making it a global leader in green garment manufacturing. The country hosts nine of the world's top 10 and 68 of the top 100 highest-rated LEED-certified factories. EP

Govt Focuses on Reducing Dust in Dhaka: Rizwana

Syeda Rizwana Hasan, Advisor to the Ministry of Environment, Forests, Climate Change and Water Resources, has announced a series of proactive steps aimed at tackling air pollution, with a strong focus on controlling dust pollution in Dhaka ahead of winter.

Rizwana also outlined the government's comprehensive plan addressing immediate, mid-term, and long-term solutions under the Bangladesh Clean Air Project (BCAP).

The adviser came up with the information while talking to journalists at the Bangladesh Secretariat following a meeting with a visiting team of Chinese air pollution experts.

"As part of short-term measures, all road repair works in Dhaka are targeted to be completed before winter. Surface covering, fencing, and water spraying systems will be implemented to control dust," she said.

Additional initiatives, including using watering carts, land hardening, and enforcing a "zero soil" policy, will be taken to prevent dust from exposed surfaces, she added.

To curb vehicular pollution—a major contributor to poor urban air quality—the Bangladesh Road Transport Authority (BRTA) will remove outdated vehicles and introduce 250 new ones.

Plans are also in place to establish 10 automatic vehicle inspection centers to enforce emission standards.

Besides, a working group will be formed in consultation with the Chinese experts to develop long-term strategies, said the adviser. EP

BIMSTEC Chief Calls for Regional Cooperation to Combat Plastic Pollution

Secretary General of the BIMSTEC Indra Mani Pandey has underscored the urgency of addressing plastic pollution as a shared global and regional threat, urging collective solutions.

"BIMSTEC stands ready to deepen regional cooperation to achieve a plastic-smart Bay of Bengal region," he said while speaking at a high-level dialogue recently.

Department of Environment (DoE) of Bangladesh, in collaboration with the United Nations Office for Project Services (UNOPS) and BIMSTEC organized the seminar titled "Accelerating Solutions for Plastic Pollution in Bangladesh" to accelerate sustainable plastic management solutions.

The event brought together government leaders, private sector representatives, youth activists, innovators, and international stakeholders.

Country Manager of UNOPS for Bangladesh and Bhutan Sudhir Muralidharan inaugurated the seminar held at DoE's conference room. Secretary of the Ministry of Industries Obaidur Rahman addressed the seminar while Director General of the Department of Environment Dr Md Kamruzzaman was in the chair.

"Plastic pollution is not just an environmental issue, it is an infrastructure and behavioral challenge that demands bold, collective action," Muralidharan said. EP

Bonn Climate Conference Advances on GGA Indicators, Adaptation Fund

On science, following two weeks of difficult negotiations, delegates were able to find agreement to "take note" of the WMO's 'State of the Global Climate 2024' and 'Global Annual to Decadal Climate Update 2025-2029' reports and the multi-decadal estimates of current global warming of between 1.34 and 1.41°C.

No agreement was reached on the technology implementation program, with views diverging on its contribution to implementing the decision on the first Global Stocktake under the Paris Agreement, especially with regard to energy transition.

On many issues, parties captured progress made in Bonn to serve as a basis for further negotiation at their next meeting in Belйm, Brazil, in November 2025.

The 2025 Bonn Climate Conference advanced the consideration of arrangements for the transition of the Adaptation Fund to exclusively serve the Paris Agreement on climate change. Delegates also settled on guidance for refining the list of indicators to measure progress toward the Global Goal on Adaptation (GGA).

According to the Earth Negotiations Bulletin (ENB) summary report of the meeting, "[p]art of that compromise was a reference to 'indicators for means of implementation to measure: access, quality, and adaptation finance, including provision,' a key priority for developing countries to close the widening adaptation finance gap." EP

10-Yr Strategic Plan to be Formulated to Strengthen BCCT: Rizwana

To transform the Bangladesh Climate Change Trust (BCCT) into an efficient, self-reliant, and future-ready institution, a 10-year strategic plan will be formulated with expert guidance, Environment, Forest and Climate Change Adviser Syeda Rizwana Hasan said recently.

