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ENERGY UPDATE

EXCLUSIVE INTERVIEW:
PAKISTAN'S INVESTMENT CLIMATE SET TO BE REVOLUTIONIZED WITHIN TWO YEARS

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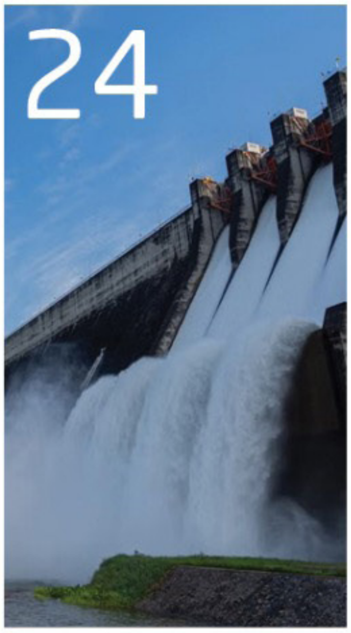


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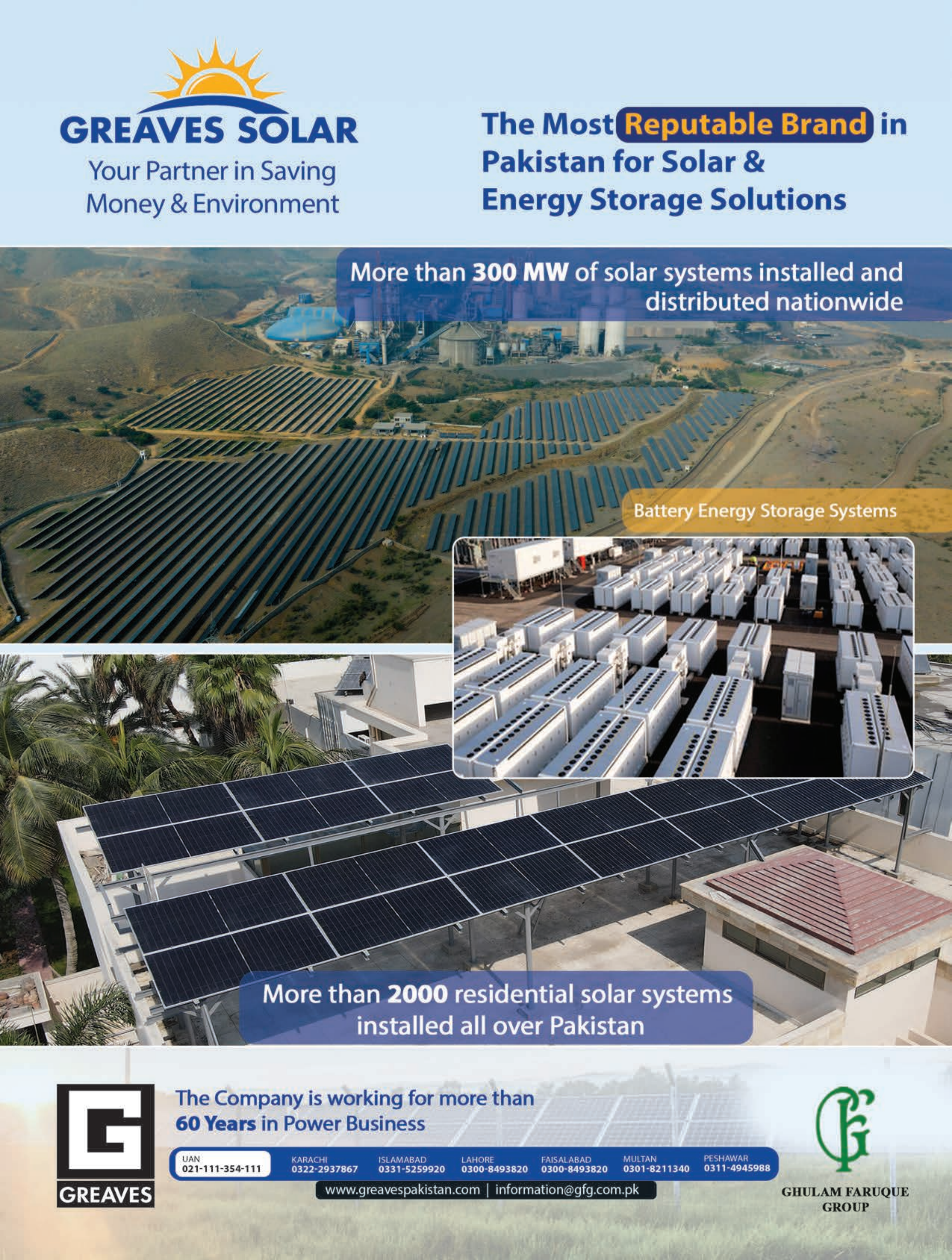
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FROM THE

Editor's desk...

Karachi Under Fire: Safety Measures Urgently Needed

Karachi, the economic heart of Pakistan and home to over 30 million people, is fast turning into a city of deadly fires, showing utter negligence of safety measures from the government and other stakeholders.

Fire incidents are rising at an alarming pace, exposing deep cracks in urban planning, governance, and emergency preparedness. Markets, factories, warehouses, residential buildings and high-rise plazas are repeatedly falling victim to fires, but lessons remain unlearned. The recent inferno at Gul Plaza, where flames raged for hours and claimed over 100 precious human lives, brutally reminded the nation that Karachi is sitting on a firebomb. That tragedy was not an accident; it was a disaster waiting to happen, born out of neglect, corruption and criminal indifference to human safety.

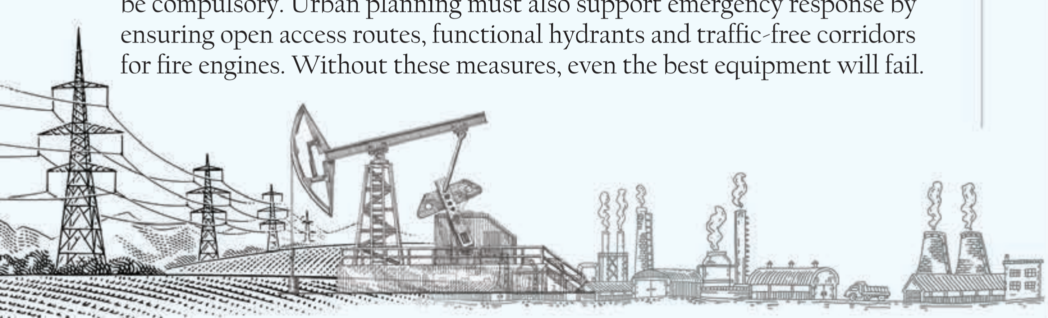
According to official data, more than 2,40 fire incidents were reported in Karachi last year alone, a figure that should shock every policymaker. In most cases, firefighters arrive late, struggle with inadequate equipment, face water shortages, and battle blazes that have already spiralled out of control. Smoke-filled staircases, locked emergency exits, absence of alarms and complete lack of evacuation plans turn buildings into death traps. People do not die because of fire alone; they die because there is no system to save them.

The deficiencies in tackling fires are structural and systemic. Karachi has barely three dozen fire stations for a population larger than many countries. Experts argue that a city of this size should have at least 200 fire stations strategically located to ensure rapid response, but the reality is grimly different. The number of trained firefighters is very low, fire engines are outdated, ladder trucks are insufficient for high-rise rescues, and modern tools such as foam tenders, hydraulic cutters, thermal cameras and breathing apparatus are either scarce or non-functional. In many cases, water remains the only firefighting agent, which is ineffective against chemical, electrical and industrial fires.

The reasons behind the surge in fire incidents are painfully obvious. Faulty electrical wiring, overloaded power connections, illegal extensions, poor-quality cables and absence of routine inspections are among the leading causes. Buildings are constructed without following fire safety codes, approvals are granted without safety audits, and occupancy certificates are issued without ensuring emergency exits or fire suppression systems.

Avoiding fires and saving human lives requires urgent actions. Every commercial and residential building must be legally bound to install fire alarms, smoke detectors, sprinklers, emergency lighting and clearly marked exits. Electrical systems must be audited regularly, especially in older structures and crowded markets. Karachi's fire brigade must be transformed from a neglected department into a modern, well-funded emergency force with advanced machinery, proper training and adequate manpower.

Citizens, including businessmen, must be educated on basic fire prevention, use of fire extinguishers, emergency evacuation and first response. Regular fire drills in schools, offices, shopping centres and factories should be compulsory. Urban planning must also support emergency response by ensuring open access routes, functional hydrants and traffic-free corridors for fire engines. Without these measures, even the best equipment will fail.



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Energy policy beyond firefighting

The grid should focus on charging all customers fairly for capacity, access and reliability

Afia Malik

The writer is an energy expert and senior research economist at the Pakistan Institute of Development Economics (PIDE), Islamabad

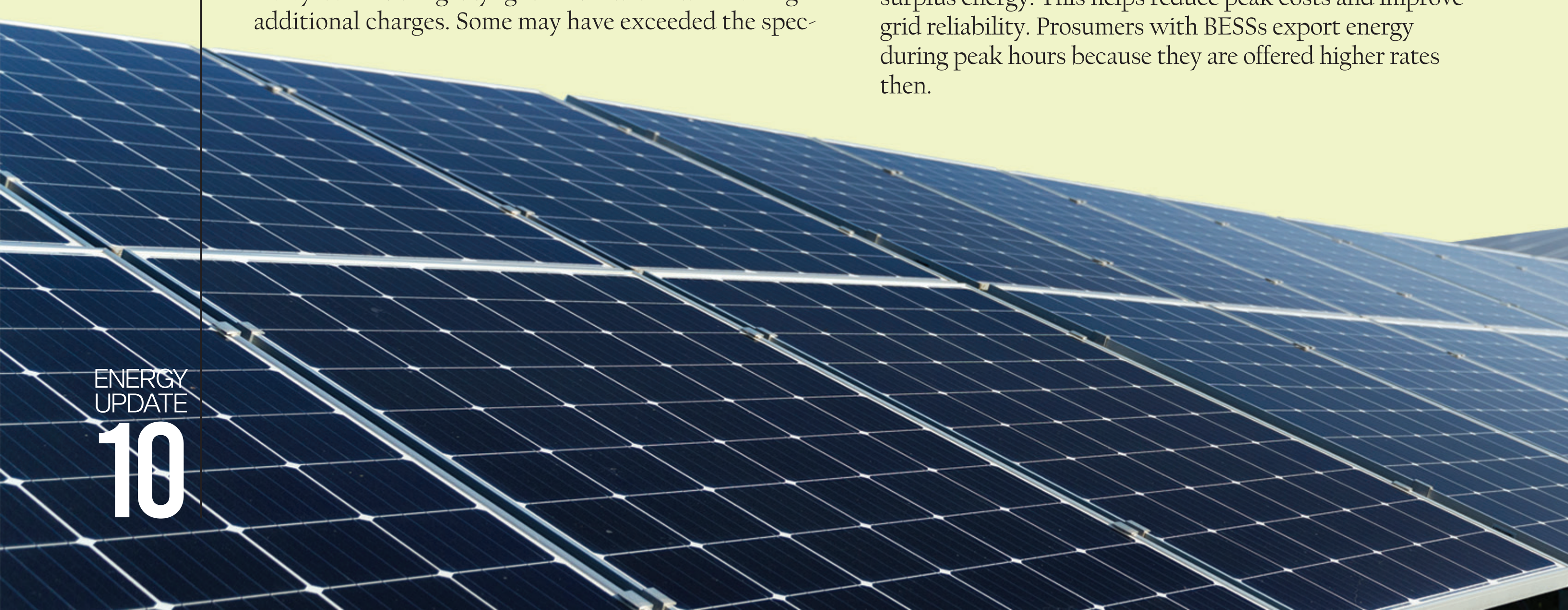
The power sector in Pakistan has faced a crisis for decades. Despite an ongoing energy transition, significant structural and governance challenges, such as costly long-term generation contracts, system inefficiencies and obsolete tariff design, continue to hinder progress.

It is not that the government does not want transition; they do. But they got stuck on immediate issues, leading to reactive and short-sighted actions that prioritise quick gains over sustainable solutions. A pertinent example of this is the draft Nepra Prosumer Regulations 2025. Undoubtedly, the existing net metering (NM) regulations exhibit several deficiencies that require revision to align with the evolving trends and declining costs. But what has been done to transform the grid to make it ready for the future?

It's a fact that NM consumers have been using the grid to store electricity generated by their rooftop solar PV systems during daylight hours without incurring additional charges. Some may have exceeded the specified limits, resulting in unauthorised energy feedback and voltage challenges. According to Nepra guidelines, the distribution company (Disco) has the authority to monitor and act in such cases, but it failed to do so. No monitoring system is in place to judge whether the installed capacity has crossed the prescribed limit. Discos have not upgraded their systems; the lack of hosting capacity analysis is a significant concern.

The goal of increasing revenues may be partially achieved in the short run by preventing the netting of exported units of the existing prosumers under the new framework, if implemented. In the medium- to long-term, consumers will invest in BESS and go off-grid, further decreasing Disco revenues. Additionally, the growth in the number of new NM consumers will stall, as there is no incentive left for them to export additional units. Solar will not stop, but Disco revenues will keep declining.

Net billing encourages consumers to shift their electricity use to daytime hours and adopt BESS. Countries like the UK, Germany, Australia, Japan and the US demonstrate that prosumers can benefit if they are paid for their capacity and flexibility, not just for exporting surplus energy. This helps reduce peak costs and improve grid reliability. Prosumers with BESSs export energy during peak hours because they are offered higher rates then.



Discos have been facing revenue losses due to the migration of compliant three-phase consumers to solar. The marginal cost (MC) of grid-based electricity supply is indeed low during the daytime, when NM prosumers also export units. But the argument (often made) that these consumers are responsible for the increase in tariffs for non-NM consumers is not entirely accurate.

According to a recent study by TransitionZero and PRIED, of the estimated 33.7GW of installed solar, only 6.06GW is on-grid (NM), 19 GW is behind-the-meter (BTM), and the remaining 8.31GW is off-grid. The capacity of BTM prosumers is more than three times that of NM prosumers.

The total sanctioned load for the 10 ex-Wapda Discos and K-Electric as of FY2024 was 110931 MW. Assuming it is the same for FY2025, with the total installed NM capacity of 6060MW and the plant factor of 18 per cent, the maximum PV generation could be 1091MW, which is 0.98 per cent of the total sanctioned load. It is still too low to have any impact on the cost of non-solar consumers.

Many BTM domestic installations may have small backup batteries. Are these distributed generation (DG) systems independent of the grid? Who pays for the extra capacity needed to balance their grid demand or access fees? These consumers are charged under an increasing block tariff structure. The 32 per cent increase in protected consumers (primarily solar users, as government sources also confirmed) over the past three years raises the question: Are they appropriately classified according to social welfare standards?

They pay significantly less than the MC for units consumed during evening peak hours. In comparison, NM three-phase consumers are subject to a time-of-use tariff, paying about Rs46/kWh during peak hours and Rs40/ kWh during off-peak hours. These consumers are cross-subsidising other categories as well.

Pakistan's electricity tariff system has several distortions that make introducing demand charges for NM consumers problematic without reforms. It already includes fixed grid costs through high volumetric tariffs and fixed charges. Implementing demand charges on top of these components could lead to double recovery of the same costs. Without changing the overall tariff design, it is not possible to address these distortions and anomalies.

The grid should focus on charging all customers fairly for capacity, access and reliability while eliminating social subsidies from energy tariffs. Social subsidies should be funded transparently through government budgets. Energy tariffs must reflect actual costs for all.

Is Pakistan ready for this change? Will the draft regulation lead to it? The key question is whether to modernise the grid or allow it to become an expensive backup. Without reforms, the grid will remain costly and underutilised. ■

PPL Showcases Energy and Mineral Potential at ATC 2026

Federal Minister for Petroleum Ali Pervaiz Malik visited the corporate booth of Pakistan Petroleum Limited (PPL) at the Annual Technical Conference (ATC) 2026, organized by the Society of Petroleum Engineers (SPE) Pakistan Section in Islamabad.

The minister was received by MD & CEO PPL Mohammad Khalid Rehman, along with senior management, including AGMSS PPL Ajaz Ahmed Khan, who briefed him on the company's key achievements in exploration & production (E&P) and the mining sector. The minister lauded PPL's role as lead partner with the Ministry of Energy (Petroleum Division) in showcasing Pakistan's mineral potential at the Future Minerals Forum (FMF) 2026 in Riyadh. He appreciated the Pakistan Pavilion's impressive mineral display and high-value products, which attracted significant international investor interest.

