

MONTHLY

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# ENERGY UPDATE



HAPPY INDEPENDENCE DAY

IPPS: WHY LEADERS MUST  
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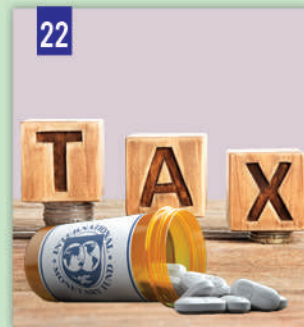
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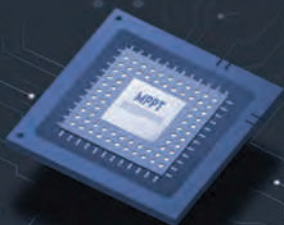


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# FROM THE Editor's desk...

## Time to get rid of IPPs' injustices

Former Energy Minister Gohar Ejaz's revelation about capacity payments to IPPs has surprised the whole nation including businessmen, traders, and common people. Ejaz got this revelation data from NEPRA covering the period from January to March 2024 which shows Rs150 billion monthly capacity payments were paid to IPPs. Half the IPPs received payments despite operating at less than 10 percent capacity. Even more concerning is that four specific power plants received Rs10 billion each month despite generating "zero power supply". Ejaz considers these payments as a misappropriation of public funds. Furthermore, it has also been revealed that capacity payments are being made in dollars instead of rupees which is a clear loss to the national exchequer as more money goes to IPPs due to the high value of the dollar. This also seems a deceit with the masses who have been worst hit by inflation.

Industrialists have strongly criticized the government's act of such payments. FPCCI Standing Committee on Energy said that the entire burden has been placed on the public to favor 40 IPPs. "In the country, 25% of IPPs are closed, and these closed IPPs are receiving monthly payments of Rs 10 billion, causing the national economy to sink further into crisis. Additionally, IPPs are charging capacity charges of Rs 24 per unit even for unused electricity", it said.

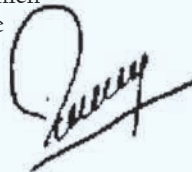
The IPPs and governments' anti-business practices have forced consumers to bear the negative impact of capacity charges, while industries are being compelled to pay Rs24 per unit against NEPRA's Rs 8 per unit, which is a clear injustice. The huge payments to IPPs have put the whole country and the power sector at risk. The people have become unable to pay bills because of the capacity payment burden and other taxes.

Resolving issues related to capacity charges in Pakistan's power sector involves addressing a range of financial, structural, and operational challenges. It is mandatory to regularly review and adjust electricity tariffs so as to ensure the true cost of electricity generation and capacity charges. The government should invest in better forecasting tools and techniques to more accurately predict electricity demand and reduce the mismatch between installed capacity and actual demand.

Investing in upgrading technology and infrastructure is also required to enhance the efficiency and reliability of existing power plants.

It will also be good to encourage private sector investment in power generation to increase competition and drive down costs. This can also help in diversifying energy sources and reducing reliance on single sources. There is a dire need to revise Power Purchase Agreements as per the demand of all stakeholders so as to ensure that they are fair and aligned with current market conditions. This may involve renegotiating terms to reduce financial burdens and address discrepancies.

The government should ensure transparency in the procurement and selection processes for IPPs to promote fair competition and reduce the potential for corruption. It is also mandatory to create a level playing field by ensuring that all players in the power sector adhere to the same rules and standards. The payment to IPPs in dollars is totally unjustified as this puts a heavy burden on the national economy and the public which has turned the worst victim of it. Hence, dollar payments should be stamped out forthwith while IPPs should be paid money in view of their generation. The agreements with those IPPs which are not generating electricity and taking huge money should be withdrawn forthwith so that people can take a sigh of relief.



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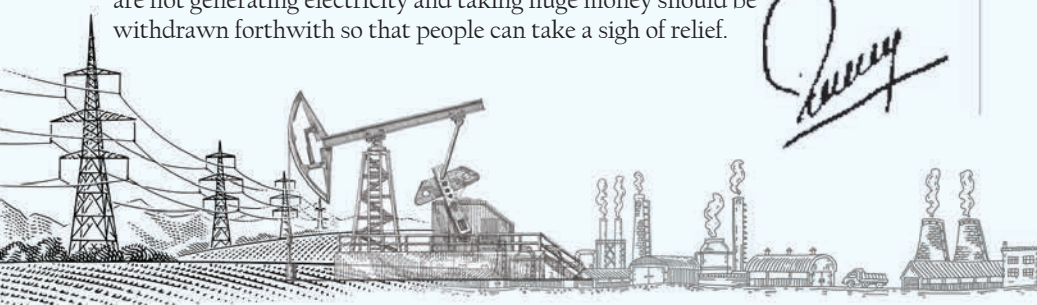
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# IPPs: why leaders must lead from the front

**Abubakar Ismail**

The writer is an expert in the energy sector with a passion for energy, sustainability, and emerging technologies

**B**e it a newspaper, X (formerly Twitter) or any WhatsApp group, one would find a barrage of criticism on the GoP for the rising capacity charges with a strong push for renegotiating agreements with Independent Power Producers (IPPs). While the debate on the other side of the fence is centering around the justification of capacity payments and their construction.

However, before delving into specifics, it is crucial to address a fundamental issue: if the government itself is taking dollar-based returns from its own power plants, how can it negotiate different terms with private investors who risked investing at a time when the entire country was reeling with 8–12 hours of daily load shedding and rolling blackouts?

The government owns several power plants, including the older GENCOs: Jamshoro Power Company Limited (JPCL), Central Power Generation Company Limited (CPGCL), Northern Power Generation Company Limited (NPGCL), and Lakhra Power Generation Company Limited (LPGCL).

This discussion, however, will first focus on four RLNG-based combined cycle power plants: the 1230 MW Haveli Bahadur Shah (HBS) and the 1223MW Balloki plants, both owned by the Government of Pakistan through National Power Parks Management Company Ltd. (NPPMCL), and the 1263MW Punjab Thermal Power (Pvt) Limited (PTPL) and the 1180MW Quaid-e-Azam Thermal Power (Pvt) Limited (QATPL), also known as the Bhikki Power Project, owned by the Government of Punjab.

Capacity payments primarily consist of debt repayment charges, return on equity (ROE), insurance, and fixed operations and maintenance (O&M) costs. While reprofiling debt for a longer period might be one approach, focusing on converting dollar-based returns to rupee-based returns is more critical. This involves locking in the dollar value at a certain point.

At the inception of these projects, the ROE component of the tariff was calculated based on a 16% internal rate of return (IRR) on equity investment, with dollar indexation for all four RLNG plants. A question arises: why does the government itself require dollar-based returns? If it does, then why expect private investors to accept rupee-based

remuneration?

In 2021, the reduction of the ROE component was initiated following the CCoE decision No. CCE/46/13/2020 dated August 27, 2020, ratified by the Cabinet in case No. 648/35/2020 dated September 8, 2020. This decision, conveyed by the Ministry of Energy (Power Division) via letter No. IPPs-10(18)/2020 dated October 6, 2020, to reduce the ROE of government-owned power projects (RLNG IPPs) from 16% IRR with dollar indexation to 12% IRR with dollar indexation. Power regulator NEPRA has revised this to 12% IRR, but dollar indexation remains.

As a first step, the government should remove dollar indexation from all government-owned power plants. A 12% return seems reasonable but should be rupee-based. This move will set a precedent for negotiating similar terms with private investors, fostering a more sustainable and equitable energy sector.

Regarding the older power plants known as GENCOs, NEPRA provided the following details in its State of Industry Report 2023:

Jamshoro Power Company Limited (GENCO-I) consists of four units, with only Unit-1 supplying nominal electricity during FY 2022-23. The remaining three units drew electricity from the National Grid without contributing any power. Unit-1 operates on RFO with notably low efficiency, resulting in a plant utilization factor of just 2.7% for FY 2022-23. The average Energy Purchase Price (EPP) per unit from Unit-1 during this period was Rs54.62/kWh.

Central Power Generation Company Limited (GENCO-II) is unique among public sector companies for its access to cost-effective dedicated gas but faced significant performance challenges during FY 2022-23.

Three out of four steam turbines, designed to work in conjunction with gas turbines, were out of operation, with the fourth steam turbine underperforming. Gas turbines either couldn't operate or had to run in open cycle mode, leading to substantial financial losses for electricity consumers. Utilization factors for its units were 41.08% (Units 5-10), 0.56% (Units 11-13), and 40.63% (Units 14-16).

Northern Power Generation Company Limited (GENCO-III) has also exhibited poor performance, further straining the power sector. Plant utilization factors were 2.96% for TPS Muzaffargarh and 28.86% for Nandipur. The average EPP per unit from Muzaffargarh and Nandipur during FY 2022-23 were Rs50.01/kWh and Rs28.86/kWh, respectively. Lakhra Power Generation Company Limited (GENCO-IV) has been shut down for the past few years.

The low efficiencies of the older GENCO power plants result in inefficient fuel consumption, leading to increased generation costs. Operating these inefficient power plants continues to burden the country's power sector. Maintaining these outdated and inefficient facilities, despite having sufficient capacity for more efficient alternatives, is not advisable.

These plants should be retired, with manpower adjusted to NTDC and DISCOs. Grid station assets can also be transferred to the relevant DISCO or NTDC, depending on the voltage levels. Furthermore, NTDC has already initiated a study to utilize some older turbines for reactive power stability within the transmission network.

Before entering into negotiations with the IPPs, the government should as the first step strategically phase out outdated and inefficient generation facilities in the public sector to minimize the burden of capacity payments and ensure the operation of only efficient plants.

Additionally, dollar indexations should be removed from government-owned plants and no agreements must be renewed with IPPs established under the 1994 and 2002 policies. The complete solution lies in establishing an open electricity market for direct/bilateral trading of electricity promoting fair competition and if generation is required at certain points to alleviate transmission network congestion, an independent open auction through a functional market operator, in conjunction with an independent auction agency such as PPIB, should be conducted. ■

## CARELESS CONDUCT

# Power sector shocks Irresponsible actions could discourage investment

## Pakistan must establish a stable and predictable investment environment

**Muhammad Wali Farooqi**

The writer is an energy economist with a focus on optimizing global energy systems

Pakistan's power sector, pivotal for the country's socioeconomic development, is currently grappling with a dire need for substantial investments, as outlined in the latest Indicative Generation Capacity Expansion Plan 2024-2034 (IGCEP 24-34) and Transmission System Expansion Plan 2024-34 (TSEP 24-34). These plans call for an investment of at least 80.7 billion USD over the next decade to address the growing electricity demand.

Recognizing the importance of attracting foreign direct investment to support its economic sectors, notably the power sector, Pakistan enacted the Foreign Investment (Promotion and Protection) Act 2022 which

offers substantial incentives such as exemptions from income tax, advance tax, and withholding tax—measures that many countries would hesitate to adopt. However, recent contradictory actions from government representatives jeopardize this crucial objective by demonstrating a lack of alignment between policy and practice.

For instance, the Minister for Energy, Planning, and Development of Sindh, Syed Nasir Hussain Shah, recently made headlines by demanding that the Karachi-based private power utility, K-Electric, absorb consumer losses for public good.

Similarly, a video of Ali Amin Gandapur, Chief Minister of Khyber Pakhtunkhwa, surfaced a few weeks back showing the politician storming a grid station in Dera Ismail Khan under PESCO's jurisdiction to restore supply from a high loss feeder. The KPK CM brazenly imposed his own outage plan directing the grid and law enforcement personnel to denounce the technical instructions and follow his instead.

This approach to addressing sectoral challenges through impulsive actions and ad-hoc interventions is severely problematic, particularly considering the federal minister's announcement that state-owned distribution companies (DISCOs) will be privatized within the next 18 months. As obvious, any investor, whether local or international, would seek stability and predictability in their investments. Thus, erratic actions and statements from government officials could

deter potential investors, undermining the broader objective of attracting robust and sustainable investment into the sector.

Furthermore, one must understand that the core issue exacerbating the strain within Pakistan's power sector is not the provision of electricity itself, rather the escalating tariffs that impose significant burdens on both consumers and utilities. By focusing solely on demanding that distribution companies absorb these increasing costs, policymakers overlook the crucial need for substantive reforms that address tariff rationalization and financial sustainability. A reductive example of this is someone living in an area with 6-7 hours of load shedding still facing high bills for the limited power they do receive. If the current situation is unsustainable, increasing supply without addressing tariff affordability and system inefficiencies will only worsen the financial strain on consumers, power utilities and the government.

Currently, Pakistan power sector's circular debt has reached a staggering Rs2.64 trillion, according to the most recent data. Major factors contributing to its escalation include inadequate recoveries, widespread theft, and substantial system losses, among others. A significant driver of this mounting debt is the continued provision of electricity by power distribution companies in areas with low recovery rates, resulting in considerable financial losses. Consequently, mandating power distribution companies to continue delivering electricity while enduring such losses will only exacerbate the problem, further inflating the debt and undermining the financial stability of the sector.

To retain and attract investment in the power sector, government officials must curb the practice of imposing sudden and arbitrary demands and align actions with a clear and consistent economic strategy. It is also essential to comprehend that investments are crucial for growth and are not acts of charity.

Pakistan must establish a stable and predictable investment environment, prioritize substantive reforms over temporary fixes, and ensure that its policies protect both consumer interests and investor returns. Failure to do so risks will further plunge the power sector deeper into financial turmoil, exacerbating the circular debt crisis and threatening the overall stability of the system. ■

# Pakistan's energy mess

**Tehmina Asad | Afia Malik**

Afia Malik is a Senior Research Economist, and Tehmina Asad is a Research Fellow at PIDE.

Behind all the mess is decades of mismanagement and misguided decision-making

Energy is the backbone of civilisation and development, but Pakistan's energy sector is in deep crisis. This crisis is a complex web of perpetual circular debt, ill-conceived independent power producers (IPP) contracts, and outdated tariff design. Persistent power outages, unreliable supplies, rising tariffs, overreliance on non-renewable energy sources, and import dependency have further exacerbated the situation. Pakistan's per capita energy consumption is significantly below world standards, and energy use is inefficient.

Behind all the mess is decades of mismanagement, overcentralised, and misguided decision-making complemented by the fragile regulatory framework. Above all, it is the non-realisation of past mistakes and repetition of the same. Unfortunately, the poor consumers are bearing the brunt of these systemic failures.

