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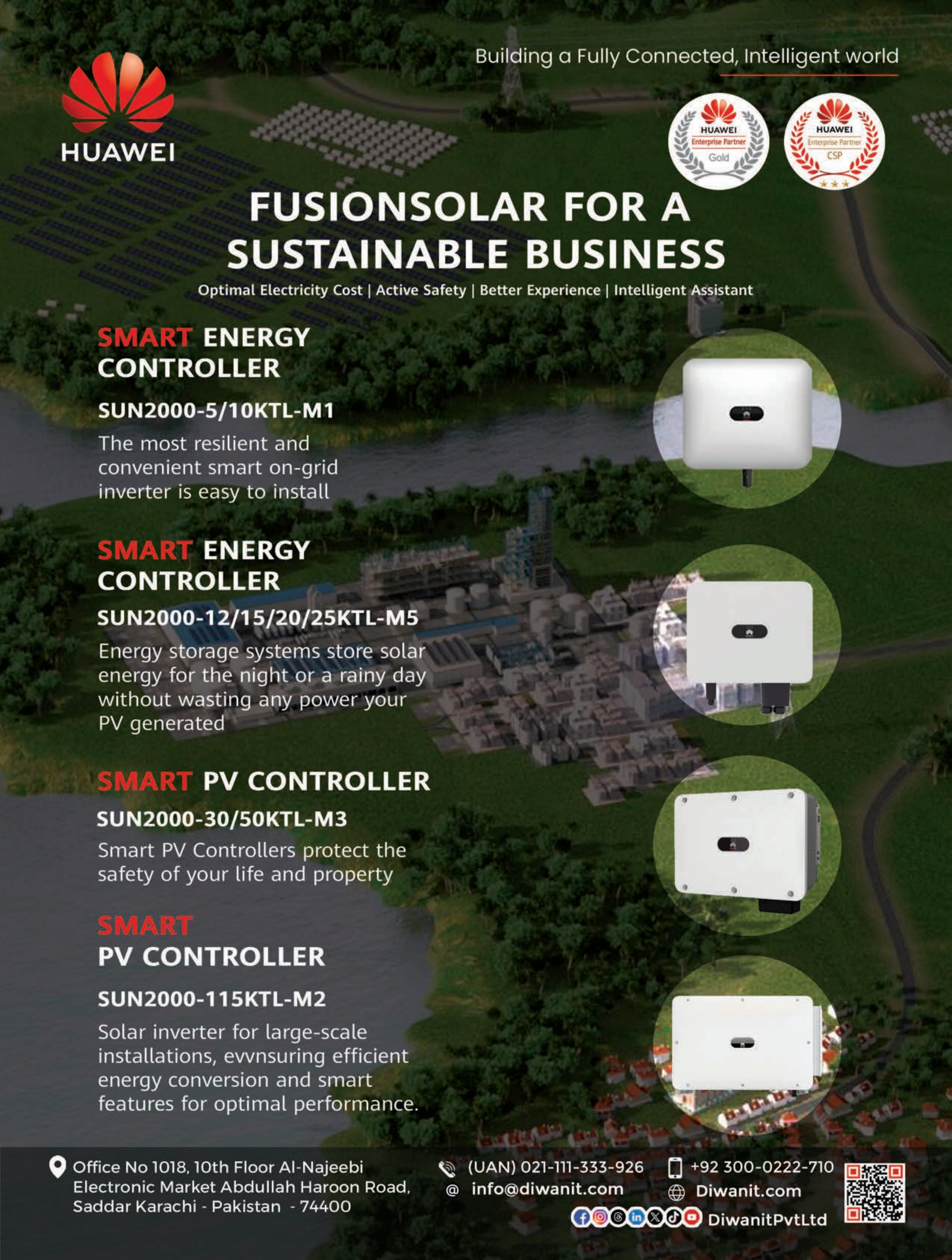
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CONTENT

EXCLUSIVE INTERVIEW

FROM THE

Editor's desk...

Another IMF Debt Trap

Amid persistent economic crisis and high inflation rate, the International Monetary Fund (IMF) and the Pakistani authorities have once again reached a staff-level loan agreement on the second and final review under Pakistan's Stand-By Arrangement, subject to the approval of the IMF's Executive Board. Upon approval, Pakistan will have access to a US$1.1 billion loan.

This loan seems another burden on the whole nation and a debt trap for the country while the worst is it that the government intends to get more loans from the international donor agency. The people have still not received any benefit from the IMF loans secured earlier, as the inflation and joblessness rates are continuously soaring rather than coming down.

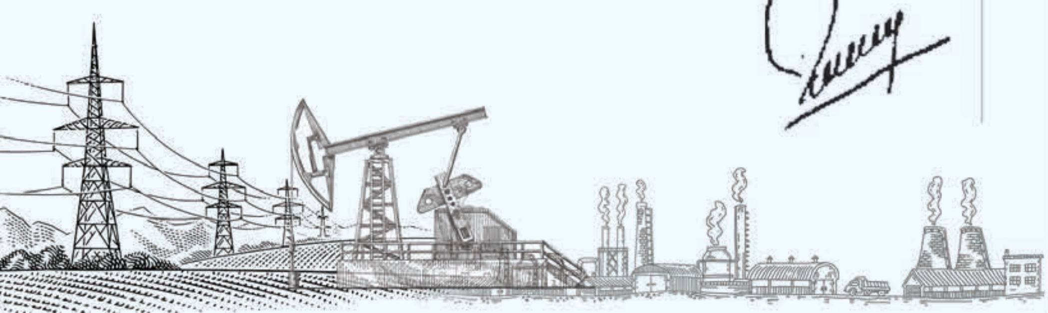
Pakistan has been facing an economic crisis for the past few years, and the country's debt burden has been increasing at an alarming rate. IMF has provided several loans to Pakistan in the past to help the country overcome its economic challenges. However, those loans have been secured with strict conditions that have put Pakistan in a debt trap.

It is a matter of great concern that the Pakistani government has once again pushed its people into a quagmire of IMF loans, and coming out of it seems not possible in the near future.

The fact is that we have been trapped by the IMF's debt-trap diplomacy, which is an international financial relationship where a creditor country or institution extends debt to a borrowing nation partially, or solely, to increase the lender's political leverage. The creditor country is said to extend excessive credit to a debtor country with the intention of extracting economic or political concessions when the debtor country becomes unable to meet its repayment obligations. The conditions of the loans are often not publicized as in the case of Pakistan.

Pakistan's government direly needs to provide relief to its inflation-hit people from the IMF loan besides stopping taking more loans for the good of the nation and the country's survival. The fact is that the IMF loan conditions have undermined people's economic, social, and cultural rights. The conditions are further compounding problems of the country and its people rather than coming out of them.

Although the IMF claims that poverty reduction is one of its objectives, some researches show that IMF borrower countries experience higher rates of poverty. It was found that IMF loan arrangements containing structural reforms contribute to more people getting trapped in the poverty cycle, as the reforms involve deep and comprehensive changes that tend to raise unemployment, lower government revenue, increase costs of basic services, and restructure tax collection and social security programmes.



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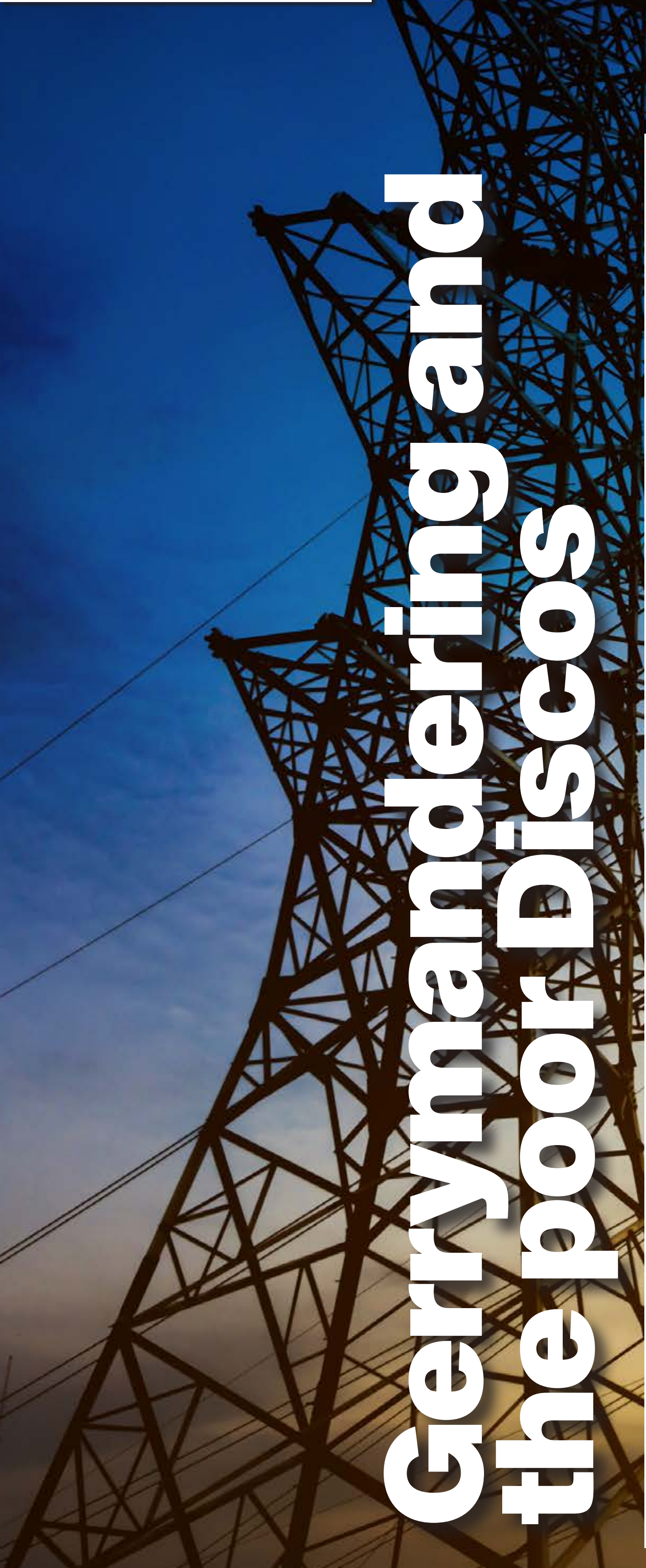


Gerrymandering and the poor Discos

Engr Tahir Basharat Cheema

The writer is B.E. (Elect), Dip. Pub. Admn, Dip. Bus. Admn., Cert. Statistical Sciences, M.B.A. and former MD PEPCO, former President I.E.E.E.P. Former Caretaker President I.E.E.E.P

Come rain or storm, the political animal will never leave the chance to reap the best out of the economy of any sector. This pursuit is evident in the treatment being meted out to the poor DISCOs and that too without understanding the issues and the fact that government itself is the problem. In other words, the government's relationship with the PSCEs (Power Sector Corporatized Entities), specifically with the DISCOs, has to undergo a paradigm change or at least a shift is in order.

What are the issues that beset the Discos and why these utilities are unable to serve their clientele? These are very simple and surely in the knowledge of all who matter. On the other hand, as nothing changes it could only be apathy and nothing else. That the wheel keeps on being invented every now and then, proves the poverty of those who matter.

Dwelling on the pathetic situation around us, we see that DISCOs face the wrath of a lackluster policy crafted by the generalist (who had been tasked for it) and helped by the USAID people then embedded in the power ministry. The policy, unfortunately, does not have any legs to stand upon and also lacks support from other stakeholders.

Similarly, the allied plans are juvenile to say the least. The main purpose of the policy and the plan is to sustain the present unsustainable operations of the power sector and nothing else. Only lip service is made to ensure the provision of global grid cover for the Country.

Thereafter, the governance remains with the generalist at the MOE (ministry of energy), while management has been doled out to the politically infested Disco BoDs. All of the CEOs – retained for operational management, are temps or unsuitable at all for their positions.

HRM and HRD are unknown quantities – leading to inapt HR and over 60,000 unfilled vacancies at the operational level, while DISCO HQs are extremely top-heavy. No O&M study has ever been contemplated – all in all, a recipe that will never be palatable and nor ever deliver.

From the above, it is concluded that the government is the issue while failing writ in huge swaths of the country further inhibits proper operations of the power sector in general and the DISCOs in particular. The proof remains in the recent national campaign to curb illegal abstraction (theft and stealing) of energy, which remained tepid with the recovery of only Rs 71.00 billion in 54 days of the activity.