Commending PPL's efforts to enhance domestic production and pursue international exploration ventures, he praised the company's contribution toward national energy security and its active participation at ATC 2026.

Economic Outlook: Destroy to rebuild

Syed Asad Ali Shah

The writer is a former managing partner of a leading professional services firm and has done extensive work on governance in the public and private sectors

The planning minister's recent articulation of why Pakistan must exit the cycle of recurring engagement with the International Monetary Fund (IMF) is conceptually sound.

The emphasis on moving beyond stabilisation towards structural transformation – raising productivity, expanding exports, and investing in human capital

A country cannot tax and borrow its way to prosperity; productivity, competitiveness and private investment must ultimately do the heavy lifting; instead of reforming the state, we have squeezed the economy; rather than broadening the tax base, punitive rates were imposed on those already documented

– rightly shifts the national conversation away from perpetual crisis management and towards long-term economic renewal. This has also been a consistent theme in several of my articles over the past four years.

There is broad agreement that stabilisation alone cannot deliver sustainable growth. A country cannot tax and borrow its way to prosperity. Productivity, competitiveness and private investment must ultimately do the heavy lifting.

Yet the analysis remains incomplete because it avoids a more uncomfortable truth: the very reform framework pursued over the past decades, particularly under successive IMF programmes, has itself contributed to Pakistan's loss of competitiveness. Unless this is acknowledged and corrected, aspirations of exiting the IMF cycle will remain rhetorical rather than achievable.

In the pursuit of short-term fiscal balance, Pakistan has relied on a narrow and ultimately self-defeating strategy: excessive taxation of a shrinking formal sector, expanding regulation and relentless growth of government and bureaucracy. Instead of reforming the state, we have squeezed the economy.

Rather than broadening the tax base, punitive rates were imposed on those already documented. Instead of simplifying compliance, layers of direct and indirect taxes, surcharges and withholding regimes were piled on top of existing ones. Instead of reducing the government's footprint, it was expanded – creating more ministries, departments, regulators, agencies and rules.

The outcome was predictable. Capital fled. Informality deepened. Investment stalled. Competitiveness eroded.

High tax rates, combined with overlapping federal and provincial levies, discretionary enforcement, and constant policy changes, have destroyed investor confidence. Regulation has increasingly become a tool for rent extraction rather than market discipline. Multiple layers of government impose duplicative and often contradictory compliance burdens that no serious investor, domestic or foreign, can rationally navigate.

This is a central reason why Pakistan's investment-to-GDP ratio has collapsed to below 13 per cent and why export diversification has stalled. Businesses do not expand in environments where rules change mid-game and compliance costs exceed margins.

IMF-style fiscal adjustment, when not accompanied by a fundamental rethink of the size, efficiency and role of the state, becomes economically corrosive. Stabilisation achieved by taxing the same shrinking base cannot produce growth; it accelerates de-industrialisation.

More fundamentally, the current reform narrative underestimates the scale of creative destruction required.

Productivity does not rise by protecting inefficient incumbents. Export competitiveness does not emerge in economies dominated by cartels, oligopolies, and concession-dependent business models. Transformation requires dismantling the rent-seeking economy – not accommodating it through exemptions, subsidies

or regulatory forbearance.

Pakistan's economic structure remains tilted towards protecting legacy sectors and entrenched interests. Loss-making state-owned enterprises are endlessly 'restructured' but rarely shut down, merged or privatised decisively. Inefficient industries are shielded through tariffs and non-tariff barriers. Cartels operate with impunity, raising prices and lowering quality.

Creative destruction, discussed in more detail in my earlier writings, is politically uncomfortable because it creates visible losers before winners. But without it, economies stagnate. Countries that successfully transformed – whether in East Asia or Eastern Europe – did not preserve inefficient structures out of nostalgia or political convenience. They replaced them.

Pakistan must confront a hard truth: many of its institutions, regulations, and business models were designed for a different century. Protecting them delays adaptation and raises the eventual cost of change.

Equally absent from the reform discourse is a serious appreciation of how modern economies are built.

Growth today is driven not by large, protected incumbents alone, but by entrepreneurship, startups, and technology-enabled firms that replace outdated structures with more efficient and scalable models. Digital platforms, AI-driven services, advanced manufacturing and globally tradable services now account for a growing share of value creation and exports worldwide.

Pakistan's future does not lie in perpetually defending old sectors. It lies in enabling new enterprises to replace the old. That requires a fundamentally different policy mindset: low, predictable taxes rather than punitive rates to ensure viability of new firms; light-touch, rules-based regulation rather than discretionary control; contract enforcement and dispute resolution that work in real time; access to risk capital and bank credit, currently crowded out by government borrowing and large corporates; and open competition, not administered markets.

Startups do not thrive in opaque policy environments or under fragile political coalitions that prioritise rent distribution over value creation. Innovation requires clarity, stability, and trust in the rules of the game.

Technology and digitisation must be treated not as side projects, but as core instruments of reform. Digitisation can reduce discretion and corruption. Data and artificial intelligence can improve tax compliance without harassment, target subsidies accurately, and enhance regulatory oversight. Leaders who do not understand technology cannot govern a modern economy – no matter how well-intentioned they may be. Ultimately, this is not a planning or diagnostic failure. It is a leadership and governance failure.

Pakistan has produced no shortage of plans, visions and roadmaps. What it has lacked is leadership willing to confront vested interests, simplify regulation, shrink the state where necessary and tolerate short-term political pain for long-term national gain.

Most of Pakistan's leadership – across politics and institutions – was shaped by the politics of the 20th century: a politics centred on acquiring power, retaining power and managing coalitions for the sake of power itself. That leadership model is ill-suited to the demands of 21st-century economic transformation.

Exiting the IMF trap requires leaders who prioritise outcomes over optics; build institutions rather than personalise authority; select competent teams rather than loyal entourages; encourage truth-telling rather than silence and conformity; use technology to govern, not merely to announce reforms; and accept experimentation and learn from failure. It also requires the deliberate promotion of young leadership, in both public and private sectors, that is comfortable with technology, global competition and new business models. No country modernises with leadership structures designed for an earlier era.

The most damaging feature of Pakistan's current governance model is that it manages decline rather than enabling competition. The state mediates rents instead of facilitating markets. Policies protect incumbents rather than challengers. Regulation controls rather than disciplines.

Until this philosophy changes, Pakistan will continue to recycle plans, IMF programmes and disappointment.

Exiting the IMF cycle will not be achieved through aspirations alone, however well articulated. It will require a decisive break from a failed economic model – one that taxes productivity, regulates entrepreneurship out of existence and preserves inefficiency in the name of stability.

The choice before Pakistan is stark. It can continue stabilising a shrinking economy through higher taxes and heavier controls. Or it can embrace creative destruction, enable new enterprise and rebuild its economy for the realities of the 21st century.

This is not merely a policy or roadmap problem; it is a leadership problem. And until governance shifts from rent distribution to value creation, from protection to competition, and from managing decline to enabling growth, Pakistan will remain trapped – regardless of how many plans it writes or programmes it signs.

Exiting the IMF trap will require not just aspirations, but better leadership, better decisions and the courage to dismantle what no longer works. ■

PAKISTAN'S INVESTMENT CLIMATE SET TO BE REVOLUTIONISED WITHIN TWO YEARS

QAISER AHMED SHEIKH

Federal Minister for the Board of Investment says sweeping regulatory reforms, investor-friendly policies and confidence-building measures are transforming Pakistan into a highly attractive destination for local and foreign investment; informs our foreign exchange reserves have increased significantly—from around six billion US dollars to nearly sixteen billion dollars; asserts Chinese companies are keenly interested in sectors such as agriculture, mining and minerals, manufacturing, and infrastructure

M. Naeem Qureshi

The Writer is Managing Editor of Energy Update and Environment Activist

At a time when global investors are increasingly cautious about emerging markets, Pakistan is positioning itself as a revitalised and competitive destination for capital, trade and industrial growth. Federal Minister for the Board of Investment, Qaiser Ahmed Sheikh, says the country's investment climate and business environment are poised for a major transformation within the next two years.

In an exclusive interview with Energy Update, the minister outlines how macroeconomic stabilisation, regulatory reforms, digitisation of institutions, improved security, and the work of the Special Investment Facilitation Council (SIFC) are reshaping Pakistan's economic outlook. He also sheds light on Pakistan's evolving relations with China, the United States, and regional partners, while dispelling misconceptions about the future of CPEC and foreign investor confidence.

Energy Update: Minister Sahib, how would you describe the overall focus of the current government with regard to investment and economic revival?

Federal Minister Qaiser Ahmed Sheikh: The primary focus of the current government over about past two years has been to fundamentally improve the business and investment environment in Pakistan. Our objective is very clear to ensure a sustained increase in both local and foreign investment. Without investment, economic growth cannot be durable, and job creation will remain limited. Therefore, we have prioritised confidence-building measures, regulatory reforms and macroeconomic stability to send a strong and credible message to investors that Pakistan is open for business.

EU: What tangible economic indicators reflect this improvement in the investment climate?

Mr Sheikh: There are several concrete indicators. First, our foreign exchange reserves have increased significantly—from around six billion US dollars to nearly sixteen billion dollars. This improvement reflects greater macroeconomic stability and enhanced confidence in Pakistan's economy. Secondly, the national currency has shown considerable strength and stability compared to the past volatility, which is always a positive signal for investors.

Additionally, Pakistan recently hosted and participated in major international engagements, including a significant investment-related conference in China. As a result, Chinese companies have agreed to sign joint venture agreements worth approximately US$3.5 billion. These are not just announcements; they are structured engagements focused on long-term collaboration.

EU: How is Pakistan being perceived by international investors at present?

Mr Sheikh: Pakistan is increasingly being viewed as an emerging strong market that is once again attracting serious attention from global investors. Countries and corporations are closely examining the investment opportunities available in Pakistan across multiple sectors. Interest is not limited to traditional areas but is expanding into agriculture, mining and minerals, energy, defence production and manufacturing.

The Pakistan Stock Exchange is another important indicator. Its consistent upward trajectory shows growing confidence in the national economy. A booming stock exchange usually reflects investor optimism about future profitability and economic stability.

EU: You mentioned profitability. How have inflation and interest rates impacted business prospects?

Mr Sheikh: This is a crucial point. The chances of profitability for businesses in Pakistan have increased phenomenally due to a reduction in inflationary pressures and a decline in bank interest rates. High interest rates and inflation are major deterrents for investors, particularly for new businesses and industries. With stabilisation on these fronts, Pakistan has become far more attractive for investment, especially for long-term industrial and infrastructure projects.

EU: What role is the Special Investment Facilitation Council (SIFC) playing in this transformation?

Mr Sheikh: The role of the SIFC has been pivotal. Historically, one of the biggest complaints from investors—both domestic and foreign—was the cumbersome bureaucratic process. Investors had to obtain multiple approvals from federal, provincial and even local authorities, often with duplication of permits and unnecessary delays.

The SIFC has directly addressed this problem. Prospective investors are now being assured that they will not face traditional bureaucratic hurdles. Approvals are being fast-tracked, coordination among institutions has improved, and regulatory bottlenecks are being removed. This has significantly eased the regulatory hassle, which is essential for improving Pakistan's ranking in global ease-of-doing-business indicators.

EU: Has Pakistan's global standing improved as a result of these reforms?

Mr Sheikh: Yes, absolutely. Pakistan's ranking in global ease-of-doing-business assessments has improved as a direct result of easing regulatory procedures. The digitisation of processes, reduction in overlapping approvals, and increased transparency have all contributed to this improvement. These reforms are not cosmetic; they are structural and designed to be sustainable.

EU: How important is security and political stability in boosting investor confidence?

Mr Sheikh: Security and stability are fundamental. Investors do not put their capital at risk in uncertain environments. Over the last two years, several key decisions have been taken to overcome internal rifts, strengthen law and order, and improve overall security conditions.

Even during the brief military clash between India and Pakistan in May 2025, the situation demonstrated that Pakistan's defence and security apparatus is strong and capable. This, paradoxically, also reassured investors that the country is resilient and well-protected.

EU: What incentives is the government offering to attract new businesses and industries?

Mr Sheikh: The government has introduced a range of incentives. High energy tariffs and excessive taxation—two major concerns for investors—are being rationalised and reduced, particularly for new businesses and industries. At the same time, the Federal Board of Revenue (FBR) is undergoing rapid digitisation. This will minimise human interaction, reduce discretionary powers, and enhance transparency, which is critical for building investor trust.

EU: Which countries are currently showing the most interest in investing in Pakistan?

Mr Sheikh: China remains at the forefront. Chinese companies are keenly interested in sectors such as agriculture, mining and minerals, manufacturing, and infrastructure. The United States is also showing growing interest, particularly in exploiting Pakistan's vast rare earth mineral potential. Additionally, Pakistan has established Special Economic Zones (SEZs) to specifically attract Chinese and other foreign investments.

Saudi Arabia and China have also been increasingly engaging Pakistan in the defence sector, leveraging Pakistan's growing capacity to produce modern military equipment and hardware.

EU: Some analysts suggest that warming ties with the US may affect CPEC. How do you see this?

Mr Sheikh: I completely disagree with the notion that Pakistan or China is losing interest in CPEC. The launch of CPEC-II itself is clear evidence of expanding collaboration between Pakistan and China, especially in industrial development and economic cooperation.

Pakistan is fully capable of maintaining productive economic and trade relations with both China and the United States simultaneously. Strengthening ties with the US does not come at the cost of CPEC. In fact, Pakistan has historically played a mediatory role between China and the US, even facilitating engagement when the two countries were reluctant to interact.

EU: Finally, how do you see Pakistan's regional trade prospects?

Mr Sheikh: Pakistan is committed to boosting regional trade for the mutual benefit of its own economy and those of neighbouring countries. However, this requires peaceful and friendly relations across the region, including with India. Economic connectivity and trade cannot flourish without stability and cooperation.

Overall, I foresee the emergence of massive investment opportunities in Pakistan within the next one to two years. The groundwork has been laid, reforms are underway, and confidence is steadily returning. Pakistan is on the path to becoming a strong, competitive and investor-friendly economy.

Concluding the interview, the Federal Minister expressed firm optimism about Pakistan's economic trajectory and the government's ability to restore and strengthen investor confidence.

He reaffirmed that the present government is fully committed to creating a transparent, predictable and investor-friendly economic framework, underpinned by macroeconomic stability, regulatory clarity and institutional reforms. According to the minister, the collective impact of improved foreign exchange reserves, a stabilising currency, declining inflation and interest rates, and enhanced security has already begun to reshape perceptions about Pakistan in global investment circles.

"The trust of investors is not built through statements alone but through consistent policies and credible actions," he emphasised, adding that the digitisation of the Federal Board of Revenue, the rationalisation of taxes and energy tariffs, and the facilitation role of the Special Investment Facilitation Council are clear demonstrations of the government's seriousness in addressing long-standing investor concerns.

The minister noted that Pakistan is entering a phase where opportunities in energy, agriculture, mining and minerals, manufacturing, defence production and infrastructure are converging with policy support and international interest. He stressed that the government's confidence stems from its ability to offer investors a level playing field, swift decision-making and protection of investments, irrespective of their country of origin.

Expressing strong belief in Pakistan's economic potential, Mr Sheikh concluded that with sustained reforms and political resolve, the country is well-positioned to attract substantial local and foreign investment in the coming years. "Our goal is not short-term gains," he said, "but a durable economic revival driven by trust, partnership and shared prosperity—one that places Pakistan firmly on the global investment map." ■

Shah Jehan Mirza: Steering Pakistan's Power Sector Through a Decade of Transformation

After serving with distinction for eleven years as Managing Director of the Private Power and Infrastructure Board (PPIB), Shah Jehan Mirza concludes a chapter that has been instrumental in shaping Pakistan's modern power sector. His tenure stands as one of the most consequential periods in PPIB's history, marked by institutional strengthening, investor confidence, and tangible progress in power generation capacity.

During his leadership, PPIB successfully facilitated 69 power projects with a cumulative capacity exceeding 15,000 MW, playing a critical role in addressing Pakistan's energy needs. Equally significant was the attraction of USD 24.3 billion in foreign investment, achieved at a time when global and domestic economic challenges demanded credibility, consistency, and sound governance. These accomplishments reflect Mr. Mirza's ability to align national energy priorities with international investor expectations.

Beyond statistics, Shah Jehan Mirza's leadership was defined by collaboration and professionalism. He fostered a culture of teamwork within PPIB, working closely with government institutions, investors, lenders, and development partners to ensure timely project execution and policy continuity. His inclusive and consultative approach strengthened PPIB's role as a trusted facilitator in Pakistan's power sector.