She announced while speaking as the chief guest at a stakeholder meeting with officials and staff at the BCCT office in Mohakhali, Dhaka.

The environment adviser said the Climate Change Trust Act 2010 will be amended and the operational guidelines will be updated to make them more relevant to current needs.

She also mentioned that if government land is allocated, steps will be taken to construct a permanent office building for BCCT, which will enhance the institution's stability and operational efficiency.

Rizwana further emphasized that necessary steps will be taken to secure patent rights for research projects funded by the Trust Fund.

In addition, she said, a real-time digital monitoring system will be introduced to ensure transparency and accountability in project implementation.

Highlighting the importance of human resource development, the adviser said modern training must be provided to enhance the skills and effectiveness of BCCT personnel. EP

Bangladesh, Sweden Sign Grant Agreement to Boost Natural Resource Management

The Governments of Bangladesh and Sweden recently signed a grant agreement to support a new project aimed at strengthening the country's capacity for natural resource management and enhancing climate resilience.

Under the agreement, Sweden will provide approximately 4.9 million SEK (approximately Taka 6.16 crore) as a grant for the project titled "Strengthening Capacity of MoEFCC, DoE and BFD for Natural Resource Management and Improved Climate Resilience."

The project, which will run from July 2025 to December 2026, seeks to bolster Bangladesh's institutional and strategic ability to safeguard biodiversity and natural resources, said an ERD press release.

The key objectives of the project include strengthening Bangladesh's institutional and strategic capacity to safeguard biodiversity and natural resources by linking conservation efforts with broader climate goals, enhancing monitoring and enforcement frameworks for Ecologically Critical Areas (ECAs), and preparing for the establishment of a dedicated wildlife trust fund to ensure sustainable financing for conservation initiatives.

The agreement was signed by Dr. A. K. M Shahabuddin, Secretary (in charge) of the Economic Relations Division (ERD), Ministry of Finance, and Maria Stridsman, Charg d'affaires and Head of Development Cooperation at the Embassy of Sweden in Dhaka, on behalf of their respective governments. EP

EU Unveils Long-Delayed 2040 Climate Target

The EU recently unveiled its long-delayed target for cutting greenhouse gas emissions by 2040, but with contested new flexibilities built in to win over the most skeptical member states.

After months of tough negotiations with EU states, Brussels announced it would stick to the objective announced last year of cutting emissions by 90 percent by 2040, compared to 1990 levels.

The proposal comes as much of Europe roasts in an early summer heatwave, which scientists say is becoming more intense, frequent, and widespread due to human-induced climate change.

The 2040 target -- which needs the sign-off from the European Union's member states and parliament -- is a key milestone towards the bloc's goal of becoming carbon-neutral by 2050.

Brussels says the EU has cut climate-warming emissions by 37 percent relative to 1990, but its green agenda faces mounting pushback with a rightward shift and rising climate skepticism in many European countries.

EU climate chief Wopke Hoekstra acknowledged the "sensitive" debate, saying Brussels was keeping an "ambitious" goal while being "pragmatic and flexible on how to achieve it".

To sway resistant capitals, the European Commission proposes that from 2036, the bloc's 27 countries can count carbon credits purchased to finance projects outside Europe, for up to three percent of their emission cuts. EP

Single-Use Plastic to be Banned in Secretariat from Oct 2: Cabinet Secretary

Cabinet Secretary Dr Sheikh Abdur Rashid recently announced that the use of harmful single-use plastic (SUP) items will be banned in the Bangladesh Secretariat from October 2, 2025. To ensure smooth implementation, a preparatory period will be provided throughout August and September and officials will be directed to gradually reduce the use of plastic items, he said.

He made this announcement while speaking as the chief guest at a seminar titled "Sustainable Plastic Use in the Secretariat: A Future for a Single-Use Plastic Free Environment", organized by the Ministry of Environment, Forest and Climate Change at the Multipurpose Hall of the Finance Division.

Dr. Rashid emphasized that plastic pollution is a global challenge requiring collective international efforts. He stressed the need for prioritizing medical waste management as well.