It started without any warnings to those who indulge in this nefarious theft and then ended without any proclamation that all of the wrongdoing had been curbed or that the campaign would soon start again etc. Many utility employees were injured in the campaign while all of the thousands of instituted FIRs are still in their initial process, with no convictions at all. So much for the writ of the state.

It was in this context that thrice in the past an effort has been made to somehow spare the federal government/GoP of its onerous burden of managing DISCOs and to then fund its losses. The smart advisors advocated the hand-over of these hemorrhaging entities to the un-suspecting provinces, whereafter the PPP (Power Purchase Price) invoices of the

CPPA(G) would be automatically deducted at the federal level – thus all would be well, and the federal government would be saved from any loss.

During such parlays in 2012, KPK offered to take over operations provided the then 3600MW Tarbela HPP too (it has since been added by 1500 MW while another 1500 MW is in the offing) would be added as dowry. Punjab, headed by a very sagacious CS wanted the GoP to firstly transfer the five DISCOs in its geographical territory free from any encumbrance and that a specific amount would be paid to the province for the next 5-10 years whereby, the decrepit infrastructure (on account of the mismanagement by the Centre) could be brought to the required international standards.

Sindh, at the juncture, was bereft of its black gold and extremely cheap Thar-fueled electricity, and simply abstained from taking up any responsibility for the perpetually loss-making Discos in its territory. Baluchistan was just a bystander and thus did not make any offer – for or against the Centre's offer.

The second such offer during 2013-18 was a non-starter and plans to the effect remained on paper alone. In fact, better sense prevailed and so-called reforms were taken up without any feathers being ruffled. The third such effort was scuttled by the SIFC (Special Investment Facilitation Council), when it was decided to implement the Turkish model of giving the DISCOs on long-term concessions.

Before this most correct decision, the Federal Government through the Power Division went into parlays with the provinces. In this case too, Sindh was far ahead of others and had hired a transaction advisor to draft the scheme for the transfer of the two DISCOs operating in its territorial jurisdiction viz. HESCO and SEPCO provided the federation vowed to maintain the uniform tariff for the next 10 years.

On the other hand, it was said that by a decade or so Sindh will have enough extremely cheap Thar Coal-fired power generation and that the province then could have the most affordable power tariff for its population. Punjab, as usual, was late and gleefully contemplated taking over the five DISCOs in its geographical area. Instead of engaging professional help, its energy department seemed to contemplate as to what could be gained from the transfer. KPK and Balochistan stood their ground as was their stance in the first of such parlays.

Thereafter better sense prevailed and the SIFC, surely weighing all pros and cons, decided to correct course and then take up effort for the possible long-term concessions. Concurrently, the PC (Privatisation Commission) tasked to enhance growth and productivity of the Country's economy through active participation and by harnessing the private sector as its engine of growth, has been working on the same issue. The Commission too favoured the long-term concession model.

Come the new government and surely a business-friendly Prime Minister who instead of remaining on course, has ordered some committee to work once more to transfer the DISCOs to the provinces. As the Federal Government has been unable to counter the issues besetting the Discos, it is simply preposterous to think that the provinces would deliver.

On the other hand, as even the Cabinet had not been notified, hence this direction could not have been any considered opinion or even a page out of the earlier Pakistan Muslim League-Nawaz's (PML-N's) manifestos – which talked about privatization in a big manner.

Although this time, the manifesto is silent, but privately everyone agrees that privatization is indeed the solution for the Power Sector. The change in the mindset could be just a kneejerk reaction to some alarm raised by a close confidant or pressure from concerned political circles to keep the Discos under control

The solution now is to stay away from any other solution and let long-term concession(s) in line with the successful Turkish model save the Power Sector from any politically motivated vandalism. The quicker Discos are given to qualified entities, the less would be the loss for the Country and the people.

However, it is of extreme importance that the process of giving the concessions has to be extremely transparent to assure induction of the best of the best – with the needed financial depth and expertise that matches the levels set by the best international practices. Actually, all experimentation or re-inventions of the wheel have to be shunned. In this case, due professionalism is the requirement instead of any whimsical decisions.

Energy conservation building code issued

EU Report

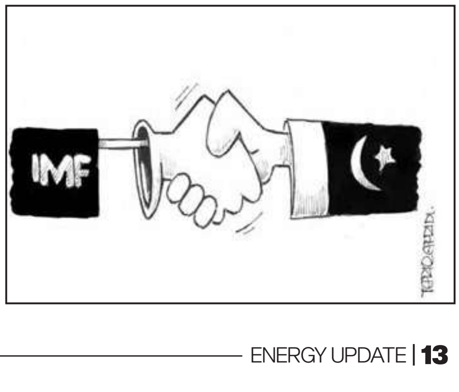
The National Energy Efficiency and Conservation Authority (NEECA) has issued the Energy Conservation Building Code, 2023 (ECBC-2023) to be applicable across the country.

According to official documents, under the patronage of the Ministry of Energy (MoE) - Power Division, NEECA, with technical support from renowned international and national organisations, has successfully formulated the Energy Conservation Building Code 2023 (ECBC-2023).

This endeavour is along with the strong recommendations outlined in the National Energy Efficiency and Conservation Policy-2023 and the National Energy Efficiency and Conservation Action Plan-2023-2030.

This code shall apply to all types of new and old buildings situated throughout Pakistan. The provincial governments may amend the Code in accordance with their respective climatic conditions and jurisdiction, as outlined in clause (a) of sub-section (1) of section 13 of the Act. The Code shall apply to the engineering design of buildings and building clusters meeting any of the following criteria, namely: (i) a total connected load of 50kW or greater; (ii) a contract demand of 75kVA or greater; (iii) a conditioned area of 200 m2 or greater; or (iv) unconditioned buildings with a covered area of 300 m2 or more.

Any person who contravenes the provisions of the Act and the Code shall be liable to the punishment in accordance with the Act. The Code shall continue in force unless reviewed every three years for earlier updates to ensure ongoing relevance and effectiveness. The provisions of the Pakistan Engineering Council (Conduct and Practices of Consulting Engineers) Bye-laws, 1986 to the extent of matters covered under this code have been repealed. ■



RENEWABLE ENERGY SECTOR OFFERS VAST OPPORTUNITIES FOR BUSINESSES, EMPLOYMENT

GoodWe Country Manager

Fahad Ali

says in an interview his company is ranked No.1 in hybrid and No.3 in ongrid globally, which is a sign of the quality and reliability of its products

Amer Malik

While promising green energy, the steady growth of the renewable energy sector in Pakistan offers vast opportunities for businesses and employment as it is termed the next big thing after IT.

"While solar industry is currently functioning at 10 to 20 per cent of its potential in Pakistan, it is one of the fastest growing fields with vast opportunities for the people, thanks to factors such as energy crisis, high cost of hydel and thermal energy and resultant environmental hazards," said Mr Fahad Ali, Country Head, GoodWe, in an interview with Energy Update.

As the electricity cost is rising and demand increasing every month, he believes it is the right time to enter into the solar industry offering huge growth opportunities.

EU: What measures have you taken to ensure the quality and reliability of GoodWe products against warranty claims in the Pakistani market?

Fahad Ali: GoodWe is ranked No.1 in hybrid and No.3 in ongrid globally, which is a sign of the quality and reliability of its products. We are operating in more than 100 countries and have already installed 70GW energy products globally.

GoodWe does not compromise on quality. We supply the same quality of products in Pakistan as we supply in Europe. Other companies may compromise on quality based on economic value of various countries, but GoodWe doesn't. Since GoodWe began its operation in Pakistan in 2014, it provides best products and services for their quality, reliability, services, and is competitive in prices too.

GoodWe has been getting awards every year. General Electric tested inverters of different companies and choose GoodWe on the basis of reliability and performance. We give a five-year replacement warranty for the hybrid and ongrid inverters. We have our service centre in Islamabad. Inverters remain available with our partners to cater to our customers' needs. As hybrid solar system is set to grow exponentially in the future, GoodWe introduces new products ranging from 6kw, 8kw, 10kw, 30kw, 50kw, 60kw, and 100kw in hybrid. After being ranked as a global leader, we strive to be the leader in Pakistan as well.

EU: What strategies have you implemented to maintain relationships with local partners, suppliers, and government agencies to successfully penetrate the Pakistani market with Chinese solar inverters?

Fahad Ali: Recently GoodWe has signed 500MW deal so we have five partners in Pakistan. We hold weekly or even daily meetings online to review stocks and make strategies. Our main focus is to empower our partners through technical and sales training, and subsequently, they impart training to the Engineering, Procurement, and Construction (EPC) companies and vendors for effective operations. We also organize seminars with a high turnover of over 300 stakeholders in each of the seminars.

We are collaborating with the Energy Training and Research Center (ETRC) for the training of more than 200 engineering students. ZNC Solar and GoodWe have collaborated to train young professionals. We build relationships that matter to us.

EU: How do you stay updated with the regulatory environment and government policies regarding renewable energy in Pakistan?

Fahad Ali: We have our internal team which works, especially for the South East Region to keep us updated with local government policies and trends. We derive updated information from Energy Update and magazines. We also get to know about government policies from mainstream media. We have our associations and have also created WhatsApp groups, enabling us to easily access relevant information from relevant quarters.

We are not directly involved with the government. We follow regulations as conveyed by our associations. However, we provide our feedback to the government to help it formulate policies based on real information and market trends.

EU: Can you discuss any challenges while operating in Pakistan and how does GoodWe overcome the challenges?

Fahad Ali: Major challenges remain the political and economic instability in Pakistan. Last year, LCs did not open, which created problems in importing goods. Since the stock was not arriving in Pakistan, it caused a break in the solar industry. It hurt many big players in the industry. The warranty claims and after-sale services were badly affected, which created trust issues between the industry and the customers. Now, we are back to normalcy as imports have resumed. With the establishment of new governments in Pakistan, the political environment will stabilize further and help the resumption of business activities to the optimum level.

EU: What is the clientage i.e. industrial, residential, etc?

Fahad Ali: We have a product range from 5kw to 350kw, which covers all categories including residential, commercial, industrial and utility clients. We also have a Hybrid range from 5kw to 2MW-3MW, which caters to industrial clientage. Our partners have installed a 2.5 MW system in Sukkur, 1.5 MW in Combined Military Hospital (CMH), and Army Public School (APS). There are other MW projects which are in the installation phase.

EU: What is the span of Return on Investment (ROI) and how long can they be useful?

Fahad Ali: GoodWe offers a five-year extendable to 25 years replacement warranty of inverters based on their category respectively. On-grid ROI on capital cost is regained in two years; the remaining time of its functioning capacity will be considered a benefit. Even if it runs for 10 years, it's a huge incentive. For warranty, we have an online portal to check which gives transparency to the clients.

EU: What is the status of net metering and its rate?

Fahad Ali: The ongrid system (without batteries) is installed on net metering. Although the government is currently supporting net metering, it will not likely appreciate net metering in the future because it does not have a very strong infrastructure/grid, which can enable the government to buy back. If the government currently buys at Rs 12 / unit, it may reduce it to half in the future.

Since the grid/infrastructure does not support the increasing load through net metering, the demand for hybrid will increase in the future. The ongrid system also stops due to load-shedding. The hybrid provides stability, therefore, more and more people are shifting towards hybrid system.

EU: What steps do you take to keep your team motivated and aligned with the company's goals, values and CSR Initiatives?

Fahad Ali: GoodWe fulfills its Corporate Social Responsibility (CSR). It donated an inverter to an underprivileged school in Islamabad. The CSR activities also help in the positive branding and marketing of our products. We feel honored when we take part in these activities.

As we have collaborated with ETRC to train more than 200 engineers, it helps provide an employment to the people with massive opportunities for growth. On the macro level, there are more than 1,000 solar companies and numerous vendors operating in Pakistan. The saturation has already occurred while the solar energy sector has the potential to provide extensive employment to the people. ■

Protecting consumer rights in Pakistan

Urgent mechanism needed to properly regulate solar energy businesses

11 per cent of Pakistan's population doesn't have access to proper grid-supplied electricity; country needs rapid progress towards exploiting its vast untapped solar and wind energy potential for sustainable development

Muhammad Naeem Qureshi

The Writer is Managing Editor of Energy Update and Environment Activist

It is high time that a proper regulatory and control regime be adopted in Pakistan on a nationwide basis to regulate all the affairs related to the import, trade, and installation of solar energy equipment having ever-increasing demand in the country.

Without such a regulatory system in place, the protection of the legitimate rights of consumers of renewable energy products in Pakistan couldn't be ensured.