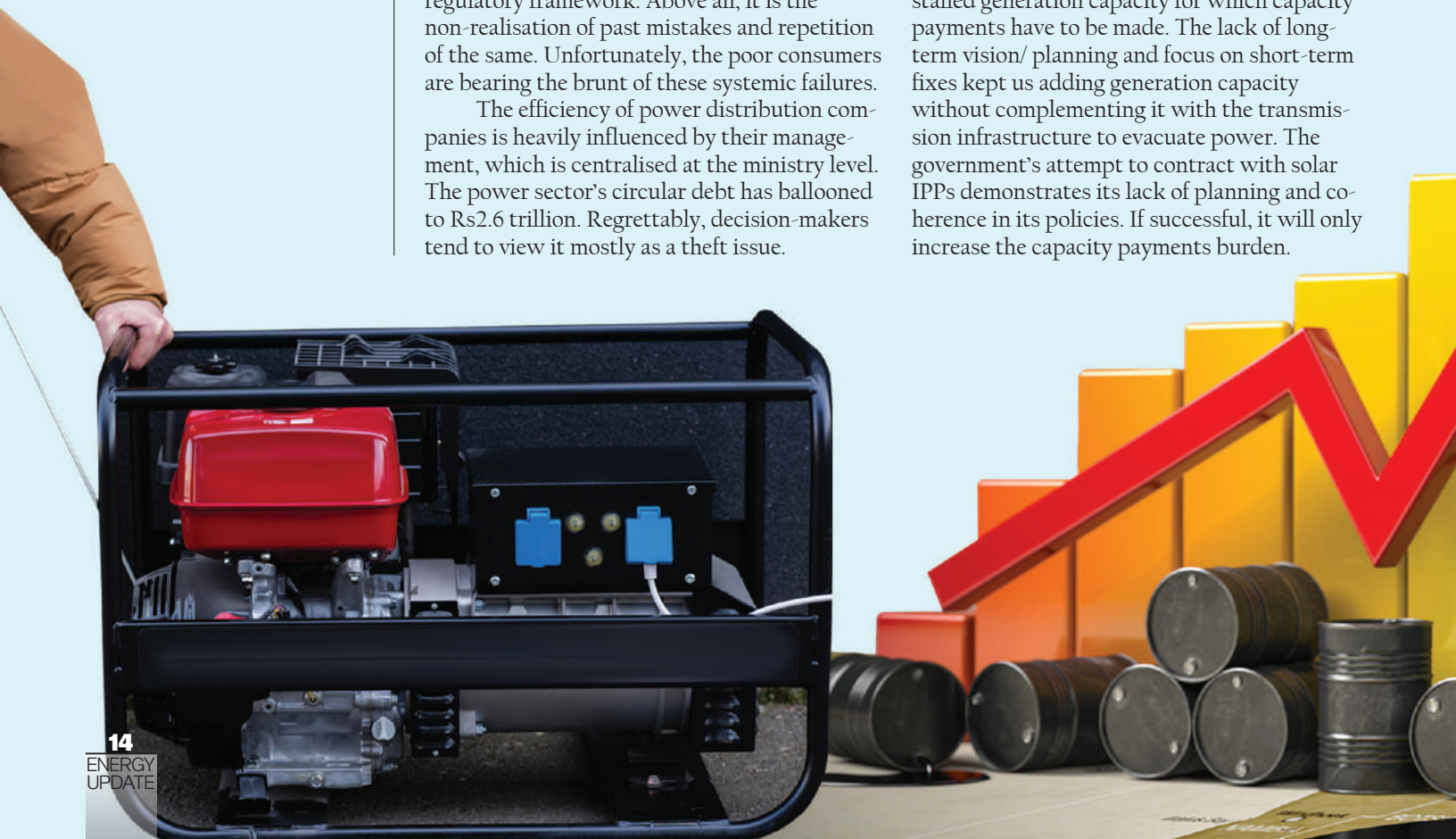
The efficiency of power distribution companies is heavily influenced by their management, which is centralised at the ministry level. The power sector's circular debt has ballooned to Rs2.6 trillion. Regrettably, decision-makers tend to view it mostly as a theft issue.

Electricity theft is a problem, but it's not the sole cause of financial mess. Theft is not possible without the connivance of the administrative staff. Maladministration often leads to overbilling consumers to cover up theft and low recoveries. For instance, the Federal Investigation Agency is investigating Lahore Electric Supply Company for overbilling consumers by 830 million units, even affecting those using just 200 units, highlighting the extent of the problem.

Electricity demand is falling, further adversely impacting distribution companies' (Discos) financials. Instead of focusing on inefficient practices, Discos blame the decline in demand for the increasing shift to rooftop solar (net metering policy). However, net metering contributed only three terra-watt hours (TWh), while demand shrank by nearly 20TWh last year. The impact of commercial load shedding on the decrease in demand is overlooked; many areas still experience load-shedding, driving consumers away from the grid.

Instead of addressing inefficiencies and supporting poorly managed Discos, the push for revising net-metering has shocked 0.11m customers (and adding) — many middle-class consumers have invested their savings in solar PV to reduce their utility bills.

A significant contributor to the financial mess is the underutilisation of expensive installed generation capacity for which capacity payments have to be made. The lack of long-term vision/ planning and focus on short-term fixes kept us adding generation capacity without complementing it with the transmission infrastructure to evacuate power. The government's attempt to contract with solar IPPs demonstrates its lack of planning and coherence in its policies. If successful, it will only increase the capacity payments burden.



Pakistan has an installed capacity of 45,000 MW, while peak summer demand is 30,000 MW and winter demand is at most 17,000 MW. The overestimated demand and underutilised capacity are due to a poorly managed policy framework, with no efforts to balance summer and winter demand through innovative seasonal tariffs.

The sector's financial challenges are also linked to the tariff design, with cross-subsidies across sectors and domestic consumer categories. Some distribution companies cross-subsidise others, and the government pays subsidies to maintain uniform tariffs.

Tariff design allows for subsidies, but fiscal space is limited to finance those subsidies. Additionally, the consumer-end tariff is burdened with taxes and surcharges, increasing consumer's financial burden and discouraging timely bill payments.

Changing tariff design is not a priority for decision-makers. Cross-subsidies are distorting electricity demand, and the industry is increasing its reliance on captive generation. Many large factories, especially in the textile industry, use energy efficiency and solar adoption to offset rising tariffs and potential

Carbon Border Adjustment Mechanism (CBAM) impact.

Furthermore, prioritising the commercialisation of power companies over privatisation can lead to operational efficiency gains while retaining public assets. Establishing an independent power commission composed of experts for three to five years with a target to clean up the mess can be a promising step. An effective legal and regulatory setup is crucial.

Revising the tariff design to enhance efficiency is crucial. Tariffs should accurately reflect the actual supply cost to all consumer categories and geographical markets. Redirecting subsidies through programmes like the Benazir Income Support Programme can reduce the overall subsidy burden and instil a sense of fiscal discipline, ensuring the sector's financial sustainability.

Promoting winter electricity consumption through innovative seasonal tariffs can reduce the capacity payments burden and lessen gas resource consumption.

## Govt to consult UAE on \$1.3bn investment for hydrocracker unit

### EU Report

The Cabinet Committee on Energy (CCOE) has decided to engage with the United Arab Emirates (UAE) regarding a planned \$1.3 billion investment in Pak Arab Refinery Limited (PARCO). The investment aims to establish a hydrocracker unit to convert furnace oil into petrol and diesel.

During a recent CCOE meeting, economic managers emphasized the importance of sending a delegation to the UAE for consultation. They also discussed extending the deadline for refineries to sign agreements for upgrading their plants under the new refinery policy.

Three refineries—Attock Refinery Limited, National Refinery Limited, and Pakistan Refinery Limited—are prepared to sign such agreements. Following these preparations, a delegation will visit the UAE for further discussions.

PARCO is updating its feasibility study, after which its board of directors will decide on the plant upgrade. This process is expected to take five to six months. Meanwhile, negotiations between Cnergyco PK and the government of Pakistan are underway to settle outstanding petroleum levies.

## Rs40bn gas stolen from SNGPL-SSGC systems

### EU Report

A parliamentary panel was apprised that an estimated Rs 40 billion worth of gas is stolen from the gas companies - Sui Northern Gas Pipelines Limited (SNGPL) and Sui Southern Gas Company Limited (SSGCL) systems.

Director General (DG) Gas Petroleum Division revealed in a meeting of the Standing Committee on Energy (Petroleum Division). The meeting was chaired by Syed Mustafa Mehmood, and attended by the Federal Minister for the Ministry of Energy (Petroleum Division) along with members of the standing committee.

The DG Gas said Rs 25 billion worth of gas had been stolen from SSGCL system which served Sindh and Balochistan. He maintained that the gas sector's circular debt swelled to Rs 2 trillion and the situation had further worsened as the power sector is not lifting expensive RLNG gas for power generation.



Ending power sector woes

# Pakistan should come out of financial, capacity traps

**Dr Naveed Arshad**

**P**akistan procured more generation capacity (at least 7,000 to 8,000 MW) than the capacity we actually required. All 21,000 MW new generation capacity in the last seven years is a base-load capacity and the energy component of imported fuel-based capacity was also signed on a Take or Pay basis with minimum dispatch restrictions (66% RLNG-based and 50% imported coal-based plants).

As we all know the capacity payments are always on Take or Pay, which is already sitting at 72% of the current electricity cost of service. The Pakistani government procured many plants at higher CAPEX (G to G), which could have been procured through the competitive bidding process which is a pre-requisite for streamlining the country's investment culture.

Pakistan is paying higher interest rates and high insurance charges, as it being perceived as a country with high-security risk. Capacity payments to IPPs are linked to the dollar exchange rate.

Hence, capacity payments of new generation projects are high due to surplus capacity, inflated CAPEX for the most part, higher interest rates, and above all rupee devaluation has caused capacity payments to grow more than 2.5 times from the time of signing the power purchase agreements.

The impact of our unplanned generation additions turned into a "Financial Trap" for Pakistan.

The NTDC seriously warned in 2016-2017 against this "Capacity Trap and Financial Trap" with evidence-based analysis and by speaking publicly. However, these warnings were downplayed on many occasions. Similarly, NTDC's and CPPA's concerns were heard to some extent in their board meetings but without any results. At the same time, an Integrated System Planning (ISP) approach was adopted for future expansion



planning. The NTDC has been relearning a planning process since 2018 that its parent organisation, WAPDA, used to do in the mid-1990s.

The NTDC is the Sole Planner of the country and it must continue to develop ISPs without any external influence. The current regime's set-up at the Ministry of Energy understands and appreciates the planning process and tries to take some corrective measures but the options are very limited.

Ease of doing business and industrialisation of the country has to be our top priority to increase our base load, from 8,000 MW to 14,000 MW in the next five years.

Our system peak demand of 30,000 MW in summer (18,000 MW more than the winter peak of 12,000 MW) is due to the inefficient buildings that we started developing in the last 30 years or so when we began relying on artificial means of cooling our spaces through ACs. This phenomenon changed the country's demand profile drastically - high peak demand but relatively low utilisation (consumption)

For instance, the utilisation factor of the newly installed 21,000 MW generation capacity is only 23 per cent.

In 2017, the available generation capacity was 21,000 MW before the new generation capacity became online while the total demand served this year was 107 TWh. In 2023, the total installed generation capacity was about 42,000 MW and the total demand served in this year was 129.5 TWh.

For simplicity, this means that the power sector did only 27.5 TWh of ad-

ditional electricity business with 21,000 MW of new generation installed in the last 7 years.

Analogy: We started a business with a new 50-seat luxury bus having all facilities but we can get only 10 passengers to ride on the bus. So, we are trying to charge a very high fare from these 10 passengers to recover our bus lease and operational costs. This luxury bus (base power load) was bought with the assumption that on average 40 passengers will ride on this bus and we will charge a reasonable fare from the passengers. Now, we are trying to collect enough money from 10 passengers so that we can at least achieve the break-even state. But it is not happening and we are in a capacity and financial trap.

We must increase our passengers on this new bus that should be our top priority.

In the power sector, it can only happen by increasing base load through industrialisation (increasing energy sales) and reducing summer peak demand by converting our buildings and making them energy-efficient buildings. Otherwise, we will keep installing new generation capacity to serve short-lived peaking demand. If we don't take these corrective measures, our passengers will be reduced to 9, then 8, and so on, further decreasing. The present situation isn't sustainable at all for the power sector. Hence, our top priority should be to increase the base load from 8,000 MW to 14,000 MW as soon as possible to come out of the financial trap and to reduce the cost of service for electricity - making it affordable for everyone. ■





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# Water contamination in Karachi on the rise

## Special Report by Mansoor

**A**uthorities fail to provide clean drinking water through pipelines and tankers; unregistered companies are selling unsafe bottled water to mint money; there is no check and balance against the unsafe bottled water supply

Water quality in Karachi has turned out to be a great concern for residents. This critical issue has been persisting for many years and now the situation has turned worst. The city lacks water infrastructure development projects and sewage & waste management systems due to a lack of rulers and local authorities.

The relevant authorities have failed to provide clean drinking water through pipelines and tankers. The situation has turned so bad that even unregistered companies are selling unsafe bottled water to mint money, putting public health in danger. There is no check and balance against the unsafe bottled water supply.

The non-implementation of stricter environmental regulations is also a factor behind the deteriorating water quality. There are often gaps in monitoring and addressing pollution sources. The city's water treatment facilities are often insufficient to handle the volume of water requiring purification. This results

in untreated or partially treated water being supplied to the population.

The intrusion of seawater into freshwater sources due to over-extraction and inadequate replenishment of groundwater has led to increased salinity levels in some areas, making the water unfit for drinking and irrigation.

Industrial waste, sewage, and municipal waste are major sources of water contamination in Karachi. These pollutants often enter water bodies and groundwater, making the water unsafe for consumption. Further more water being provided through tankers is contaminated and not drinkable.

The city's aging and inadequate water supply infrastructure leads to leaks and contamination. Many areas suffer from intermittent water supply, and residents often rely on water tankers, which may not provide water of reliable quality. Poor sewage and waste management systems contribute significantly to water pollution. Untreated sewage often flows into natural water bodies, contaminating the water supply.

The contaminated water badly affects public health. Waterborne diseases in Karachi are a significant public health concern due to the city's inadequate water supply and sanitation infrastructure. Common waterborne diseases in Karachi include Diarrhea, Hepatitis A and E, Typhoid Fever, Cholera, Dysentery, and Leptospirosis. Limited public awareness about hygiene practices and water purification methods exacerbates the spread of these diseases. The high population density in many areas of Karachi increases the risk of disease transmission. Efforts to combat waterborne diseases in Karachi focus on improving water quality, enhancing sanitation infrastructure, promoting hygiene education, and providing timely medical interventions.

The Karachi Water and Sewerage Corporation has faced numerous



challenges in providing safe drinking water to the city's residents as much of Karachi's water supply infrastructure is outdated and poorly maintained. Leaky pipes and broken mains lead to contamination of the water supply with sewage and other pollutants.

The demand for water in Karachi far exceeds the supply. Many areas experience chronic water shortages, forcing residents to rely on unsafe alternative sources such as tanker water, which is not properly regulated. Due to inadequate sewage treatment facilities and the improper disposal of industrial and domestic waste, water sources are often contaminated with harmful bacteria, chemicals, and other pollutants. This contamination enters the water supply, posing serious health risks.

Illegal tapping of water mains and unauthorized connections disrupt the distribution system, causing pressure drops and contamination. These practices also reduce the availability of water to legitimate consumers. The water board has struggled with financial mismanagement, leading to insufficient funds for necessary upgrades and maintenance. Corruption and lack of transparency have further exacerbated these issues. Political factors often influence the operations and decisions of the water board, leading to inefficiencies and delays in implementing essential projects and reforms.

Existing water treatment plants are insufficient to handle the volume of water required, and many do not meet modern standards. As a result, water is often distributed without adequate treatment. Rapid population growth and urbanization in Karachi have put additional pressure on an already overstretched water supply system, making it difficult for the water board to keep up with the increasing demand. The city's rapid urbanization, industrialization, and population growth have led to increased contamination of its water bodies.

Water contamination in Karachi is a multifaceted issue caused by a combination of infrastructural, environmental, and socio-economic factors. Poor waste management practices, including the dumping of solid waste into water bodies, contribute significantly to water pollution. This includes household waste, industrial waste, and medical waste. These illegal connections are often not properly sealed, leading to contamination.