As he moves on to a new chapter, Mr. Mirza does so with gratitude and humility, acknowledging the dedication and support of colleagues, friends, and well-wishers who stood alongside him in delivering shared objectives. His commitment to Pakistan's energy sector remains unwavering, and his experience and insight will continue to serve the country in future endeavors.

Energy Update salutes Shah Jehan Mirza for his outstanding contributions and lasting impact. His leadership has not only delivered capacity and investment but has also reinforced confidence in Pakistan's energy institutions—an enduring legacy for the nation's power sector.

— Energy Update Magazine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ISLAMABAD UNDER SIEGE

CAPITAL NOW APPEARS REGULARLY ON POLLUTION INDICES IT ONCE ESCAPED

Ali Tauqeer Sheikh

The writer is a climate change and sustainable development expert

The assault comes from multiple directions, each more brazen than the last. Consider what happened barely a stone's throw from Parliament House itself: while legislators debated inside, Shakarparian contractors were busy deforesting a beautiful tract of land within sight of the nation's seat of power. The trees fell and the earth was cleared, primed for mudslides once the monsoon arrives. Nobody in authority raised an alarm. The symbolism is almost too perfect: as we talk about governance, the very ground beneath our feet is being stolen.

This is not an isolated incident but part of a pattern. The Islamabad Wildlife Board, established precisely to protect the Margalla Hills National Park, has been neutered. Rina Saeed Khan, the champion who stood guard over these hills, now faces harassment through bogus cases, a punishment for the 'crime' of doing what the law mandates. When protectors become the persecuted, the capture is complete.

The physical transformation of the city tells the same story. Those cascading contours that once defined Islamabad's character,

giving it a topography distinct from the concrete monotony of other urban centres are being systematically flattened. This destruction is now cascading beyond the capital territory, driven by influential housing societies in the surrounding hilly areas. Contractors fill in these natural undulations to create level plots and farmhouses, erasing in months what nature took millennia to create. The model city is being reduced to just another flat, characterless expanse of development.

The city has been further bifurcated by signal-free corridors that have killed its walkability. Islamabad was designed as a city where I could once move between sectors on foot or bicycle, where neighbourhoods connected organically. Now, massive thoroughfares carve through the urban fabric, making it impossible to cross without risking one's life. We have prioritised cars over people and speed over liveability, destroying the pedestrian character that once made the city humane.

The capital now appears regularly on pollution indices it once escaped.

We have carved the E sectors out of what was supposed to be the Margalla Hills National Park. These areas were intended as habitats for leopards, pangolins, barking deer and grey goral. Instead, we authorised cricket pavilions, university campuses, golf courses, and private housing, turning ecological corridors into real estate opportunities. The wildlife that once roamed freely now finds itself trapped in shrinking pockets, leading to the conflicts we wring our hands about when a leopard ventures into the encroached areas. We took their home and act surprised when they show up at ours.

Meanwhile, garbage chokes the tributaries of the Lai nullah, and invasive species like paper mulberry are spread in the name of landscaping, driving away indigenous birds which need indigenous trees for nesting, mating and chirping.

While rainwater harvesting is ignored, all sources of natural recharging are being flattened. This run-off adds to pollution, while ad hoc population growth depletes the groundwater, allowing the 'tanker mafia' to emerge.

Perhaps the most stunning revelation of the current mindset was the proposal to mortgage F-9 Park for a sukuk bond worth Rs500 billion. The federal government actually considered pledging this 750-acre public park as collateral for debt. Though the proposal was withdrawn after a public outcry, the fact that it was seriously entertained reveals a disturbing truth.

Meanwhile, the air tells its own story of decline. Islamabad's air was once distinctively crisp, and a part of its identity, as were its tree-lined avenues. That air is gone. Unchecked vehicular emissions, construction dust, and the burning of waste have transformed the atmosphere.

At the heart of the capital sits Rawal Lake, a prize waterbody that is slowly dying. Industrial effluents mix with sewage, and solid waste accumulates at the edges. Expanding irregular housing societies in Banigala, Bhara Kahu, and Chak Shahzad discharge waste into the lake, treating a strategic asset like a dumping ground.

This environmental siege exposes a fundamental disconnect between what we claim to value and what we actually protect. The institutions exist and the laws are on the books, but the political will to enforce them is missing. Islamabad was built as a statement that Pakistan could create a capital worthy of a great nation. That vision is being betrayed through internal surrender. The 'Asian Geneva' is becoming just another casualty of unchecked development. Unless accountability is restored and the protectors are themselves protected, the siege will continue until there is nothing left worth defending. ■

World Spends $30 Destroying Nature for Every $1 Invested in Its Protection: UNEP Report

EU Report

The world is spending $30 on activities that harm nature for every $1 invested in protecting it, highlighting a deep imbalance in global financial priorities, according to the latest United Nations Environment Programme (UNEP) report, State of Finance for Nature 2026..

The report estimates that nature-negative finance flows total $7.3 trillion annually, with $4.9 trillion originating from private sources, largely concentrated in sectors such as utilities, industrials, energy, and basic materials. In addition, public subsidies that damage the environment—primarily in fossil fuels, agriculture, water, transport, construction, and related sectors—reached $2.4 trillion in 2023.

UNEP warned that global finance remains heavily tilted toward activities that degrade ecosystems, undermine economic stability, and threaten human well-being. Nearly half of the global economy depends significantly on nature, yet current financial systems continue to erode the planet's natural capital.

The report called for a fundamental shift in global investment patterns, urging governments and financial institutions to scale up funding for nature-based solutions (NbS) while phasing out harmful subsidies and investments. Such a transition, it noted, would deliver high economic returns, reduce financial risks, and strengthen resilience against climate and environmental shocks.

According to the report, global finance flows for NbS stood at $220 billion, with almost 90 percent coming from public sources, reflecting growing domestic and international support. However, this level of investment remains far below what is needed to meet global biodiversity, climate, and land restoration targets.

To fulfil international commitments under the Rio Conventions, UNEP stressed that investment in nature-based solutions must rise by more than two-and-a-half times to $571 billion by 2030, while environmentally harmful finance flows must be systematically repurposed or eliminated.

Despite a gradual increase in funding for NbS, the report cautioned that without decisive action to realign financial systems, the world risks accelerating ecosystem loss, weakening economic resilience, and jeopardising long-term sustainable development goals. ■

itel Energy Lights Up 17 Islamabad Schools

Initiative, executed in partnership with UN-Habitat, aims to solve Pakistan's energy crisis; this school project is more than an installation; it is a proof of concept for our broader mission in Pakistan, says Dr Mubarak, CEO Quantum Mechanics

EU Report

itel Energy, an emerging global leader in smart energy solutions, recently announced the successful completion of a landmark solar electrification project across 17 government schools in the Rawalpindi and Islamabad regions. This initiative, executed in partnership with UN-Habitat, marks the brand's formal commitment to solving Pakistan's energy crisis through high-performance, localized technology.

Powering the Future of Education in a region where power inconsistencies often disrupt the academic calendar, itel Energy has deployed 17ofits advanced IP546kW Single Phase Hybrid Inverters to ensure uninterrupted learning. This project has effectively transitioned thousands of students from studying by candlelight to learning in modern, digitally-enabled classrooms.

The Strategic Pivot: This school project is more than an installation; it is a proof of concept for our broader mission in Pakistan, says Dr Mubarak, CEO Quantum Mechanics. "We aren't just selling hardware; we are providing a basic human right: reliable, safe, and affordable energy. By leveraging our decade-long global expertise in the mobile and tech sectors, we bring a 'tech-first' DNA to the power sector that allows us to look at solar differently."

The IP54 Hybrid Series: Versatile inverters ranging from 3kW to 12kW, including the customer-favorite 8kW upgraded model, are designed for high-efficiency residential use. TheI P66 Bulletproof Series: An industry-leading outdoor solution are built to withstand extreme dust and heavy monsoon rains. The All-in-One System: A sleek, space-saving unit combining a 3.6kW inverter and 8kWh battery, is tailored for modern urban homes.

The Power Series: Portable backup solutions for students and freelancers, ensuring connectivity remains uninterrupted on the go

Service Excellence: The 48-hour promise recognizing that technology is only as good as the support behind it, itel Energy has established a massive infrastructure to back its portfolio. With a presence in over 40 cities and three state of-the-art Experience Centers, the brand has introduced an industry-first 48-hour replacement policy. This ensures that home owners and businesses are never left in the dark, reinforcing itel's position as a local partner rather than just a global vendor.

A Legacy of Commitment: The 17-school project is one of the initiatives that underscore the company's belief that reliable energy is a basic human right. Beyond this program, itel Energy is actively engaged in a range of CSR initiatives to reinforce this mission, including delivering vital support to communities affected by floods. The brand's mission is rooted in the belief that reliable energy is a basic human right. "For too long, the dreams of our children were dictated by the flick of a light switch. With itel Energy, we are reclaiming that future. This isn't just about solar inverters; it's about the smiles of students who no longer have to fear the dark."—Raheel Shezazd (Shehersaaz Regional Head of UNO Habitat).

"Pakistan is a nation of immense resilience," said Mr Tigo Feng, Country Head of itel Energy. "By bringing smart, affordable energy to every corner—from Karachi to the northern heights—we are giving our people the tools to build the bright, empowered Pakistan we all envision."

About itel Energy: itel Energy is a frontier smart energy brand dedicated to providing reliable, safe, and affordable power solutions. With a tech-first DNA inherited from a decade of global success in the mobile industry, the company focuses on user-centric innovation and localized service. Operating in over 40 cities in Pakistan, the company is committed to powering a revolution—one home, one school, one business, one place, and one city at a time. ■

SEP Pakistan Conference Reinforces Confidence in Energy Security

EU Report

Islamabad: The Society of Petroleum Engineers (SPE) Pakistan Section hosted the 31st Annual Technical Conference (ATC) & Exhibition 2026 at a local hotel in Islamabad, reaffirming its status as Pakistan's flagship upstream event and the country's largest technical gathering for the oil and gas sector. Held over two days, the conference brought together more than 1,500 delegates, including industry leaders, geoscientists, engineers, policymakers, academia, and international stakeholders from Pakistan and abroad. Themed "Energizing the Future from Within: Sustainably, Securely, Strategically," ATC 2026 focused on strengthening Pakistan's energy security through indigenous resource development, responsible operations, and strategic adoption of advanced technologies.

Opening Ceremony: Policy Confidence and Industry Optimism

The Opening Ceremony was graced by Muhammad Ali, Advisor on Privatization and Chairman Privatization Commission, as Chief Guest, alongside Managing Directors and CEOs of leading national and international E&P companies, service providers, and academic institutions.

In his welcome address, Faheem Haider, MD & CEO MariEnergies and Chairman ATC 2026, emphasized the industry's collective responsibility to secure Pakistan's energy future through innovation and indigenous resource development. He highlighted renewed optimism generated by the Offshore Bid Round 2025, stressed the importance of integrated and data-driven geoscience and engineering solutions, and underscored the expanding role of digitalization and artificial intelligence in enhancing efficiency, safety, and cost optimization. He also called for deeper industry–academia collaboration to accelerate technology adoption and develop future-ready talent.

The Chief Guest appreciated SPE Pakistan Section's efforts in sustaining a high-quality technical forum and highlighted the government's focus on sustainability, security, and strategic execution. He noted that successful participation in recent onshore and offshore bid rounds—particularly by Turkish Petroleum, United Energy, and new local entrant Fatima Petroleum—reflected growing investor confidence in Pakistan's policy direction.

Mega Exhibition & Technology Showcase

Muhammad Ali also inaugurated the Mega Exhibition & Oil Show, visiting booths of national and international exhibitors showcasing cutting-edge technologies, including advanced drilling systems, subsurface imaging, intelligent completions, production optimization solutions, and AI-enabled applications. The exhibition reflected the industry's commitment to responsible operations and future-ready exploration and production.

Recognizing Excellence

During the opening ceremony, Lifetime Achievement Awards in Geoscience and Petroleum Engineering from both academia and industry were presented to Muhammad Riaz Khan, Professor Arif Ali, Munir Ghazanfar, and Muhammad Maroof, recognizing their distinguished services and lasting contributions to Pakistan's E&P sector.

Closing Ceremony: Government Reforms and Sector Sustainability

The conference concluded on January 29, 2026, with the Federal Minister for Petroleum, Ali Pervaiz Malik appreciating the strong participation of local and international companies and the high quality of technical papers presented during ATC 2026.He highlighted that under Prime Minister Shehbaz Sharif's leadership, Pakistan has taken meaningful steps toward restoring macroeconomic stability, including moderating inflation, improving foreign exchange reserves, and strengthening fiscal discipline. These improvements, he noted, have contributed to rebuilding investor confidence and providing a stronger foundation for long-term investment in the oil and gas sector.

The minister emphasized that the government has placed the petroleum sector at the core of its national energy security strategy, with ongoing reforms aimed at policy certainty, sector sustainability, and investment facilitation. He underscored the revival of offshore exploration after nearly 18 years, supported by a successful Offshore Bid Round that attracted new international partners. Concluding his remarks, he reaffirmed that Pakistan is open for business, offering a supportive regulatory framework and significant untapped resource potential. Ali Pervaiz Malik also presented awards to the Student Paper Contest winners and commended SPE Pakistan Section for organizing a highly successful ATC 2026.

Knowledge Exchange and Industry Collaboration

ATC 2026 featured in-depth technical deliberations on AI-enabled subsurface modeling, production optimization, well integrity, offshore basin studies, and carbon management, alongside a high-level panel discussion on Technology, Data & Execution in Pakistan's Upstream Sector. A dedicated Student Career Counselling Program further strengthened engagement with young professionals.

Addressing the closing session, Faheem Haider highlighted the unity and collaboration across Pakistan's oil and gas industry, praised the quality of technical contributions, and acknowledged the strong support from the Ministry and Government in creating a conducive environment for sustainable growth and energy security. ■

Ali Pervaiz Malik Pitches Pakistan as Next Big Mineral Destination in Riyadh

Federal Minister for Petroleum Ali Pervaiz Malik represented Pakistan at the Future Minerals Forum (FMF) in Riyadh, where he highlighted the country's vast and largely untapped mineral potential, positioning Pakistan as an emerging global minerals destination.

On the sidelines of the forum, the minister held a series of high-level bilateral meetings, including talks with Saudi Arabia's Energy Minister HRH Prince Abdulaziz bin Salman Al-Saud. The discussions focused on strengthening cooperation across the energy value chain, covering petroleum supply, renewable energy, energy efficiency, and investment opportunities. Mr Malik also met Saudi Investment Minister Engr Khalid Al-Falih to explore enhanced investment flows and partnerships in Pakistan's energy and minerals sectors. Additional meetings were held with senior international stakeholders, including the International Energy Forum, Metso Corporation, Saudi EXIM Bank, and leading regional energy firms.

The minister participated in a high-profile ministerial panel, "Dawn of a Global Cause: The Role of Governments in Driving Mineral Supply," alongside ministers from Saudi Arabia, Morocco, Mauritania, Chile, and Canada. He also addressed the FMF ministerial roundtable attended by representatives from 100 governments.

Pakistan's presence was further reinforced through the "Pakistan – The Mineral Marvel" pavilion, showcasing advanced digital tools and live demonstrations of the National Minerals Data Center. During a well-attended country showcase session, Mr Malik formally invited global investors to the Pakistan Minerals Investment Forum scheduled for April 2026. ■

Hydropolitics And Power in Indo-Pak Region

Approval of the 260MW Dulhasti Stage II hydropower project on the Chenab River is not an isolated development initiative but part of this changing calculus

Omay Aimen

The writer is a freelance contributor and writes on issues concerning national and regional security

India's evolving posture on the Indus Basin reflects a shift towards leveraging resources as statecraft, with infrastructure decisions doubling as strategic signals. The approval of the 260MW Dulhasti Stage II hydropower project on the Chenab River is not an isolated development initiative but part of this changing calculus. Coming after India's April 2025 decision to place the Indus Waters Treaty in abeyance, the project shows how water governance is being reframed as an instrument of pressure rather than cooperation.

Dulhasti Stage II, valued at about $395 million and developed by NHPC Limited, builds on the existing 390 MW Dulhasti Stage I facility commissioned in 2007. Indian authorities insist the project conforms to treaty provisions as a run-of-the-river scheme. Yet treaty compliance cannot be assessed project by project when upstream interventions accumulate into systemic control. Hydropower construction across the Chenab Basin, including Ratle, Pakal Dul, Bursar, Sawalkot, Kiru, Kwar and Kirthai I and II, reflects coordinated expansion rather than routine energy planning. The strategic context, not technical classification, is what gives Dulhasti Stage II its geopolitical weight.