"Our actions must not only serve our present needs but also safeguard the future for the next generation. We must leave behind a healthier and more sustainable world for them," he added.

Environment Secretary Dr Farhina Ahmed, who chaired the seminar, stated that the ministry will soon formulate and implement a detailed action plan to enforce the ban. EP

G20 Climate Action Plans: Lost, Not Found, in Bonn

The just-wrapped-up SB62 climate talks in Bonn missed the opportunity to raise the bar of Nationally Determined Contributions, due to the G20's lack of political ambition.

The NDCs are crucial as they are the cornerstone of the Paris Agreement, reflecting countries' commitments to protect people, livelihoods, and ecosystems to the best of their capacities and responsibilities.

The G20 represents about 80% of greenhouse gas emissions. Not all countries in the G20 have the same historic responsibility or capacity, but given the concentration of emissions in these countries, they must show ambition for climate action in line with their fair shares.

Despite an initial deadline in February, so far, only five G20 countries have submitted revised NDCs: Brazil, Canada, Japan, the UK, and the US, under the Biden Administration, before rolling back commitments on climate.

Tasneem Essop, Executive Director, Climate Action Network International, said: "These NDCs are not just technical documents - they are moral and political declarations that will shape the course of our shared future. They reveal whether governments are ready to confront the climate crisis with courage, or whether they will keep hiding behind greenwashing, delay, and distraction."

Of the G20 NDCs that have been released, none has established concrete and time-bound plans for phasing out fossil fuels.

Many have instead opted for obscure ways to increase oil and gas production, including the US, Canada, and Brazil, and describe how to use carbon capture and storage (CCS) to decarbonize their energy sector, with the UK committing up to 22 billion to CCS.

Another concern is the continued reliance on carbon markets, especially with this being the first round of NDCs released since Article 6 of the Paris Agreement, which governs international carbon markets. EP

Rain Caused Natural Disasters in 83% of Brazil's Cities: Report

Heavy rains spurred by global warming caused natural disasters in eight out of 10 Brazilian cities between 2020 and 2023, three times more than in the 1990s, according to a study published recently.

Rising temperatures lead to increased water vapor in the atmosphere -- about 7 percent per additional degree -- increasing the risk of heavy rainfall in some regions, including Latin America.

In Brazil, the number of floods, river surges and landslides caused by intense rainfall surged from 2,335 in 2020 to 7,539 three years later, affecting 83% of cities, a report by the Brazilian Alliance for Oceanic Culture found.

The study, produced by private and public institutions, does not include data from 2024, when southern Brazil experienced unprecedented flooding.

Around 3.2 million people were affected on average each year, the report said, up from around 43,000 in the 1990s.

"This increase not only highlights the growing frequency of rain-related climate disasters, but also their severity," Ronaldo Christofoletti, a researcher behind the report, said in a statement.

The figures "underscore the urgent need to implement prevention and adaptation measures, with the aim of protecting vulnerable communities and mitigating the effects of these extreme events," he said. EP

US TARIFFS: LET'S HOPE FOR THE BEST

The United States has slapped a 35% tariff on the goods it imports from Bangladesh. This is on top of the around 15% duty already being charged for Bangladeshi exports, taking the total to a staggering 50%. Unless the ongoing tariff negotiations between Dhaka and Washington produce a positive outcome for Bangladesh, the new tariff rate will go into effect from the first of next month. The two sides have already held two rounds of grueling talks on the subject, but inconclusively. Bangladesh has been pressing for a slash in the tough-to-implement 35% tariff rate, while the US has reportedly tagged the trade and traffic issue with its security concern. The stakeholders in Bangladesh, especially the exporters, have no idea about what has happened in the negotiations and what has so far been achieved. Nothing can be disclosed at this stage because of a confidentiality agreement between the two sides, according to Commerce Adviser Sk Bashir Uddin, the country's lead negotiator with the United States Trade Representative (UNSTR) officials. The next round of talks will be held soon, said the commerce adviser, hoping that there will be good news before the August 1 deadline. Let's keep our fingers crossed until then. That's the message from the businessman adviser of the interim government of Professor Muhammad Yunus.