Many areas, especially informal settlements, lack proper sanitation facilities, leading to open defecation and the direct discharge of waste into water bodies. The use of pesticides, herbicides, and fertilizers in agriculture can lead to runoff into water bodies, contaminating the water with harmful chemicals. Coastal water pollution from oil spills, discharge of ballast water from ships, and other marine activities also contribute to the contamination of water sources in Karachi.

Improving water quality in Karachi requires establishment and treatment facilities in industrial zones to treat wastewater before it is discharged into water bodies. Encouraging industries to set up on-site treatment plants can also be beneficial. There is a need to upgrade and expand municipal sewage treatment infrastructure to ensure that domestic sewage is adequately treated. The authorities should strengthen the enforcement of existing environmental regulations to ensure that industries comply with waste disposal laws. This includes regular inspections and substantial penalties for non-compliance.

There is also a need to establish a robust system for regular monitoring of water quality in rivers, coastal areas, and drinking water sources. The government should foster partnerships with agencies, private industries, non-governmental organizations, and international bodies to share resources, knowledge, and expertise in tackling water pollution. There is also a need to implement integrated water resource management (IWRM) approaches that consider the entire water cycle and involve all stakeholders in sustainable water management practices. By implementing these strategies, Karachi can significantly improve its water quality.

Addressing water contamination in Karachi requires a multi-pronged approach, including upgrading infrastructure, enforcing regulations on industrial discharge, improving waste management practices, and educating the public about the importance of protecting water resources, upgrading and expanding water supply and sewage systems, improving management and transparency, enhancing financial and administrative practices, cracking down on illegal connections and water theft, raising public awareness campaigns, and ensuring that political factors do not hinder necessary reforms and investments. ■

## Gas production from new well begins

### EU Report

Pakistan Petroleum Limited (PPL) has informed about the commencement of production from a new development well, Adhi South-8, drilled in Adhi mining lease with joint venture partners OGDCL and POL. "We are pleased to disclose that as part of our continuous efforts towards increasing production of oil and gas, production has commenced from Adhi South-8, a new development well drilled in Adhi Mining Lease which is operated by the Company with 39 percent working interest along with its joint venture partners, Oil and Gas Development Company Limited (OGDCL) and Pakistan Oilfields Limited (POL) with working interests of 50 percent and 11 percent, respectively," material information sent to Pakistan Stock Exchange on Thursday said. Adhi South-8 was successfully drilled to a depth of 3,460 meter and completed as producer based on encouraging log results. Subsequently to tie-in of the well with the plant, production from the well has commenced at the rate of 550 barrels per day (bpd) of oil and 0.8 million standard cubic feet per day (mmscfd) of gas at 36/64 inch choke. "This additional indigenous hydrocarbon production will contribute to reducing the energy demand and supply gas and save significant foreign exchange for the country," it added. ■

## Fitch forecasts political outlook for Pakistan

### EU Report

Fitch Ratings has forecasted that the current government led by Pakistan Muslim League (N) will remain in power for the next 18 months. In its report on Pakistan, Fitch also predicted that the founder and chairman of Pakistan Tehreek-e-Insaf (PTI) will remain in custody in the near future. The report highlighted external payment pressures as a significant economic risk for Pakistan's economy. It noted that the inflation rate might decrease by the end of the current fiscal year. Fitch observed that the Pakistani government has set extremely challenging economic targets in its budget, aiming to reduce the fiscal deficit from 7.4% to 6.7%. ■

# CPEC and Solarized Pakistan: Prospects & Constraints

ZH Khan

Undoubtedly, the CPEC has significantly contributed to sustainable development in Pakistan by enhancing infrastructure, boosting energy production and creating economic opportunities. However, many untapped sectors still need to be jointly explored under the flagship project of the CPEC in the country.

The development of new highways and railways under CPEC has improved connectivity, facilitating trade and economic growth. Additionally, CPEC projects in renewable energy, such as wind and solar power plants, have increased Pakistan's energy capacity while promoting cleaner, sustainable energy sources. According to a published report of the Global Energy Monitor (GEM), China has 180 gigawatts (GW) of utility-scale solar power under construction and 159GW of wind power. This brings the total of wind

and solar power under construction to 339GW, well ahead of the 40GW under construction in the US.

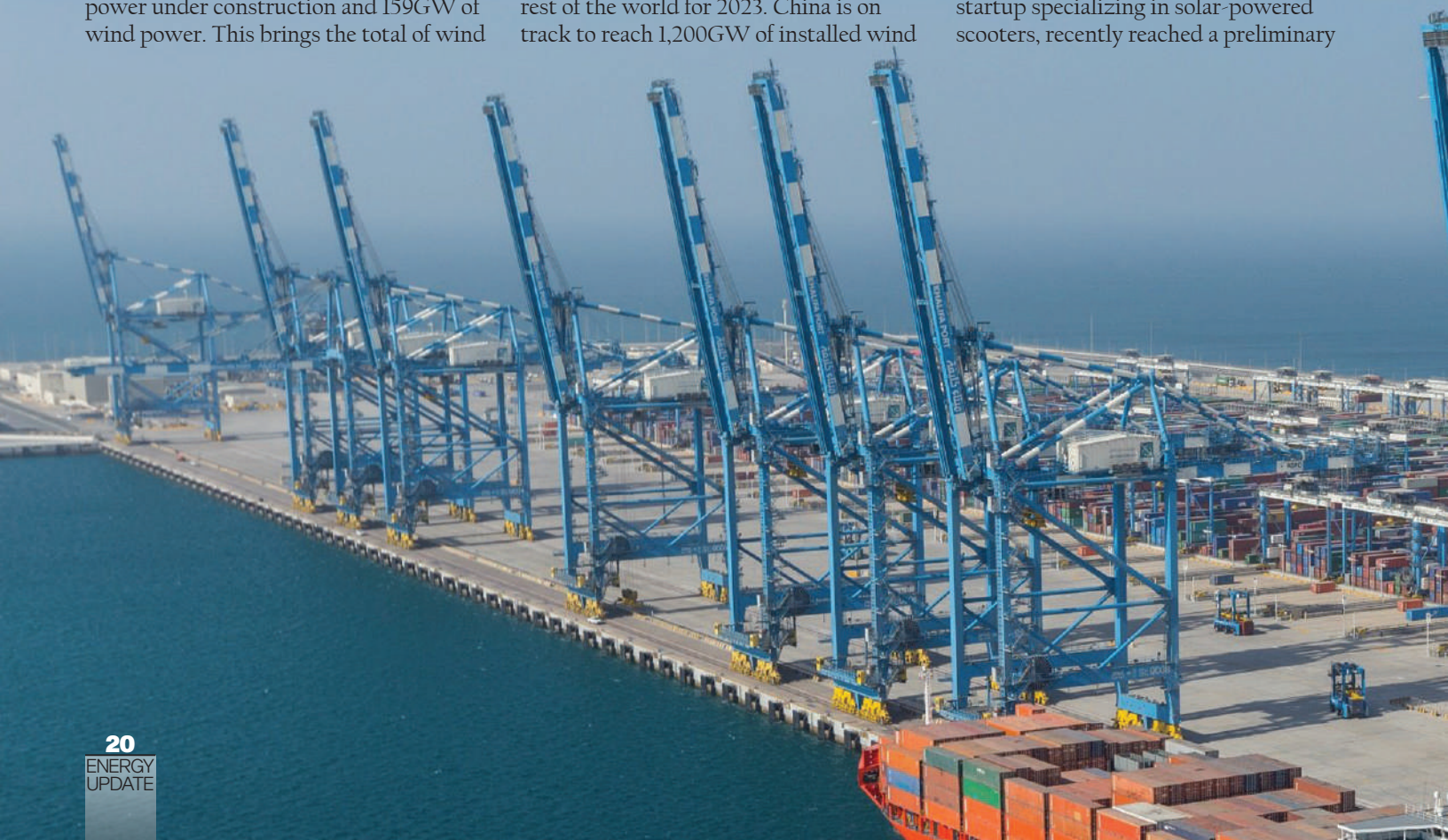
The researchers only looked at solar farms with a capacity of 20MW or more, which feed directly into the grid. This means that the total volume of solar power in China could be much higher, as small-scale solar farms account for about 40 percent of China's solar capacity. The findings underscore China's leading position in global renewable energy production at a time when the US is increasingly worried about Chinese overcapacity and dumping, particularly in the solar industry.

China has experienced a renewables boom due to strong government support, with President Xi Jinping emphasizing "new quality productive forces," including green manufacturing. Between March 2023 and March 2024, China installed more solar capacity than in the previous three years combined and more than the rest of the world for 2023. China is on track to reach 1,200GW of installed wind

and solar capacity by the end of 2024, six years ahead of its target.

Hopefully, the constructive wave of construction guarantees that China will continue leading in wind and solar installation in the near future, far ahead of the rest of the world. It is a good omen that the Chinese company expressed its willingness to provide Road King with technical support, product optimization, and marketing assistance for solar e-bikes in the country. Thus, it will jointly create high-quality transportation products that meet local market needs.

Optimistically, it will actively promote cooperation with the Chinese side and introduce solar e-bikes to the Pakistani market. The environmental friendliness and high-efficiency performance of solar e-bikes perfectly align with Pakistan's current demand for green transportation. Moreover, Road King, a leading electric scooter brand in Pakistan, and AGAO Solar Mobility, a China-based startup specializing in solar-powered scooters, recently reached a preliminary



cooperation agreement to introduce eco-friendly solar e-bikes to Pakistan.

Solar scooters are eco-friendly electric scooters equipped with solar panels. These panels harness solar energy to charge the scooter's battery, reducing the need for traditional charging. The combination of solar energy and scooters is dedicated to short-distance travel with zero carbon emissions. During the meeting, both sides engaged in detailed discussions on Pakistan's local transportation market demand, product development trends, and specific cooperation modalities.

The Chinese company expressed its willingness to provide Road King with technical support, product optimization and marketing assistance for solar e-bikes. The goal is to jointly create high-quality transportation products that meet local market needs. Eventually, it will actively promote cooperation with the Chinese side and introduce solar e-bikes to the Pakistani market, stated the delegation from Road King, noting that the environmental friendliness and high-efficiency performance of solar e-bikes perfectly align with Pakistan's current demand for green transportation.

Interestingly, a delegation of a Chinese private sector investment group called on Khyber-Pakhtunkhwa Chief Minister Sardar Ali Amin Khan Gandapur and discussed with him matters related to investment in different sectors of the province. The delegation expressed its willingness to invest in the industrial and mineral sectors of the province, saying

that the company will submit its viable proposals very soon.

The Chief Minister directed the relevant officials to closely examine the proposals to be submitted by the company and come up with an action plan for further progress. While highlighting the extensive investment opportunities in different potential sectors of the province, CM Gandapur invited them to invest in agriculture, livestock, solar energy and other important sectors, adding that the government will not only encourage foreign investment but also provide all possible facilities to them. He said that the provincial government plans to utilize China's advanced technology for the sustainable development of the agriculture sector and looks forward to cooperation in this regard.

In summary, the policymakers of Pakistan should follow the recommendations of Pakistan's National Electricity Policy 2021, which pledges that a "sustainable renewable energy market shall be developed, with a progressively increasing share in power generation as per the Indicative Generation Capacity Expansion Plan (IGCEP) based on the least cost principle." As per the World Bank's "Variable Renewable Energy Integration and Planning Study," the US National Renewable Energy Laboratory estimates the theoretical potential for wind generation in Pakistan at 340GW, mainly in Sindh and Balochistan, vividly reflecting the rich potential of renewables in the country.

Unfortunately, no solar or wind proj-

ects have been installed in Balochistan despite the immense solar and wind integration potential of 1050MW and 1850MW, respectively, at interconnection-ready sites requiring no grid strengthening and no capacity additions. According to the World Bank study, Balochistan's realizable solar and wind potential when grid strengthening measures are in place could be as high as 3.5GW and 6GW, respectively, by 2030.

Focusing on hydropower and conventional power sources limits renewable energy opportunities in Sindh and Balochistan. Urgent action is needed to utilize the renewables potential in these provinces, including grid upgrades and strategic placement of solar and wind power near substations and transmission lines. Policymakers in Pakistan must revisit their renewables policy to ensure a balanced and inclusive energy and economic development approach. This would enable Sindh and Balochistan to harness their renewable energy potential, driving regional development and contributing significantly to Pakistan's overall energy landscape. ■



# Another IMF bailout for Pakistan

**Mansoor Ahmad**

The writer is a senior economic reporter

Pacifying stakeholders on the new taxes is going to be an uphill task

Pakistan is facing a balance of payment crisis. Despite some improvement in its foreign exchange reserves (-\$9 billion) it is still vulnerable to market shocks as these reserves cover only about two months of its (controlled) imports.

This is the reason it requested the International Monetary Fund for a long-term financing programme. The IMF is the lender of last resort, meaning that when all financing options are exhausted it steps in to save a country from default on sovereign guarantees. Before agreeing to help a government, it sends its staff to the country desiring a loan programme and after examining the financial position of that country, recommends action it

considers necessary for a return to solvency.

The IMF staff has been negotiating terms with the government for a long-term financing programme since approving the last tranche of its \$3 billion programme that ended in June. It outlined the steps that the government must take this year to qualify for the loan.

The conditions outlined by the IMF were the harshest ever that Pakistan has been asked to comply with. However, the economic conditions in the country were also the worst ever. The government agreed therefore to incorporate all the taxation and regulatory measures in the 2024-25 budget that has since been approved by the parliament.

That done, the government is facing stiff resistance from various segments of the population and many businesses. There is however no escape for Pakistan from the measures announced in the budget if it wants to ensure that the IMF board approves the staff level agreement.

In its latest assessment, Moody's rating



agency has stressed that Pakistan's external position remains fragile, with high external financing requirements over the next three to five years. Moody also warns that the country is vulnerable to policy slippages. Weak governance and high social tensions can erode the government's ability to advance reforms and jeopardise the programme.

Pacifying various stakeholders on the new taxation measures is going to be an uphill task for the government, which is in no position to back out of approved taxes, while it awaits final approval of the IMF programme by its board.

The government has issued a Letter Of Intent, committing itself to abide by the conditions agreed with the IMF. It has owned the policies that it intends to implement in the context of its request for financial support from the IMF. The Memoranda of Economic and Financial Policies were prepared by the government of Pakistan.

This letter of intent points to new funding opportunities from various international funding agencies like the World Bank, the Asian Development Bank and some friendly countries. The Moody's says that approval of the programme will improve Pakistan's funding prospects.

Pakistan's economic condition is precarious. Painful steps will have to be taken to ensure sustained reforms. The common man has always borne the burden of reforms and taxation measures that various governments have imposed from time to time. It is worth noting that the low-end consumers slapped with higher sales tax have not been as vocal since the budget as those from the exempted sectors of the economy who have been asked to pay regulation taxes.

The government itself is responsible for this situation. Instead of defending the approved budget, many on the treasury benches sided with those demanding tax withdrawals. The government opened a Pandora's Box when it agreed to reduce the petroleum levy by Rs 10 per liter, granting a three-month relief to the lifeline consumers.

This encouraged others impacted by higher taxes to seek relief. Now the cement producers are demanding withdrawal of additional excise duty, the sugar mills and the cement manufacturers are protesting higher sales tax and acting as withholding agents for retailers. The dairy sector is up in arms against the imposition of sales tax on processed dairy products. The flour mills

have deferred their strike for ten days after receiving an assurance from the government to come up with an amicable solution to their demands. The paper merchants are furious about the imposition of sales tax on books and stationery. In short, many sectors are hoping [and pressing] for some relief.