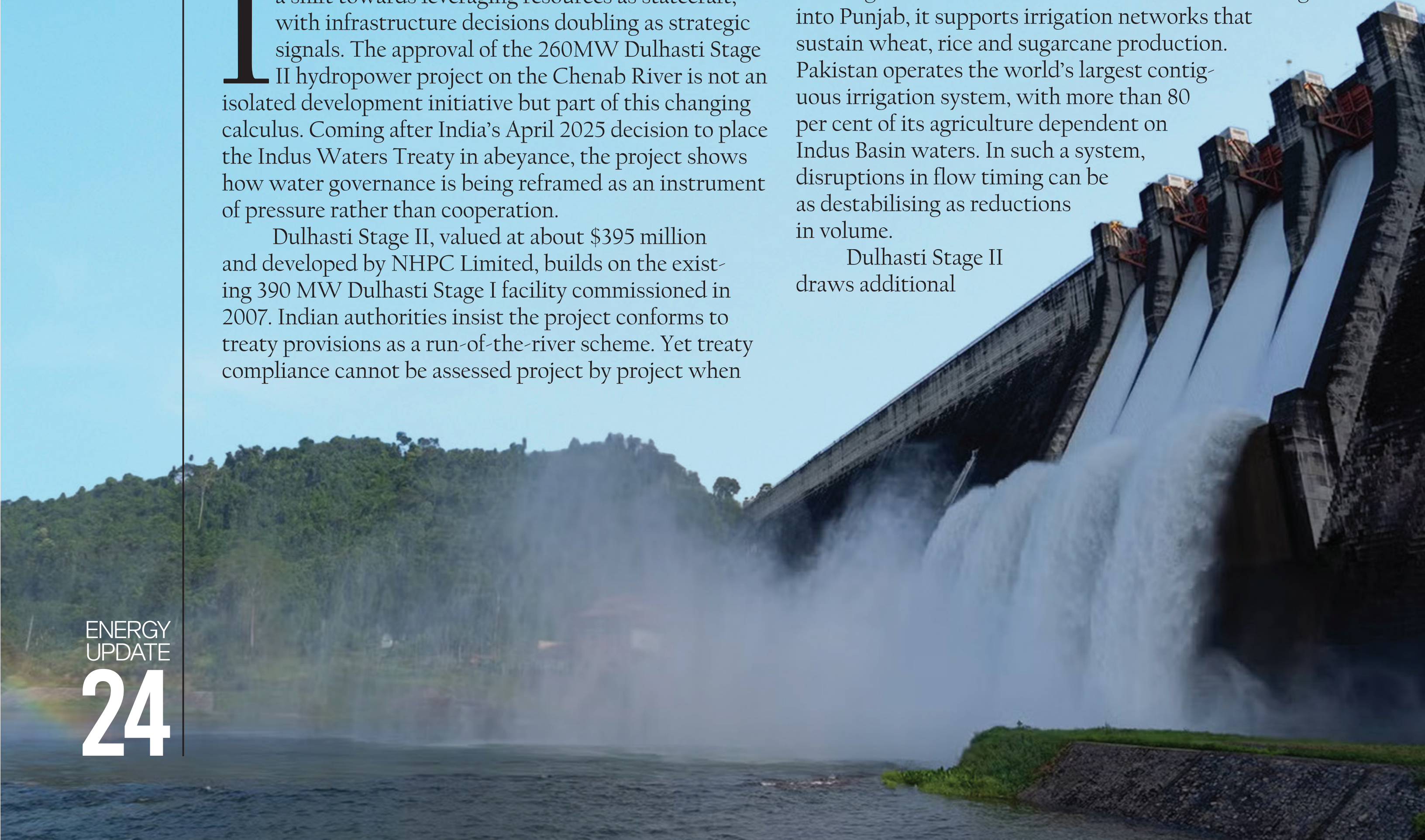
For more than six decades, the Indus Waters Treaty served as a stabilising pillar between two adversarial states. Signed in 1960 under World Bank mediation, it survived wars, crises and diplomatic breakdowns because it insulated rivers from politics through binding legal mechanisms. The treaty allocated the eastern rivers to India and the western rivers to Pakistan, allowing India limited non-consumptive use under strict design constraints.

Crucially, the agreement contains no clause permitting unilateral suspension. India's recent actions, including halting hydrological data sharing and questioning dispute-resolution forums, therefore represent not reinterpretation but the erosion of a framework built on predictability.

Legal institutions have reaffirmed this reality. The Permanent Court of Arbitration has confirmed that India remains obligated to allow uninterrupted flows of the western rivers for Pakistan's unrestricted use. Pakistan's continued engagement with Neutral Expert proceedings reflects adherence to established processes, while India's selective compliance introduces a dangerous asymmetry into treaty governance. When one party upholds institutional mechanisms and the other bypasses them through faits accompli on the ground, cooperative management gives way to unilateralism masked as development.

The Chenab River occupies a central place in Pakistan's agricultural and economic architecture. Flowing into Punjab, it supports irrigation networks that sustain wheat, rice and sugarcane production. Pakistan operates the world's largest contiguous irrigation system, with more than 80 per cent of its agriculture dependent on Indus Basin waters. In such a system, disruptions in flow timing can be as destabilising as reductions in volume.

Dulhasti Stage II draws additional



water from the Marusudar River through upstream linkages, altering river morphology and downstream hydrology. Environmental clearance documents acknowledge cumulative impacts extending beyond Indian territory.

This capacity to regulate timing transforms water into a subtle yet potent form of leverage. Unlike overt military escalation, resource coercion unfolds incrementally, eroding resilience without triggering immediate confrontation. Irregular flows reduce crop yields, destabilise rural livelihoods, inflate food prices and worsen malnutrition over time. For Pakistan, where millions depend directly on river-fed agriculture, prolonged uncertainty becomes a structural economic threat rather than a seasonal challenge.

Global risk assessments have begun to recognise this shift. Analysts warn that India's suspension of treaty practices and withholding of hydrological data has introduced water as a strategic variable in an already volatile relationship. This development undermines the credibility of international water agreements at a time when climate stress is intensifying competition worldwide. Glacier retreat, erratic monsoons and rising demand are already testing transboundary water governance. Weakening one of the most durable water-sharing treaties risks normalising a future where legal commitments bend to political expediency.

Dulhasti Stage II, therefore, stands as a test case for the future of Indus governance. Proceeding without restored data sharing, institutional dialogue or meaningful international scrutiny risks embedding mistrust into the basin's management architecture. Safeguarding the Indus Waters Treaty is no longer only a matter of bilateral diplomacy but of regional stability, food security and conflict prevention.

While upstream control may offer a short-term advantage, dismantling a framework that has prevented rivers from becoming weapons for over 60 years risks transforming shared lifelines into permanent fault lines across South Asia. ■

NA Passes Landmark CSR Bill to Mandate Corporate Disclosures

EU Report

In a major legislative development, the National Assembly has passed the Corporate Social Responsibility (CSR) Bill, 2026, marking Pakistan's first-ever statutory framework to govern CSR practices for large companies and listed firms. The move is aimed at enhancing transparency, accountability, and targeted social impact by the corporate sector across the country.

The bill, introduced as a Private Member's Bill by Pakistan Peoples Party (PPP) lawmaker Dr Nafisa Shah, received approval after it was reviewed and amended by the Standing Committee on Finance and Revenue. The committee, chaired by Syed Naveed Qamar, sought input from the Securities and Exchange Commission of Pakistan (SECP) and the Law and Justice Division before clearing it for debate in the Assembly.

Under the new law:

Mandatory Disclosure: All listed companies and large non-listed firms registered with the SECP will be required to disclose details of their CSR activities in their audited financial statements submitted annually to the regulator. These disclosures must also be made publicly accessible via the companies' official websites.

CSR Policy Formulation: Companies must prepare and publish a formal CSR policy outlining their CSR strategy, including the financial allocation, geographical focus of activities, and the nature of projects undertaken.

Encouraged Spending: While the bill encourages firms to allocate at least 1 percent of net profit after tax toward CSR initiatives, it stops short of enforcing any mandatory spending threshold.

Local Impact Focus: Firms are urged to channel CSR efforts toward the regions in which they operate, thereby enhancing direct benefits to local communities.

Penalties for Non-Compliance: Failure to make the stipulated CSR disclosures will attract a fine of PKR 500,000, along with an additional daily fine of PKR 1,000 for each day of continued non-compliance.

Tax Incentives: To promote proactive engagement, the amounts spent on CSR activities will be treated as deductible expenditures for tax purposes, providing a financial incentive for compliance.

Until now, Pakistan lacked a comprehensive legal framework for CSR. Previously, CSR reporting was largely voluntary, guided by non-statutory practices such as the Companies (CSR) General Order 2009 and principles embedded in the Companies Act, 2017, which only required listed firms to mention CSR activities in annual business reviews. There was no binding obligation for other large private companies to report their social contributions.

The passage of the CSR Bill is expected to usher in greater corporate transparency and accountability, increase social investment by the private sector, and align Pakistan with global best practices in sustainable and responsible business conduct.

With approval in the National Assembly complete, the CSR Bill, 2026 will now be forwarded to the Senate of Pakistan for deliberation and passage. Upon Senate approval, it will be sent to the President for assent and take effect as law. ■

From solar subsidy to system stress

Rethinking net-metering in Pakistani Market

Dr Rubina Ilyas

The writer is a Research Economist at Pakistan Institute of Development Economics (PIDE)

The National Electric Power Regulatory Authority's (Nepra) latest revision in net-metering scheme stirred an expected backlash. Much of the debate focused on lower buyback rates and potential discouragement of rooftop solar adoption. Yet this framing obscures the deeper policy logic.

The net-metering adjustment is more about addressing three structural distortions that are embedded into Pakistan's power market than about discouraging solar power: regressive cost shifting, incompatibility with a capacity-payment dominated system, and unchecked solar expansion lacking grid flexibility.

Under the Alternative & Renewable Energy Distributed Generation and Net Metering Regulations, 2015, solar prosumers were allowed to offset elec-

tricity imports with exports at the retail tariff. This retail rate is not, however, a marginal energy price. It embeds a large share of fixed costs: capacity payments, network charges, legacy inefficiencies, and cross-subsidies for protected consumers.

As the adoption of rooftop solar grew, mainly by upper-income urban households and commercial consumers, they increasingly escaped paying fixed system costs. As a result, the burden was imposed on the rest of the grid-dependent consumers, many of whom are not in the protected lifeline brackets, but lack the capital to invest in solar.

The NEPRA's State of the Industry Reports regularly record the increasing regressivity of surcharges and cross-subsidies in the tariff structure of the country. In this context, net metering functioned as a shadow subsidy, which bypassed the scrutiny of the parliament and redistributed system costs from top to bottom.

The revised policy implicitly reaffirms the cost causality principle, which is a statutory obligation under the Nepra Act, and not a matter of policy consideration.

The more fundamental tension lies in Pakistan's generation contracting structure. The power sector has evolved over the past ten years toward a regime largely dominated by long-term take-or-pay contracts. Capacity payments have become a significant and rigid part of the total system cost irrespective of the level of electricity consumption.

Net metering enabled an increasing percentage of consumers to draw down grid offtake during daylight hours without reducing the system's fixed costs.

Capacity costs were being recovered on an increasing per unit basis as sales volume fell. Higher tariffs in turn enhanced the economic incentive for additional consumers to install rooftop solar not as a productivity-enhancing investment, but as a defensive response to tariff escalation.

This mechanism generated a self-reinforcing loop: higher tariffs contributed to more grid defection, which further squeezed the sales base over which fixed costs were recovered.

Importantly, instead of relaxing circular debt tensions, it heightened them. In this respect Nepra's policy shift should be seen as a reaction to stop the unsustainable erosion of the tariff base, and not as a pullback from the renewable energy targets.

The third aspect which is often ignored is more on the technical side. Pakistan's net-metering policy was designed for rapid growth of solar with zero structure towards system integration. Rooftop solar exports peaks in the midday, when demand is weak, but no incentives have ever been offered to prosumers to get batteries or smart inverters.

The new net-metering regime, while harsh, throws an implicit hint at an emerging solar market orientated towards self-consumption, where solar value lies in matching generation with load, rather than sending excess out the grid at fixed prices.

But without a package of complementary measures, including time-of-use tariffs, incentives for storage, and mechanisms for flexibility at the distribution level, the reform may be perceived as punitive rather than corrective. Although the adjustment made by Nepra does cater to some of the distortions, the real problem is not net metering, rather it is the absence of a suitable distributed energy policy in line with the market design.

Capacity charges continue to be volumetric rather than fixed. Although solar remains an important component of energy security for Pakistan, reforming net-metering only, in the absence of addressing these macro-structural issues, would not lead to just energy transitions.

Incentives for green energy transition cannot be simply added on top of a fundamentally distorted structure of the market without creating further inequalities and inefficiencies.

So the real issue is not about the rising tariffs but whether Pakistan is prepared to restructure its power system so distributed solar flourishes with the grid rather than at the grid's expense. ■

OGDCL Receives Rs7.73bn Circular Debt Payment

EU Report

Oil & Gas Development Company Limited (OGDCL) has received the seventh installment of Rs7.725 billion from Power Holding (Private) Limited (PHL) under the government-approved circular debt settlement mechanism, the company disclosed in a filing to the Pakistan Stock Exchange (PSX).

The payment forms part of a structured plan approved by the Government of Pakistan (GOP) to address long-standing circular debt issues in the energy sector. Under the arrangement, a total interest amount of Rs92 billion is being repaid to OGDCL in twelve equal monthly installments, which commenced in July 2025.

With the receipt of the seventh installment, the repayment process has crossed the halfway mark, reflecting steady implementation of the agreed mechanism. The circular debt settlement initiative aims to improve liquidity across the energy value chain, particularly for upstream exploration and production companies that have faced cash flow constraints due to delayed receivables.

SSGC Appoints Zafar Abbas as Ex-Officio Director

EU Report

Sui Southern Gas Company (SSGC) Limited has appointed Zafar Abbas, Additional Secretary in the Petroleum Division, as an Ex-Officio Director on its Board.

The appointment was announced through a notice to the Pakistan Stock Exchange (PSX) on Tuesday. According to the notice, Abbas was co-opted by the board on the nomination of the Ministry of Energy (Petroleum Division).

He replaces Mirza Nasiruddin Mashhood Ahmad, who was appointed to the board on January 13.

PSA Annual Dinner in Karachi

Promotion of solar energy could get rid of IPPs' monopoly: moot told

Solar market has capacity to further expand by an additional 10 gigawatts: Waqas Moosa

EU Report

At a time when Pakistan's economy is straining under the weight of crippling energy costs, capacity payments, and an unsustainable reliance on imported fuels, a powerful counter-narrative is rapidly gaining momentum: solar energy is no longer an alternative—it is an inevitability. This unmistakable message resonated forcefully at the Pakistan Solar Association's (PSA) annual dinner in Karachi, a landmark event that underlined the sector's growing confidence, unity, and strategic clarity.

The PSA reaffirmed its unwavering resolve to extend full support to stakeholders across government, energy, business, and industry to harness Pakistan's vast clean energy potential. The objective is not merely environmental stewardship but nothing short of industrialisation, economic self-reliance, and long-term national resilience. Held in Karachi on January 29, 2026—the country's commercial nerve centre—the event marked PSA's first major gathering in the city and drew an impressive cross-section of solar companies, distributors, sellers, and industry leaders. Energy Update served as the exclusive media partner.

Welcoming the participants, PSA Chairman Waqas Moosa delivered a data-driven yet hard-hitting address that captured both the scale of the opportunity and the urgency of action. He noted that despite Pakistan already achieving a record 40 gigawatts of solar installations, the domestic market still has the capacity to expand by an additional eight to 10 gigawatts, driven largely by rapid population growth and rising energy demand.

More importantly, Moosa framed solar energy not as a luxury or niche solution, but as the most practical pathway to affordable, uninterrupted electricity for domestic, commercial, and industrial consumers alike—while causing minimal environmental harm compared to fossil-fuel-based power generation with its massive carbon footprint.

In a bold critique of the existing energy architecture, he argued that the promotion of solar energy could help Pakistan finally free itself from the stranglehold of Independent Power Producers (IPPs), whose electricity remains prohibitively expensive, particularly for industry. With industrial competitiveness eroded by soaring tariffs, solar power, he said, offers a rare convergence of economic sense and environmental responsibility.

Moosa stressed that harnessing Pakistan's immense solar potential is the only sustainable way forward to deliver real relief to consumers across sectors by ensuring electricity at the lowest possible cost. He proposed an innovative and socially responsible approach: surplus electricity generated by net-metering rooftop solar systems should be channelled to underprivileged areas of Karachi that continue to endure hours-long power outages. In doing so, solar energy could simultaneously address inequity and inefficiency within the power distribution system.