The adoption of such a regulatory mechanism has become more important when the vast majority of the consumers of solar power equipment belong to underprivileged rural areas that lack proper education and understanding of the affairs related to marketing, sale and purchase of clean energy products.

The state and its relevant authorities should play their due roles in regulating the entire solar energy market for sustainable and long-term growth of the renewable power sector in Pakistan. This has also been an repeated demand by the bona fide, sincere, and genuine importers, traders, and investors associated with the solar energy market in Pakistan.

The Pakistan Solar Association and other concerned bodies of traders dealing in renewable energy equipment have also been consistently sending such proposals to the relevant government authorities but to no avail. They are of the firm view that a proper regulatory mechanism would guarantee the long-term sustainability of their businesses and discourage dishonest and unscrupulous elements who join the renewable energy market just to fleece unsuspecting consumers.

A properly regulated market regime matches the requirements and aspirations of genuine and committed investors and businesses in the renewable energy market.

Proper nationwide quality standards should be enforced for solar power equipment and systems through strict certification and inspection regimes. The government should implement import regulations to ensure solar products meet the same quality standards. National-level mass awareness campaigns should also be launched to educate consumers on the importance of buying solar power products.

The government should launch systems to provide due relief to customers who are hoodwinked into buying substandard and defective solar systems by dishonest traders. The government should encourage local manufacturing of solar power equipment in the country to save foreign exchange; otherwise constant spending on the import of clean energy products will continue and affect economic growth.

Special vocational training programmes should be launched to produce a properly skilled and qualified workforce for the Pakistani clean energy sector.

Without any doubt, Pakistan should make rapid progress towards exploiting its vast untapped solar and wind energy potential for sustainable development and achieving self-reliance in the energy sector.

As per the latest surveys in the energy sector, at least 11 per cent population in Pakistan doesn't have access to proper grid-supplied electricity. A vast majority of Pakistani people live in remote villages without grid connectivity for electricity as they constitute an ideal market for off-grid solar power systems.

As per the statistics gathered by the International Renewable Energy Agency, the size of Pakistan's solar energy market is likely to grow from 1.3 GW in 2023 to 9.77 GW by 2028. The solar power installations have seen remarkable growth, with an installed capacity of over 2,3688 MW as of the financial year 2022.

The federal and provincial governments have been involved in several successful solar energy initiatives across the country. In the

last couple of years, Pakistan has witnessed successful implementation and growth of solar power projects. Special incentives were offered by the government for the trouble-free import of the latest solar industry equipment, products, and technologies.

The importers fully took advantage of these incentives to ensure speedy import of solar power equipment. An exception to this situation was the time in the recent past when due to serious economic turmoil, the government restricted unnecessary imports to conserve the precious foreign exchange dwindling fast.

The ongoing advancements in solar technologies, coupled with research and development initiatives, contribute to the efficiency and affordability of solar energy solutions in Pakistan.

The adoption of solar power also aligns with the global efforts to combat climate change, reduce carbon emissions, and mitigate the environmental impacts associated with conventional energy sources.

Pakistan should speed up its drive to exploit its massive solar energy potential to reduce carbon emissions and contribute to cleaner air, and a healthier ecosystem.

The same drive should continue to overcome the shortfall of electricity in the country and reduce inflated electricity bills. The tapping of solar power potential is also necessary to ensure that the maximum part of the population in remote and off-grid areas has access to electricity. The tapping of solar power potential will also bridge energy disparities and promote inclusive development across the country.

Meanwhile, the prospective customers of solar energy systems should pose the following questions to the installers or vendors they have selected to safeguard their rights:

1. How long have you been in business?
2. What are your company's certifications?
3. What are the rules about solar sector in my province?
4. What solar incentives are available in my area?
5. What type of equipment do you use?
6. How many panels will my roof take and what will be the generation in KWhr?
7. Is your company going to perform the installation or will it outsource the installation?
8. What's your timeline for installation?
9. What kinds of maintenance packages or warranties are available?
10. Are there fees associated with financing my system, and who's providing the financing?
11. What is the cost of my solar system per watt?
12. How much is consumption; is my solar energy going to offset?
13. What are the lifetime savings based on?
14. Is the power generation estimate guaranteed?
15. How do I sell solar energy credits back to the grid?

ENERGY NEWS

Govt sets timelines for energy projects

EU Report

The government has outlined strict timelines for its Petroleum and Power Divisions to expedite various energy projects, including the immediate formation of an inter-provincial committee to oversee the Iran-Pakistan Pipeline Project, according to an official document. Prime Minister Shehbaz Sharif has directed the Petroleum Division to conduct an in-depth study and propose exploration activities for the offshore basin within three months. The division is also tasked with hiring a consultant within two months to assist in offshore gas exploration deals. In a move to address the persistent issue of circular debt, the Petroleum and Power Divisions are to jointly devise a plan and establish a Project Monitoring Unit (PMU) for effective monitoring within two weeks. Additionally, they have mandated for the arrangement of a signing ceremony for Refinery Upgrade Agreements under the Brownfield Refinery Policy in the same timeframe. To promote solar energy, the Power Division has been given one month to resolve net metering issues. The government has also called for a report on the status of Energy Conservation Standards for home appliances within three days.

Land secured for 600 MW solar plant

EU Report

Pakistan's National Transmission and Dispatch Company Limited (NTDC) has secured 2553 acres of land in Muzaffargarh district to establish a 600 MW solar power project. This initiative, facilitated by the Special Investment Facilitation Council (SIFC), marks a pivotal moment for domestic and foreign investors eagerly awaiting investment opportunities in the renewable energy sector. The decision, backed by the Government of Pakistan, underscores a strategic shift away from costly fuel-based power generation methods. With the impending construction of the solar project, Pakistan aims to reduce its reliance on traditional energy sources while embracing sustainable alternatives. Moreover, NTDC is actively pursuing land acquisition for two additional solar power ventures, with plans for projects in Layyah district (1200 MW) and Jhang district (600 MW). These projects are set to inject a combined 2400 MW of solar power into the national grid, effectively addressing the escalating energy demands of the country.

UNESCO Water Report 2024

Pakistan faces extremely high water stress

Human–leopard conflicts on the rise in the country's Ayubia National Park; worldwide, none of the Sustainable Development Goal 6 targets appear to be on track; energy production accounts for 10-15% of global water withdrawals; Freshwater use has been growing by just under 1% per year

Mansoor Khuhro

Pakistan faces extremely high water stress, and in its Ayubia National Park, human–leopard conflicts were seen on the increase, partly due to water cycle changes driving this critically endangered species closer to local communities, according to UNESCO World Water Assessment 2024.

As per the report, an integrated human–wildlife conflict management plan gained the trust of local communities and paved the way for strong community engagement in various conservation initiatives, where leopards are now seen in a more positive light.

Retaliatory killings of leopards have dropped by 50%, and human fatalities have dropped to zero (Gross et al., 2021). Communities are now able to more actively engage in watershed management and protection, which deliver improved water security, while at the same time diversifying their livelihoods through wildlife-based ecotourism. Opportunities exist to facilitate peace by harnessing the positive role envir

Currently, extremely high-water stress is experienced in Pakistan, India, Iran, and Turkmenistan. Worldwide, freshwater use has been growing by just under 1% per year, driven by a combination of socio-economic development and related changes in consumption patterns, including diet. While agriculture accounts for roughly 70% of freshwater withdrawals, industrial (≈20%) and domestic (≈10%) uses are the main drivers of increasing water demand.

As economies industrialize, populations urbanize and water supply and sanitation systems expand. The effects of population growth are not as prominent, as the places with the fastest-growing populations are often those where per capita water use is the lowest. Roughly half of the world's population currently experiences severe water scarcity for at least part of the year.

One quarter of the world's population face 'extremely high' levels of water stress, using over 80% of their annual renewable freshwater supply. In lower-income countries, poor ambient water quality is mainly due to low levels of wastewater treatment, whereas in higher-income countries, runoff from agriculture poses the most serious problem. Unfortunately, water quality data remain

sparse worldwide.

This is especially true in many of the least developed countries in Asia and Africa, where monitoring and reporting capacity is lowest. Emerging contaminants of concern include per- and poly-fluoroalkyl substances (PFAS), pharmaceuticals, hormones, industrial chemicals, detergents, cyanotoxins and nanomaterials.

High concentrations of antimicrobials, originating from insufficiently treated domestic wastewater, livestock farming and aquaculture, have been found across all regions. Record rainfall extremes have been increasing worldwide, as have the frequency, duration and intensity of meteorological drought. Climate change is projected to intensify the global water cycle, and to further increase the frequency and severity of droughts and floods. Some of the most severe impacts will be felt in the least developed countries, as well as on small islands and in the Arctic.

None of the Sustainable Development Goal (SDG) 6 targets appear to be on track. As of 2022, 2.2 billion people were without access to safely managed drinking water. Four out of five people lacking at least basic drinking water services lived in rural areas.

The situation with respect to safely managed sanitation remains dire, with 3.5 billion people lacking access to such services. Cities and municipalities have been unable to keep up with the accelerating growth of their urban populations. Deficiencies in monitoring and reporting have made it extremely challenging to generate a thorough analysis of most other SDG 6 target indicators.

Prosperity encompasses the opportunity and liberty to safely thrive. Water nurtures prosperity by meeting basic human needs, supporting health and livelihoods and economic development, underpinning food and energy security, and defending environmental integrity.Fully developed water resource infrastructure management systems promote growth and prosperity by storing a reliable water supply and delivering it to economic sectors, including agriculture, energy, industry, and the relevant business and service sectors that support billions of livelihoods. Similarly, safe, accessible and well-functioning water supply and sanitation systems foster prosperity through quality of life, with individual and community dividends reflected in education and a healthy workforce.

Cooperation over water resources has generated positive and peaceful outcomes, ranging from participatory, community-led initiatives that have relieved local tensions, to dispute settlement and peacebuilding in post-conflict settings and transboundary watersheds. Conversely, inequalities in the allocation of water resources, in access to water supply and sanitation services, and in the distribution of social, economic and environmental benefits can be counterproductive to peace and social stability.The impacts of climate change, geopolitical unrest, pandemics, mass migration, hyperinflation and other crises can exacerbate water access inequalities.

In nearly all cases, the poorest and most vulnerable groups are those that suffer the greatest risks to their well-being and livelihoods.Water does not appear to have become a prevalent 'trigger' of conflict. However, attacks targeting civilian water infrastructure, including treatment plants, distribution systems and dams violate international law and must be severely condemned by the international community in all cases.Water-related indicators for prosperity and peaceThere is no clear relationship between a country's per capita gross domestic product (GDP) and its water availability.

This is partly because water influences the economy in many ways, and global trade dynamics and market adaptations can have direct repercussions on the water use of regional and local economies.While there currently exist no direct metrics to clearly describe the relationship between water availability and prosperity, proxy indicators provide some relevant insights.

In low- and lower-middle-income countries, an estimated 70–80% of jobs are water-dependent, as agriculture and water-intensive industries – the mainstays of employment across these economies – rely heavily on water. Worldwide, the benefit–cost ratio of investments in water, sanitation and hygiene (WASH) services has been shown to provide significant positive returns, notably through co-benefits such as health, education and employment, not to mention basic human dignity.There is no global repository of data and/or empirical information directly concerning the relationship between water and peace, most likely because the latter is difficult to define, especially when taking account of contributing factors such as equality and justice.

Agriculture is a key socio-economic driver of sustainable growth, livelihoods and labour. Broad-based rural development and the wide sharing of its benefits are effective means of reducing poverty and food insecurity. Agricultural production is vulnerable to climate-related water risks. In many semi-arid countries, dependence on rainfed agriculture and lack of access to agricultural water for millions of smallholder farmers reduces their production potential.

Irrigation stabilizes production, generating direct benefits (increased profitability and reduced risk of crop failure), as well as indirect benefits (employment, and balanced conditions of food and supply markets). In Sub-Saharan Africa, water is generally available for rural farmers, but capital investment is needed to expand small-scale irrigation. There is a need for smallholder, people-centred investment as well as large infrastructure-related investments.

However, investment opportunities for most of the world's small-scale farmers are rarely available. To achieve sustainable water management and food security, states need to focus on responsible governance of water tenure, so that all legitimate water users (including smallholders, women and girls, and indigenous peoples and local communities) have secure and adequate access to water resources, bearing in mind that in rural areas, many people depend on customary tenure arrangements.Human settlements (WASH, disaster risk reduction and migration) Authorities have not given sufficient priority to equity and non-discrimination in access to WASH services, particularly between formal and informal settlements, rural and urban areas, highest and lowest wealth quintiles, and among marginalized groups.