The income tax on exporters is in line with the global norms. Globally, the exports are zero-rated [as in Pakistan] but the exporters pay taxes on the profits earned. Here, the exporters are protesting the decision to include their profits in the income tax regime. They are also protesting high energy tariffs.

There is no influential voice against the unjust increase in income tax rates on salaried people. Many protesting segments are sure that they will get some relief. Most have no idea as to how the government will then balance its income and spending. The projected collection is already short of scheduled expenses and most experts expect a shortfall in projected revenues from the budgeted revenue measures.

All this has created uncertainty in the market. The consumers are keeping their purchases to a minimum, wondering if this result in a lowering of prices which were raised the day the budget came into force. The retailers have raised the prices of articles purchased at pre-budget levels. The manufacturers have raised their prices in accordance with announced budget measures. The impact of higher cost [and taxes] has been passed on to the consumers.

A brief interaction with some multinational dairy company representatives revealed that so far there has been no dip in the sales of packaged milk, fifteen days after implementation of tax measures. One executive, however, said the impact would be visible after a month or so.

TNS learnt that there was no resistance from consumers although the retailers in most cases were not comfortable as under the current law they have to pay withholding tax on their purchases. There are numerous items that retailers cannot afford to remove from their shelves. Sooner or later, they will have to comply with the rules.

Moody's has painted a bleak picture of the economy. It says that there is no escape from the IMF programme. It also says that if the democratic setup fails to implement it, a technocrat setup will likely be installed for an indefinite period for its implementation. ■

## Govt prioritizes hydropower projects

### EU Report

The government is shifting its focus away from new power generation projects, placing a higher priority on the completion of ongoing hydropower projects. According to sources, the development of a new power transmission system and addressing existing faults have become secondary priorities for the government. No new thermal power projects will be initiated, and the implementation of power generation capacity expansion projects is likely to be halted. Energy sector insiders indicate that the ongoing hydropower projects will be sufficient to meet future electricity demands. The government has initially planned to add over 17,000 megawatts of new projects by 2031. At present, the country's power generation capacity exceeds 41,000 megawatts, and the completion of the current hydropower projects is expected to increase this capacity by more than 10,000 megawatts. Additionally, the IMF has advised against the construction of new power generation projects. This strategic shift underscores the government's commitment to leveraging renewable energy sources and enhancing the sustainability of the country's power infrastructure. ■

## 100 schools in Islamabad to be solarized

### EU Report

The Federal Ministry of Education has decided to launch a solar energy project in schools in Islamabad.

According to the spokesperson for the Federal Ministry of Education, 100 primary schools in Islamabad will be powered by solar energy within the next two months. The project to install solar energy in 100 schools is expected to be completed by the end of the year. Additionally, the spokesperson stated that this initiative is expected to save the ministry millions of rupees annually in electricity expenses. The savings from the project will be used to improve educational facilities. ■



# Huawei FusionSolar

## steals the spotlight at ISEM and Solar Pakistan Exhibitions

**H**uawei FusionSolar, in partnership with Diwan International and Bahum, recently participated in the seventh ISEM Pakistan Solar Exhibition and Conference in Karachi and Solar Pakistan in Multan, leaving a lasting impression on the attendees. As a leading player in the solar industry, Huawei's innovative solutions and impressive display, showcased alongside its partners, captured the attention of the audience, making them the limelight of the shows.

The events, which brought together industry professionals and experts, provided an ideal platform for Huawei and its partners to showcase their cutting-edge technology and commitment to sustainable energy practices. Huawei's participation, supported by Diwan International and Bahum, not only highlighted its dedication to driving the adoption of solar energy technologies across Pakistan but also underscored its focus on promoting efficient and reliable energy solutions.

In addition to its impressive showcase, Diwan announced new dealership opportunities, further expanding its reach and network in the region. This move is expected to enhance the company's presence and provide customers with easier access to its innovative products and solutions.

By participating in these prominent industry events, Huawei FusionSolar, along with Diwan International and Bahum, has once again demonstrated its leadership and expertise in the solar energy sector, setting a new benchmark for innovation and excellence.







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From L to R Syed Nasir Hussain Shah Minister Energy Sindh, Saleem Shaikh CEO STDC, Tariq Ali Shah MD TECB, M. Naeem Qureshi Managing Editor Energy Update, Engr. Mehfooz Kazi Director Alternative Energy Sindh and Engr. Irfan Ahmed Advisor Energy Update addressing on the occasion.

# Consultative Workshop showcases Sindh's massive hybrid wind-solar power potential

**Mustafa Tahir**

The Government of Sindh recently held its inaugural interactive session, engaging relevant stakeholders to showcase the province's massive potential for producing clean electricity through a combination of wind and solar renewable sources. This event, organized by the Sindh government's Energy Department in collaboration with Energy Update, presented a comprehensive plan for a wind-solar hybrid project under a B2B arrangement, emphasizing the crucial role of the private sector.

The Sindh government aims to initially generate 350 Megawatts of clean electricity through this hybrid arrangement, with 250 MW from wind power and 100 MW from solar energy. This project is projected to produce 940 GW of clean power annually. The proposed B2B model involves transmitting clean electricity from private hybrid projects to businesses and industries in urban areas via the Sindh Transmission & Dispatch Company (STDC).

During the workshop, it was revealed that the per unit cost of clean electricity



Minister Energy Sindh Syed Nasir Hussain Shah, Secretary Energy Musaddiq Ahmed Khan, Chairman Planning and Development Board Syed Najam Ahmed Shah, Tariq Ali Shah and M. Naeem Qureshi replying to the queries of the participants.

from the hybrid generation project would be around Rs 18.45, with the potential for further reduction as the project scales up. This arrangement provides businesses and industries the flexibility to choose among multiple electricity distributors, breaking the monopoly of the existing power distribution companies in Sindh.

Senior clean energy expert Iran Ahmed highlighted that Pakistan could generate approximately 3300 GW of clean electricity from its abundant wind and

solar resources, though current projects only account for 45 GW. He emphasized the need for the government to reduce its involvement in the energy sector and promote public-private partnerships for new power projects.

Sindh Minister for Energy and Planning & Development, Syed Nasir Hussain Shah, attended as the chief guest. He announced that the Sindh Electric Power Regulatory Authority (SEPPRA) is expected to become operational by the end of the next month, significantly reducing electricity prices for consumers. SEPPRA aims to bring economic relief by regulating tariffs and ensuring consumer benefits.

The workshop also highlighted several key initiatives by the Sindh government, including the distribution of 200,000 solar home systems to off-grid homes under a World Bank-assisted program and plans to provide 500,000 solar panels to remote areas. Additionally, EV charging stations will be established in urban areas following the implementation of the hybrid genera-



tion project.

Participants recommended maximizing benefits for low and middle-income power consumers, involving private sector entities at all project stages, and conducting credible third-party research to ensure project viability. They also suggested setting up provincial regulatory authorities and grid companies, amending NEPRA-related laws to allow multiple electricity buyers in Karachi, and promoting awareness through university seminars.

The workshop concluded with a call for more consultative sessions with stakeholders to accelerate the development of renewable power projects in Sindh, positioning the province as a role model for clean energy initiatives.

Naeem Qureshi of Energy Update expressed hope that the consultative workshop would harness Sindh's clean energy potential, benefiting industries, businesses, and consumers alike.

### Recommendations from the Consultative Workshop:

Benefit low and middle-income consumers who struggle with high power bills.

Minimize government footprint in the energy sector, promoting B2B solar wind hybrid projects with private sector participation.

Involve private energy entities in all stages of wind solar hybrid projects.

Conduct credible third-party research

to ensure project viability.

Establish provincial regulatory authorities, transmission, distribution, and grid companies under the 18th Constitutional Amendment.

Amend NEPRA-related laws to allow commercial and industrial consumers in Karachi multiple electricity providers.

Establish EV charging stations in

Karachi using clean electricity from hybrid projects. Hold awareness sessions in universities about Sindh's clean energy initiatives.

Facilitate more clean energy projects in Sindh's wind corridor for industrial and business use.

Conduct more consultative sessions with clean energy stakeholders to accelerate renewable power projects in Sindh. ■



Syed Nasir Hussain Shah Minister Energy Sindh launched International SolarPower Conclave & Solar Awards 2024. On this Occasion Managing Editor Energy Update M. Naeem Qureshi, Director Admin and Accounts Ruqiya Naeem, CMO Engr. Nadeem Ashraf, Marketing and Promotions Manager and Event In Charge Mustafa Tahir, CEO STDC Saleem Shaikh, Engr. Mehfooz Kazi Director Alternate Energy Sindh, Tariq Ali Shah MD TCEB also presents. This Event will be held on August 28th at Nishat Hotel, Lahore.

# Solis Certified Installer Training Program

## EU Report

Solis has announced the successful completion of the first two training sessions of the Solis Certified Installer Program Training in Pakistan. Held on July 19th in Gujranwala, July 20th in Lahore, and July 22nd in Faisalabad, these initial sessions marked the beginning of a comprehensive series of training events aimed at empowering solar professionals across the country.

The Solis Certified Installer Program is designed to equip installers with the knowledge and skills necessary to effectively implement Solis' innovative solar solutions.



# The Certainty or Delusion!

Pakistan's energy sector mired in inefficiencies; CTBCM regime implementation poised to bring significant improvements

**Halima Khan**

**T**he energy sector in Pakistan has long been mired in inefficiencies, high costs, and unreliable supply. In a bid to address these chronic issues, the government institution NEPRA has embarked on a

transformative journey by introducing the Competitive Trade Bilateral Contracts Market (CTBCM) regime.

The implementation of the CTBCM regime in Pakistan's energy market is poised to bring significant improvements, enhancing the efficiency, sustainability, and reliability of the energy sector. This initiative promises to bring a breath of fresh air to the energy market by fostering competition, efficiency, and sustainability. But is this vision a tangible reality or just another myth? Let's delve deeper.

## Understanding CTBCM

The CTBCM regime is designed to restructure the electricity market by allowing power producers and consumers to negotiate bilateral contracts directly. This competitive framework aims to replace the

existing single-buyer model, where the government is the sole purchaser of electricity, with a more dynamic and decentralized system. The expected outcome is a market-driven energy sector that offers better prices and improved services.

The Promised Benefits As per the initial model, the core premise of CTBCM is to introduce competition among power producers. By allowing multiple entities to sell electricity directly to consumers, the market will naturally drive prices down and improve service quality. This competitive environment is expected to incentivize producers to optimize their operations, reduce wastage, and innovate continuously.

One of the most significant advan-

tages touted by proponents of CTBCM is its potential to attract substantial investments in renewable energy. A transparent and competitive market is more appealing to investors, particularly those interested in green energy projects. This shift could accelerate Pakistan's transition to a more sustainable energy mix, reducing reliance on fossil fuels and lowering carbon emissions.

The CTBCM regime is also expected to enhance the reliability of electricity supply. With multiple suppliers in the market, the risk of power outages and supply disruptions can be minimized. Additionally, competition will push suppliers to maintain high service standards, benefiting consumers with more consistent and reliable electricity.

Empowering consumers is another critical objective of the CTBCM.

By providing the freedom to choose their electricity suppliers, consumers can negotiate terms that best suit their needs and usage patterns. This flexibility not only enhances consumer satisfaction but also promotes efficient energy use, potentially leading to cost savings.

The Challenges and Skepticism While the benefits of CTBCM are compelling, skeptics argue that the transition is fraught with challenges that could undermine its effectiveness.

Implementing a competitive market requires a robust regulatory framework to ensure fair play and prevent market abuses. The current regulatory and institutional landscape in Pakistan may not be fully equipped to handle such a transition seamlessly. Strengthening these institutions is crucial to support the new market dynamics.

The readiness of market participants, both producers, and consumers, is another concern. Power producers need to adapt to new competitive practices, while consumers need to be educated about their choices and how to navigate the new market. This transition phase could be complex and lengthy.

The existing energy infrastructure in Pakistan may not be adequate to support a fully competitive market. Upgrading transmission and distribution networks is essential to ensure that the benefits of

CTBCM are realized. Without significant infrastructure investments, the market could face bottlenecks and inefficiencies.

Ensuring the financial stability of the energy sector during the transition is critical. The shift to CTBCM may involve initial financial risks and uncertainties that need to be managed carefully to avoid any adverse impact on the sector's overall health. The question arises, is it a reality or Myth?

The CTBCM regime represents a bold and ambitious move towards transforming Pakistan's energy market. While the potential benefits are substantial, realizing them requires addressing significant challenges head-on. The success of CTBCM hinges on effective regulatory frameworks, market readiness, infrastructure development, and financial stability.

In conclusion, the vision of a competitive, efficient, and sustainable energy market in Pakistan is not a mere myth. It is a realistic goal that can be achieved with concerted efforts from all stakeholders, including the government, industry players, and consumers. The CTBCM regime in Pakistan's energy market represents a significant shift towards a more competitive, efficient, and sustainable energy sector.

By fostering competition, encouraging investment in renewable energy, improving supply reliability, and empowering consumers, this regime has the potential to transform Pakistan's energy landscape into a brighter and greener one, contributing to the country's economic and environmental well-being. By overcoming the hurdles and embracing the opportunities, Pakistan can indeed turn the promise of CTBCM into a vibrant reality, leading to a brighter and greener energy future. ■