Highlighting the stark developmental gap, Moosa pointed out that Pakistan's per capita electricity consumption stands at a meagre 650 kilowatt-hours per person per year, compared to nearly 3,000 kilowatt-hours in developed economies—a disparity directly linked to low industrial activity and output. Karachi, he emphasised, remains a vast and largely untapped market for renewable energy, with enormous potential for household, commercial, and industrial solar installations.

Echoing these sentiments, FPCCI Senior Vice-President Saquib Fayyaz Magoon delivered a candid assessment of Pakistan's energy dilemma. He lamented that while the rest of the world has aggressively transitioned towards renewable energy, Pakistan has failed to fully exploit its abundant clean energy resources. In this context, he stressed that associations like the PSA must play a pivotal role in accelerating the adoption of alternative energy across the country.

Magoon made it clear that the Federation of Pakistan Chambers of Commerce and Industry (FPCCI) stands firmly behind the PSA's mission, describing solar energy as indispensable for the survival, growth, and expansion of Pakistan's industrial base. "Abundant clean energy generation is not just essential for industries but for Pakistan as a whole to ensure progress and advancement," he asserted.

He pledged that the FPCCI would stand shoulder-to-shoulder with the PSA at every forum to persuade the government against imposing undue restrictions on solar energy usage for domestic, commercial, and industrial consumers. In a

particularly significant policy suggestion, Magoon urged the government to waive capacity payments for industries for at least one year. Such a step, he argued, would dramatically reduce energy costs, revive industrial activity, and ultimately increase overall electricity consumption—offering a practical solution to the problem of idle power plants.

Lower tariffs, he said, would enable Pakistani products to compete effectively in international markets, with solar energy playing a decisive role in restoring export competitiveness and industrial confidence. Former PSA chairmen Rana Abbas and Amir Chaudhry urged members to remain united and proactive, recalling the sector's exemplary mobilisation during the foreign exchange crisis when imports were restricted. That episode, they noted, proved that organised advocacy and collective resolve can overcome even the most formidable challenges.

Adding a forward-looking dimension, Muhammad Zakir Ali, CEO of Inverex Solar Energy, called upon the PSA to take its conventions beyond Karachi and Lahore to Balochistan and Khyber Pakhtunkhwa. These regions, he said, represent vast untapped clean energy markets that could transform local economies while strengthening national energy security. The event concluded with the presentation of special awards to high-performing solar energy companies, dealers, and sellers—an acknowledgement not only of commercial success, but of their contribution to a national cause.

Afaaq Ali Khan Vice Chairman PSA, Faaz Diwan Director Diwan Internationals, Mohammad Jibran and others representatives also spoke on this occasion.

World Wetlands Day 2026 Observed

Wetlands Under Siege as Climate Crisis Deepens: Seminar Told

Experts Say Climate, Pollution and Neglect Strangling Wetlands; Sea Pushing Back the River Due To No Water Discharge in Indus Delta

Special Report by Mansoor

Wetlands play a vital role in ensuring climate stability, water availability, food security, and community resilience, and all stakeholders must take concrete measures to protect them for sustaining ecology and biodiversity. This was stated by ecologist Rafiul Haq while addressing a seminar held to mark World Wetlands Day 2026, organized by Green Media Initiatives with the support of Accountability Lab Pakistan and the Federal Urdu University of Arts, Science and Technology (FUUAST) at its Gulshan Campus.

Rafiul Haq said Pakistan has 225 wetlands, covering 9.7 percent of its land area, with 19 Ramsar-designated sites of international importance. He warned that these ecosystems, ranging from alpine lakes to coastal mangroves, face serious threats from climate change, pollution, population growth, industrialisation, deforestation, and unsustainable agricultural practices. He noted that Pakistan's forest cover has declined to just 1.5 percent, further destabilising wetlands.

Wetland expert Dr Asma Ibrahim highlighted that global temperatures have risen by 1.1°C since the 19th century, while atmospheric CO_2 levels have increased by 50 percent, posing grave risks to wetlands and biodiversity. She warned that reduced freshwater flows have caused severe saltwater intrusion in the Indus Delta, which is now sinking due to sea-level rise, resulting in major ecological and economic losses.

Huda Ikram, Senior Political Adviser at the British Deputy High Commission Karachi, said the UK is working with Pakistan on health, education, and environmental protection, including the Indus Delta, stressing the need for proactive action and youth engagement.

Shabina Faraz, CEO of Green Media Initiative, urged students to plant trees, reduce plastic use, and help protect Karachi's environment amid its rapidly growing population.

Kashif Ali, Executive Director Transparency International Pakistan; Muhammad Abubakar, Program and Communications Manager Accountability Lab Pakistan; and Syed Faisal Karim, Anchorperson, also addressed the seminar.

Pakistan, China Launch E-Mining Platform, Sign Deals

EU Report

The Pak–China Mineral Cooperation Forum was held at the Jinnah Convention Centre, Islamabad, bringing together senior Pakistani leadership, diplomatic representatives, Chinese enterprises, and industry stakeholders to strengthen bilateral cooperation in Pakistan's mineral sector and explore new avenues for sustainable development and investment.

Organized by the China Chamber of Commerce in Pakistan (CCCPK), the forum served as a high-level platform for policy dialogue, investment facilitation, technological collaboration, and business matchmaking across the entire mineral value chain, including exploration, mining, processing, logistics, financing, and capacity building. The Forum was attended by 70+ Chinese companies, 100+ Pakistani companies, and over 800 participants, reflecting strong interest from both sides in deepening cooperation in the mineral sector.

The opening ceremony was attended by distinguished guests, including Chief Guest Prof. Ahsan Iqbal, Federal Minister for Planning, Development & Special Initiatives; Mr Jiang Zaidong, Ambassador of the People's Republic of China to the Islamic Republic of Pakistan; Mr. Ali Pervaiz Malik, Federal Minister for Energy (Petroleum Division); and Mr. Qaiser Ahmed Sheikh, Federal Minister for the Board of Investment, along with senior officials from federal and provincial governments, executives of leading Chinese enterprises, and representatives of relevant institutions.

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Powering progress through indigenous fuel

Pakistan sits atop one of the world's largest lignite coal reserves, but much of the coal is imported; country can transform its indigenous coal into a cornerstone of national progress

Zubair Yaqoob

The writer is a freelance journalist

Pakistan sits atop one of the world's largest lignite coal reserves, particularly in the Thar region of Sindh, with estimates of around 175-186 billion tonnes. Yet despite this enormous potential, much of the country's coal-fired power generation continues to rely on imported coal or mixed fuel sources. This dependence not only drains precious foreign exchange reserves but also exposes the power sector to global commodity price volatility.

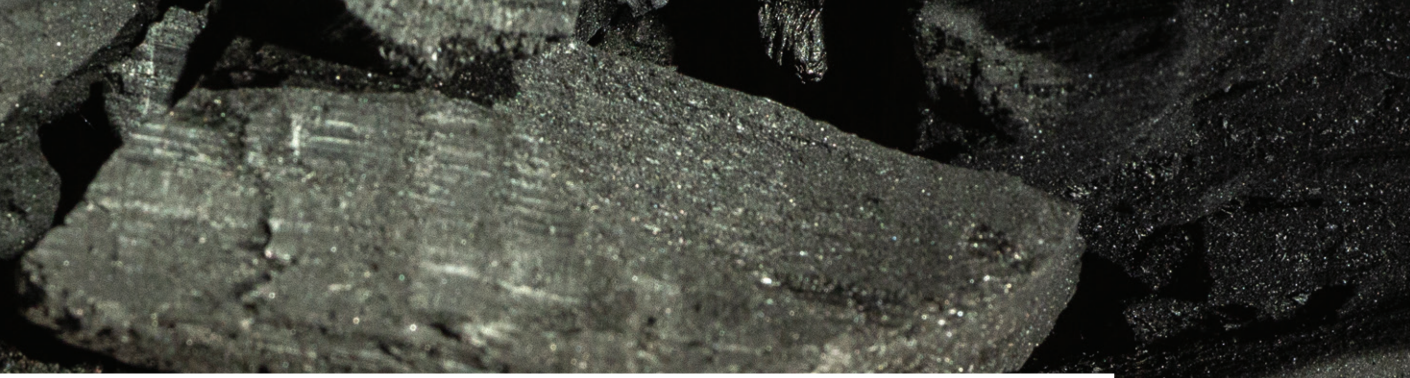
For Pakistan to secure its energy future, reduce the burden of costly imports, and stabilise electricity tariffs, it is vital to build a robust local coal ecosystem where the power generation industry is positioned as the anchor customer.

Thar coal has already started to play a significant role. Approximately 2,640MW of electricity are currently being generated from operational projects in Block I and II, a figure that is expected to rise to around 3,280MW.

In a high-level meeting chaired by Sindh Chief Minister Murad Ali Shah, he highlighted Thar coal's critical role towards attaining energy security considering the low-cost indigenous power generation which is possible. He mentioned that the use of Thar coal has saved the country over $680 million worth of foreign exchange as a result of reducing dependence on imported coal. He further mentioned that electricity generated from Thar coal costs Rs4.8 per unit which is about three times less compared to electricity generated using imported coal.

By contrast, generation from regasified liquefied natural gas or furnace oil is far more expensive, ranging between Rs41 and Rs51 per unit in many cases. The clear price advantage demonstrates why anchoring domestic coal within the national power generation mix is essential. When power producers commit to long-term demand for indigenous coal, the resulting investments in mining, transport infrastructure, beneficiation facilities and plant retrofits become economically viable.

Building such an ecosystem will require large upfront investments. Mining capacity in Thar and other identified reserves must be scaled up. Rail and road links are necessary to



ensure coal can be efficiently transported from mine mouth to major power plants. Many of the existing imported coal plants will need to be retrofitted to handle the unique characteristics of local lignite, which contains higher moisture content and lower calorific value.

Alongside this, modern emission control systems must be integrated to ensure environmental standards are met. The government has already taken steps by forming committees to prepare feasibility studies for the conversion of imported coal-based independent power producers to Thar coal. Yet progress is constrained by financing challenges. Domestic banks, wary of environmental risks and international climate policy headwinds, have been reluctant to extend credit for such projects. Without addressing this bottleneck, the transition will remain slow.

Estimates suggest that switching power generation to indigenous coal could save Pakistan as much as $1.5-2 billion annually by cutting down on coal imports

The long-term benefits of developing an integrated coal ecosystem are substantial. Estimates suggest that switching power generation to indigenous coal could save Pakistan as much as $1.5-2 billion annually by cutting down on coal imports. The increasing share of local coal in the generation mix has already translated into measurable gains as in March 2025, the average fuel cost per unit of power dropped from about Rs16.8 to Rs12.2 compared with the same period the previous year, a 27 per cent reduction largely driven by greater utilisation of Thar coal.

This shows that even modest shifts toward local resources can yield significant national savings. In addition to cost reduction, an expanded coal ecosystem would create thousands of direct and indirect jobs across mining, logistics, power plant operations and allied services, particularly in underdeveloped regions like Thar, Lakhra and Duki. These benefits extend well beyond the energy sector, spurring regional development, boosting purchasing power through lower tariffs and creating multiplier effects in manufacturing, transport, and small enterprise growth.

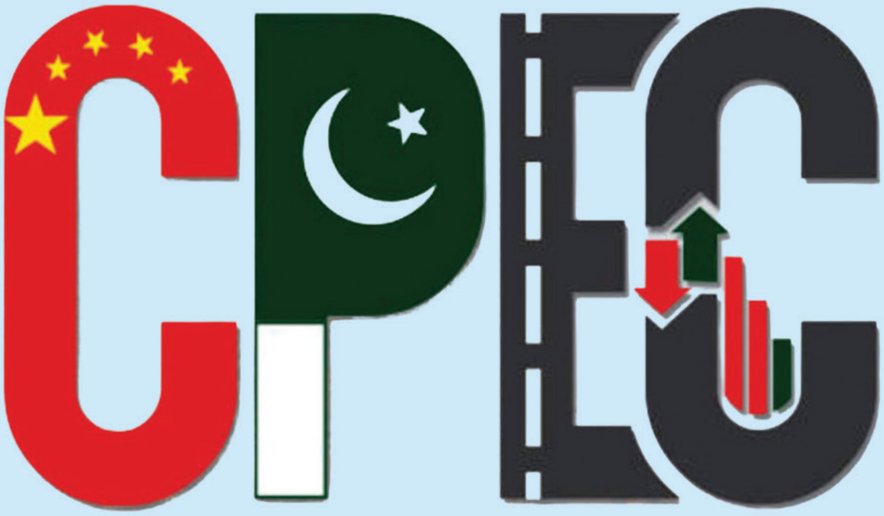
International experiences provide valuable lessons. Indonesia, once a struggling economy, transformed its energy and industrial base by systematically exploring and developing its vast coal reserves in Sumatra and Kalimantan. Coal now contributes significantly to its GDP and sustains millions of livelihoods, while powering one of the world's most populous nations. Pakistan has similar potential if it leverages its reserves with strategic planning and investment. It is important to acknowledge the environmental debate.

Coal remains a carbon-intensive fuel, and Pakistan is particularly vulnerable to climate change. Yet the country's overall carbon footprint is negligible at the global scale, and advanced technologies are available to mitigate emissions. High-efficiency, low-emission power plants can achieve efficiency rates nearly 20 per cent higher than older subcritical plants, while flue gas desulphurisation and selective catalytic reduction can dramatically cut sulphur dioxide and nitrogen oxide emissions.

Over time, carbon capture, utilisation and storage can further reduce the environmental burden. Responsible development of indigenous coal, integrated with environmental safeguards and gradual adoption of cleaner technologies, offers a balanced pathway that combines energy security with sustainability.

The choice before Pakistan is therefore not whether to use coal, but how to use it responsibly and effectively. By treating the power generation industry as the anchor customer of a fully developed coal ecosystem, the country can align energy policy with long-term economic interests. Investment in mining, logistics and plant conversion will demand capital and coordinated planning, but the resulting benefits in lower electricity tariffs, reduced foreign exchange outflows, job creation and enhanced industrial competitiveness will far outweigh the initial costs.

With coherent policy direction, collaboration between government, industry and financiers, and adoption of modern technologies, Pakistan can transform its indigenous coal into a cornerstone of national progress. ■



losing momentum despite tall claims

As scepticism deepens and optimism flickers, a blunt truth emerges from Islamabad to Beijing: without Pakistan's private sector, CPEC's revival is impossible.

The China-Pakistan Economic Corridor (CPEC), once hailed as Pakistan's economic lifeline and a historic gateway to prosperity, today stands at a decisive crossroads. Amid fading enthusiasm, stalled projects, and growing pessimism, a critical question looms large: has Pakistan already lost its golden opportunity, or is there still time to reclaim it?

Former Special Assistant to the Prime Minister on CPEC Affairs and a leading technocrat from Pakistan's energy sector, Khalid Mansoor, believes the story is not yet over—but only if Pakistan is willing to confront its failures head-on and radically change course.

Appearing on a podcast hosted by senior journalist and analyst Kamran Khan, Mansoor delivered a sobering yet hopeful assessment of CPEC's troubled journey. While Khan lamented that CPEC had "lost its way" and that the long-cherished dream now appeared shattered, Mansoor insisted there was still light at the end of the tunnel—provided Pakistan learns from its mistakes.

Why CPEC lost momentum

According to Mansoor, CPEC did not stall because of a lack of Chinese interest—but because Pakistan failed to present economically viable, investor-ready propositions.

"We built Special Economic Zones (SEZs), but they lacked the most basic utilities—water, electricity, and gas—without which industries simply cannot function," he explained. Worse still, investors are required to secure as many as 38 approvals from multiple federal and provincial departments just to start a business.

"That," Mansoor admitted candidly, "is the core reason we failed to attract Chinese investors."

To compound the problem, security concerns and political instability emerged as major deterrents over time. "These are our own mistakes," he said. "They reflect our institutional ineligibility."

SEZs: Big promises, weak foundations

The picture becomes even bleaker when the status of individual SEZs is examined.

The Dhabeji SEZ near Karachi remains under development, long after its announcement.

The Khyber Pakhtunkhwa SEZ, Mansoor argued, lacks economic viability due to its distance from Karachi Port—an essential hub for importing raw materials and industrial machinery.

In contrast, SEZs in Punjab are relatively better positioned and closer to industrial readiness. This uneven progress has further eroded investor confidence and slowed CPEC's transition into its much-anticipated second phase.

The G2G Illusion—and the Missing Private Sector

One of the most striking admissions made by Mansoor was Pakistan's over-reliance on government-to-government (G2G) engagement.