The collaborative management of WASH services and water resources can become a peacebuilding asset, provided it is equipped and supported to perform that role. Numerous challenges undermine the provision of WASH services in conflict situations, due to the breakdown of essential infrastructure, displacement of populations, insecurity and limited access to resources.

Damage to water infrastructure increases the amount of time women and girls/children – primary collectors of water – are exposed to the threat of violence, and reduces the time they have available for education, work and leisure.As urban populations grow, people and property are increasingly concentrated in flood-prone areas.

Informal settlements also face particularly difficult challenges in the aftermath of flood events, including loss of income, damage to infrastructure, and limited access to essential services such as healthcare and safe water. Disaster risk reduction policies and programmes can address the root causes of vulnerability and build resilience.

Internal disaster-related displacements outnumber conflict-related displacements. Water deficits can be linked to 10% of the increase in migration worldwide. Displacement can increase the burden on local water systems and resources, resulting in tensions between migrant and host communities. Cooperation and joint management of these systems promote peaceful co-existence in and around settlement locations.IndustryIndustry has the capacity – material, human and financial –to shape and increase economic prosperity, while simultaneously influencing and improving social well-being and environmental integrity. Water strengthens industry but does not necessarily generate GDP – some industries use little water but make a significant contribution to GDP and vice versa. However, problems with water quality and accessibility generate risks for industry, exposing it to supply chain disruptions, with direct repercussions on industrial (and economic) growth.

Energy production accounts for between 10 and 15% of global water withdrawals. Water is required in the extraction and conversion of coal, oil and gas (including fracking), and is extensively used for electricity generation, for hydropower and as cooling water for thermal and nuclear power stations.

Conversely, considerable amounts of energy are used to pump, treat and transport water and wastewater, including for irrigation and industry. Desalination is very energy-intensive, accounting for one quarter of the energy used in the water sector globally. Achieving universal coverage for both drinking water and electricity involves reducing energy's dependence on water and vice versa. In terms of electricity generation, the most water-efficient sources are wind and solar-photovoltaic (PV). Meeting SDG 7 will necessitate a substantial increase in the share of these renewable sources for electricity. Energy storage is required to compensate for the intermittent nature of wind and solar power.

While pumped storage hydropower can provide energy balancing, stability, storage capacity and ancillary grid services, lithium-ion batteries are the fastest-growing storage technology. However, both can generate negative impacts on water supplies, the environment and local populations.Some approaches and technologies aimed at mitigating greenhouse gas emissions require large amounts of water.

The water intensity for biofuels is orders of magnitude higher than for fossil fuels. Carbon capture and storage systems are both highly energy- and water-intensive.

EnvironmentEcosystems regulate the amount of water available across space and time, as well as its quality. Over-exploitation of provisioning ecosystem services (food, water, fibre and other raw materials) has impaired the capacity of ecosystems to regulate climate and water, among other benefits. Consequences are potentially disastrous and include disputes over environmental resources and the undermining of prosperity and peace.

Degradation and fragmentation of ecosystems have been linked to outbreaks of diseases, including COVID-19, Ebola, and waterborne vectors of diseases such as malaria. They also increase the likelihood of conflicts between humans and wildlife.Energy production accounts for between 10 and 15% of global water withdrawals

Equitablewater allocation encourages investment and benefit-sharing, and ultimately promotes social cohesion. However, the complexities of water management – the range of issues, actors and jurisdictions – extends beyond the basin and across sectors. A central role of water governance is addressing competition and resolving disputes over water, taking into account the policies that undermine the needs of the agricultural, energy, health and industrial sectors, as well as the informal sector in those cases where it plays a significant role (e.g. water vending).

All solutions to the water crisis will require financing, including significant international support for the developing world. Ensuring adequate water and sanitation services for communities and businesses requires making better use of existing sources of finance and mobilizing new ones. Mobilizing finance can be undermined by weak governance structures and/or low prioritization of water in policy and investment planning. Investing across several resource management and service delivery projects, rather than individually, offers several advantages, including a more comprehensive understanding of shared benefits.

The use of public funds across other sectors can have negative implications for water resource management, for example where poorly designed subsidy schemes create perverse incentives that erode water availability and quality, with wider implications on ecosystem services and local communities.

Shared water can be an important source of cooperation, and shared investments lead to shared benefits. Transboundary river basin organizations can act as connectors and active peacemakers by strengthening regional integration, facilitating inclusive dialogue and promoting participatory decision-making. While cooperation over shared surface water appears to be gaining momentum, groundwater resources remain grossly neglected, with only a handful of aquifer-specific transboundary agreements. ■

What countries offer best, worst living standards?

Pakistan becomes one of the only two South Asian countries in low human development category in UN Human Development Index

Aimen Siddiqui

Pakistan continues to perform dismally on the development front, becoming one of the only two South Asian countries in the low human development category in the Human Development Index (HDI) published by the UN. This is highlighted in a report by The Economist, titled 'Which countries have the best, and worst, living standards?', which looks at the living standards provided by various countries.

The HDI, originally released by the UNDP, ranks Pakistan in the 164th position on a list of 193 countries, with a score of 0.54 (1 being the most developed). Life expectancy at birth in the country is 66.4 years; expected and mean years of schooling are 7.9 and 4.4 years respectively. The average HDI score in South Asia is 0.641. Iran and Sri Lanka have the highest score (0.780) in South Asia and the 78th rank, and Afghanistan has the lowest (0.462).

According to The Economist, the tumultuous start of the 2020s created a downward shift in the human development path across the world with the weakest and poorest countries being left behind.

The report suggests that the impact of "unprecedented" events like a global pandemic, a war in Europe, and extreme weather incidents has now become visible. The toll these events have had on global standards of living is now apparent – as seen in the UN's HDI, which measures a country's development "in terms of societal outcomes, including life expectancy at birth, expected and average years of schooling and gross national income per person".

Switzerland tops the chart with a 0.967 score, enjoying the first spot. Norway and Iceland come second and third with scores of 0.966 and 0.959 respectively. Hong Kong is the only Asian country to be in the Top 5; it is in the fourth position with a score of 0.956; Denmark has a score of 0.952. The Top 10 slots are occupied by mostly European countries with one exception; Singapore is the other Asian country, enjoying the ninth position with a score of 0.949.

In 2020, the year of the pandemic, the HDI fell for the first time since its launch in 1990. It fell again in 2021. This year, the HDI has shown some improvements; the UN's Human Development Index was published last Wednesday (March 13). However, the report suggests that, while the HDI is rising, the progress so far has been inconsistent and uneven.

The Economist further highlights the setbacks that global development has faced over the years: a full-scale war in Europe and the subsequent price hikes and extreme weather events. The upward trajectory that the development was enjoying had a precipitous fall in 2020. And while the index has risen again and is all set to meet its pre-2019 trends, most countries have been left behind. The Economist says: "Countries such as Peru, Colombia, Libya and Lebanon have made little progress since 2019. Living standards in Ukraine and Russia have also dropped: the countries fell by 23 and four places respectively between 2021 and 2022. War-torn Yemen, poor and indebted Belize, and Micronesia, an island country at risk of being swallowed by rising sea levels, all peaked in 2010 and have declined every year since." It also highlights that while regional projections for the year 2023 show an increase in countries' scores, the Arab world will not have returned to its pre-2019 scores.

The publication adds: "Across the OECD, a club of rich countries, HDI values have recovered to or surpassed pre-pandemic levels. But that is true for less than half of the world's least-developed countries. For 20 years the gap between countries with the highest and lowest HDI values had narrowed (except for a brief period around the financial crash of 2007-09). But since 2020 it has widened."

In a post on X (formerly Twitter) on March 13, UN High Commissioner for Human Rights Volker Turk said that "[The UNDP] report makes clear: polarisation, inequalities and distrust are keeping us on the brink of disaster. We can do better. We must break the geopolitical gridlock and act for our shared future. We need a new social contract, built on dialogue, empathy, cooperation and rights for all."

The Economist in its report also calls for collective action to tackle the prevailing challenges. It makes the case for collective efforts by saying: "The chaos of the 2020s has also shown that governments can collaborate on some big issues. During the pandemic, vaccines were developed, produced and distributed at remarkable speed, saving an estimated 20 million lives in their first year alone. At COP28 last year the world proved that it could agree on a deal to tackle climate change (even if fulfilling it is another matter). More of that will be needed to overcome the setbacks from the start of the decade." ■

Summit discusses rapid energy sector growth

Group Photo of speakers and participants with FIB and Lockton Team Include Dr Jason Shirley, Hassan Rehman Muhammadi, Zainab Khatib and others.

Mustafa Tahir

The Writer is Deputy Editor of Energy Update

Speakers at the Energy Summit 24 highlighted the risks associated with the energy sector, the challenges confronting insurers amidst a myriad of energy and power-related risks, and the dynamic landscape of Pakistan's evolving energy sector.

With the focus on 'Fostering Growth, Collaboration, and Resilience in Pakistan's Energy Mix', the event was organised by Fidelity Insurance Brokers and LockTon at a hotel. The conference allowed local insurers and energy sector professionals to connect.

In his opening remarks, Hassan Rehman Muhammadi, director of Fidelity Insurance Brokers, said this was just the beginning of something that we would be doing annually.

"So the problem that we face here is the perception. You know people sitting outside don't realize how beautiful this country is unless they come to see it for themselves. So we should try and be good ambassadors and good hosts of Pakistan so that we can encourage more and more people to come here," he remarked.

Dr Jason Shirley, a risk engineer and General Manager, at ECP Energy & Chemical Professionals, gave a detailed presentation on new risk management trends for downstream energy. He talked about his job as a risk engineer, visiting energy installations to ultimately formulate an opinion on risks associated with them. He said these can be broken down into hardware, management systems, location, and ultimately paint a picture and an impression of your facility.

"So risk engineering is a lot about data gathering, asking lots of questions and looking at the hardware of the facility. It's about reviewing a lot of the documentation for the benefit, for the assessment of the risk quality of your facilities," he explained.

Zainab Khatib, vice president of Cyber Practice at the Lockton MENA, delivered a keynote speech on finding clarity in cyber risk. She stressed the need for an energy transition, one that "sees significantly reduced use of fossil fuels and a movement into these alternative greener sources in line with their global environmental, societal, and government's introduced targets."

"Cyber resilience and managing these associated risks must be embraced in that energy growth and transition paradigm to ensure that this more expansive future can be achieved and maintained," she emphasised.

Sharing cyber statistics for 2023, Ms Khatib said 60 per cent of operational tech-


Dr Jason Shirley


Hassan Rehman Muhammadi


Ata Khatib

Zainab Khatib

Phil Pavey

Ruhail Muhammad

nology or industrial control system incidents resulted in operational disruptions with the average cost of a cyber breach in the energy sector increasing to $ 4.78 million. She shared that 56pc of energy and utility industry respondents say their organisation's priority is building technological resilience now, showing a shift from defending to building the agility to respond to incidents.

Phil Pavey, senior underwriter at GCube Insurance Services Inc., talked at length about the future of renewable energy, especially solar, and its impact on the market. He said there has been a lot of focus on renewable energy to cut CO2 emissions and slow down climate change. But it's climate change that was impacting the insurance sector, he added.

"This impact extends to claims and losses in the market, which in turn affects our balance sheets. It also has ramifications for lenders and all other stakeholders involved in the business. Consequently, insurers are altering their approach to renewable energy due to these developments," Mr Pavey maintained.

In his keynote speech, Ruhail Mohammad, CEO of the Lucky Electric Power Company Ltd, gave an overview of Pakistan's power sector. He said Pakistan's power sector has a diverse mix of sources, including thermal (natural gas, oil and coal), hydropower, nuclear, and renewable energy (solar and wind). As of FY23, Pakistan has a total dependable generation capacity of 43,749 MW. However, in non-summer months the capacity drops down to around 34,000MW.

He highlighted that demand reduction was one of the biggest issues affecting Pakistan's power sector.

Ruhail explained that Pakistan's power sector challenges included the increasing cost of electricity, inefficiencies in the generation, transformation, distribution and supply segment, fuel supply issues, transmission constraints, under-utilization of efficient plants, growing circular debt, and governance.

Keynote speaker Pavel Chernoverkhskiy, chief underwriting officer at Zurich Insurance Company Ltd, discussed climate change from the insurance standpoint. He said, on the one hand, there seemed to be a consensus within the scientific community mostly that human economic activity and again specifically the energy segment was responsible for climate trends and specifically global warming.