Tariff is a tax a government imposes on the goods it imports from another country. This measure is taken to make the imported goods more competitive and protect the domestic producers. It is also a way of boosting the government's revenue. What happens if Bangladeshi goods exported to the US are slapped with 35% plus 16% (total 50%) of tariffs and duties after the expiry of the deadline? The importers are to pay the extra money for the goods. But they will be reluctant to pay it to maintain their profit margin. In order to keep their businesses going, the US importers will slash the purchase orders from Bangladesh and look for markets where they can get the same products at cheaper rates. Bangladeshi exporters will face the music, and some of them fear that the loss eventually may reach $8 billion. The United States is the single largest destination of Bangladesh's readymade garments. Bangladesh earns up to $4 billion annually from RMG exports, which account for 87% of the country's overall export income. The country has 1,821 business houses exporting readymade garments, mostly to the US and European countries. Bangladesh is the second largest exporter of readymade garments next to China, with the industry directly employing four million workers, 80% of them women. So any major setback in the export market will mean closure of factories, loss of production, decline in the foreign exchange income, and loss of jobs that may reach even one million.

With a new round of Washington-Dhaka tariff talks expected next week, the businesspeople in Bangladesh are passing sleepless nights. Some of them have already received emails/calls from importers of brand items to hold back the shipment until the Aug 1 deadline. Many are also worried over news reports that the US wants a deal not only on trade and tariffs but beyond it. Bangladesh has reportedly offered zero duty for a range of US products such as LNG, wheat, cooking oil, oil seeds, and aircraft with a promise to boost its imports from the United States. Reports here, however, suggest Washington wants more from Bangladesh in terms of security. Power and Energy Adviser Fouzul Kabir Khan, in recent remarks to reporters, said that the United States wants a framework agreement with Bangladesh, which may include their security concerns. He, however, declined to provide details about the US concerns, leaving the issue for the commerce adviser.

Since President Donald Trump announced the new tariffs, Bangladesh has been trying to gain a win-win deal with the US. Let's hope for the best. EP

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মানসম্পন্ন বিদ্যুৎ নিরবচ্ছিন্নভাবে দেশের সকল মানুষের নিকট পৌঁছে দেয়াই আমাদের অঙ্গীকার

- গ্রিড উপকেন্দ্র, গ্রিড লাইন ও টাওয়ার জাতীয় সম্পদ, তা রক্ষা করা সকলের দায়িত্ব।
- গ্রিড 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 গ্রিড লাইন ও টাওয়ার হতে নিরাপদ দূরত্বে স্থাপনা নির্মাণ করুন।
- বৃক্ষ রোপনে গ্রিড 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।

Rooppur In The Dark: Why Transparency Matters In Nuclear Power

Professor Dr. Md. Shafiqul Islam

The public deserves to know what's going on. The company should provide timely updates—via the media—about the plant's current construction status and expected operational dates for both units. Sadly, neither the regulatory bodies, like BAERA or the Atomic Energy Commission, nor the company itself has done this well.

Recently, four countries, including Bangladesh, signed agreements to build VVER-1200 third-generation-plus nuclear power plants. Looking at these global benchmarks, it's hard to believe there's any truth to the claim that $5 billion was siphoned off in the Rooppur Nuclear Power Plant project. Bangladesh's EPC (Engineering, Procurement, and Construction) cost for the project is $12.65 billion, compared to Belarus's $11 billion, Turkey's $10 billion, and Egypt's $15 billion. India is a different case altogether, as it manufactures many components domestically, making any cost comparison with Bangladesh irrelevant. Still, it's fair to say Bangladesh hasn't exactly excelled at negotiation. With sharper bargaining, the cost might have been somewhat lower.

Dr. Md. Shafiqul Islam, Professor of Nuclear Engineering at the University of Dhaka, shared his thoughts on this and more in a discussion with ***Mollah Amzad Hossain***, Editor of Energy & Power.

How do you evaluate the Rooppur Nuclear Power Plant's progress so far and the upcoming power generation phase? Many believe the project has elevated Bangladesh's global profile. What's your take?