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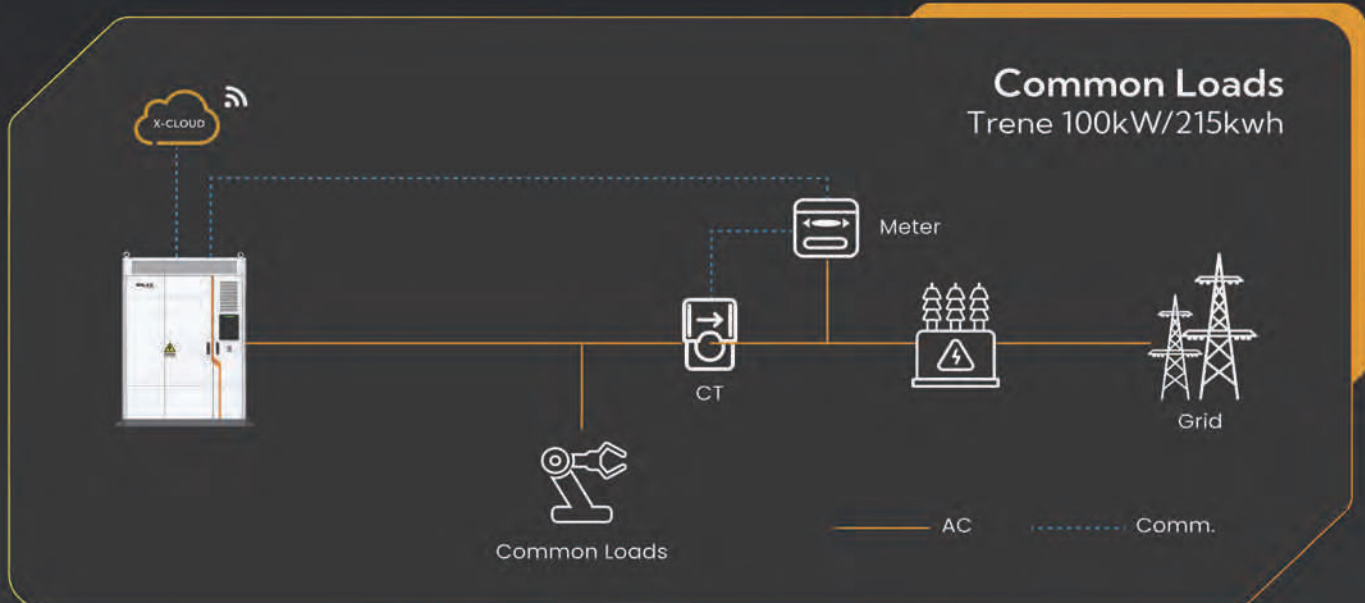
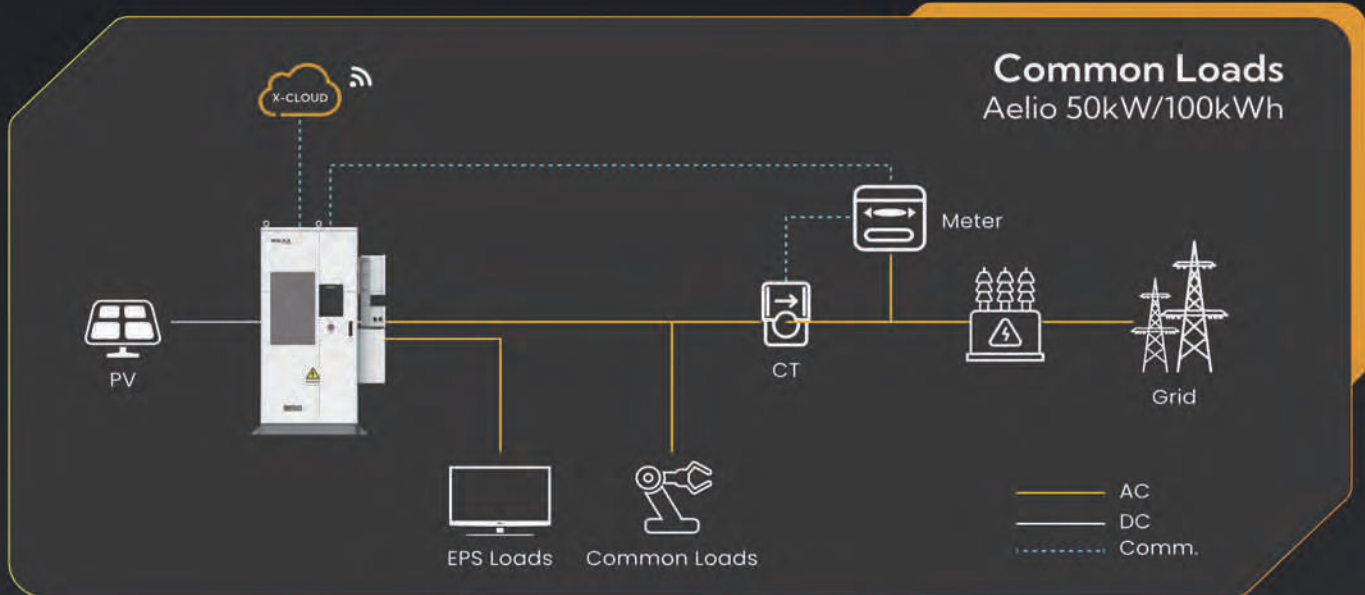
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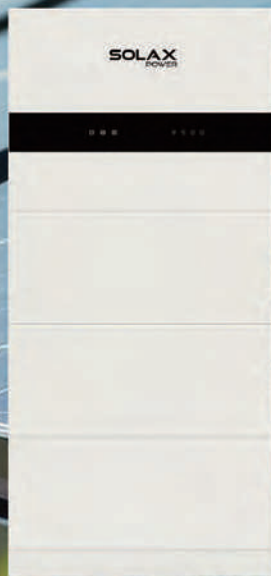
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# SOLAX POWER TRAINING PROGRAMME IN PAKISTAN





# Solar exhibition in Karachi

## EU Report

**E**xremely heartening and vibrant participation from the solar industry marked the commencement of the highly anticipated Seventh ISEM Pakistan Solar Exhibition and Conference at the Expo Centre Karachi. The event, inaugurated today, promises to be a significant gathering for professionals, stakeholders, and enthusiasts within the solar energy sector in Pakistan and across the globe.

The three-day exhibition drew the participation of various leading solar companies showcasing their innovative products and solutions. With a focus on sustainable energy practices, the event aims to promote awareness, foster industry collaborations, and drive the adoption of solar energy technologies across Pakistan.

Speaking as the chief guest, Syed Nasir Hussain Shah, Minister of Energy & Planning & Development Department emphasized the government's commitment to creating an enabling environment for sustainable energy initiatives, encouraging private sector investment, and promoting technological advancements in solar energy production and distribution. He said that the Sindh government had plans to establish solar parks to contribute electricity to the national grid.



## Public money down the drain

# Govt facing now or never situation on inoperative IPPs' capacity payments

**Naeem Qureshi**

The Writer is Managing Editor of Energy Update and Environment Activist

**T**he call to rescind the existing contracts with independent power producers has become louder in the country with each passing day. A growing number of concerned people from different walks of life have been calling upon the government to start negotiations again with the IPPs to make them agree to fresh agreements for selling electricity produced by them for the national grid. They have been of the firm view that the entire power system in the country would simply lose its sustainability if the government keeps honouring anymore its contracts with the IPPs.

The concerned electricity consumers in the domestic, commercial, and industrial sectors say that monthly power bills have simply become unbearable for them and the billed amount keeps on inflating because of the unjust capacity payments to the IPPs. They demand that the regular payments to the IPPs that haven't been producing electricity for the national grid are a cruel act on the part of the government because of which power tariff keeps

on increasing round-the-year.

According to former Caretaker Federal Commerce and Interior Minister, Gohar Ejaz, Pakistan's progress would remain an elusive cause till the government didn't agree to fulfill the demand of reviewing its contracts with the IPPs.

He said the present electricity tariff was responsible for the industries ceasing their operations and domestic consumers defaulting on their power bills.

He said the relevant government authorities were under solemn obligation to tell people as to who was responsible for paying Rs2 billion annually to the inoperative power plants.

He opined that each electricity consumer had to pay Rs24 extra money for every unit of electricity due to these dishonest contracts with the IPPs. He urged the relevant ministers of the incumbent government to meet people on the streets in any city and representatives of the chamber of commerce to get firsthand feedback on the prevailing power tariff. "The government should bring forth the facts in this regard if our stance on the IPPs is based on wrong information," he said.

The latest tweet by Dr Gohar Ejaz reads: "I'm sharing data from NEPRA for

Jan 24 to March 24 showing a capacity payment of Rs150 billion per month. Please note how this amount is distributed to various IPPs, with half running below 10% capacity. Four power plants are receiving 1000 crores per month each with #zero power supply. This money, our halal income, is being given to 40 families under the guise of capacity charges. These plants should be declared merchant plants, where payments are made only for electricity produced, and we should buy from the cheapest suppliers. The government should not do business at the expense of the people of Pakistan. NEPRA must include representation from all large consumers in its distribution and management. This exploitation must end".

In another tweet, Dr Gohar Ejaz said: "I'm providing information about the IPPs concerning the fuel costs, capacity payments, and the per-unit expenditure paid to each IPP that our team reviewed over the past year."

"I'm disheartened by the per-unit price the government is paying to the IPPs for electricity generation and per-unit cost, which is causing distress for industrial, commercial, and domestic consumers. Due to the agreements between the government and the IPPs, one power plant is selling its electricity units at 750 rupees



per unit, while the government buys electricity from coal power plants at an average rate of Rs 200 per unit. This cost is Rs 50 per unit more than the power produced based on wind and solar energy. All are operating at less than 20% capacity, and the total payment to the IPPs is 1.95 trillion rupees, with an ongoing verification of 160 billion rupees. The government is paying 140 billion rupees to one plant at a 15% load factor, Rs 120 billion to another at a 17% load factor, and 100 billion to a third at a 22% load factor, totalling 370 billion rupees for three plants. This is assuming they all operate at a 15% load factor for the whole year," he wrote in the tweet.

Details about all the IPPs, including amounts paid to each and the per-unit cost to the nation from each IPP, are now available. This is all due to the "capacity payment" clause in the contracts, which allows these plants to earn a profit, resulting in mind-boggling payments to IPPs without them generating electricity.

The solution lies in not making any "capacity payments" to the IPPs; payments should only be made for electricity supplied by the cheaper power producers. All IPPs should be treated like any other business, with 52% owned by the government and 28% by the private sector in Pakistan, meaning 80% are owned by Pakistanis. We are being sold electricity at 60 rupees per unit solely due to these corrupt contracts, mismanagement, and incompetence. Please, everyone should stand up against these agreements that are profiting 40 families in the country to save our nation, Dr Ejaz added.

Renowned industrialist and former Punjab Caretaker minister for Industries, SM Tanveer, said that owing to unjust agreements with the IPPs the electricity rates for the industries had shot up to 16 cents per unit which is simply unbearable. "The per unit cost of electricity in the entire region is six cents and we are ready to buy electricity at nine cents but 16 cents cost of electricity is simply unbearable for us," he said at a recently held press conference at the Federation of Pakistan Chambers of Commerce & Industry.

He said the industries in the country would keep shutting down if the government failed to re-negotiate these contracts with the IPPs. He said the consumption of electricity in the industrial sector of the country had decreased by 25 per cent showing that a significant number of industries had already ceased their operations.

"When we assumed the leadership of the FPCCI we started acting on the plan that Pakistan's exports should be increased to US \$ 100 billion by 2030 but this goal is simply unachievable due to the rates of electricity for the industries," he said.

He said the government's plan to revive the national economy couldn't be achieved with such a dismal state of the industries that could run the economic engine of the country. He said low-income families would massively suffer due to the closure of industries as joblessness would increase in the country.

A representative of the industrialists from Peshawar while appearing on Geo News TV said the agreement with the IPPs had plagued the Pakistani economy.

He said it was high time that the government should sit with the operators of these IPPs to urgently revise their agreements in the best public interest.

He demanded that the audit report about the financial affairs of these IPPs should be presented before the parliament for a thorough discussion.

Speaking at a recent press conference, MQM Pakistan senior leader Syed Mustafa Kamal told media persons that Pakistan's installed power generation capacity stood at 45,000 Megawatts. He said that there were a total of 40 IPPs in the country despite that country's power demand stood at 30,000 MWs. He said that Pakistan could produce electricity more than its power demand. He said that there were a total of 20 power distribution companies in the country out of which one is in the private sector. He said that he was not against privatisation but no power sector entity should be allowed to create a monopoly. Kamal lamented that the government had been paying capacity charges to the IPPs in dollars despite that they hadn't been producing electricity. He said the government had failed to save on capital despite less production of electricity in the country. The MQM senior leader told the journalists that electricity had become a very expensive service due to capacity charges constantly paid to the IPPs. He lamented that industry kept shutting down in the country due to higher energy costs. He said that the national economy could never improve in such a sorrowful situation.

In his post on social media titled "IPPs - Capacity payments issue is overplayed", analyst Khurram Schehzad noted that the capacity payments these days are talk of the town and our criticism has been grossly misplaced when it comes to

huge electricity bills, and who the real culprits are.

Energy planning, with no direction and coherence in policy, has been a plain disaster by our policymakers in the last 22 years at least (since the 2002 power policy).

Capacity payments are not really a very big issue. Capacity payments are around Rs 18/kwh, while massive and excessive taxes (40-45% of the bill), massive circular debt portion, rising T&D losses, thefts, and system/grid inefficiencies, losses of Discos, all have been added to the electricity bill today, he said.

The government itself has more than 50% direct stake in IPPs, especially under CPEC, and govt itself is the recipient of most of the capacity payments, Schehzad added.

Chinese were invited by us to invest and the policy with protected returns was offered to all, and not just to the Chinese. They came when most were denied to invest in Pakistan due to our own follies.

Also, circular debt is a massive inefficiency on the part of the government and its machinery, but it is charging consumers in the bill for this shortcoming as well.

Further, depreciation of PKR/\$ parity in the past (2018, and then 2021) due to massive CAD, has had a huge impact on payments as well. Then, merit order is often ignored, as efficient plants are in the south while inefficient plants in the north are being run.

Further peak demand, seasonality and cyclicity also come into play where the government (the single player in the entire energy chain) has hardly planned how to manage the same. Luckily, Pakistan currently has a cleaner mix of energy production, with over 50% (hydel and nuclear) and 75% through local resources.

Quick solutions are there like IPPs debt can be re-profiled to longer tenure, government taxes should be reduced, merit order should be followed, inefficiencies should be plugged in the T&D sector and not charged to consumers, govt should come out of this business, and multi-buyers/seller market should be set up (liberalization and deregulation), breaking Discos into smaller ones need to be done and so on, Schehzad said.

Further, if anyone is to be blamed, it is the various governments, policymakers, and those who did not even attempt to change or amend these policies over time while continuing to add generation capacities without investing in the transmission & distribution systems, he added. ■

# Climate-induced inequality is termed modern form of inequality

**Dr Khalid Waleed**

The writer, a research fellow at the Sustainable Development Policy Institute

One of the ways climate change disasters impact the savings of the young is through their effects on employment opportunities

**P**akistan, like many developing nations, is experiencing a demographic phenomenon known as a 'youth bulge', with about 60 per cent of its population comprising young people.

This demographic structure can potentially yield a 'demographic dividend', a period when the number of dependents is low, and the working-age population is high, leading to increased savings, investments, and economic growth. However, this dividend is not guaranteed and is contingent on various factors, including the country's ability to capitalize on this demographic trend through appropriate policies and investments.

Moreover, the impacts of climate change disasters are increasingly threatening to derail this potential economic boon, turning it into an intergenerational economic disaster. Thomas Piketty in his book, 'A brief history of equality', calls climate-induced inequality the modern form of inequality.

Taking the lead from theoretical economics, the Life Cycle Income Hypothesis posits that individuals aim to maintain a stable level of consumption throughout their lives by adjusting their savings and borrowing patterns. In the context of a youth bulge, young individuals typically have lower savings rates

as they are in the early stages of their careers and are more focused on consumption. As they age, their income and savings increase, peaking around middle age, and then decline in old age. This pattern has significant implications for a country's economy, particularly concerning the sustainability of its social security systems and the overall economic well-being of its citizens.

The Demographic Transition Theory, on the other hand, describes the process through which societies transition from high birth and death rates to low birth and death rates as they undergo industrialization and economic development. During this transition, there is a period when

birth rates decline, leading to a temporary imbalance where the number of dependents (children and elderly) is relatively low compared to the working-age population. This period, known as the demographic dividend, provides a window of opportunity for economic growth as resources that would otherwise be spent on dependent populations can be redirected towards investments in education, infrastructure, and other areas that promote economic development.

However, the demographic dividend is not a guaranteed outcome and is contingent on several factors, including the ability of the economy to absorb the increasing number of young people entering the workforce, the quality of education and training they receive, the availability of job opportunities, and the overall economic conditions of the country. Moreover, external factors such as climate change can significantly impact the potential benefits of the demographic dividend, potentially turning it into an economic disaster.

Pakistan, with its large youth population and ongoing demographic transition, is particularly vulnerable to the impacts of climate change disasters. The country has experienced a significant increase in the frequency and intensity of extreme weather events, including floods, droughts, and heatwaves, which have had devastating effects on its economy, infrastructure, and population. These disasters not only result in immediate human and economic losses but also have long-term implications for the country's economic development, particularly concerning its ability to capitalize on its demographic dividend.