However, on the other hand, he added there are still dissenting voices arguing that the issue of climate change is exaggerated as some claim that policymakers, especially governments, are overreacting in their responses to climate change, particularly regarding the nega-

Pavel Chernoverkhskiy

tive impact of fossil fuels within the energy mix.

The panellists included Kumayl Khaleeli, CEO of Zephyr Power Limited, Muhammad Saqib, CFO of Hub Power Company Limited, Ubaid Amanullah, Director and COO, of Gul Ahmed Energy Ltd, and Muhammad Anas Farook, Chief Financial Officer, of Oil and Gas Development Co, Ltd.

Khurram Ali Khan, CEO of Fidelity Insurance Brokers, later moderated a session titled 'Empowering Resilience: Reinsuring Energy Risks in a Dynamic World'.

Panel Discussion on Empowering Resilience: Reinsuring Energy Risks in a Dynamic World

PSA CHIEF FARHAN ADVOCATES SOLAR EXPANSION AMID POLICY CHALLENGES

CEO Power Highway/Solar Max **Muhammad Farhan** says PSA has decided to act as a liaison between clean energy companies and universities

Mohammad Naeem Qureshi

The Writer is Managing Editor of Energy Update and Environment Activist

The Pakistan Solar Association (PSA) has decided to act as a liaison between clean energy companies and universities for offering internship programs to fresh university graduates in Pakistan's solar power industry.

This was stated by Muhammad Farhan, former PSA chairman, and a founding member of the association, who is also CEO of Power Highway and Solar Max, in an exclusive interview with the Energy Update. In the interview, he talked at length about the current status and prospects of the growth of the Pakistani solar industry. Following are the important excerpts from his interview for our readers.

Energy Update: What is the current status of the Pakistani solar industry?

Muhammad Farhan: The consumption of solar power has been on the rise in Pakistan. There has been an increase in renewable energy companies and the import of solar power equipment in Pakistan. The people in Pakistan have fully understood the advantages of solar power. They should only be briefed about the right companies and right equipment they should choose along with the right set of precautions they should observe for the installation of solar power systems. Proper standards should be followed for the installation and maintenance of the solar systems. There has been constant improvement and innovation in solar systems with the introduction of new technologies. Earlier, a solar panel of 150 to 200 Watts was available in the market but now a single panel could produce over 600 Whatt power. There has been a constant improvement in the efficiency of solar power systems due to innovation.

EU: How fast is the expansion of solar systems in Pakistan?

Mr Farhan: Solar power systems having a combined generation capacity of 1.5 to 2 GW were imported into the country in just last one-and-half years. There has been an increase in the installation of on-grid solar systems through net metering mechanisms. Likewise, there has been a massive installation of off-grid solar systems mainly in faraway rural areas to run farming appliances like tube wells. Earlier, any conventional fuel source was being used to operate these appliances like tractors and diesel.

EU: What were the aims and objectives of the PSA and its future plans?

Mr Farhan: The PSA came into being in the year 2014-15 after the imposition of duties and taxes on solar power equipment by the government. These duties and taxes were withdrawn by the government after we took up this issue and protested. The PSA for the last 10 years has been engaged in the protection and promotion of the solar energy industry in Pakistan. We give proposals to the government on issues related to the solar power industry like the import tariff, taxes, and duties. The PSA stands for the import of top quality solar equipment and preventing the trade of substandard clean energy products in Pakistan. To achieve this cause, the PSA holds consultations with the relevant government agencies including the Alternative Energy Development Board, Private Power Infrastructure Board, and Engineering Development Board. We launch initiatives for the promotion of the solar industry in partnership with these agencies. We also organise mass awareness seminars. In the coming few years, the PSA is going to host exhibitions to showcase the latest solar power equipment and technologies. On our websites, we will display the names of bona fide clean energy companies registered with the PSA whose services could be used as importers, EPC contractors, and certified installers of solar power equipment in the country. The PSA will also act as a liaison between clean energy companies and universities for offering internship programmes to fresh university graduates in the solar power industry in Pakistan.

EU: How many solar companies in Pakistan are members of the PSA?

Mr Farhan: The PSA comprises 570 member companies. Just in the last three months, some 125 companies obtained our membership. There has been a constant increase in the number of clean energy companies in Pakistan so accordingly the requirement of technical human resources required by the solar power sector has been increasing. According to my estimate, the jobs of some 500,000 people in Pakistan are directly or indirectly dependent upon the solar energy sector.

EU: What are the prospects for local production of solar energy equipment in Pakistan?

Mr Farhan: The Engineering Development Board has recently convened a meeting on this issue with all the concerned stakeholders from the industry. The main issue creating hindrances to local manufacturing of solar power products is the lack of a feasible policy. The government should announce a favourable tariff for the import of components required for the indigenous assembling of solar products in Pakistan. The policies and tariffs should fully support the prospective investors and businessmen willing to set up small assembling plants. The government should announce a subsidy or tax and duty concessions to encourage and promote local manufacturing of solar equipment. A businessman who invests one or two million dollars to set up a manufacturing unit shouldn't face any hindrance to importing raw materials due to the financial constraints of the country. Otherwise, such an investor wouldn't have the resources to pay salaries to 50 to 100 skilled labourers whom he hired after properly training them.

EU: Is there any chance that any Chinese company could invest in Pakistan to build a solar production plant?

Mr Farhan: Unfortunately, no Chinese company in the clean energy sector is willing to set up a manufacturing plant in Pakistan due to a lack of favourable policies. They are more interested in setting up manufacturing facilities in regional countries like Vietnam and Malaysia where government laws and policies have been favourable. The Chinese investors have preferred other regional countries for setting up plants despite labour costs in those countries have been higher as compared to Pakistan.

EU: What is your stance about prospective foreign clean energy companies willing to launch businesses in Pakistan?

Mr Farhan: We will conduct public awareness drives in the country in this regard. We fully welcome the bona fide and well-reputed foreign renewable energy companies willing to introduce and market their products in Pakistan. The companies desirous to export their solar products to Pakistan should be properly registered in the country as agencies like AEDB should play their due role in this regard.

EU: What is your viewpoint regarding reports taking rounds that an order was issued for revocation of the PSA's license?

Mr Farhan: No order has been issued by the Director-General of Trade Organisations (DGTO) or any other authority to suspend its activities or cease its operations.

The directives in question issued by the DGTO weren't based on merit as the authority had merely sent its recommendations to the federal government.

The PSA worked in compliance with the Trade Organisation Act-2013 and Trade Organisation Rules-2013

The PSA had duly submitted its records summoned by the DGTO.

The DGTO had issued the order in question without allowing the concerned members and lawyers of the PSA to present their case. The DGTO issued the order in question based on a baseless complaint filed by certain people who were not even members of the PSA. These complaints were submitted as a counter-move after the PSA objected to the registration of another association related to the clean energy sector.

The PSA's point of view was that there is no need to register a new body to represent the solar power industry when it has already been working as the duly registered association for the same purpose. The PSA wouldn't have objected if the new body had represented any other sector of clean energy other than solar power. However, the sponsor of the new organisation also belongs to the solar industry as he doesn't do any other business related to the alternative energy sector.

The order in question of the DGTO lacks finality as the association is also filing an appeal to the federal government for a review. The appeal process would suspend the DGTO's order. ■

Lessons from Egypt's IMF deal

Dr Abid Qaiyum Suleri

The writer heads the Sustainable Development Policy Institute

Like many nations burdened by debt, Egypt once again found itself navigating a storm of economic challenges, a scenario all too familiar to Pakistan.

With an external debt-to-GDP ratio breaching the 42 per cent mark as of September 2023 and short-term liabilities teetering close to $40 billion against a backdrop of dwindling foreign reserves pegged at $35 billion, the macroeconomic quandary was palpable, and the inflation last August had crossed 40 per cent.

External shocks – notably, the unfortunate situation in the Middle East and the Red Sea's vicissitudes – further muddied the waters, jeopardizing critical foreign exchange lifelines such as tourism and Suez Canal revenues. In 2022-23, against the odds, the tourism sector did not do that badly, with earnings clocking in at a commendable $13.6 billion. Nonetheless, the looming spectre of inflation was rekindled by the Red Sea tumult and a stark nosedive in Suez Canal receipts, which halved in January 2024 compared to the year prior, heralding potential trade disruptions and shortages.

In a bid to staunch the economic haemorrhage, Egypt, the second largest debtor of the International Monetary Fund (IMF) after Argentina, once again courted the IMF for succour, culminating in a strategic entente last week. This pact, a lifeline intended to shore up Egypt's faltering economy, was predicated on ensuring debt sustainability, recalibrating price stability, and spurring private sector-led growth through a gamut of structural reforms.

The key terms and conditions agreed between the IMF and Egypt include shifting to a flexible exchange rate system; monetary and fiscal policy tightening, including containing off-budget capital expenditure and recalibration of infrastructure expenditures; targeted budget support for vulnerable households through an expansion in coverage of the Takaful and Karama cash transfer programmes; and balancing public and private sector roles through reducing the state footprint and strengthening the ability of the private sector to better contribute to economic growth.

Building upon a previous $3 billion Extended Fund Facility (EFF) from December 2022, this accord burgeoned into an $8 billion lifeline, including a $1.2 billion tranche earmarked for environmental sustainability endeavours. It's important to note that under the prior arrangement, Egypt struggled with implementing a market-based exchange rate, divesting state assets, and curtailing the military's economic footprint, leading to a delay in the first review of the 2022 EFF initially slated for March 2023.

Parallel to this IMF pact, Egypt clinched a land agreement with the UAE sovereign fund ADQ, a move criticized by the opposition, but it did channel critical liquidity into the domestic economy. The $35 billion pact, inked on February 23 for the Ras al-Hikma coastal development, not only encompassed a $24 billion land acquisition but also the strategic reallocation of $11 billion from the UAE's pre-existing Central Bank deposits in Egypt. This monumental investment is poised to catalyze an additional $150 billion in investments, envisaging Ras al-Hikma's metamorphosis into a vibrant economic nexus, thereby bolstering employment and propelling growth, with Egypt maintaining a 35 per cent stake in the venture.

The currency flotation that ensued saw the Egyptian pound depreciate to 50 per dollar from a previous rate of 30, marking the fifth devaluation since April 2022; the black-market rate ominously surged to 70. The Central Bank of Egypt also increased its overnight lending rate by 600 points to 28.25 per cent.

This financial recalibration and the UAE's capital injection have kindled a spectrum of reactions within Egypt. While the government heralds these developments as a panacea for the prevailing macro-economic malaise, dissent brews among civil society, underscored by vociferous opposition from social movements, NGOs, and legal circles, criticizing President Sisi for selling off Egypt's pristine beaches and apprehensive of the austerity's bite and its ramifications on the vulnerable.

Despite the criticism, the initial tranche of the Emirati investment pegged at $10 billion and expected to be completed within the next two months, is anticipated to mitigate the adverse impacts of the devaluation, thereby alleviating banking constraints and easing the remittance flows.

The economic sagas of Egypt and Pakistan, particularly their frequent engagement with the IMF (Pakistan is the fourth largest borrower of the IMF), mirror each other's struggles with the cyclical nature of the crisis, intervention, and temporary reprieve. This pattern highlights a critical challenge: the difficulty of sustaining reform momentum post-IMF intervention, a challenge compounded by a lack of political ownership and a tendency to revert to short-term political expediencies at the expense of long-term economic stability.

Both nations also grapple with the ramifications of external shocks, such as global commodity price fluctuations or geopolitical tensions, which can derail economic progress and magnify existing vulnerabilities. Both have also struggled with structural issues, including governance challenges and the need for deeper institutional reforms, which can impede the long-term success of IMF-supported programmes.

Egypt's case, particularly its recent IMF deal and the consequential sale of a significant stake in Ras al Hikma, exemplifies the high stakes and complex decisions countries face in the throes of economic distress. For Pakistan, Egypt's experience is not merely a distant tale but a mirror that reflects on its economic challenges and the potential strategies for recovery.

Two crucial lessons emerge from Egypt's experience. First, the international community's willingness to assist is often tinged with geopolitical considerations. The IMF, which had suspended its 2022 program with Egypt due to a lack of progress, willingly increased the loan amount by nearly three times in 2024, thanks to its strategic importance. It is obvious that Egypt's potential role as an interlocutor between Hamas and Israel amidst the Gaza conflict catalysed a more favourable engagement from the IMF and international stakeholders.