Rooppur isn't just another power plant—it's part of our national story. The idea dates back to 1961. A formal go-ahead came in 2011, and construction on the first unit kicked off in 2017 with the initial concrete pour. The second unit began nine months later. Fast forward eight years, and we're still waiting for power production to begin.

By comparison, Belarus took seven years, and the UAE eight, to get their first units online. Russia, which is both the financier and builder for Rooppur, has already extended its project timeline by three years. As of now, the first unit is expected to be operational in 2026, with the second following within a year. Still, no official date has been announced for when the first unit will go live.

Originally, the generation from the first unit was slated for 2023, but that deadline came and went. At one point, delays were blamed on unfinished transmission lines, but those were completed earlier than claimed. The real holdup appears to be ongoing internal construction. Even if the overall project budget doesn't balloon due to delays, factors like rising staff salaries, a higher dollar exchange rate, and increased fuel import costs are already driving up the cost of electricity. If the plant doesn't begin operation in 2026, these pressures will only worsen. More importantly, Bangladesh will miss out on the benefits of clean, carbon-free energy. Once operational, though, Rooppur will not only power homes—it will power national pride.

Critics have long questioned the project's cost. The EPC contract was signed for $12.65 billion. After the fall of the Awami League government, an online report accused the project of harboring $5.0 billion in corruption. Do you think the cost is justified?

Under this contract, Russia is providing Bangladesh with VVER-1200 Generation III+ reactor technology at a total cost of $12.65 billion. Let's put that in context. Turkey signed its deal in 2012 for $10 billion, Belarus in 2011 for $11 billion, and Egypt in 2017 for $15 billion. All these countries are newcomers to nuclear power, and all their vendor is the same—Rosatom, Russia's state nuclear agency.

To claim that $5.0 billion was embezzled just doesn't add up. Yes, Bangladesh has limited negotiating leverage. With better skills, perhaps we could have shaved off a bit of the cost. But imagining a $5.0 billion discount is a stretch—it would mean an EPC cost of $7.65 billion, which simply isn't realistic.

Some people point to India and ask, "If they can do it cheaper, why can't we? But that's comparing apples to oranges. India used VVER-1000 tech, which isn't a full third-generation model, and built

many components domestically. Their established nuclear industry meant they could produce key parts like generators and alternators locally. Bangladesh, in contrast, imported everything from Russia. So, comparing costs doesn't make sense.

You've followed the Rooppur project closely. Based on current progress, will the first unit be ready for fuel loading by December? And how long after that can we expect commercial generation?

As academics, we're mostly on the sidelines, relying on public sources like the media. What we do know is that the first batch of nuclear fuel arrived in 2023. If the fuel isn't loaded by December 2025, questions will arise about its quality and shelf life. But I can't say for sure whether the plant will be ready for fuel loading by then.

A nuclear plant advances through four key phases: A, B, C, and D. Rooppur is currently at the final part of Phase A2, focused on testing the containment structure and system tightness. Before physical start-up (Phase B), a host of equipment and system tests must be completed. Fuel loading and the criticality test mark the start of Phase B. But before that, the safety analysis report must be submitted and approved by the national regulatory authority. The IAEA also needs to verify the plant's nuclear material accounting system for non-proliferation purposes.

The final safety analysis report (FSAR) is complex and time-consuming. For example, delays in regulatory approval pushed back the UAE's Barakah plant by over a year.

After the fuel is loaded, there's typically a six-month period from initial operation to full commercial generation. If everything stays on track, trial runs might begin next year. Since the second unit started nine months later than the first, it'll take at least nine additional months to catch up.

Global best practices require nuclear project implementers to keep the public informed. Is that happening at Rooppur? Shouldn't the Nuclear Power Generation Company Bangladesh Ltd. be more transparent about timelines?

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Absolutely. The public deserves to know what's going on. The company should provide timely updates—via the media—about the plant's current construction status and expected operational dates for both units. Sadly, neither the regulatory bodies, like BAERA or the Atomic Energy Commission, nor the company itself has done this well.