The Economic Survey of Pakistan for the year 2022 revealed a savings rate of 11.1 per cent alongside a GDP totaling approximately \$374 billion. These figures imply that the total savings in Pakistan amounted to roughly \$41.5 billion.

In stark contrast, the World Bank's estimates painted a sobering picture of the economic impact of the 2022 floods, suggesting a staggering loss of around \$30 billion. This loss



represents a substantial 72 per cent of Pakistan's national savings, underscoring the severe economic repercussions of natural disasters on the country's financial stability and growth prospects.

One of the ways climate change disasters impact the savings of the young is through their effects on employment opportunities and income stability. Disasters such as floods and droughts can disrupt agricultural activities, which are a significant source of employment for many young people in Pakistan. Moreover, the destruction of infrastructure and productive assets can further exacerbate the economic challenges faced by young people, leading to lower savings rates and increased reliance on borrowing. Furthermore, climate change disasters can also impact the education and skill development of young people, further limiting their ability to save and invest in their future. Disruptions to education systems, damage to schools and other educational facilities, and the displacement of populations can all have long-lasting effects on the human capital development of young people, reducing their potential to contribute meaningfully to the economy in the future.

The impacts of climate change disasters on the savings of youth are not only limited to the present but can also have significant intergenerational implications. As the current youth bulge ages and enters old age, they will become increasingly dependent on social security systems and other forms of support, placing a significant burden on future generations. Moreover, the economic losses incurred as a result of climate change disasters can limit the ability of the government to invest in the social security and welfare systems necessary to support an aging population, further exacerbating the potential economic crisis. To address the challenges of climate change and intergenerational income inequality in Pakistan, policymakers should prioritize a comprehensive set of actionable policy recommendations. First, establish and operationalize the National Climate Change Authority and fund as mentioned in the National Climate Change Act 2017 dedicated to financing the construction of climate-resilient infrastructure, including flood defences, water management systems, renewable energy projects and a climate-smart social security system. Additionally, incentivize private sector investment in climate-resilient infrastructure projects to accelerate their implementation of tax credits, climate-smart subsidies and other concessional loans.

This will require an intergenerational policy consensus, a whole-of-sector and whole-of-society approach which eventually develops long-term integrated intertemporal planning. These measures can help Pakistan address climate change, promote sustainable development, and reduce intergenerational income inequality. ■

## ENERGY NEWS

# Chairman WAPDA Reviews K-IV Project Progress: 46% Completion Achieved

### Rs. 59.5 Billion Spent; Phase-I Targeted for December 2025 Completion



**C**hairman WAPDA, Engr Lt Gen Sajjad Ghani (Retd), visited the Greater Karachi Bulk Water Supply Scheme, K-IV, to review the construction progress at various sites, including intake works, pumping stations, pressurized pipeline, access road, project offices, and project colony.

General Manager (Projects) South and Project Director Amir Mughal provided a detailed briefing on the contract-wise progress, timelines for remaining work, and plans to meet targets. Financial progress and the requirement of funds to complete the project on schedule were also discussed. The cumulative progress stands at 46%, with Rs. 59.5 billion spent on construction. Phase-I, with an approved PC-I of Rs.

126 billion, is scheduled for completion in December 2025, contingent on timely funding.

Highlighting the importance of the K-IV Project for Karachi, the Chairman urged the project team to expedite construction to meet the deadlines. He also stressed the need for close coordination with stakeholders to ensure timely power supply by the Government of Sindh and augmentation of the water distribution system by Karachi Water and Sewerage Corporation (KWSC).

The K-IV Project aims to provide 650 million gallons per day (MGD) of water to Karachi from Keenjhar Lake. Currently, WAPDA is constructing Phase-I to supply 260 MGD, with Phase-II expected to add another 390 MGD upon implementation.

## Power rates soar by Rs22.53 per unit in 2 years

Pakistan has witnessed a historic increase in the basic electricity tariff over the past two years, amounting to Rs25.76 per unit, according to official sources. This surge includes a fixed surcharge of Rs3.23 per unit imposed on consumers, contributing to the significant rise in costs. From July to October 2022, the basic tariff per unit of electricity increased by Rs7.91, followed by an additional hike of Rs7.50 in July 2023. A fixed surcharge of Rs3.23 per unit was also implemented in July 2023, with another basic tariff increase of Rs7.12 in July 2024. As a result, the basic tariff for domestic consumers has reached Rs48.84 per unit. – EU REPORT



Why has the textile lobby declared war on the IPPs? The simple answer is their power tariffs have been hiked; let's support their demand for a forensic probe into payments made to power producers

# The billionaires bash

**Khurram Husain**

The writer is a business and economy journalist

**T**here is nothing quite like a punch-up among the billionaires. That is exactly what we have going on these days with the whole 'capacity payments to Independent Power Producers' (IPPs) issue. If you're confused about what exactly is going on and trying to figure out who is right in all of this, let me help you with one simple line: this has nothing to do with you. Relax.

Here is what's happening: a fight has broken out between the textile lobby and the power generation companies of this country. Both sides are large controllers of capital. Both have access to organised lobbying bodies. Both command clout with the government. But one can influence the narrative as it plays out on TV much

better than the other because people are already crushed under electricity bills and are preparing to experience another hike when bills for July are delivered in a couple of weeks.

The one that has gone public is the textile lobby in the hopes of mounting pressure to bring about some sort of intervention, either by the government or the courts. Their problem is that the capacity payments they are villainising as the source of all the economic problems plaguing the country are protected by sovereign guarantees that are enforceable in international arbitration councils. Their second problem is that many of these are owed to Chinese producers where contractual changes are a non-starter. Where they are not owed to Chinese producers, they have already undergone some amount of re-negotiation when the same issue came up in 2021.

Why has the textile lobby declared war on the IPPs? The simple answer is their power tariffs have been hiked. As a matter of fact, their tariffs were hiked in the middle of last year,



along with everyone else's including yours and mine, and they had grown accustomed to a subsidised tariff that was supposedly given for exporters (in fact, a study looking at who benefited from that subsidised tariff found most of the benefit was flowing to a small number of mills, which were not even large exporters. (But that's another story). They called it the 'Regionally Competitive Energy Tariff', and to give it all a very professional appearance, they also gave it an acronym, RCET. In the lobbying world of policymakers, a thing doesn't exist until it has an acronym.

So there it was. An RCET given to textile houses in the days of the PTI government had to be withdrawn because the government could no longer afford it and could find no evidence that it was spurring exports. Exports did indeed rise since the RCET was introduced, but there was little to no evidence linking that rise to the RCET, save perhaps for one study funded by the textile lobby itself.

Giving subsidised energy to the textile sector had been a long-standing demand of theirs for many years. Successive governments were wary of this lobby though, knowing their tendency to profit from government handouts, whether through energy subsidies or credit schemes or tax breaks. The PTI government caved in fast to their demand, however, and announced a sharply subsidised energy regime for textile exporters almost immediately upon coming to power.

Energy subsidies for textiles were announced in October 2018. They were expanded in January 2019, then rolled back partially by September 2020 when consensus within the PTI government around the merits of the RCET broke down. The ministers for planning, energy and finance urged the withdrawal of the RCET regime, while commerce lobbied not only for its continuation. As a compromise, the RCET was revised upward at nine cents per unit and left at that till it was finally withdrawn

altogether last year.

That's when the textile lobby mobilised to get it restarted. In late 2023, according to them, their power tariffs had risen to more than 14 cents per unit (by comparison I was billed 22 cents per unit in my last bill) and during a meeting at the energy ministry, they stumbled across what they thought was an interesting thing. They found that the structure of power tariffs in Pakistan includes a Rs14 per unit charge that is used to subsidise a lower tariff for those who consume less than 600 units per month. Seizing upon this, they started demanding that this amount be cut down and shifted either to the budget, or some other source.

The interim authorities left it for the incoming government to sort out matters. The new government offered to cut this subsidy amount partially, but then in early July came a tariff rebasing exercise under which tariffs were hiked once again, so the benefit from cutting the subsidy largely evaporated.

The textile lobby had turned on the power producers already by this point, but the impact of the tariff rebasing exercise in July led them to intensify their attack. They argue that unjust capacity charges are powering the tariff, and produce detailed findings, which they claim show power plants that were shut throughout the last financial year receiving payments of Rs3 billion, or more in some cases.

Let's support their demand for a forensic probe into payments made to power producers. But recall that in 2021, in a similar fight, there was also a probe into 'excess profits' made by the IPPs and the government of that time re-negotiated tariffs, and told us that they had secured reductions totalling Rs800bn in future payments. Where are those benefits today?

Probe or no probe, don't for a moment think that any of this is happening for you, or that it will produce reduced electricity bills for you. This is purely the textile industry making strenuous efforts to find its way back to a subsidised energy regime that they had grown accustomed to from 2018 onwards.

The core problem here is not capacity charges. The core problem is devaluation, because the dollar value of your electricity bills has not risen by much more than 30 per cent in the past decade. ■

# Greaves Solar

## Promoting energy independence through innovation



**G**reaves Solar is a strategic renewable energy division of Greaves Pakistan Private Limited, a company of Ghulam Faruque Group. Commitment towards renewable energy is a natural diversification of the company's longstanding affiliation to the energy sector. Renewable energy operations of the company started in 2011. Since its inception, Greaves Solar has established itself as a leading brand and a trusted solution provider in delivering solar energy solutions across Pakistan.

The company has always prioritized innovation, reliability and customer satisfaction towards the green energy. Greaves Solar strategically positions itself to offer premium quality, efficient and cost-effective solar installation solutions all over Pakistan.

Greaves Solar offers state-of-the-art on-grid, off-grid and hybrid solar solutions tailored for residential, commercial, agricultural, and large-scale industrial solutions nationwide. Moreover, the company also works as an EPC (Engineering, Procurement, Construction) contractor for solar energy projects. The company also deals in providing tier-1 solar panels, inverters and energy storage solutions in the market.

The company also offers Battery Energy Storage Systems (BESS) to meet the growing demand for efficient and reliable energy storage. Designed for high efficiency and minimal energy loss, BESS ensures optimal perfor-

mance and cost savings.

Equipped with state-of-the-art monitoring and control systems, Greaves BESS allows real-time energy usage tracking and performance optimization. Prioritizing sustainability, these solutions aim to reduce carbon footprints and promote renewable energy use.

At Greaves Solar, we are committed to deliver innovation and quality at competitive and affordable prices, ensuring that each installation exceeds expectations. We envision a future where clean, accessible, and affordable energy is available for all.

### Significant Milestones

Over the past decade, Greaves Solar has partnered with customers to decarbonize their energy portfolios, delivering high-value design and innovative construction of solar facilities. Feroze 1888, IFFCO Pakistan (Pvt) Ltd, Mehran Plastic Industries (Pvt.) Ltd., Naveena Steel Mills are few among the remarkable installations by Greaves Solar in Pakistan. Additionally, more than 1200 companies and residences are powered by Greaves Solar. The company has provided solar solutions and equipment with a cumulative generation capacity of more than 200 MW countrywide. The company has also installed solar water pumps all over the country. The company's success in this highly competitive market stems from its commitment to provide and maintain highest quality of products and after-sales support.



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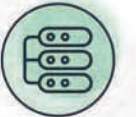
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# Rains, flooding indicators

## Anticipatory actions required

**Ali Tauqeer Sheikh**

The writer is an Islamabad-based climate change and sustainable development expert

Integrating anticipatory components can make social protection more adaptive to climate shocks; BISP is not designed with anticipatory disaster risk management mechanisms

**I**F the merciless monsoon rains and floods in India are any indicator, Pakistan can anticipate heavy rains and flooding in several parts of the country. Hardly have we recouped from heatwaves, landslides and glacial disasters that we face more dark clouds on the horizon. How can we plan anticipatory actions to protect ourselves, and our communities and their assets, not forgetting our schools, hospitals, and other public infrastructure?

Planning for humanitarian provisions such as water, food, medicine, and shelter is crucial, but this is essentially post-disaster action. In climate change parlance, anticipatory actions have begun to assume a new meaning, which requires a chain of preparatory measures well ahead of the anticipated disaster. This is to reduce human suffering and the cost to the economy and ecosystems.

Anticipatory allocations refer to prearranged funds and actions to mitigate the impact of predictable risks before they fully unfold. It is based on five pillars: i) linking weather forecasts to trigger mechanisms that release prearranged financing, ii) pre-agreed specific actions that can

alter the trajectory of the crisis, iii) prearranged funds made available to immediately initiate time-critical activities, iv) reviewing laws and policies for institutionalisation and coordination mechanisms, and v) developing documentation on learning and evidence from each instance.

In the present state of climate governance, the last may sound overly academic. But its urgency cannot be contested. Had we drawn any lessons from the 2010 floods, according to Gen Nadeem Ahmed, who was then heading the NDMA and coordinating the government's flood response, the cost of the 2022 floods would have been halved. Since we have seen no formal lesson-learning after the 2022 floods, which inflicted losses to the tune of \$15 billion, one can only assume that, except for some critically important humanitarian preparations by the disaster management authorities, most of our actions will take place post-disaster. Are we prepared to design anticipatory actions proactively for specific shocks and locations?

In climate change parlance, anticipatory actions have begun to assume a new meaning.

Since managing local disasters is, for the most part, a provincial subject under our Constitution, the provincial governments are best placed to undertake their own anticipatory actions tailored to suit local realities. Triggered by early



warning systems, anticipatory interventions can protect livelihoods and food security before shocks such as droughts, floods, or heatwaves occur. Embedding anticipatory actions into national disaster risk management frameworks, social protection programmes and government budgets can help institutionalise and sustain national and international financing.

Several UN agencies, including OCHA, WFP, FAO, and others, are implementing anticipatory approaches by developing toolkits and other material. Anticipatory actions are being tested predominantly for natural hazards, reportedly in 60 countries, in partnership with local stakeholders. The key sectors that are benefiting include disaster risk reduction, agriculture, food security, and social protection systems. These sectors are vital for building resilience to climate shocks. Expanding to other predictable crises is the next step to tailor the response to specific crisis scenarios. However, challenges remain in fully integrating anticipatory approaches into provincial and national accounting systems and frameworks.

Anticipatory investments are made specifically to prepare for the impact of future shocks, even if the exact timing and magnitude of those future events are uncertain. This is in contrast to the reactive investments that we have habitually made after each disaster.

Social protection systems are presently undergoing fundamental changes. Governments are integrating forecast-based triggers and prearranged

financing. Anticipatory actions can be integrated into existing social protection systems in two main ways: i) by leveraging elements of the social protection architecture. This involves using existing systems and delivery mechanisms for cash transfers, in-kind support, or early warning messaging to vulnerable populations ahead of a predicted shock; ii) by integrating the core components into social protection systems. This includes embedding forecast triggers, pre-defined actions, and prearranged financing for social protection programmes to scale-up their response to impending crises.