"G2G relations alone are not enough," he stressed. "Without active involvement of the private sector, CPEC cannot succeed—especially in Phase-II."

China, he revealed, is unequivocal on this point. Beijing believes Pakistan's private sector must play a central role if CPEC is to be revived meaningfully and sustainably. Industrial growth, export-led manufacturing, value addition, and job creation cannot be driven by governments alone.

Kamran Khan's pessimism during the podcast echoed a sentiment increasingly shared across Pakistan's business community: that CPEC, once pursued with unmatched fanfare, has slipped into inertia and bureaucratic paralysis.

CPEC Phase-II: From concrete to commerce

If Phase-I of CPEC was about roads, power plants, and infrastructure, Phase-II must be about people, production, and profits. This transition demands a paradigm shift—from state-centric planning to market-driven execution.

For CPEC to regain momentum:

SEZs must be made fully functional before being marketed.
Regulatory approvals must be drastically simplified.
Energy, water, gas, and logistics must be guaranteed.
The private sector must be treated not as a spectator, but as a strategic partner.
China is no longer interested in ceremonial MoUs or politically driven announcements. It seeks bankable projects, credible partners, and predictable policies.

CEPEC as Pakistan's Economic Reset Button

At its core, CPEC—or CEPEC, as it is increasingly being framed in economic policy circles—is not merely a bilateral project. It is Pakistan's last realistic chance to integrate into regional supply chains, boost exports, industrialise its economy, and reduce dependency on external bailouts. Failure to revive CPEC Phase-II would not just mean stalled projects—it would signal a deeper inability to translate opportunity into outcome.

Conclusion: The Clock Is Ticking

CPEC is neither dead nor guaranteed. It stands suspended between promise and paralysis. As Khalid Mansoor's remarks make clear, the real obstacle is not China's commitment—but Pakistan's preparedness. The message from Beijing is unmistakable: bring your private sector to the table, fix your governance, and make your projects viable—or risk losing everything.

Pakistan still has a narrow window to course-correct. Whether it seizes this moment or lets history record CPEC as a squandered miracle will define the country's economic destiny for decades to come.

PARCO Celebrates International Day of Education

EU Report

Pakistan Refinery Company Limited (PARCO) marked the International Day of Education by celebrating the academic excellence of its employees' children through the Employees' Children Education Awards, reaffirming its strong commitment to education as a catalyst for sustainable progress. Award ceremonies were held at PARCO's Corporate Headquarters in Karachi and at the Mid-Country Refinery, bringing together students, parents and senior management in an atmosphere of pride and inspiration. The events honored outstanding academic performance, dedication and the pursuit of excellence. Addressing the gatherings, Managing Director Mr. Irteza Ali Qureshi and DGM Operations Mr. Jawad Ahmad Aleem congratulated the award recipients, appreciating their discipline, hard work and commitment to learning. They emphasized that education plays a pivotal role in shaping responsible individuals and a prosperous nation. The initiative reflects PARCO's long-standing belief that investing in education is an investment in the future—strengthening individuals, organizations and the country at large. PARCO reiterated its resolve to foster a culture where continuous learning is encouraged, talent is nurtured and potential is fully empowered.

Rain doesn't just fall at NUST anymore, it's being thoughtfully collected and returned to the earth

Under Rector's vision for responsible resource management and as part of the University's ongoing efforts to strengthen sustainability and build a greener campus, six Rainwater Harvesting Wells (RHWs) are being constructed across the H-12 campus to support long-term water conservation. With two RHWs already constructed and the remaining under development, this initiative reflects a practical yet forward-looking approach to campus infrastructure, where environmental responsibility, functionality and aesthetics go hand in hand. These RHWs are expected to harvest approximately 41 million gallons of rainwater annually, contributing meaningfully to groundwater recharge. An additional benefit of this system is the gradual replenishment of previously dried/depleted tube wells in surrounding areas.

DIPLOMATIC ENCLAVE

Sindh Chief Minister Syed Murad Ali Shah meets with Ms Alexandra Berg von Linde, Ambassador of the Kingdom of Sweden to Pakistan, and Mr Per Albert Ilsaas, Ambassador of Norway, at CM House.

Federal Minister for Petroleum Ali Pervaiz Malik in meeting with Engr. Khalid Al-Falih, Minister of Investment of Saudi Arabia

Federal Minister for Petroleum Ali Pervaiz Malik addressing the country showcase session at Pakistan Pavilion

Russian Ambassador Albert P. Khorev paid a working visit to Lahore, where they met with Faheem ur Rehman Saigol, President of the Lahore Chamber of Commerce & Industry (LCCI); Tanveer Ahmad Sheikh, Senior Vice President; and Khurram Lodhi, Vice President. The sides discussed prospects for further developing trade and economic cooperation between Russia and Pakistan

Canadian High Commissioner H.E. Tarik Ali Khan met Federal Minister, Board of Investment, Qaiser Ahmed Sheikh, to discuss Pakistan's business climate, early conclusion of the Canada-Pakistan FIPA, and opportunities to diversify Canadian trade with Pakistan

H.E. Inna Lepel, German Ambassador to Pakistan, visits Iqbal House Sialkot, exploring the life and legacy of Allama Iqbal — a symbol of shared history and enduring ties between Germany and Pakistan

A memorable evening at the Swedish Residence as the Embassy of Sweden and Sweden's Ambassador, Ms. Alexandra Berg von Linde, to Islamabad, in collaboration with Ericsson, hosted a dinner honoring Ericsson's high-level delegation to Pakistan. The event celebrated strong Sweden-Pakistan ties, innovation, and partnership in shaping Pakistan's digital future.

H.E. İrfan Neziroğlu Ambassador to Türkiye pleasure of hosting H.E. Ali Hamza Pehlivan, President of Türkiye's Disaster and Emergency Management Authority (AFAD) at our Embassy, on the occasion of his visit to Pakistan to attend the 10th ECO Ministerial Meeting on Disaster Risk Reduction

SEWA office bearers' oath taking ceremony in Karachi

Pakistan suffers over Rs365bn loss from environmental degradation yearly: moot told

Vice Chairman SEWA Zainul Abdin Khuhro says Pakistan undergoes the worst environmental impacts in the world; Navid Sheikh states there is a need to tackle climate change strategically as it is badly affecting the country; SEWA Founder Syed Mehboob Shah asserts we are short of business people, and there is a dire need to install industries in Sindh

Special Report by Mansoor

Sindh Education Welfare Association's Karachi Region Vice Chairman Zainul Abdin Khuhro has said that Pakistan is experiencing some of the worst environmental degradations in the world due to deficiencies in environmental education, training, practical work, governance interest, and the use of funds.

"SEWA is a big association in Sindh, and is determined to boost education in all sectors, including the environment, with all relevant stakeholders. We are committed to providing scholarships and other welfare services in order raise education standards," he said while speaking at the oathtaking ceremony of SEWA at a local hotel in Karachi, in which the following new office-bearers took oath of their offices, respectively

Patron-In-Chief Navid Ahmed Shaikh, Provincial Secretary and Patron Sewa Ashiq Hussain Chandio, Additional Secretary, Founder SEWA Syed Mehboob Shah; Chairman Ahsan Ahmed Pharero; Senior Vice Chairman Ms Seema Sikandar; Vice Chairmen Ms Aisha Bangash, Syed Qurban Ali Shah, Zainul Abdin Khuhro, General Secretary Ms Amna Memon; Deputy General Secretary Ms Saira Qazi; Joint Secretary Faraz Pharero; Treasurer Syed Muhammad Qasim Shah; Publicity Secretary Imran Ahmed Soomro; Office Secretary Syed Fayyaz Ali Shah; Chairman Karachi Region Abdul Sattar Ishaqani; Chairman Hyderabad Region Ms Meena Sheikh; Chairman Shaheed Benazirabad Division Noor Muhammad; Chairman Sukkur Zulfiqar Ali Bullo; Chairman Larkana Ms Benazir Jatoi; Chairman Mirpurkhas Ghulam Sarwar Samejo; Islamabad Region's Ayaz Ali Keerio; Overseas' Mudassir Araiz Pharero; Legal Advisor Ms Sadaf Ayaz Phariro.

Mr Khuhro said environmental degradation causes Pakistan an estimated annual economic loss of over Rs365 billion (approximately 6% of its GDP), severely affecting health, agriculture, and infrastructure. Despite contributing less than 1% to global carbon emissions, Pakistan ranks among the most climate-vulnerable countries on the Climate Risk Index," he said while speaking at the oathtaking ceremony of SEWA at a local hotel in Karachi, in which the following new office-bearers took oath of their offices, respectively

He said one of the most stark examples of climate devastation in Pakistan has been the flooding caused by heavier monsoon rains and melting glaciers. Pakistan's experience with climate change devastation — from record floods to lethal heat waves — shows how the planet's warming is already reshaping lives. With thousands of deaths, widespread displacement, and environmental degradation, the urgency for action on climate mitigation and adaptation has never been greater. The impacts underscore a stark truth: climate justice is not just about reducing emissions — it's about protecting lives and building resilience for the world's most vulnerable people.

Mr Zain said that despite heavy flood seasons, Pakistan suffers from severe water stress, with many regions facing shortages of clean drinking water, worsening sanitation and public health. Overgrazing, deforestation, and unsustainable farming practices are degrading fertile land, reducing agricultural productivity and increasing rural poverty. Habitat loss is threatening wildlife and reducing ecosystem services like pollination and natural water filtration, he added.

SEWA Founder Syed Mehboob Shah stated that Sindh is currently facing a serious shortage of industrialists, highlighting the urgent need to expand and strengthen industrial development across the province. He noted that a large segment of Sindh's population, including women, remains trapped in debt because they are disconnected from entrepreneurship and rely solely on salaried employment.

He emphasized that the people of Sindh have always stood firmly with Pakistan and recalled the historic role played by the Hurs in resisting British rule, a struggle that ultimately contributed to the creation of Pakistan. He urged Muslim Sindhis to step forward with practical and concrete initiatives to establish businesses across all sectors of the national economy, observing that their presence remains limited in key industries such as cement, textiles, information technology, and other major industrial fields.

In contrast, he pointed out that Hindu Sindhis have made notable progress and are well-established in these sectors. Stressing the path to genuine economic advancement, he advised the people of Sindh to actively enter the private business sector. He further underscored the importance of acquiring quality education—particularly business-oriented education—to enable Sindhis to effectively contribute to and compete in the country's commercial and industrial landscape.

Navid Ahmed Shaikh, Patron-In-Chief SEWA stated that his organization is providing scholarships and a range of educational welfare services in underdeveloped areas of Sindh. He added that several new initiatives are being launched with the aim of poverty alleviation. Highlighting a major national concern, he said that climate change is severely impacting Pakistan and stressed the need for concrete and coordinated measures to address its adverse effects across the country, including Sindh.

Provincial Secretary Ashiq Hussain Jatoi observed that people in Sindh are largely working in isolation, which has hindered collective progress. He remarked that this individualistic approach has also weakened institutional authority and social values. Emphasizing the importance of unity, he advised the people to work collectively to achieve sustainable development goals. He further warned that violations of merit must be halted, as such practices ultimately undermine and destroy the nation.

SEWA Chairman Ahsan Farero remarked that Sindh lags significantly behind due to the absence of a collective educational framework, noting that only individuals, rather than society as a whole, are benefiting from education. He stated that SEWA would adopt a collaborative approach to promote and strengthen education across the province. He added that SEWA would work closely with all relevant stakeholders to improve social services.

Noor Muhammad, a SEWA leader, pointed out that the education sector in Sindh remains critically underdeveloped and requires focused intervention. He stated that SEWA would actively work to raise educational standards across the province, emphasizing that education is a fundamental service to humanity.

At the conclusion of the event, traditional Ajraks of Sindh Culture were presented to members of the newly elected body and other distinguished guests as a mark of respect. ■

KP Completes 10 Hydropower Projects, Set to Earn Rs13bn Annually

EU Report

Khyber Pakhtunkhwa has completed 10 hydropower projects with a combined generation capacity of 224 megawatts, expected to generate annual revenue of around Rs13 billion for the province, Secretary Energy and Power Nisar Ahmad said.

Presiding over a meeting, the secretary said that seven additional hydropower projects would be completed over the next two years, raising the province's clean and low-cost energy capacity to about 1,000MW and increasing annual earnings to an estimated Rs55bn. He added that work was also underway on three flagship projects in Swat district, which are expected to add 387MW to the system within the same timeframe.

The meeting was attended by Additional Secretary Energy Anwar Khan Sherani, Chief Executive Officer of Pakhtunkhwa Energy Development Organisation (PEDO) Engineer Anwarul Haq, Senior Chief Planning Officer Syed Zahar Shah and other senior officials.

Briefing the participants, PEDO CEO Engineer Anwarul Haq said three major hydropower projects — 40.8MW Koto Dir, 11.8MW Karora in Shangla and 10.2MW Jabori in Mansehra — were successfully completed last year, bringing PEDO's total generation capacity to 224MW.

He said construction was in progress on seven projects, including 300MW Balakot (Mansehra), 215MW Madin (Swat), 88MW Gabral Kalam, 84MW Matiltan (Swat), 69MW Lawi (Chitral), 13.5MW Chapri Charkhel (Kurram) and 6.9MW Mujahideen (Torghar).

Secretary Nisar Ahmad said work had been accelerated on a 40-kilometre transmission line along the Swat corridor, scheduled for completion next year, which would enable the sale of low-cost hydropower to the province's industrial sector. He termed the 40km-long 132/220kV transmission line from Matiltan to Madin as a critical project and directed authorities to complete it within the current year.

Rooftop power politics

Arfa Ijaz

The writer is an energy researcher working at the Sustainable Development Policy Institute (SDPI), Islamabad

In Pakistan today, the most consequential energy decisions are being made on rooftops, in factory yards and in the quiet arithmetic of monthly bills. Distributed solar has expanded rapidly for a simple reason: when grid power is expensive and unreliable, self-supply is a rational hedge. The result is a decentralised transition driven by necessity and consumer economics and it now tests governance because a system built for one-way flows and volumetric sales must operate in a world where demand can disappear behind the meter.

Once distributed capacity reaches scale, integration challenges emerge regardless of the intentions that originally drove adoption. The debate now centres on whether the power system can accommodate large volumes of distributed generation without weakening reliability, undermining utilities' financial stability or widening the inequality between those who can self-supply and those who remain fully dependent on the grid.

The integration problem has two parts. The technical part is local and time-sensitive. Midday solar can reduce net demand on certain feeders and create reverse flows, voltage fluctuations and protection coordination issues in distribution networks designed for one-way service. Stress then reappears in the evening when solar output falls and consumption persists, creating steep ramps that require flexibility. Aggregate demand can be weak even when local constraints remain binding, because transformers and feeders fail at specific hours and streets.

The financial part is structural. Distribution networks carry high fixed costs that do not shrink when electricity sales fall. As higher-consuming customers reduce purchases through self-generation, volumetric revenue declines while obligations remain. If utilities recover most fixed network costs through per-unit tariffs, then falling grid sales raise tariffs. Higher tariffs then make self-generation even more attractive for those who can afford it, shrinking sales further and leaving a smaller, more grid-dependent customer base to carry the same network costs.

Export compensation sits at the centre of this tension. Net metering, introduced in Pakistan in 2015, credited exports at or close to the retail rate and allowed one-to-one offsets against later imports. It was simple and financially attractive. It encouraged system sizing aimed at maximising annual offsets and treated the grid as a virtual battery in

financial terms. At higher penetration, the limits become clearer. Retail tariffs include more than just energy costs, including network and fixed costs. Paying retail value for exports can therefore shift cost recovery onto customers without solar.

This is why the draft Prosumer Regulations matter. They propose a net billing arrangement in which imports are billed at the applicable tariff and exports are credited at the national average energy purchase price (NAEPP) benchmark. They also introduce design and compliance features that shape market behaviour, including limits linked to sanctioned load, provisions up to one megawatt, and load flow studies for larger systems, alongside a fixed contract term and monetary settlement for exports.

It is also important to be precise about distributional effects. Formal net metering has been more accessible to affluent households and larger businesses that can afford compliant interconnection, bidirectional metering and upfront costs. Many lower-income households have responded with smaller behind-the-meter systems focused on self-use and bill reduction rather than export. That means the move from net metering to net billing primarily reshapes incentives for those who were exporting at scale, even as the broader reality of behind-the-meter adoption continues. Perceived unfairness is a core driver of whether reforms remain politically and socially durable.