Rosatom did set up an information center in Ishwardi Pourashova, but during my research, I found many locals didn't even know it existed, let alone had access to reliable information. People want to stay informed, but the system has failed them. From a global best-practices standpoint, this lack of communication is unacceptable. All key stakeholders should step up and share regular progress reports to reduce public confusion and media speculation.

We understand that transmitting electricity from Rooppur requires N-2 redundancy standards. How prepared is the grid for this?

In countries with stable power grids, N-1 redundancy is usually the standard for transmitting nuclear-generated electricity. But since Bangladesh is new to nuclear power, the government and PGCB are wisely aiming for N-2 redundancy to maximize reliability. The grid is mostly ready for the first unit's trial production. The Rooppur–Gopalganj transmission line has already been completed—a big milestone. Work on the Rooppur–Aminbazar–Kaliakoir line is still ongoing and is expected to finish within this year.

You've researched Rooppur's possible electricity tariff, yet the Power Purchase Agreement (PPA) remains unsigned. What could the tariff look like? And how concerning is the delay?

I did a tariff study back in 2020–21. Based on the exchange rate at that time, the unit cost was about BDT 7 per kilowatt-hour. But the Taka has depreciated since, and project delays have raised costs. Right now, I'd estimate the tariff at no less than BDT 10 per kilowatt-hour—and if delays continue, it'll go even higher.

As for the PPA, keep in mind that a nuclear plant has a 60-year lifespan. You can't use the same pricing models as you would for fossil fuel plants. A detailed financial analysis is needed, covering everything from fuel and exchange rates to debt and liability costs. This should be done by the Nuclear Power Generation Company and submitted to the buyer, BPDB. But so far, no such proposal or analysis has surfaced. An expert committee needs to be formed immediately to finalize the tariff. The delay has gone on too long already.

Globally, Small Modular Reactors (SMRs) are gaining traction. How do you view their potential in terms of investment and technology?

SMRs are now commercially viable. Russia already has a floating SMR in operation. Japan and China have completed land-based pilots, and now Russia, China, and Argentina are building SMRs for commercial use. Canada has also approved SMR licenses. SMRs are being seen as clean, safer alternatives to gas plants. With about 300 MW capacity, they're quicker to build and cost less than full-scale nuclear facilities. They'll definitely be part of the future energy mix, especially for achieving net-zero goals.

And what about Micro Modular Reactors (MMRs)? Where do they stand in the US, and what's the commercial outlook?

The US is making serious strides in MMRs. These reactors generate around 10 MW, cost roughly $1.0 to $1.5 billion, and can be built in under a year. The US government is looking to use them on military bases. They're also being explored as reliable power sources for future data centers. Currently, five pilot projects are underway under defense initiatives, with full deployment likely in the next 8–10 years, pending regulatory approval.

Could Bangladesh explore SMR and MMR technologies to boost carbon-free power generation? And over Rooppur's lifetime, how much carbon emission will it help avoid?

Definitely. Bangladesh imports over 55% of its energy, and that reliance is only growing. As a signatory to the Paris Agreement, we must prioritize cutting emissions. The government should invest in building expertise and supporting academic research in advanced nuclear technologies like SMRs and MMRs. That way, we'll be ready when these technologies go mainstream.

Over its 60-year life, Rooppur is projected to generate 1.14 trillion kilowatt-hours of electricity at 90% plant capacity. That's equivalent to avoiding about 680 million tonnes of carbon emissions. It'll also reduce nitrogen oxides, sulfur oxides, and protect us from fossil fuel price shocks.

Do we need a second phase of nuclear development in Bangladesh?

Yes, to diversify our energy sources, we should aim for another 2,400 MW nuclear power plant. Land will be a constraint, but the current Rooppur site has space for two more units. That makes it the logical choice for a second phase. Costs will likely be lower, too, since much of the infrastructure is already in place.

And are we ready with the skilled manpower to operate Rooppur? Are there any gaps?

Running a nuclear plant isn't just another job—it's a mission tied to national security. Leadership must inspire and guide the workforce. Along with good salaries, staff need dignity, mental well-being, and recognition.