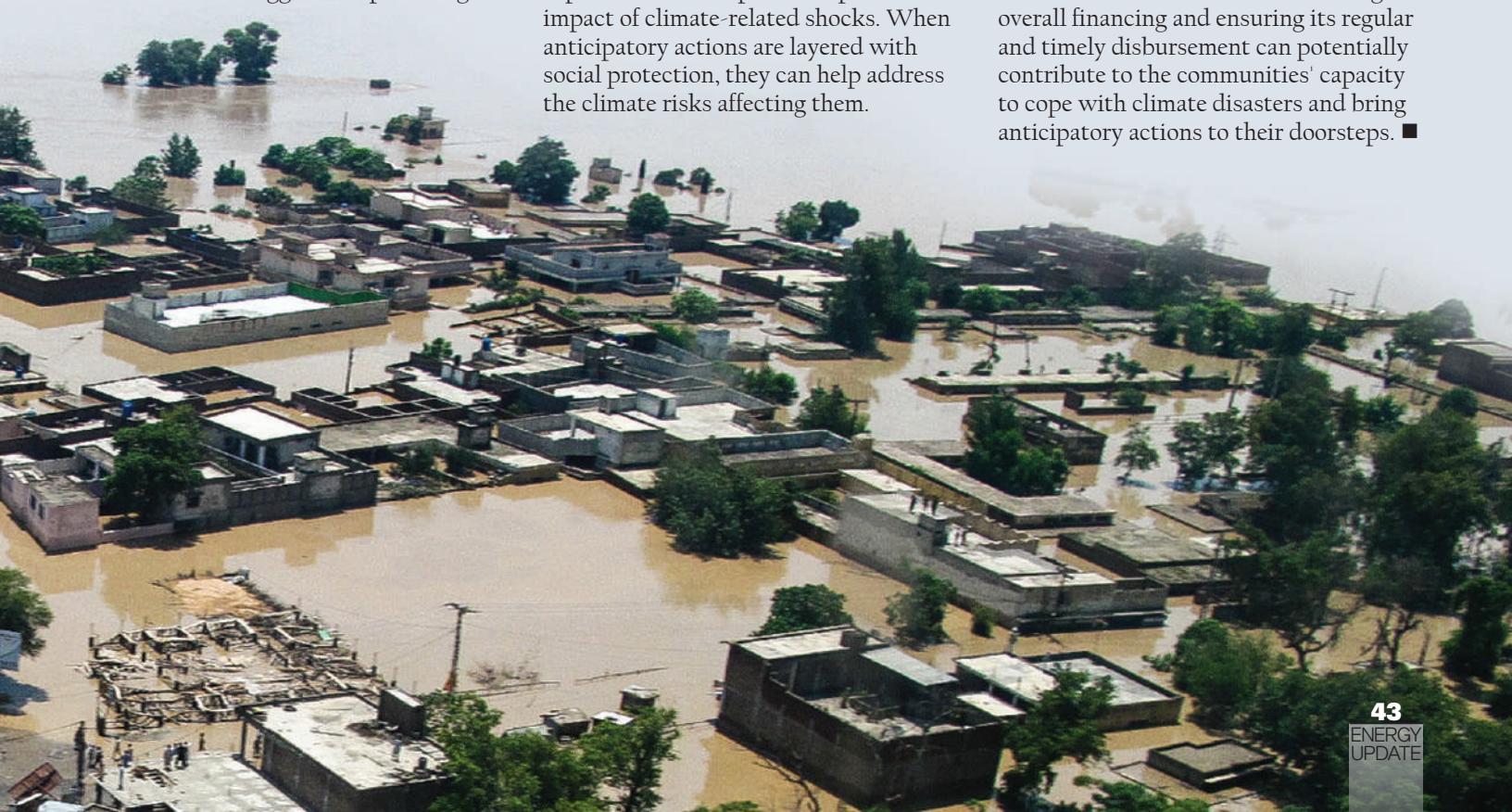
Pakistan has not, so far, explicitly tested anticipatory allocations through the Benazir Income Support Programme (BISP), but there are efforts underway to see if the present cash transfers can become an adaptive social protection programme. If successful, this could be the first large-scale transition towards anticipatory allocations.

While BISP focuses on providing unconditional cash transfers to alleviate poverty, it lacks built-in components to actively manage climate-related risks and disasters. This gap results in limited outreach and readiness during climate disasters. BISP is not designed with anticipatory disaster risk management mechanisms, but since there are no other institutions, it is best equipped to provide some indirect resilience against sudden shocks. The unconditional cash transfers support households in managing basic needs and investing in human capital that can help them cope with the impact of climate-related shocks. When anticipatory actions are layered with social protection, they can help address the climate risks affecting them.

Social protection systems can provide a foundation for delivering anticipatory actions, while integrating anticipatory components can make social protection more adaptive to climate shocks. Going forward, it can help the district disaster management authorities or local government institutions, where they exist, in i) disseminating early warning messages, ii) evacuating people, livestock, and assets, iii) reinforcing housing, schools, and other infrastructure, iv) providing first aid, food and drinking water at evacuation sites, and v) supporting unconditional cash assistance.

Despite the challenges, there exist capacities in Pakistan that can be utilized. By linking the Nadra and BISP datasets, it is possible to provide faster, predictable, coordinated, and cost-effective assistance ahead of forecasted climate shocks. The lack of anticipatory mechanisms in BISP adversely impacts its effectiveness during disasters, as witnessed in its post-2020 floods cash disbursements.

In any case, under the IMF- and World Bank-supported reform packages, social protection is steadily being transferred from the federal government to the provinces. The provincial governments can now have an opportunity to utilize BISP's capacities for the purposes of anticipatory actions in their jurisdictions. Punjab and Sindh have already unrolled their conditional cash grants. This will strengthen the provincial government's responsiveness to the needs of local communities and stakeholders. Increasing overall financing and ensuring its regular and timely disbursement can potentially contribute to the communities' capacity to cope with climate disasters and bring anticipatory actions to their doorsteps. ■





# Decarbonization for Industrialization

**Saleha Qureshi**

The writer leads Pakistan Industrial Decarbonization Program at SDPI

Private sector collaboration is key to decarbonizing Pakistan's industries in alignment with global sustainability goals

Climate change confronts us daily, affecting every corner of the globe, from the developed North to the developing South. Yet, the latter faces unique obstacles, with limited resources hindering effective mitigation efforts. Now is the time to catalyze these efforts economically, balancing CO<sub>2</sub> reduction with job creation and technological advancement. Hard-to-abate Industries like cement, steel, and chemicals, notorious for their high emissions, pose formidable challenges in this journey. Global economics is transforming itself from fossil fuel-powered industrial growth to renewable energy-based industrial development.

Pakistan's industrial sector, a linchpin of its economy, stands on the brink of transformation and requires a multipronged rehabilitation plan. Firstly, it requires over-haul in the sense that its share of a country's GDP increases. Secondly, industrial sustainability in the form of decarbonization is direly needed particularly for the exporting sector in the wake of the EU's Carbon Border Adjustment Mechanism (CBAM).

The Sustainable Development Policy Institute (SDPI) has launched the Industrial Decarbonization Program targeting sectors such as cement,

textiles, and steel. Themes comprise zero-emission fuels, trade policies, and greenhouse gas (GHG) accountability, flagging the way for substantive change. Private sector engagement and collaboration are key to decarbonizing Pakistan's industries in alignment with global sustainability goals. As Pakistan embarks on this ambitious journey, the introduction of the CBAM presents both a challenge and a unique opportunity.

The global best practices focus on reducing emissions in these challenging sectors through innovative technologies and regulatory measures. Moreover, to ensure climate compliance and protecting domestic industries in EU, the regulatory mechanisms are becoming stricter over time.

For instance, CBAM, started from October 1, 2023, aims to level the playing field by ensuring that imported goods face the same carbon costs as those produced within the EU. By 2026, this mechanism will be fully operational, holding a wider range of sectors.

This convergence of efforts from the EU represents a critical step in balancing Pakistan's industrial growth and climate change commitments. It underscores the need for international cooperation and a balanced approach that considers both environmental and economic imperatives. By making a strong economic case for decarbonization and capitalizing on policies like CBAM, countries in the global south particularly Pakistan can turn the challenge of climate change into an opportunity for

sustainable development and economic growth.

As CBAM specifically targets businesses outside the EU that lack equivalent carbon pricing measures. Importantly, countries participating in the EU Emissions Trading System (ETS) or having linked systems, like those in the European Economic Area and Switzerland, are exempt. Special provisions also apply to countries integrating their electricity markets with the EU, although full integration and compliance with EU decarbonization strategies are prerequisites for exemption.

The CBAM reporting system mirrors the EU ETS framework, relying on a carbon credit system. This involves assessing the carbon content of imports, pricing emissions based on the EU ETS, and requiring importers to purchase CBAM certificates. These certificates validate the carbon pricing of imported goods, ensuring parity with EU-produced goods.

For Pakistan, understanding and adapting to CBAM is crucial. The policy underscores the necessity for robust carbon pricing mechanisms and sustainable production practices. As Pakistani industries prepare to meet these new standards, the CBAM could serve as a catalyst for accelerated industrial decarbonization, making Pakistani exports more competitive in the EU market.

Moreover, CBAM is part of the broader European Green Deal, which aspires to achieve climate neutrality by 2050. Announced in December 2019, the Green Deal reinforces the EU's commitment to environmental management through innovative policies like CBAM and the reformed EU ETS.

The implementation of CBAM marks a decisive moment in global carbon pricing and climate policy. For Pakistan, aligning with these new regulations offers a strategic advantage, promoting industrial innovation and sustainability. As the world gravitates towards greener economies, Pakistan's proactive adaptation to CBAM can pave the way for a more resilient and competitive industrial sector.

As businesses worldwide steer this evolving regulatory landscape, the importance of staying informed and compliant cannot be overstated. Entities offer tailored solutions to help businesses transition smoothly, ensuring adherence to climate disclosure and

legislation. Embracing these changes with confidence will not only bolster Pakistan's industrial sector but also contribute to the global fight against climate change. However, achieving these goals requires targeted actions with targeted policies.

The effective decarbonization of industries necessitates a seamless integration of research, industry practices, and policy frameworks. This tripartite linkage is crucial for developing and implementing robust strategies that drive sustainable industrial growth and informed policymaking. Innovations in decarbonizing industrial processes, such as enhancing energy efficiency and adopting alternative fuels, can significantly reduce emissions. Additionally, there is a dire need to integrate a comprehensive decarbonization roadmap and policy into Pakistan's Nationally Determined Contributions (NDCs). This integration, currently lacking, would make the NDCs more realistic and achievable, ensuring a cohesive approach to meeting climate goals.

In this regard the role of think tanks such as the Sustainable Development Policy Institute (SDPI) are instrumental in this ecosystem, conducting comprehensive research and providing policy analysis to offer evidence-based recommendations for effective industrial decarbonization. Through research and consultative dialogues think tanks translate complex research findings into actionable insights for policymakers. Engaging in advocacy, building coalitions, providing capacity-building programs, and running public awareness campaigns, think tanks like SDPI amplify their influence and foster consensus around decarbonization policies.

Pakistan's plan to implement a carbon pricing mechanism is a crucial step towards reducing greenhouse gas emissions and fostering sustainable industrial growth. It is exploring options such as carbon taxes and emissions cap-and-trade systems to direct funds towards climate-compatible initiatives and incentivize a low-carbon transition.

A comprehensive National Carbon Pricing Policy should include mechanisms like revenue recycling to ensure fair burden-sharing and tools like the Carbon and Energy Pricing Tool to help businesses manage regulatory risks and financial impacts.

## Body formed to activate Hydropower project

### EU Report

Prime Minister Muhammad Shehbaz Sharif directed to form a committee on an urgent basis with respect to reactivating the Neelum-Jhelum Hydropower Project. The prime minister was chairing a meeting to review the progress of the Neelum-Jhelum Hydropower project at the PM House. During the meeting, he was informed in a detailed briefing that on April 29, 2024, due to the pressure drop in the right and left head race tunnels of Neelum-Jhelum Hydropower Project, there was a reduction in power generation and on May 2, 2024, power generation from the power plant was completely stopped. A preliminary investigation report was presented in the meeting by former Federal Interior Secretary Shahid Khan, the head of the investigation committee investigating the recent faults in the Neelum-Jhelum Hydropower Project. He told the meeting that the closure of the project is causing a loss of millions of rupees to the national exchequer. It was informed in the meeting that the place where the current fault occurred was the rock burst zone.

## Free solar panels from Aug 14

### EU Report

Punjab Chief Minister Maryam Nawaz has announced distribution of free solar panels among the people from August 14. She said those using up to 200 units could acquire free solar panels from August 14. People using more than 200 units and up to 500 units will receive solar panels on making 10 per cent payment in designated banks. The Punjab government will pay 90 per cent of the total amount for solar panels to people using electricity up to 500 units. The interest-free payment for solar panels will be made in five years and will be carried out through banks. In the light of CM's announcement, the modus operandi regarding the provision of solar panels to people has been settled. The chief minister said: "People's electricity bills will be reduced by 40 per cent with the provision of solar panels. It is my sole mission to provide maximum relief to people. Despite difficult circumstances, we are standing with people and will continue to do so."

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# The future is electric

**Ammar Habib Khan**

The writer is an assistant professor of practice at the School of Business Studies

Rolling out electric or hybrid public transportation infrastructure will reduce reliance on imported oil

There has been incessant chatter regarding the establishment of an oil refinery in Pakistan — to replace aging infrastructure. Every few weeks there is noise regarding a refinery policy, or a new refinery, to be financed through debt. The estimated capital expenditure for such an endeavour is close to \$10 billion. But does such an ambitious undertaking make sense given changing energy and macroeconomic dynamics?

The Return on Equity for oil refineries ranges between 5.0 and 12 per cent, depending on location and scale of refineries. Pakistan does not have

any significant crude oil endowments that can be used to refine, wherein most crude that will be refined will already be imported. Effective import substitution through such a capital investment would be for refinery margins only — and thereby may not yield necessary foreign currency savings as envisaged.

More than 80 per cent of all petroleum utilized in the country is in the transportation segment, which can be split into motorcycles, cars, logistics, and public transportation. Oil imports continue to remain the largest category that use up previous foreign currency reserves, without adding much productivity for the same. There are more than 30 million motorcycles in the country, making up almost 38 per cent of transportation demand, followed by cars, logistics, and public transportation. Petroleum products consumed by motorcycles make up almost \$5 billion of total petroleum imports in the country.

Given technological advancements, over the last few years, the transition of two-wheelers from petrol to electric has been accelerated. The emergence of battery swapping stations, and extended battery lives with reduction in battery costs has led to improving the economics of electric bikes, seriously threatening the economics of petroleum





fueled bikes. The largest customer segment for petroleum is effectively motorcycles.

There is a case to accelerate their transition from petroleum to electric. This will solve two problems at the same time: reduce our petroleum import bill, while increasing consumption of electricity, of the surplus power capacity that exists currently; this is expected to prevail for the better part of the next decade. A transition to electric bikes will not just improve the overall payments position at a macroeconomic level, but also improve household cash flows, as electric mobility is considerably cheaper than petroleum-fueled mobility, particularly in the case of two-wheelers.

More importantly, the transition can be triggered through an enabling policy framework that allows utilization of surplus power capacity via a marginal pricing regime, which aggressively competes against the cost of petroleum, improving economics for households in the process. The capital outlay requirements for the government in this case would be minimal at best, as private parties mobilize the necessary capital to accelerate the transition. In such a scenario, where technology will effectively move the biggest demand cluster away from petroleum, it makes little sense to allocate constrained capital resources to development of infrastructure

for which we do not have any comparative or competitive advantage.

The existing fueling infrastructure can be rejigged to become charging or swapping infrastructure, without any major capital requirements. Similarly, in the case of public transportation, a rollout of public transit facilities across the country remains a critical public policy tool in improving mobility, improving household finances, and more importantly reducing reliance on oil imports. Rolling out electric or hybrid public transportation infrastructure will further reduce reliance on imported oil, and improve citizen mobility in the process. It is important to note here that in none of these interventions is any serious capital commitment required from the government – as the same can be done through public-private partnerships, and an enabling policy framework. Similarly, phase out of passenger cars from petroleum to electric will further accelerate the transition from petroleum to electric.