This highlights the geopolitical dimension of economic bailouts, an aspect where Pakistan's situation diverges following the Nato withdrawal from Afghanistan, diminishing its leverage in international negotiations.

Second, the concept of economic sovereignty and the inherent costs of financial rescues become starkly apparent. Egypt's concession of Ras al Hikma underscores a stark reality: financial aid, especially from fraternal nations, often carries hidden costs, potentially demanding painful sacrifices of national assets. Pakistan's reliance on financial rollovers from allies like China, Saudi Arabia, and the UAE, while currently beneficial, might similarly necessitate unwelcome compromises in the future.

As Pakistan steers through these turbulent economic waters, the importance of comprehensive and sustainable reform becomes increasingly evident. The path forward entails a rigorous commitment to structural adjustments that transcend the immediacies of fiscal balancing acts. This encompasses a broad spectrum of reforms aimed at enlarging the tax base, enhancing revenue and improving its quality (more reliance on direct taxes), rationalizing public expenditures, and addressing the perennial challenges in the energy sector and state-owned enterprises.

The essence of this reformative journey lies in fortifying governance and institutional integrity, which are essential bedrock for fostering economic resilience and growth in the absence of geopolitical leverage.

With its blend of geopolitical manoeuvring and hard economic choices, Egypt's story offers Pakistan a valuable perspective on the complex interplay of international finance and national policymaking. As Pakistan forges its path toward economic recovery, the insights gleaned from Egypt's engagements with the IMF and its broader economic strategy highlight the critical need for a nuanced, multifaceted approach that balances immediate economic exigencies with long-term structural reforms. ■

APPOINTMENT NEWS

Naeem Qureshi appointed as Convener of FPCCI body on SDGs

EU Report

Naeem Qureshi, the President of the National Forum for Environment and Health, has been appointed as the new Convener of the CSR Central Standing Committee of the Federation of Pakistan Chambers of Commerce & Industry on Sustainable Development Goals (SDGs) for the year 2024-25.

FPCCI President, Atif Ikram Sheikh, appointed Qureshi as the Central Standing Committee convener keeping in view his years long services to promote greenery in urban areas, prevent deforestation, greater use of renewable energy sources, reduce harmful industrial emissions and urban waste, and building mass transit systems in cities to reduce vehicular emissions and congestions on roads.

The Central Standing Committee in question will comprise a minimum of nine members to be selected by the convener based on their experience in promoting the cause of SDGs in the country. The committee will meet at least once quarterly to discuss and finalise the agenda of SDGs for businesses and industries in Pakistan.

In his statement on the occasion, Qureshi expressed gratitude to the FPCCI President, United Business Group Chairman Zubair Tufail, and National Business Group Chairman Mian Zahid Hussain, for reposing fullest trust in him by appointing him as convener of one of the important standing committees of the FPCCI.

Qureshi said that as the Convener of the Standing Committee, he would take along all the relevant stakeholders from civil society, NGOs, non-profits, the economy, industry, and businesses, to further the agenda of conforming industrialisation and business activities to the SDGs.

He said the committee would act as a bridge between businesses, industry, and civil society to ensure that business and industrial activities lead to sustainable development in Pakistan.

Group Photo of Award Winners with Guest of Honors High Commissioner Srilanka in Pakistan Admiral Ravindra C Wijegunaratne, Speaker AJK Assembly Ch. Latif Akbar and Team NFEH.

16th Annual CSR Summit and Awards 2024 held

Mustafa Tahir

Giving back to the community is not an option but a solemn obligation for the corporate sector that after earning profit should spend on the uplift and welfare of the deprived sections in society.

This was stated by former prime minister, Shahid Khaqan Abbasi, while speaking as the chief guest at the inaugural session of the 16th Annual CSR Summit and Awards-2024 at Serena Hotel in Islamabad on March 6, 2024. Also on the occasion, 77 companies and organisations were given awards for their outstanding work and achievements in the CSR field in Pakistan in the last year.

Speaking on the occasion, the former PM said the education sector should be the main focus of the commercial organisations willing to invest in community development in Pakistan under their corporate social responsibility goals.

He said the companies under their CSR obligations should invest to spread education, improve the quality of education, and build education systems in the country as their top priorities.

"The companies under their CSR drives could do a lot to improve the education sector in Pakistan while keeping in mind the latest technological innovations being adopted globally including artificial intelligence," he said.

Abbasi lamented that the capacity of the public sector organisations had been phenomenally squeezed to practice CSR due to the bad shape of the national economy and related issues like the circular debt. He said the management and board of directors of the companies should exercise autonomy to identify the priority areas of community development under their CSR obligations.

Speaking as the guest of honour, the High Commissioner of Sri Lanka in Pakistan, Admiral Ravindra C Wijegunaratne, said the deserving Pakistanis becoming the top beneficiaries of his country's global welfare initiative of eye cornea donation after death stood as a testament to exemplary friendship ties between the two nations.

He said that out of 88,000 eye cornea

Group Photo of Sponsors and Speakers with Chief Guest of Inaugural Session Former Prime Minister Shahid Khaqan Abbasi.

donated by people of Sri Lanka, some 35,000 were used to benefit Pakistani people having impaired vision showing the strong bond between the two countries.

Speaking as the other guest of honour, Ambassador of Denmark to Pakistan, Jakob Linulf, shared with the audience the Danish success story of effectively tapping renewable energy sources in the country to decrease its reliance on fossil fuels for power production.

He informed the audience that Danish companies took with them the same vision of protecting the environment and fighting the issue of climate change when they went overseas to do business.

He said the Danish companies stood for protecting the health of employees and their families in the best possible manner in pursuance of their CSR principles.

The Danish Ambassador said the companies from Denmark also did their best to promote the cause of women's empowerment as they were equal opportunity employers no matter where they operate in the world.

He urged the award-winning companies to continue with their exemplary philanthropic work in the education, health, environment, climate change, women empowerment, community uplift, and poverty alleviation areas for the progress of Pakistan.

Speaker of Azad, Jammu & Kashmir Legislative Assembly, Chaudhry Latif Akbar, said the CSR initiatives by the corporate sector could go a long way in promoting the causes of community uplift, poverty alleviation,

Group Photo of Panelist with Team NFEH

environmental protection, and slowing down the phenomenon of climate change to serve the needy people in Azad Kashmir.

He said the CSR initiatives should address the issues of deforestation, environmental damage, and climate change that have threatened the survival and livelihoods of vulnerable communities in the hilly north of Pakistan.

MNA, Nafisa Shah, called for adopting a legal framework to formalise CSR initiatives in Pakistan. She assured the audience that the relevant standing committees of the new house of the National Assembly would hold formal hearings to encourage and promote CSR work in Pakistan.

NFEH President, Naeem Qureshi, said the CSR summit organised every year went a long way in promoting the causes of community uplift, reforestation, poverty alleviation, skill development, healthcare, and educational projects for the deprived people in Pakistan.

NFEH General Secretary Ruqiya Naeem and Vice-President Nadeem Ashraf also spoke on the importance of CSR initiatives in Pakistan.

US Opposes Pakistan-Iran Gas Pipeline Project, Warns of Sanctions

EU Report

The US has expressed its opposition to the Pakistan-Iran gas pipeline project, commonly known as the Peace Pipeline, cautioning about the risks of sanctions associated with doing business with Tehran. This stance was reiterated by a US State Department spokesperson in a press briefing, where it was emphasized that the US does not support the pipeline moving forward. The Pakistan-Iran gas pipeline is a long-standing project between Tehran and Islamabad, aimed at transporting natural gas from Iran to Pakistan. Despite facing delays and funding challenges over the years, Iran and Pakistan signed a five-year trade plan in August 2023 with a bilateral trade target of $5 billion. Pakistan's Petroleum Minister Musadik Malik recently stated the country's intent to seek a US sanctions waiver for the gas pipeline from Iran. However, the US State Department's position remains firm, advising caution and highlighting

"OGDCL Makes Oil and Gas Discovery in Kohat District, KP"

EU Report

Oil and Gas Development Company Ltd (OGDCL) has announced a significant hydrocarbon discovery in Kohat district of Khyber Pakhtunkhwa (KP), as per a recent stock filing. The discovery was made in the exploratory segment of the Togh-02 (Slant) well in the Lumshiwal-II Formation, located within the Kohat Exploration Licence area. OGDCL, operating with a 75% stake, and Saif Energy Ltd with a 25% stake, jointly made this discovery. The drilling of the well commenced on Aug 28, 2023, and reached a total depth of 2,600 meters. Following the wireline logs assessment, a successful Cased Hole Drill Stem Test (CHDST-01) was conducted in the Lumshiwal-II Formation. The well exhibited a flow rate of 2.842 million standard cubic feet per day of gas along with 28 barrels per day of condensate, with a well flowing pressure of 540 pounds per square inch at a 32/64" choke size. OGDCL highlighted that this discovery not only marks a significant find but also extends the hydrocarbon play area in the Togh Structure, presenting potential for new exploration opportunities in the region.

"Peshawar to Shift Street Lights to Solar Energy: CM Gandapur"

EU Report

KP Chief Minister Ali Amin Gandapur announced plans to convert Peshawar's street lights to solar energy and introduce a metro train service to alleviate traffic congestion. During a meeting with PTI leaders, including Arbab Sher Ali and Shandana Gulzar, issues like traffic, infrastructure, water, sewerage, and security were discussed. CM Gandapur emphasized Peshawar's development as a top priority, promising result-oriented strategies. Discussions are ongoing with a private company for the metro train on a BOT model, and underground sewerage system upgrades are planned for long-term solutions. Merit-based appointments and improved local governance are part of efforts to enhance public services.

Transforming our world

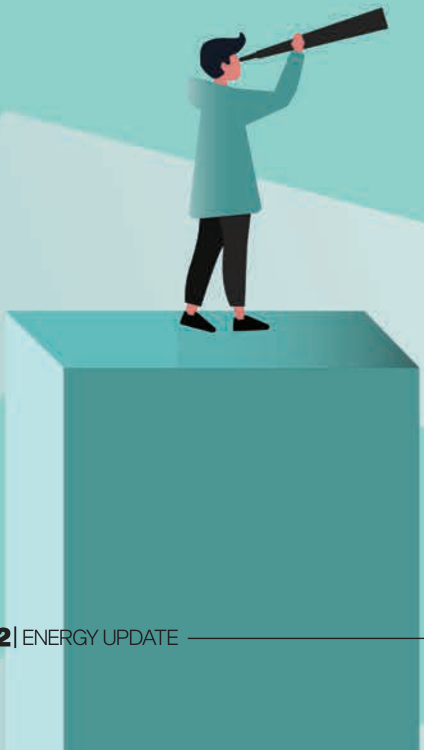
A Deep Dive into the Sustainable Development Goals

Dr Basharat Hasan Bashir

Writer is Alternative Energy & Climate Change (Mitigation and Adaptation) Specialist

The Sustainable Development Goals (SDGs) represent a transformative global agenda aimed at addressing the most pressing challenges facing humanity by 2030. This paper provides an in-depth exploration of the 17 SDGs, examining their significance, interconnections, and the actions required for their achievement. Through a comprehensive analysis, it highlights the critical role of collective action from governments, businesses, civil society, and individuals in fostering sustainable development and shaping a more equitable and prosperous future for all.

Introduction: The adoption of the SDGs by the United Nations in 2015 marked a pivotal moment in global efforts towards sustainability. Building upon the Millennium Development Goals (MDGs), the SDGs provide a holistic framework that encompasses economic, social, and environmental dimensions of development. This paper delves into each of the 17 SDGs, elucidating their objectives, targets, and indicators, while emphasizing the imperative for integrated approaches to address interconnected challenges.



1. No Poverty: SDG 1 aims to eradicate poverty in all its forms and dimensions, ensuring that all people have access to basic resources, social protection, and opportunities for economic empowerment. Strategies for poverty alleviation encompass inclusive economic growth, social protection systems, and targeted interventions to address the needs of vulnerable populations.

2. Zero Hunger: SDG 2 focuses on ending hunger, achieving food security, improving nutrition, and promoting sustainable agriculture. This goal calls for transformative actions to enhance agricultural productivity, promote sustainable food systems, and ensure equitable access to nutritious food for all, particularly in rural areas and among marginalized communities.

3. Good Health and Well-being: SDG 3 seeks to ensure healthy lives and promote well-being for all ages. It encompasses a wide range of health-related targets, including reducing maternal and child mortality, combating communicable diseases, achieving universal health coverage, and addressing non-communicable diseases and mental health issues. Strengthening healthcare systems, promoting health education, and advancing medical research are key strategies for achieving this goal.