Net billing may reduce incentives for oversized export-driven systems and address some forms of cost shifting, but it does not create hosting capacity, stabilise voltage, modernise protection systems, or add flexibility for evening ramps. If the response becomes too focused on restricting export value, it may encourage a shift from grid-interactive systems to maximised self-consumption, including through batteries, which can further reduce grid sales without solving the grid's fixed-cost problem, creating pressure for additional charges on those who remain tied to the grid.

Battery storage matters here. Batteries offer flexibility as they can shift midday solar into evening use, reduce ramp stress and help manage local distribution constraints by smoothing exports and supporting power quality.

Storage also brings obligations that need to be addressed early. Safety standards, installation quality, warranty transparency, performance expectations and end-of-life responsibility are not optional details. Without them, rapid storage adoption can create waste liabilities that undermine trust and force reactive regulation. Panel and battery costs continue to fall due to global learning curves and manufacturing scale. Even if export credits were reduced sharply, many consumers would still invest in PV and storage because private returns are increasingly driven by avoided grid purchases.

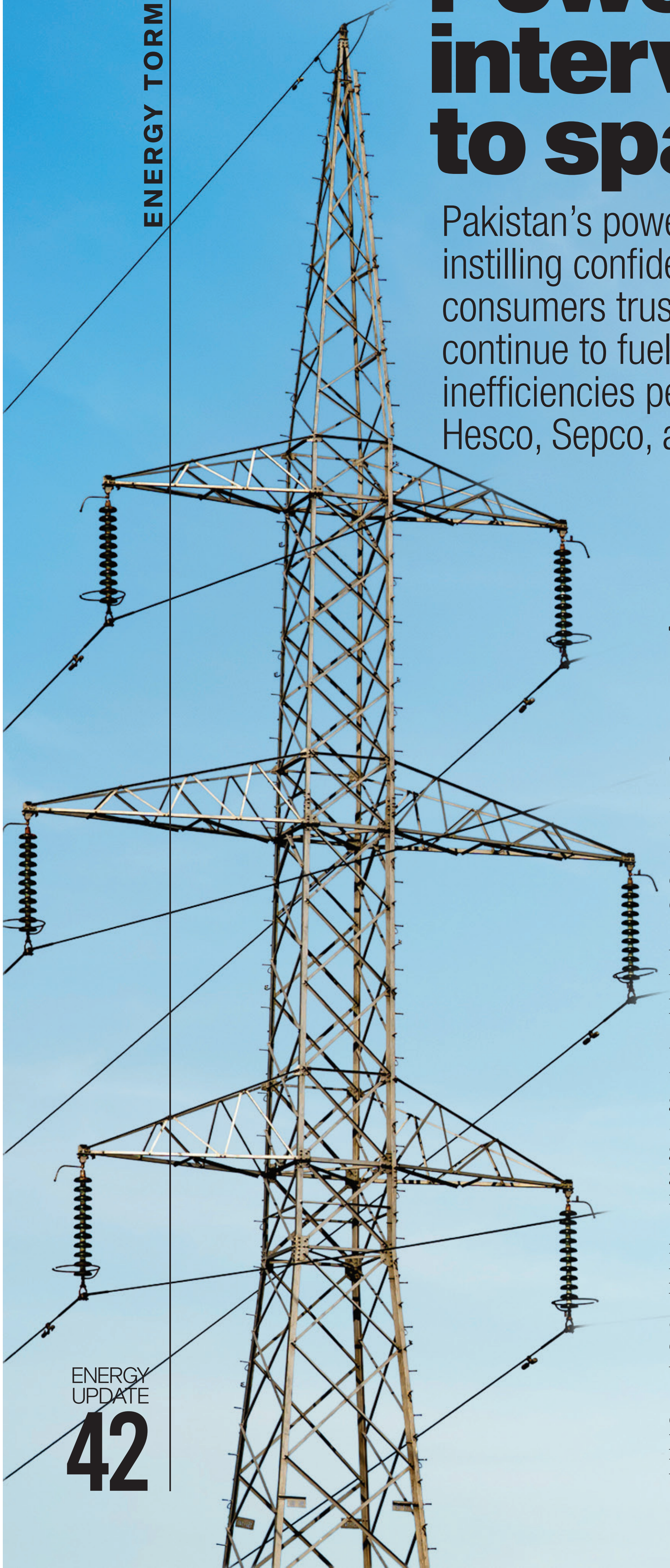
International experience is instructive. Jamaica's net-billing pilot shows that export-credit design works best when paired with clear processes and technical governance. Evaluations emphasised the need for clear distributed generation goals, a reliable inventory of connected systems, and integrated resource planning with scenario analysis to maintain predictable, system-safe scaling.

The path forward requires integration measures that stabilise operations and incentives, while addressing the upstream drivers that keep tariffs high.

System planning should prioritise flexibility through targeted distribution upgrades, better visibility and control, time-of-use pricing that shifts flexible demand into midday hours, and a storage roadmap for both behind-the-meter and feeder-level systems with safety codes and lifecycle responsibility. These steps will not hold if core tariff drivers remain untreated: high generation costs and legacy capacity payments, persistent losses and weak recoveries, and fiscal extraction through the electricity bill. Reducing that pressure requires improving tax collection, renegotiating costly legacy contracts, advancing Competitive Trading Bilateral Contracts Market (CTBCM), and reforming distribution and transmission through credible performance-based concessions or privatisation to cut losses and improve service quality. ■

Power sector interventions fail to spark growth

Pakistan's power sector remains incapable of instilling confidence in economic growth and in consumers trust; Nepra report says inefficiencies continue to fuel circular debt; operational inefficiencies persisted across all Discos; KE, Pesco, Hesco, Sepco, and Qesco termed poorest performers



Khaleeq Kiani

Khaleeq Kiani is an Islamabad-based reporter

Despite over 35 years of 'reforms' and policy interventions, Pakistan's power sector remains incapable of instilling confidence in the country's economic growth and in consumers' trust, leading to gains secured from power producers through renegotiations evaporating amid unending inefficiencies.

This charge sheet has been framed by the National Electric Power Regulatory Authority (Nepra) against the policymakers and power sector managers in its flagship 'State of the Industry Report 2025', while conceding that regulatory powers for correction had been diluted through administrative and legal challenges. It said the inefficiencies of the distribution companies (Discos) contributed around Rs400 billion to the circular debt, while law-abiding consumers paid around Rs235bn in debt servicing surcharge (DSS) in 2024-25, not due to normal business practices but to inefficiencies.

It said that despite some structural and policy-level interventions, "overall progress remained limited and insufficient to instil confidence in its ability to drive sustained industrial growth and provide meaningful relief to electricity consumers across industrial, commercial, agricultural, and residential categories. The sector continues to face deep-rooted operational and governance challenges that constrain its efficiency and undermine its potential contribution to economic development".

It pointed out that underutilised generation capacity was resulting in a persistent financial burden in the form of capacity payments for idle plants, and the transmission network is both underutilised and constrained, contributing to higher transmission tariffs while also preventing the dispatch of electricity from cheaper and more efficient generation sources in accordance with the Economic Merit Order (EMO).

On the distribution side, many government-owned Discos continue to exhibit poor governance practices, with T&D losses exceeding allowable limits, a low bill recovery ratio, and load-shedding practices based on Aggregate Technical and Commercial (AT&C) losses. These inefficiencies further exacerbate the underutilisation of generation, transmission, and distribution assets and contribute to the circular debt problem.

It said the challenges confronting power sector entities, largely driven by the entities owned by the government, were complex and spanned across planning, execution, and operational domains. "Persistent inefficiencies in strategic planning, project implementation, and routine operations have hindered the sector's ability to achieve financial sustainability and contribute effectively to national economic growth", it said adding that these issues were further exacerbated by weak governance, limited accountability, and the absence of performance-driven management practices, all of which constrain the sector's capacity to optimise its assets and consistently provide affordable, reliable electricity to consumers.

A notable example of inefficiency was the underutilisation of the 4,000MW capacity Matiari-Lahore High Voltage Direct Current (HVDC) transmission line, whose utilisation factor remained only 35pc during 2024-25, despite payments being made based on a 100pc availability factor. This adversely affects both the transmission tariff and the overall cost of electricity.

The regulator put on record that "KE, Pesco, Hesco, Sepco, and Qesco are the poorest performers, with T&D losses far exceeding Nepra limits, low revenue recovery, excessive AT&C losses, prolonged load-shedding, mounting receivables, poor service quality, and high consumer dissatisfaction. Their performance is weak across nearly all operational and financial indicators".

Operational inefficiencies persisted across all Discos, including KE. Delays in new connections, meter replacements, and net-metering approvals were common. Overbilling practices, particularly detection bills issued without due process, and frequent inflated billing complaints further undermined consumer trust. It said despite over two decades of their incorporation, the majority of Discos largely failed to function as true corporate entities and were increasingly being brought under centralised control, and their Boards of Directors (BoDs) show little interest in improving the financial health of these companies or transforming them into organisations of international standard.

As if that was not enough, there was a lack of accountability for board members, Chief Executive Officers, and other officers and officials. This absence of deterrence has emboldened these entities to maintain the status quo, perpetuating inefficiencies and poor performance across the sector. On top of that, the regulator's monitoring and enforcement drive had "been diluted by lengthy review, appeal, and petition processes, which were so time-consuming that they undermine the very purpose of enforcement actions". Furthermore, the limitation on taking action against delinquent individuals weakens the regulator's monitoring and enforcement efforts.

Courtesy Dawn

Clifton Urban Forest Partners with PARCO, PCG

Clifton Urban Forest has joined hands with Pak-Arab Refinery Limited (PARCO) and the Pakistan Coast Guards to launch a major mangrove plantation initiative along the Karachi coastline, marking a significant step toward coastal restoration and climate resilience. The collaborative effort aims to enhance mangrove cover along the coast to protect fragile marine ecosystems, conserve biodiversity, and strengthen natural defenses against climate-related threats such as coastal erosion and sea intrusion. Mangroves play a vital role in supporting marine life, stabilizing shorelines, and acting as natural carbon sinks.

Stakeholders involved in the initiative highlighted that expanding mangrove forests can also open avenues for carbon credit generation, offering Pakistan new opportunities for sustainable financing while contributing to global climate mitigation goals.

Nestlé Unveils $60M Investment in Pakistan

Davos/Islamabad: Reinforcing its long-term commitment to Pakistan, Nestlé has announced an additional investment of PKR 17 billion (USD 60 million) for the period 2026–2028, taking the company's total planned investment in the country to USD 100 million over six years. The announcement was made by Mr Remy Ejel, Executive Vice President and CEO, Zone AOA, during the Pakistan Business Roundtableheld on the sidelines of the World Economic Forum (WEF) Annual Meeting in Davos. The announcement took place in the presence of Senator Muhammad Aurangzeb, Federal Minister for Finance and Revenue, along with global business leaders and investors.According to Nestlé, the fresh investment will focus on sustainability and green initiatives, transformation of agricultural services, and automation and digitalization across its operations in Pakistan.

Environmental Corruption of the Political Elite

Rauf Klasara

Writer is a Senior Journalist

I don't know how many of you listened to the recent interview of IMF official Gita Gopinath at the World Economic Forum, where she was asked what she thought about India becoming the world's third-largest economy. Gita replied that India would indeed soon become an economic power, but that the real danger it faced was not the 50 percent tariffs imposed by President Trump, rather pollution, filth, and environmental destruction. I can say with confidence that just as many Indians failed to understand what this expert meant—and abused her for it—most people in Pakistan would also fail to grasp her point. People would joke and crack wise, asking what on earth the environment has to do with the economy.

Interestingly, at the very moment Gita Gopinath was giving that interview, a meeting of the *Senate Standing Committee on Climate Change, chaired by Senator **Sherry Rehman*, was underway in Islamabad. The main agenda was the massacre of thirty to forty thousand trees in Shakarparian, the Open University green belt, F-9 Park, Bari Imam, Serena Chowk, and the plan to clear three to four kilometers of forest in the I-8 sector to build a monument. This devastation has left hundreds of thousands of Islamabad residents shocked, disturbed, and deeply traumatized. They never imagined that a Grade-20 officer could simply decide to ravage an entire city.

Before this meeting, Senator Sherry Rehman had posted on Twitter (X), giving the impression that this time the concerned officials would not be spared. I was even messaged that the questions I had raised about her earlier silence on the destruction of trees would be answered in the meeting, and that we would see how she would take the officials to task. I, too, had expectations from her. In the previous meeting, she had strongly reprimanded officials over environmental destruction and warned that next time CDA officials would face strict questioning. The officials themselves were under intense pressure due to public outrage and noise from mainstream and social media, so lobbying had already begun. It appears the focus shifted to committee members—the senators—so that uncomfortable questions, which officials could not answer in front of the media, would not be asked.

I believed that Sherry Rehman—whom I have known since 2002 as an educated, aware, and assertive parliamentarian—would at least not fall prey to bureaucratic pressure or lobbying. Someone who had been Executive Editor of The Herald and worked closely with Benazir Bhutto surely had a different mindset. I assumed ordinary officials would not even dare approach her.

However, my long-held illusion shattered a day before the Climate Committee meeting, during a session of the Senate Standing Committee on Interior. Present were Sherry Rehman, other senators, Minister of State for Interior Talal Chaudhry, and the Chairman CDA. I was stunned when, as Sherry Rehman was about to leave, Talal Chaudhry and the CDA Chairman stopped her and spoke briefly. After that, she patted the CDA Chairman on the back and said, “Don’t worry, I won’t trouble you in the meeting.” These were words I—and other journalists—heard with our own ears. The scene was astonishing and deeply disturbing. Is this a personal matter for all of us? Or do we have some personal vendetta against officials that once personal bitterness is resolved, it becomes acceptable to destroy an entire city?

As Sherry Rehman walked past us journalists at the door, I greeted her and said, “Madam, this is neither your personal issue nor ours. We hope you will definitely ‘trouble’ the Chairman over the massacre of trees.” She did not realize we had already heard her conversation.

Her mood changed abruptly, and she said, “You cannot say this to me.” I replied, “Madam, I can. You are our representative. You carry a heavy responsibility to do your duty, not to assure officials that nothing will be said about environmental crimes.” She did not like this and left, glaring at me.

I remained in shock for a long time, wondering what the educated elite of this country has done to it. My first disappointments were Planning Minister Ahsan Iqbal, then Climate Minister Dr. Musadik Malik, and now Sherry Rehman. At least from her, I did not expect this. She herself has been a climate minister, has traveled the world, and delivers lectures on environmental issues. She speaks courageously on serious matters inside and outside parliament. Until now, her reputation was that of a bold and fearless parliamentarian. For me, it was heartbreaking that the destruction of a green city, its forests, and parks could be ignored—and that the responsible officials would not even be questioned.

After Sherry Rehman’s assurance, I no longer expected any tough accountability in the meeting or calls for disciplinary action against the officials. As expected, the meeting unfolded exactly as promised. Astonishingly, only three out of twelve members were present, and soon two of them left, citing other engagements.

Former caretaker Prime Minister Anwaar-ul-Haq Kakar, a member of the Climate Committee, no longer attends these meetings. Before becoming caretaker PM, he attended every committee session and impressed us with his knowledge, sharp questions, and intellect. But for the past two years, he has not been seen in any meeting. Perhaps someone advised him that attending such “ordinary” committee meetings is beneath the status of a former prime minister.

This is the same approach adopted by Nawaz Sharif and Imran Khan—both of whom failed on the governance front. The experience and knowledge gained from these committees are invaluable once one becomes prime minister. By staying away, the office of the Prime Minister was effectively robbed of a thoughtful senator. If attending such meetings is beneath his status, then why occupy and waste the seat?

In short, senators simply did not attend the meeting. Only Senator Sarmad Ali stayed till the end, but the Karachi-based PPP senator did not utter a single word or ask a single question. What complaint can one have against my friend Sarmad Ali when Sherry Rehman herself—part of parliament for 24 years—could not withstand the weight of alleged lobbying and faithfully honored the assurance she gave in the Interior Committee that she would not “trouble” the officials?

Sherry Rehman had also promised environmental activists like Nilofar Qazi, Kanwar Dilshad, and myself that she would not spare the killers of trees. Perhaps she weighed the CDA Chairman on one side of the scale and thirty to forty thousand trees, forests, green areas, and environmental destruction on the other—and perhaps all of us proved lighter. ■

Clueless on economy

Sadly, the main alternative to our crony capitalism is the free-market neoliberalism pushed by the IMF and like-minded national economists; to spur growth, while also cutting our ever-rising external deficit, the set-up must raise investment and exports

Dr Niaz Murtaza

The writer has a PhD degree in political economy from the University of California, Berkeley, and 25 years of grassroots to senior-level experience across 50 countries

The 2025 was the year of tall claims by our inept hybrid set-up based on actions it said would aid progress, but that, in fact, aided its own survival. Courts were defanged, risky deals struck with old patrons of autocracies and political foes jailed, all in the name of national progress.