The existence of a compelling case for transition to electric for more than half of the transportation demand in the country over the next five years further weakens the case for investing heavily in an oil refinery. The case is further weakened when we do not have any competitive advantage available through any endowment of oil as a natural resource. But what we do have evolved over the years is

a power infrastructure that is increasingly being indigenized, with almost 75 per cent of electricity being generated through indigenous resources. The contribution of indigenous resources will only increase in the future. From a purely economic and financial perspective, it makes little sense to invest heavily in an investment with high single-digit ROE and potentially shrinking demand base.

Long-tailed infrastructure investments are made for decades, rather than years. As battery prices continue to reduce, technology will only get cheaper, inadvertently allowing households to move to electric due to better economics. As demand for oil goes down, any capital investment that is done for decades may end up being stranded. The case for electric has never been stronger – and we have the necessary resources to accelerate the transition with minimal capital outlay.

Such interventions require imagination and an understanding of how mobility works at the level of a household. Such mobility remains very cost conscious. The government can either lead the way in optimizing existing power infrastructure for mobility, or it can risk investing in infrastructure projects that may be stranded in a decade or so, due to evolving technology. The future is electric, and the future is distributed. The sooner we realize this, the better it is for everyone. ■

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# For two years, economy in grip of stagflation

Path forward requires strategic focus on boosting productivity

**Hussain H Zaidi**

The writer is an Islamabad based columnist

Ask anyone what's been troubling them the most lately, and at least nine out of ten will say it's the relentless price rise. The last financial year (FY24) ended with an average CPI inflation of 23.41%, compared to 29.18% in FY23 and 12.15% in FY22. Simultaneously, the economy grew by 2.4% in FY24, contracted by 0.2% in FY23, and grew by 6.2% in FY22. These indicators unmistakably show that the country has been in the grip of stagflation—a combination of high prices and low growth rates—for the past two years. A mix of domestic and external factors has pushed the economy into this dire situation.

In recent years, several economies, both developed and developing, have faced stagflation, though for shorter periods. The issue began with the COVID-19 pandemic, which severely restricted the movement of people and goods, stalling

economic growth world-wide. According to the International Monetary Fund (IMF), in 2020, the year the pandemic emerged, advanced economies contracted by an average of 3.9%, including a 2.2% contraction in the US and a 10.4% contraction in the UK. Similarly, developing and emerging (D&E) economies contracted by an average of 1.8%,

with Pakistan shrinking by 0.9% and India by 5.8%.

Due to the low-base effect in 2020, 2021 saw economies around the world rebounding with healthy growth rates: advanced economies grew by an average of 5.7%, and D&E economies by 7%. The UK and the US grew by 8.7% and 5.8%, respectively, while Pakistan and India



grew by 5.8% and 9.7%, respectively.

In 2022, growth rates moderated as the pandemic's impact subsided, primarily due to the high base effect. Advanced and D&E economies grew by 2.6% and 4.1%, respectively. In the UK, US, and India, growth rates decreased to 4.3%, 1.9%, and 7%, respectively. Surprisingly, Pakistan's growth rate increased to 6.2%, the highest in recent years. This high growth rate was driven by increased consumption expenditure, reflected in record-high imports of \$80.17 billion.

In 2022, prices surged globally. In advanced economies, inflation rose to 7.3% from 5.3% in 2021, while D&E economies saw inflation climb to 10.1% from 7.1% in 2021. In Pakistan, inflation skyrocketed to 21.3% from 9.7% in 2021. A common factor was the monetary policy of the Federal Reserve (Fed) in the US. To address the economic contraction, job losses, and increased social safety expenditure in 2020, the Fed adopted a loose monetary policy, printing more currency. Consequently, US inflation ballooned from 1.6% in 2020 to 7.4% in 2021. To curb inflation, the Fed tightened monetary policy by raising the benchmark interest rates, implementing 11 rate hikes between March 2022 and July 2023.

Given the size of the US economy and the widespread use of the dollar in international transactions, the appreciation of the greenback has led to the depreciation of other currencies, including the PKR. In Pakistan's case, domestic factors have also contributed to this decline. In an import-dependent economy like Pakistan's, currency depreciation either drives up prices or, if the government imposes import-compression measures, hampers economic growth.

In Pakistan, stagflation has been driven by a mix of international and domestic factors that have compounded each other. The war in Ukraine increased food and oil prices, which are significant items on Pakistan's import bill. In FY22, during a period of relatively high growth, the country imported petroleum and food products worth \$23.32 billion and \$9.01 billion, respectively, totalling 40.33% of the overall imports of \$80.17 billion. Additionally, the massive floods in the second half of 2022 (FY23) caused economic losses exceeding \$15 billion, leading to a dramatic slump in growth from 6.2% in FY22 to just 0.2% in FY23.

The import-compression measures initially yielded results, with imports falling to \$55.20 billion in FY23 and further

to \$54.73 billion. However, this came at the expense of exacerbating inflation and slowing down the economy. The high inflation forced the State Bank of Pakistan (SBP) to maintain elevated interest rates, a typical response from central banks in such situations, which further contributed to the economic slowdown. Another significant factor was the 'rationalisation' of energy and utility prices, alongside an increase in the GST rate from 17% to 18% as part of efforts to reduce the fiscal deficit and secure an IMF bailout package.

Stagflation, characterised by supply-side inflation as opposed to demand-side inflation, fundamentally represents a problem of falling output. Growth recession implies that less output is available relative to demand. With the gap between domestic demand and domestic output filled by imports. In the case of Pakistan, the reduction in imports, combined with steep currency depreciation and periodic increases in utility prices, has led to rising prices.

It is important to note that exchange rate management, which allowed the domestic currency to depreciate, and monetary policy, which aimed to strengthen the domestic currency through higher interest rates, were in conflict. Consequently, the potential reduction in inflation from contractionary monetary policy was offset by the inflationary spike induced by currency depreciation. As always, contractionary monetary policy contributed to reducing real output and thus to stagflation.

Stagflation is particularly challenging to manage. The standard approach to addressing low growth is fiscal and monetary expansion, while high inflation typically calls for fiscal and monetary contraction. However, stagflation undermines both strategies. Expansionary policies can exacerbate inflation when prices are rising, while contractionary policies can further depress growth when it is already weak.

The primary step in addressing stagflation is for the government or central bank to focus on either reducing low growth or high inflation. The government appears to have chosen to target inflation, given its diminishing political capital due to soaring prices. However, the long-term solution to stagflation involves increasing the productivity of factors of production. This approach ensures that efforts to boost growth do not result in a surge in imports, which would compel the government to implement import-compression measures that could further slow down economic growth. ■

## KP to earn Rs90bn from oil-gas sectors

### EU Report

The provincial government of Khyber Pakhtunkhwa will earn revenue amounting to Rs89.8 billion in the current fiscal year 2024-25 from oil and gas as compared to Rs.42.8 billion in the financial year 2023-24, said White Paper on the annual provincial budget. The receipts will be paid by the federal government in heads of Royalty on Oil and Gas, Gas Development Surcharge, Excise Duty on Natural Gas and Windfall Levy. In head of Royalty on Crude oil and Natural Gas, the province will receive an estimated amount to Rs.26.2 billion as compared to Rs.25.1 billion of the last financial year while in head of natural gas it will earn Rs.11.4 billion, Rs.2.7 billion in head of Gas Development Surcharge, Rs.2.7 billion in head of Excise Duty on Natural Gas and Rs.46.8 billion in head of Windfall Levy. According to 7th National Finance Commission (NFC) Award, the share of Khyber Pakhtunkhwa, in the net proceeds of total royalties on crude oil in a year, is the proportion of crude oil produced in the province out of the total national production of crude oil in that year. ■

## 500,000 homes to get solar systems

### EU Report

Sindh Chief Minister Syed Murad Ali Shah met with Energy, Planning & Development Minister Syed Nasir Shah to discuss the ambitious project of providing solar systems to 500,000 homes in Sindh, as directed by PPP Chairman Bilawal Bhutto Zardari. Shah emphasized Bilawal Bhutto's directive to expedite the distribution of 200,000 solar panels. According to statistics, 500,000 homes in Sindh are not connected to the electricity grid, stated Nasir Shah. The Chief Minister highlighted that Rs5 billion had been allocated for solar energy this year. He instructed the Energy Department to promptly submit the solar panel distribution plan for approval. Additionally, CM Shah directed Nasir Shah to ensure the completion of 1,812 ongoing schemes this year. ■

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# Pakistan lacks climate change research

**Waqar Gillani**

The writer is a staff member

Santiago network can provide opportunities for Pakistan, which lacks serious research on climate change patterns

**T**he Santiago network was set up at COP 25 in December 2019 to play a crucial role in addressing climate change impacts in developing countries. The United Nations Projects Services and the UN Office for Disaster Risk Reduction are coordinating and hosting the secretariat on this network in Geneva to technically assist these countries.

The network focuses on catalysing technical assistance from various organisations, bodies, networks and experts to support developing countries in averting, minimising, and addressing loss and damage caused by climate change.

At COP 28 when a Loss and Damage Fund was set up it was also linked to the Santiago network hosting UN organisations for technical assistance. At the COP 28, in Dubai, delegates agreed

to formally establish a fund to support especially vulnerable countries dealing with the effects of climate change.

The network will operate in coordination with the Loss and Damage Fund – to deliver the necessary policy, finance and technical assistance for vulnerable developing countries to enhance their capacity to manage climate-related loss and damage.

Pakistan, facing serious climate change patterns including heat waves and floods, lacks a detailed study and research on this recurring situation. “A detailed study will benefit Pakistan to seek technical assistance to get more benefit from the loss and damage fund,” a senior official in the Climate Change Ministry says.

In 2022, Pakistan sought assistance from the world after the devastating floods. Pakistan doesn’t contribute much to carbon emissions but is significantly affected by climate change. The official says that Pakistan needs an effective strategy and technical assistance to create opportunities for it to

benefit from the Loss and Damage Fund pledges.

At the previous COP the United Arab Emirates pledged \$100 million for the Fund; Germany \$100 million; European Union \$245.39 million; Britain \$51 million; the United States \$17.5 million and Japan \$10 million. Governments and the private sector were also encouraged to contribute to the fund.

Following the adoption of a UN General Assembly decision to formalise the implementation of the Santiago network, partner entities have agreed on the next step in getting the network up and running. This represents a major step towards enhancing capacities to avert, minimise and address loss and damage.

“A detailed study will benefit Pakistan to seek technical assistance to get more benefit from the loss and damage fund”.

The functions of the Santiago network include contributing to the effective implementation of the functions of the Warsaw International Mechanism and catalysing demand-driven technical assistance including of relevant organisations, bodies, networks and experts, for the implementation of relevant approaches to averting, minimising and addressing loss and damage in developing countries that are particularly vulnerable to the adverse effects of climate change by assisting in identifying, prioritising and communicating technical assistance needs and priorities; identifying types of relevant technical assistance; actively connecting those seeking technical assistance with best suited organisations, bodies, networks and experts; accessing technical assistance available including from such organisations, bodies, networks and experts.

This also includes facilitating the consideration of a wide range of topics relevant to averting, minimising and addressing loss and damage approaches; facilitating and catalysing collaboration, coordination, coherence and synergies to accelerate action by organisations, bodies, networks and experts, across communities of practices, and for them to deliver effective and efficient technical assistance to developing countries; facilitating the development, provision and dissemination of, and access to, knowledge and information on averting, minimising and addressing loss and damage, including comprehensive risk management approaches, at the regional, national and local level. Facilitating, through catalysing technical assistance, of organisations, bodies, networks and experts, access to action and support (finance, technology and capacity building) under and outside the Convention and the Paris Agreement, relevant to averting, minimising and addressing loss and damage associated with the adverse effects of climate change, including urgent and timely responses to the impacts of climate change.

Pakistan was elected to the founding Board of the Loss and Damage Fund and four important committees of the United Nations Framework Convention on Climate Change: the Technology Executive Committee; the Paris Committee on Capacity-Building; the Advisory Board of the Santiago Network; and the Standing Committee on Finance. These committees are to address various aspects of climate change, including technology, innovation and finance, to achieve the goals of the Paris Agreement. ■

# Steps to trim power tariff

## EU Report

**A**mid the inflated power bills mainly because of the faulty power purchase agreements (PPAs) based on ‘take or pay’ loaded with huge capacity charges payments, the government is left with no option but to take doable steps to reduce the power tariff, says former energy minister Muhammad Ali while talking exclusively with The News.

According to Ali, the government will have to take three measures: 1), change of delivery schedule in LNG vessels; 2), increase in debt payment tenure of imported coal-based power plants; and 3), close down the plants, which are not operating but are getting capacity payments, O&M and insurance costs.

“There is also the issue of fuel cost, which is adding to the overall power cost. One of the big reasons is that our LNG contracts have been signed on take or pay basis. Owing to these contracts, we are forced to run our LNG plants which cost around Rs24-25 per unit of fuel cost, and we cannot run the coal-based plants which will cost us around Rs15-16 per unit in fuel cost.

“The magnitude of this is around 4,000-4,500MW. We should immediately look into changing the delivery schedule of the LNG cargoes in a way that we get more cargoes during winters which will help us avoid spot cargo buying and should also look at the possibility of spreading the remaining contracted cargoes over a longer time period depending on our demand. This way, we can run the coal plants which have cheaper fuel cost and at the same time reduce our precious foreign exchange outflow,” explained the ex-energy minister.

“More importantly, capacity payments being paid to the non-operational IPPs are adding to the cost of electricity. Today, the country needs to resolve this issue. If it is done amicably, it will benefit all the stakeholders.”

“To reduce capacity payments, the government should look into the possibility of shutting down the non-operational plants having no technical requirement of being kept in the system. These plants, which are either not operating, or are hardly operating, are still required to be paid O&M or other charges by the government. The government can agree with them on the remaining payment amount, its terms, and tenor. This is true for various plants set up under the 1994 and 2002 policies.”

The ex-minister, who is also known for the mind-blowing Muhammad Ali report on IPPs, argued that the terms and debt tenor of plants set up under the 2015 policy will also need to be looked into which will help decrease the capacity charges payments.

“When we did the power sector report in 2019-20, we had recommended that the government negotiate with all the plants but this exercise was not completed after our negotiations with the local plants.”

“While making the report, we had also asked for a small budget to get data from the international power consultants about the setup cost of similar plants in other countries around the same time. Its purpose was to evaluate if the set-up cost of power plants in Pakistan was in line with the international benchmarks. However, that budget was never approved and we could not get the required data.” He went on to say that the government always had the option to get that data and look at the set-up costs. ■

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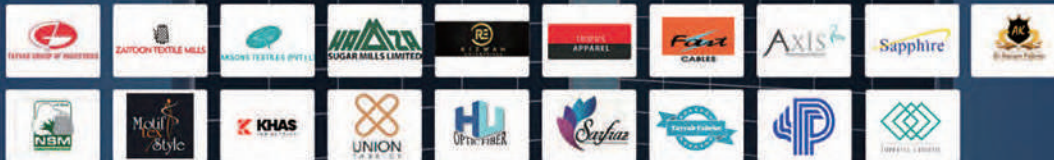
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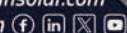
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