4. Quality Education: SDG 4 aims to ensure inclusive and equitable quality education for all, promoting lifelong learning opportunities and fostering the acquisition of essential knowledge and skills. Key priorities include expanding access to education, improving the quality of teaching and learning environments, enhancing literacy and numeracy skills, and promoting education for sustainable development and global citizenship.

5. Gender Equality: SDG 5 is dedicated to achieving gender equality and empowering all women and girls. It calls for an end to discrimination, violence, and harmful practices against women and girls, as well as ensuring equal access to education, healthcare, employment, and leadership opportunities. Empowering women and girls is not only a matter of human rights but also essential for achieving sustainable development and building inclusive societies.

6. Clean Water and Sanitation: SDG 6 focuses on ensuring availability and sustainable management of water and sanitation for all. It encompasses targets related to universal access to safe and affordable drinking water, sanitation facilities, and hygiene promotion. Achieving this goal requires investments in water infrastructure, watershed management, water conservation, and sanitation services, particularly in underserved areas.

7. Affordable and Clean Energy: SDG 7 seeks to ensure access to affordable, reliable, sustainable, and modern energy for all. It emphasizes the transition towards renewable energy sources, energy efficiency improvements, and universal access to electricity, particularly in developing countries. Promoting clean energy technologies, enhancing energy infrastructure, and fostering energy innovation are key strategies for advancing this goal.

8. Decent Work and Economic Growth: SDG 8 promotes sustained, inclusive, and sustainable economic growth, full and productive employment, and decent work for all. It encompasses targets related to job creation, entrepreneurship promotion, labour rights protection, and equitable access to economic opportunities. Creating an enabling environment for business growth, fostering innovation and technological advancement, and investing in skills development are crucial for realizing this goal.

9. Industry, Innovation, and Infrastructure: SDG 9 aims to build resilient infrastructure, promote inclusive and sustainable industrialization, and foster innovation. It calls for investments in infrastructure development, industrial diversification, and technological innovation to support economic growth and enhance productivity.

10. Reduced Inequality: SDG 10 focuses on reducing inequality within and among countries, addressing disparities in income, wealth, and opportunities. It calls for social, economic, and political inclusion of all individuals and groups, regardless of their age, gender, disability, race, ethnicity, or socioeconomic status. Measures to promote progressive taxation, social protection systems, and inclusive policies are essential for advancing this goal.

11. Sustainable Cities and Communities: SDG 11 aims to make cities and human settlements inclusive, safe, resilient, and sustainable. It emphasizes sustainable urban planning and management, access to affordable housing, efficient transportation systems, and green public spaces. Promoting slum upgrading, disaster risk reduction, and cultural heritage preservation are integral components of achieving sustainable urban development.

12. Responsible Consumption and Production: SDG 12 calls for ensuring sustainable consumption and production patterns, reducing resource use, waste generation, and environmental degradation.

13. Climate Action: SDG 13 addresses the urgent need to combat climate change and its impacts. It calls for ambitious mitigation and adaptation measures to reduce greenhouse gas emissions, build climate resilience, and protect ecosystems.

14. Life Below Water: SDG 14 aims to conserve and sustainably use the oceans, seas, and marine resources for sustainable development. It encompasses targets related to marine conservation, pollution reduction, sustainable fisheries management, and marine biodiversity conservation. Protecting marine ecosystems, combating illegal fishing practices, and promoting marine research and monitoring are essential for preserving ocean health and biodiversity.

15. Life on Land: SDG 15 focuses on protecting, restoring, and promoting sustainable use of terrestrial ecosystems, including forests, wetlands, and biodiversity-rich areas. It calls for halting deforestation, combating desertification, restoring degraded land, and conserving biodiversity. Sustainable land management practices, biodiversity conservation initiatives, and community-based natural resource management are key strategies for achieving this goal.

16. Peace, Justice, and Strong Institutions: SDG 16 promotes peaceful and inclusive societies for sustainable development, providing access to justice for all, and building effective, accountable, and inclusive institutions at all levels. It encompasses targets related to rule of law, access to justice, corruption reduction, and promotion of accountable governance. Strengthening institutions, promoting human rights, and fostering peacebuilding and conflict resolution are essential for achieving this goal and ensuring stable and resilient societies.

17. Partnerships for the Goals: SDG 17 emphasizes the importance of global partnerships and cooperation in achieving the SDGs. It calls for mobilizing resources, enhancing international cooperation, and fostering multi-stakeholder partnerships across governments, civil society, private sector, and academia. Promoting South-South cooperation, leveraging technology and innovation, and enhancing policy coherence are key strategies for accelerating progress towards sustainable development.

Policy Roadmap for Implementing the SDGs in Pakistan

As Pakistan strives towards sustainable development, the implementation of the United Nations' Sustainable Development Goals (SDGs) emerges as a critical roadmap for addressing the country's multifaceted challenges. Spanning 17 interlinked objectives, the SDGs encompass economic growth, social development, and environmental protection, presenting a holistic framework for progress. However, the effective realization of these goals necessitates not only political will but also expert-driven policy formulation and implementation across various sectors. In this context, this paper delineates the policy changes required to advance each of the 17 SDGs in Pakistan, underscoring the imperative of concerted efforts from policymakers, experts, and stakeholders to drive sustainable development forward.

1. No Poverty:

- Policy: Implement targeted poverty reduction programs focusing on income support, livelihood opportunities, and social safety nets.
- Political Will: Commitment from government leaders to prioritize poverty alleviation and allocate sufficient resources.
- Experts: Economists, social scientists, and development practitioners to design effective poverty reduction strategies.

2. Zero Hunger:

- Policy: Enhance agricultural productivity, promote sustainable farming practices, and improve access to nutritious food.
- Political Will: Support from policymakers to invest in agricultural infrastructure and food security initiatives.
- Experts: Agricultural scientists, nutritionists, and food security specialists to advise on improving food production and distribution systems.

3. Good Health and Well-being:

- Policy: Strengthen healthcare infrastructure, expand access to essential health services, and promote public health awareness.
- Political Will: Commitment to prioritize healthcare investment and reform to ensure universal health coverage.
- Experts: Medical professionals, public health experts, and epidemiologists to guide healthcare policy formulation and implementation.

4. Quality Education:

- Policy: Enhance education quality, increase access to schooling, and promote lifelong learning opportunities.
- Political Will: Support from government leaders to allocate resources and implement education reforms.
- Experts: Education specialists, curriculum developers, and teachers to design and implement effective learning programs.

5. Gender Equality:

- Policy: Enact laws to promote gender equality, eliminate discrimination, and empower women and girls.
- Political Will: Commitment to gender mainstreaming and women's empowerment at all levels of governance.
- Experts: Gender experts, women's rights advocates, and legal professionals to advocate for gender-sensitive policies and legislation.

6. Clean Water and Sanitation:

- Policy: Improve water infrastructure, ensure access to safe drinking water, and promote sanitation hygiene.
- Political Will: Prioritization of water and sanitation projects and enforcement of regulations to protect water sources.
- Experts: Civil engineers, environmental scientists, and water resource management specialists to address water quality and sanitation challenges.

7. Affordable and Clean Energy:

- Policy: Promote renewable energy adoption, improve energy efficiency, and expand access to electricity.
- Political Will: Commitment to transition towards sustainable energy sources and invest in renewable energy infrastructure.
- Experts: Energy economists, engineers, and renewable energy specialists to advise on energy policy formulation and implementation.

8. Decent Work and Economic Growth:

- Policy: Create employment opportunities, protect workers' rights, and foster inclusive economic growth.
- Political Will: Support for labour market reforms and investment in job creation initiatives.
- Experts: Labour economists, employment specialists, and trade union representatives to advocate for labour rights and fair working conditions.

9. Industry, Innovation, and Infrastructure:

- Policy: Promote industrial diversification, foster innovation ecosystems, and develop sustainable infrastructure.
- Political Will: Commitment to invest in infrastructure development and support entrepreneurship and innovation.

• Experts: Industrial engineers, innovation policymakers, and infrastructure planners to drive industrial and technological advancement.

10. Reduced Inequality:

• Policy: Implement progressive taxation, social protection programs, and inclusive policies to reduce inequality.
• Political Will: Commitment to address income disparities and promote social justice and equity.
• Experts: Social economists, policy analysts, and social welfare advocates to design and evaluate inequality reduction measures.

11. Sustainable Cities and Communities:

• Policy: Implement sustainable urban planning, improve access to basic services, and enhance urban resilience.
• Political Will: Support for urban development initiatives and investment in infrastructure and public services.
• Experts: Urban planners, architects, and environmental designers to create livable and sustainable urban environments.

12. Responsible Consumption and Production:

• Policy: Promote sustainable consumption patterns, reduce waste generation, and encourage eco-friendly production practices.
• Political Will: Commitment to enact regulations and incentives to promote sustainable consumption and production.
• Experts: Environmental scientists, supply chain experts, and sustainability consultants to advise on eco-friendly policies and practices.

13. Climate Action:

• Policy: Mitigate greenhouse gas emissions, build climate resilience, and promote renewable energy adoption.
• Political Will: Commitment to implement climate change mitigation and adaptation measures and fulfill international climate commitments.
• Experts: Climate scientists, environmental policy analysts, and climate change negotiators to develop and implement climate action plans.

14. Life Below Water:

• Policy: Protect marine ecosystems, combat illegal fishing, and promote sustainable fisheries management.
• Political Will: Support for marine conservation initiatives and enforcement of marine protection laws.
• Experts: Marine biologists, fisheries managers, and marine conservationists to develop and implement marine protection strategies.

15. Life on Land:

• Policy: Combat deforestation, promote sustainable land use, and conserve biodiversity and ecosystems.
• Political Will: Commitment to enforce land conservation regulations and invest in reforestation and habitat restoration.
• Experts: Conservation biologists, land use planners, and wildlife ecologists to guide land management and conservation efforts.

16. Peace, Justice, and Strong Institutions:

• Policy: Promote rule of law, ensure access to justice, and strengthen governance and institutional capacity.
• Political Will: Support for institutional reforms, anti-corruption measures, and human rights protection.
• Experts: Legal scholars, governance experts, and human rights advocates to support institutional

17. Partnerships for the Goals:

• Policy: Foster multi-stakeholder partnerships, enhance international cooperation, and mobilize resources for SDG implementation.

Pakistan can make significant progress towards achieving the Sustainable Development Goals and building a more sustainable and prosperous future for all its citizens. The roles of Alternative Energy Specialists, Climate Change Mitigation Specialists, Environmental Engineers, and Civil Engineers are instrumental in this endeavour.

In collaboration with policymakers, experts, and stakeholders, the professionals can drive sustainable development forward in Pakistan. By harnessing their collective expertise and fostering collaboration, Pakistan can accelerate progress towards achieving the Sustainable Development Goals and building a more equitable, resilient, and sustainable future for all its citizens. ■

Methane: a powerful gas heating planet

EU Report

Climate talks often revolve around reducing the most dangerous greenhouse gas CO2. But other powerful heat-trapping emissions -- of methane -- will be in the crosshairs at a global forum in Geneva this week. Methane -- which is potent but relatively short-lived -- is a key target for countries wanting to slash emissions quickly and slow climate change.

That is particularly because large amounts of methane are simply leaking into the atmosphere from oil and gas projects. Methane emissions from the fossil fuel industry have risen for three consecutive years, according to the International Energy Agency (IEA), hitting near record highs in 2023.

Atmospheric methane (CH4) occurs abundantly in nature and is the primary component of gas fuel. It is the second largest contributor to climate change, accounting for roughly 30 percent of global warming since pre-industrial levels, according to UN climate experts. Methane remains in the atmosphere for only about 10 years, but has a much more powerful warming impact than CO2. Its warming effect is 28 times greater than CO2 over a 100-year timescale (and 80 times over 20 years).