Since the claims are tall and mass misery great, public hopes are high about delivery, which is crucial for the government, too, to help mask its dubious mandate. So, 2026 must be the year of growth. But herein lies the rub. This set of rulers has more autocratic powers than all set-ups after Gen Musharraf's, but they only help it to survive; its ability to use them to usher progress is weak. Painful IMF medicine was unleashed as well. It lowered inflation, but undercut growth. A recent national household survey shows that to recover from the cost of past inflation, strong growth is needed, which the IMF says may remain elusive even next year.

To spur growth, while also cutting our ever-rising external deficit, the set-up must raise investment and exports. Its best idea on exports so far seems to have been to set up committees of clueless people, while the best one on investments is to dash to Gulf states. But despite dozens of meetings, Saudi Arabia and others have given few inflows. We need industrialisation; instead, we seem to be chasing avenues such as crypto, corporate farming, mining and defence exports that may even impede major industry. What is on display is crony capitalism, autocratic excesses and a lack of ability to ignite sustainable and equitable progress.

Sadly, the main alternative to our crony capitalism is the free-market neoliberalism pushed by the IMF and like-minded national economists. While crony capitalism can't provide even the first two elements of progress — stability and growth — neoliberalism fails on equity and sustainability. It is naïvely said that to have progress, we need reforms to cut taxes, reduce state size and deregulate across the board. But no major state has progressed based on this mix alone. The world's fastest growing state for decades, China, ranks in the lowest category 'repressed' on the Index of Economic Freedom.

What is on display is crony capitalism.

Cosmologically, the debate rages on among adherents of natural evolution and intelligent design. But economically, global evidence shows that only an intelligent design developed by the visible hands of an able state delivers progress rather than natural evolution spurred only by the invisible hand of markets.

A state-led intelligent design for us

must include strategies for ensuring industrial and export upgradation and expansion, cutting regional and class inequities, ensuring sustainability and lessening the twin deficits.

To pursue such a design, the state must not cut its size blindly — it must shed its fat, but develop muscles. Reforms on taxes, tariffs, subsidies, etc, under such a design are not open-ended, but sequenced to support all its elements, as done by China. People who talk of reforms without invoking such an intelligent design are as clueless as our hybrid set-up and the IMF.

But the minds who could lead such a progressive developmental design are nowhere to be seen in our economic and political arena. So, for the near future, we will continue to pursue an odd mix: pretending to implement neoliberalism but actually pursuing crony capitalism. None of our governments ever had the capacity to implement export-led growth, and all pursued import-led growth.

The telltale sign of that was that in all our brief growth spurts in recent decades, foreign reserves fell despite growth, as it came from rising imports rather than exports. This raises the current deficit, depletes foreign reserves and takes us back to the IMF.

Unfortunately, this set-up faces a double jeopardy. It lacks the ability to provide export-led growth and also foreign reserves for import-led growth. Already, even with just two to three per cent growth, the external deficit is rising despite high remittances, as exports are stagnant while imports are increasing.

The big dreams of the civilians in the set-up are centred on being able to churn up growth before elections and thus shun the economic-political crutches and shackles of the IMF and hidden forces. But given the inability to crank up our foreign reserves despite the three-pronged strategy of 'beg, borrow and squeeze' from the local market, they may have to continue serving both for long. Meanwhile, the chances of salvation for the masses will remain distant until democracy and civilian sway prevail. ■

New gas reserves discovered in KP

EU Report

The Pakistan Petroleum Limited (PPL) has announced the discovery of new gas reserves in Khyber-Pakhtunkhwa for the second consecutive day, and informed the Pakistan Stock Exchange of the latest find.

According to a letter issued by PPL, gas reserves of 1.58 million standard cubic feet per day (MMscfd) have been discovered from the TAL Block in Kohat district. The discovery follows an earlier announcement of oil and gas reserves in the district, over which the prime minister had congratulated the nation.

Earlier, Oil and Gas Development Company Limited (OGDCL), one of Pakistan's largest exploration and production (E&P) companies, has discovered oil and gas reserves at the Baragzai X-01 (Slant) exploratory well in District Kohat, Khyber Pakhtunkhwa.

The listed E&P disclosed the development in its notice to the Pakistan Stock Exchange (PSX). "We are pleased to inform that OGDCL, operator of Nashpa Exploration License (65% working interest), together with its joint venture partners — Pakistan Petroleum Limited (PPL) 30% and Government Holdings (Private) Limited (GHPL) (5% carried interest) — has made an oil and gas discovery over Samana Suk and Shinawari formations at its exploratory well Baragzai X-01 (Slant), located in District Kohat, Khyber Pakhtunkhwa Province, Pakistan," read the notice.

The company informed that during the Cased Hole Drill Stem Test (CHDST-03) conducted in Samana Suk and Shinawari formations, the well flowed at the rate of 3,100 barrels of oil per day (BOPD) and 8.15 million standard cubic feet per day (MMSCFD) of gas, through 32/64” choke size, at wellhead flowing pressure (WHFP) of 3,010 psig.

"Baragzai X-01 (Slant) well was spud-in on December 30, 2024, as an exploratory well in the Nashpa Exploration License to test the hydrocarbon potential of Lockhart, Hangu, Lumshiwal, Samana Suk, Shinawari, Datta, and Kingriali formations.

"The well was successfully drilled down to a total depth of 5,170 meters into Kingriali Formation. Based on wireline logs evaluation, two cased-hole drill stem tests were earlier conducted in the Kingriali and Datta formations, which resulted in oil and gas discoveries," read the statement.

The fortress of sand: **Pakistan's survival vs India's water war crimes**

Land between the rivers—the cradle of human civilization—is being transformed, methodically and deliberately, into its grave; the deeper tragedy lies not merely in the act of manipulation, but in the prolonged silence and strategic negligence that allowed it to mature into a crisis

Engineer Arshad H Abbasi

The writer is water and climate change expert, and is also co-founder of Energy Excellence Centres at NUST and UET Peshawar

The land between the rivers—the cradle of human civilization—is being transformed, methodically and deliberately, into its grave. History, in its most unforgiving repetition, is circling back to its oldest form of conflict: water wars. Yet this is no return to ancient Mesopotamia armed with primitive tools. This is a modern confrontation involving nuclear-armed states, satellite surveillance, real-time hydrological control, and international law strained to its limits. To ignore this moment is to invite catastrophe.

On Friday, December 19, 2025, Pakistan's Deputy Prime Minister and Foreign Minister, Ishaq Dar, publicly warned of India's "weaponisation of water," finally giving voice to what farmers, hydrologists, and strategic observers had been witnessing for months. The Chenab River—one of the principal lifelines of Punjab's agriculture and a central artery of the Indus Basin—is being constricted through abrupt, unnatural, and calculated variations in flow. These are not seasonal anomalies. They are engineered disruptions with devastating downstream consequences for food production, livelihoods, and economic stability.

Yet the deeper tragedy lies not merely in the act of manipulation, but in the prolonged silence and strategic negligence that allowed it to mature into a crisis. This is not a sudden breakdown. It is the predictable outcome of a long-gestating strategy that was visible to anyone willing to see it.

For years since 2013, a group of self-styled experts—retired diplomats and media-friendly commentators with little understanding of hydraulic engineering or treaty law—called for "revisiting" the treaty under the banner of climate change. They failed to grasp a basic strategic truth: flexibility favours the stronger riparian. Their rhetoric, however well-intentioned, became the very language later used by India's Ministry of Jal Shakti to justify suspension, citing climate variability and exceptional circumstances. In any state serious about survival, such intellectual recklessness would have prompted institutional correction. In Pakistan, it was normalised.

While Pakistan debated abstractions, India invested in infrastructure and data dominance. Through

the Central Water Commission and the National Water Informatics Centre, India operates the India-WRIS platform, integrating real-time river discharge data, glacier melt trends, reservoir operations, and basin-wide rainfall analytics across the Upper Indus system. India sees every drop. The self-styled experts never once demanded that India share this data with Pakistan, despite claiming to be serious about studying climate-change variability in IHK, Ladakh, and Himachal Pradesh—the very regions where the Indus, Chenab, and Jhelum rivers originate. Pakistan, by contrast, sees the dust when the flow is choked.

What followed between late April and May 2025 was not mismanagement. It was a coordinated hydrological assault. At Marala Headworks—the first control point where the Chenab enters Pakistan—the data is unambiguous. On April 23, the outflow stood at approximately 14,800 cusecs. By May 2, it had been reduced to around 8,000 cusecs. On May 3, the flow surged violently beyond 55,000 cusecs, overwhelming downstream systems and depositing sediment, before being throttled back to under 4,000 cusecs by May 6. This cycle repeated throughout the month, with spikes and strangulations timed to maximize downstream damage.

Satellite imagery from the European Space Agency's Sentinel program confirms deliberate reservoir flushing at the Baglihar Dam on May 1, visible through abrupt changes in water coloration consistent with sediment discharge. Gates then remained closed for days, manufacturing an artificial drought downstream, followed by sudden releases. Similar patterns were observed at the Kishanganga Dam on the Jhelum tributary. For run-of-the-river projects with limited storage capacity, such extreme fluctuations are neither operationally necessary nor environmentally defensible. They are tactical.

India can no longer plausibly deny responsibility. The hydrological data, satellite evidence, reservoir operation logs, and precise temporal correlation between dam operations and downstream harm establish intent, pattern, and effect. These are verifiable facts. With this body of evidence, India cannot shield itself behind denial or procedural delay.

That reality was underscored in late May 2025 when Prime Minister Narendra Modi publicly boasted of using water to bring "adversaries to their knees." Such an admission, paired with documented downstream devastation, collapses any remaining pretence of technical necessity and establishes a prima facie case for international adjudication before the International Court of Justice (ICJ) and potential individual accountability under the International Criminal Court (ICC)

I have been playing this chess game with India for over three decades. I know very well that India can never become Israel. It cannot afford the geopolitical insulation that allows selective compliance with international rulings. India's aspirations—economic growth, global investment, leadership in the Global South, and credibility as a responsible power—depend on adherence to international law. Open rejection of binding rulings would carry costs India is ill-positioned to absorb.

History offers warnings. In 1976, Maulana Bhashani mobilized two million people in the Farakka Long March against the diversion of the Ganges. Today, Pakistan stands at a similar crossroads—but with stronger tools: satellite imagery, hydrological science, treaty law, and international courts. Delay is not neutrality; it is surrender by neglect.

Eight months have passed since India committed a documented war crime in May 2025, yet the state remains paralyzed. As a professional engineer with three decades of expertise in hydraulic strategy, I am not submitting a grievance; I am filing a forensic indictment. My analysis of real-time hydrological discharge, satellite telemetry, and reservoir operations confirms an engineered execution of our national foundation.

The data is conclusive: this was not a technical anomaly, but a coordinated hydrological assault. By weaponising the Chenab and Jhelum to strangle our agriculture and dry our hydropower, India has moved beyond treaty violations into the realm of international war crimes.

The window for diplomatic pleasantries has slammed shut. Every hour this Government surrenders to silence and rhetoric is an hour stolen from the survival of 250 million people. We are not facing a battlefield defeat; we are witnessing the irreversible dissolution of the state itself.

A fortress rarely falls to a foreign sword; it collapses when its leaders permit its people to perish of thirst and hunger. History will not remember your speeches. It will record only this: whether you had the courage to defend this soil with the technical evidence I have provided, or whether you presided over its silent surrender. The evidence is irrefutable. The delay is inexcusable. Act now. ■

Solar success, system strain: why policy must catch up

Over 50GW of solar panels imported in five years with fastest clean energy transitions

Asad Mahmood

The writer has served at the Energy Conservation Fund, NEECA

Pakistan's rooftop solar revolution has delivered cleaner power at record speed, but without urgent policy resets, it risks destabilising the very grid it depends on. The scale and speed of adoption have exposed structural faults in a system designed for one-way power flows from large, centralized generators. While policy responses are now emerging, failure to align incentives with system realities could still trade short-term gains for long-term grid fragmentation and inequity.

The numbers are eye-opening. With over 50 GW of solar panels imported into Pakistan in just five years, the country has witnessed one of the fastest market-driven clean energy transitions in the region. This surge has dramatically reshaped daytime electricity demand while leaving evening peaks largely unchanged, creating the classic "duck curve" that forces utilities to maintain costly standby capacity.

At the same time, a rapid influx of battery energy storage systems (BESS) is emerging alongside rooftop solar installations. Industrial and commercial consumers, in particular, are increasingly deploying BESS to manage load-shedding, avoid peak tariffs, and insulate operations from grid volatility.

While this shift can improve reliability and flatten demand peaks, its system-wide impacts on load forecasting, tariff recovery, grid operations, safety standards, and end-of-life management have yet to be fully assessed or reflected in regulation.

Yet the financing behind this transformation remains largely opaque. The solar-and-storage boom is being driven primarily by households and firms with access to upfront capital, while lower-income consumers remain effectively locked out of the transition. As a result, the benefits of reduced bills, energy autonomy, and resilience accrue disproportionately to better-capitalized users, even as the fixed costs of maintaining the grid are increasingly borne by consumers with no access to distributed generation.

The release of draft revisions to the NEPRA (Prosumer) Regulations, 2025 reflects an emerging regulatory consensus that Pakistan's rooftop solar expansion is beginning to strain grid operations and cost recovery. The regulations codify a shift from net metering to net billing, replacing retail-rate compensation with credits based on the national average energy purchase price. This change recognizes that exported rooftop electricity has a system value distinct from retail consumption and must be priced accordingly.

Recognizing technical constraints, the regulations also empower distribution companies to refuse new connections where distributed generation capacity reaches 80% of a transformer's rated capacity, and to require load-flow studies for larger installations. These safeguards implicitly validate the concern that unmanaged rooftop growth can overload local networks, reinforcing the need for planning tools that anticipate not react to distributed generation impacts.

The revised framework reflects a broader fiscal reality. Pakistan's power sector continues to carry legacy liabilities and circular debt, and the federal government has recently relied on substantial financing packages

to stabilize sector finances. In this context, policies that further erode distribution company revenues without addressing cost recovery risk deepening fiscal stress and political backlash.

None of this should be read as an argument against rooftop solar. Distributed PV reduces fuel imports, cuts emissions, and improves resilience. The challenge is no longer whether rooftop solar should grow, but how it should be integrated so that private benefits do not undermine collective infrastructure.

To that end, three pragmatic policy directions remain essential.

First, remuneration must be aligned with system value through the continued rollout of net billing combined with time-of-use tariffs. Net billing alone reduces regressive cross-subsidies, but without temporal price signals it cannot address the mismatch between daytime exports and evening demand.

Second, transparent and modest grid-access or capacity charges should be introduced to ensure all connected users contribute fairly to fixed network costs. Such charges should be carefully designed, with exemptions or lifeline thresholds for low-income consumers, to avoid undermining energy access while preventing cost shifting from large exporters to vulnerable households.

Third, incentives must pivot toward storage and demand-side management. Battery prices have fallen sharply, yet the current regulatory framework remains silent on encouraging hybrid solar-plus-storage systems or compensating prosumers for providing grid services. Without these incentives, the duck curve will persist, merely flattened rather than resolved.

The regulations provide procedural clarity through defined timelines and renewable five-year agreements, but the ability to revise export rates during the agreement term introduces uncertainty for investors. Predictable transition pathways rather than discretionary revisions will be critical to channeling investment toward grid-friendly technologies such as storage, smart inverters, and managed electric-vehicle charging.

These reforms are not unprecedented. Mature markets in Europe and North America have moved away from flat retail net metering toward net billing, dynamic tariffs, and grid-usage fees while preserving strong solar uptake. Citizen empowerment was not extinguished; it was redirected into models that are technically sound and economically sustainable.

For distribution companies, the imperative is to engage constructively with regulators and consumers to implement reforms that are evidence-based, transparent, and phased. Sudden reversals or opaque policymaking invite uncertainty and backlash; predictable transitions mobilize investment in storage, smart meters, and grid-edge services that benefit all users.

For consumers, the message remains straightforward: rooftop solar is a public good, but it is also part of a shared system. Individual energy independence should not erode the collective infrastructure that guarantees supply for everyone.

One critical issue still waiting in the wings is the end-of-life management of solar panels. With an average lifespan of 25-30 years, today's installations will become tomorrow's waste stream. The absence of any provision for environmentally sound disposal, recycling, or extended producer responsibility in the current regulatory framework risks replacing fuel imports with unmanaged solar waste undermining the sustainability narrative that solar power promises. ■

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