So far, 1,821 people have been hired. Of them, 790 have completed training and are already on the job. Many others are still in training. Continuous education is essential in a nuclear facility. But unless management culture and the value of this profession improve, we won't be able to fully rely on local talent. That could keep us dependent on Russian expertise far longer than necessary. EP

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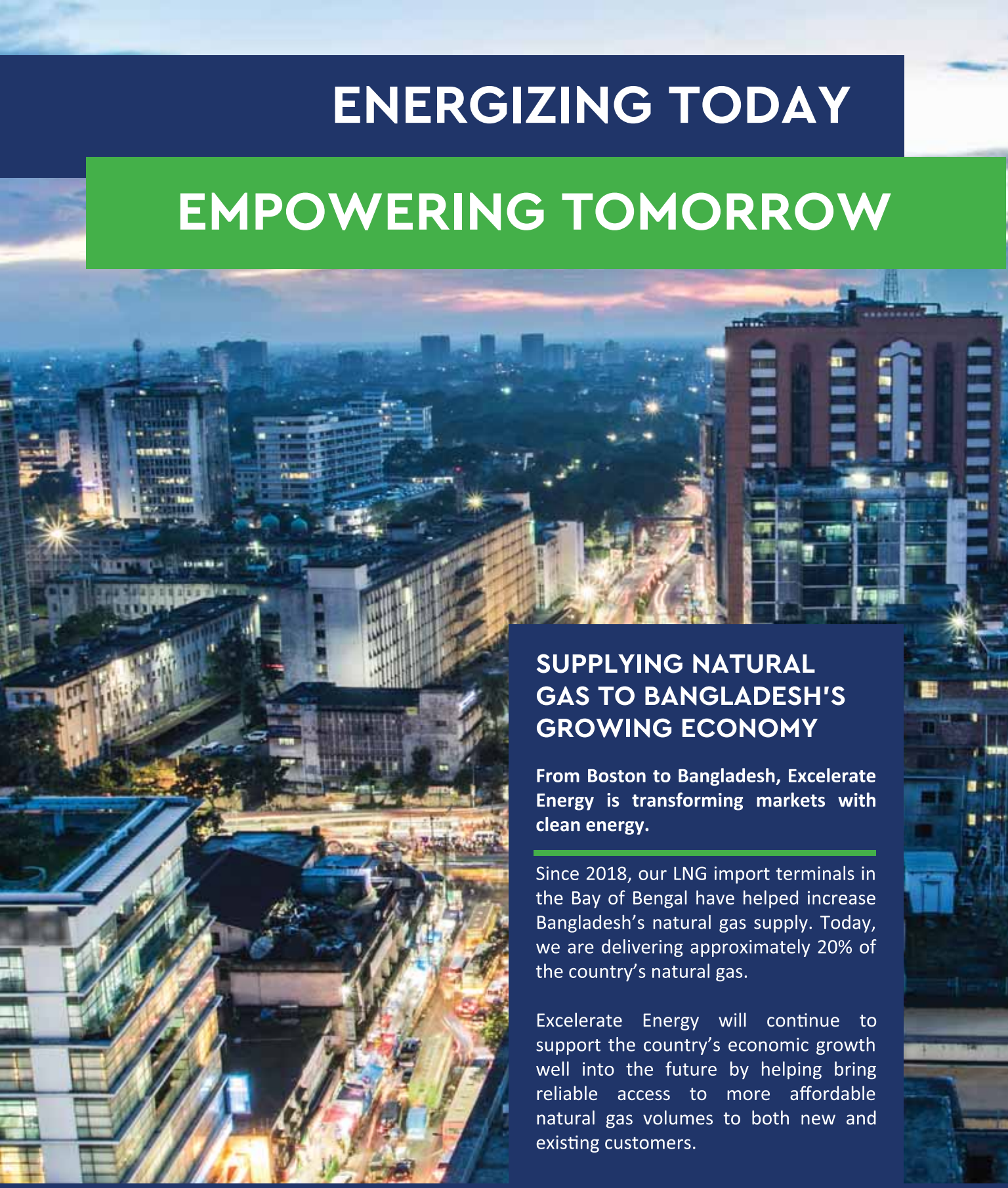

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