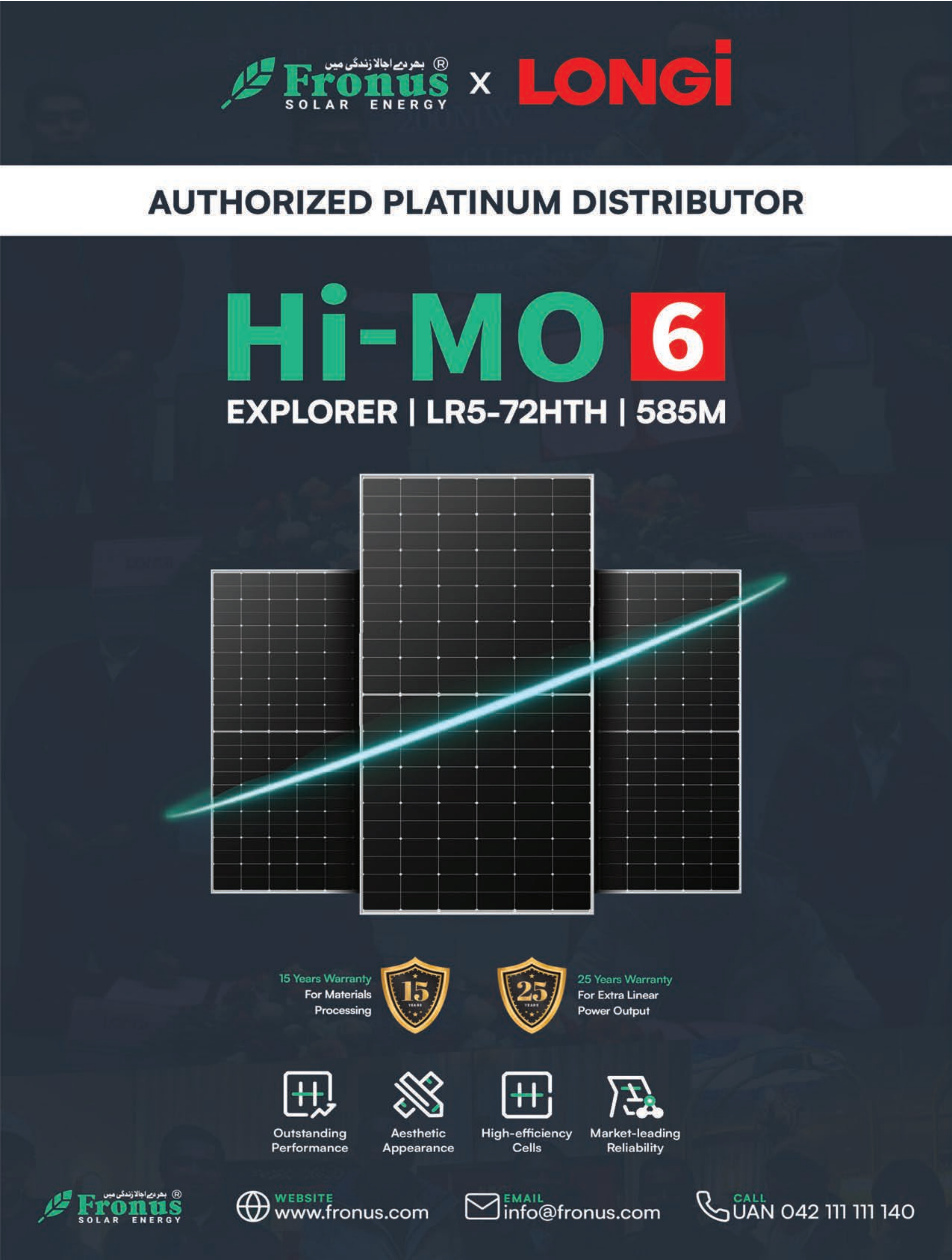
Exactly how much methane is released in the atmosphere remains subject to "significant uncertainty", according to the IEA, despite progress in the monitoring of emissions through the use of satellites.

And scientists are puzzling over a steady increase of methane in the atmosphere, with concentrations currently over two-and-a-half times greater than pre-industrial levels. The majority of methane emissions -- around 60 percent -- are linked to human activity, the IEA says, and the rest from natural sources, mainly wetlands. Agriculture is the biggest culprit, responsible for roughly a quarter of that pollution. Most is from livestock -- cows and sheep release methane during digestion and in their manure -- and rice cultivation, where flooded fields create ideal conditions for methane-emitting bacteria.

The energy sector -- coal, oil and gas -- is the second largest source of human caused methane, which leaks from gas pipelines and other energy infrastructure, or is deliberately released during maintenance procedures.

A study published in the journal Nature in March found that oil and gas projects in six major producing regions of the United States were emitting three times as much methane as estimated by the government -- losses worth $1 billion. Discarded household waste also creates large amounts of methane when it decomposes if left to rot in landfills. The IEA estimates that rapid cuts in methane emissions linked to the fossil fuel sector could prevent up to 0.1 degrees Celsius of warming by mid-century.

That might sound modest, but such a reduction would have an impact greater than "immediately taking all cars and trucks in the world off the road", the agency said. IEA Executive Director Fatih Birol called it "one of the best and most affordable" options for reducing global warming. ■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Gearing up for change

Govt needs to change nexus of climate change with macroeconomic and accelerated economic growth

Ali Tauqeer Sheikh

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

The newly elected government of Prime Minister Shehbaz Sharif has a rare window of opportunity to exercise leadership by aligning national climate action with the ongoing economic reform agenda.

The prescribed macroeconomic stability and sustained economic growth cannot be fully achieved without stopping the economic bleeding caused by climate-triggered loss and damage. For this, the prime minister will need to shift into high gear and move his famous 'Shehbaz speed' from project management to spearheading structural reforms.

It is not the time for him to undertake the development of additional policy documents, but to understand what the existing policies and commitments can deliver, as well as the barriers to their implementation that the government can remove. The prime minister needs to repeatedly ask all his cabinet colleagues, and everyone he shakes hands with, why policies so very often fail to get implemented or deliver the intended benefits. How best can we make good on the commitments made to our lenders and other development partners?

After the Stand-by Arrangement ends next month, Pakistan is expected to enter into another agreement with the IMF. The anticipated Extended Fund Facility will provide a policy anchor for addressing domestic and external imbalances by pursuing structural reforms. It is also expected that the EFF will help create much-needed space for social and development spending, covering the energy sector, SOE governance, and climate resilience. All three are a drain on the economy but the last one is the most expensive ticket item and it has the least clarity of purpose in policy circles. Without following a clear roadmap for building resilience, the new government will hardly succeed in turning around the economy.

Grappling with C-PIMA: The menu of reforms will build upon actions already agreed to under the IMF's Climate Policy Implementation Matrix Assessment. The C-PIMA is only a checklist and therefore not a substitute for a national reform agenda. Since it has included almost all ongoing governmental endeavours, albeit implemented sluggishly by multiple ministries, their consolidation in one matrix has strong indicative value for necessary reforms for the release of IMF tranches. It is imperative we understand that these conditionalities need to be a part of larger national reform goals that include the institutional and structural reforms needed for measurable climate resilience and low-carbon development.

The success of any reforms will hinge on speed, sequencing, and decisiveness of action.

The reforms need champions, not checklists. The incumbent government, therefore, needs to adopt a longer-term climate-resilience agenda. Leading from the front would mean that a national vision for broader and inclusive development is crafted in which lender conditionalities or disbursement-linked indicators are only a building block for improving the internal functioning of the government. Given the urgency and time sensitivity, the success of any reforms will hinge on speed, sequencing, and the decisiveness of action — three defining features of an effective leader in troubled times.

Climate-proofing policy planning: The depth and breadth of reforms will need political readiness and ownership. In the realm of climate-smart planning, and in project appraisal and selection for public sector investments, the IMF has ranked Pakistan's capacity as low. Scores in budgeting and portfolio management or risk management are not impressive either. In terms of reform priorities, the C-PIMA has urged the government

i) to strengthen the climate-smart project appraisal system,

ii) to tag climate-related expenditures,

iii) to address climate risks by undertaking asset management and maintenance policies,
iv) to include climate-related risks in fiscal risk analysis, and
v) to address climate vulnerabilities through urban planning and building codes.

In other words, it is time for the new government to use these conditionalities as precursors of good governance and instruments of implementation of the Nationally Determined Contributions (NDCs) and the National Adaptation Plan (NAP), both specifically mentioned for implementation in the C-PIMA. How can the government develop this checklist into politically supported reforms?

Climate-proofing investment portfolio: Embedding climate considerations in the government's Rules of Business, accounting and auditing standards, prescribed rules, procedures and SOPs is the real reform challenge that lies ahead. Pakistan has had limited success in adopting climate-compatible rules, procedures and systems.

The process needs step change and acceleration. It is to the credit of Dr Jahanzeb Khan, the outgoing deputy chairman of the Planning Commission, that the Commission has approved a Handbook on Climate Risk Screening for Development Projects. The handbook has revised project planning documents covering the entire project life cycle under PC-I, PC-II, PC-III, PC-IV, and PC-V. These proformas have integrated essential climate-risk considerations to screen and assess adaptation and mitigation benefits of all public-sector projects.

If notified and implemented, the handbook could help project proponents address the climate vulnerability of surrounding biophysical and socio-economic systems. It could also help map projects on a comparative basis across provinces, regions and districts, as well as types of climatic challenges and investment trends and gaps, and prompt project proponents to make informed choices aligned with national goals as outlined in the annual development plans, NAP, NDCs and other national priorities and international commitments such as the Paris Agreement.

It can undergo periodic updates and evaluations. Approved by the outgoing cabinet and all relevant forums, its a parting gift to the incumbent prime minister to remove last-minute glitches and barriers to its implementation before the EFF is negotiated.

Policy planning development value chain: Building on this success, the prime minister may like to show 'Shehbaz speed' in initiating the process of climate-proofing the entire PSDP formulation and approval process and its various approving forums, from national and provincial to divisional and district levels. He can perhaps also expect the concerned ministries to climate-proof their internal systems, procedures, processes, and guidelines.

The government must determine how it will change the nuts and bolts of the nexus of climate change with macroeconomic and accelerated economic growth. Rather than portraying C-PIMA recommendations as arbitrary, we can look upon them as a propeller accelerating much-needed national reforms and the structural change agenda. ■

Uniting for climate action

Cutting emissions, switching to greener energy sources and preparing for climate change necessary

Nazakat Hussain

The writer has been a part of the development sector for the last 18 years

As the echoes of deliberations reverberated within the walls of the International Energy Agency Headquarters in Dubai during the event titled Beyond COP28: Time to Unite, Act, and Deliver on the UAE Consensus, Dr Sultan Al Jaber, the COP 28 president, seized the spotlight with a resounding call to action. His plea for "unprecedented action" cut through the air, echoing the urgency of the moment.

As the global community grapples with the escalating challenges posed by climate change, COP28 has emerged as a pivotal milestone in the ongoing efforts to address environmental concerns. Dr Sultan Al Jaber's call for unprecedented action underscores the gravity of the situation and the need for immediate and decisive measures. The urgency of the moment cannot be overstated, as the consequences of inaction continue to escalate, threatening ecosystems, livelihoods and global stability.

COP28, the 28th session of the Conference of the Parties to the UN Framework Convention on Climate Change, took place in 2023 at Expo City in Dubai, UAE. This global summit brought together nations to discuss and strategise on addressing climate change challenges and advancing international cooperation for sustainable environmental practices.

During COP28, leaders and climate change practitioners from around the world, including Pakistan, actively participated in discussions addressing the global impact of climate change. Despite Pakistan's minimal contribution to global warming, the country ranks 8th in vulnerability according to the Global Climate Risk Index by German Watch. Pakistani practitioners at COP28 emphasised the urgent need for solutions to mitigate climate consequences, particularly the annual flooding issues, engaging in dialogue and presenting recommendations to address and alleviate the challenges faced by the nation.

Our decisions today will determine the kind of world we leave for future generations. The call to step up is not just a rallying cry; it is a commitment to a shared responsibility for the planet and its inhabitants.

The Beyond COP28 event served as a crucial platform for leaders, experts, and stakeholders to unite with a common goal – to act decisively and deliver on the UAE Consensus. Dr Al Jaber's plea echoed the sentiments of a global community grappling with the reality of climate change and underscored the collective responsibility to implement meaningful solutions. The UAE Consensus, forged through international cooperation, charts a path towards sustainable practices, renewable energy and climate resilience.

An important turning point in the global conversation on climate change was the loud appeal to action at the IEA Headquarters. It urges the whole world and people to commit in real terms to cutting emissions, switching to greener energy sources and preparing for climate change. Dr Sultan Al Jaber's emphasis on urgency serves as a wake-up call for the international community to come together, act in unison, and fulfill the commitments made at COP28.

Our decisions today will determine the kind of world we leave for future generations. The call to step up is not just a rallying cry; it is a commitment to a shared responsibility for the planet and its inhabitants.

The question still stands after the incident: will we seize the chance, or will we allow it to pass us by? Our individual and group activities hold the key to the solution. More than ever, the world needs visionaries, leaders and regular people to come together, take action, and fulfill the commitments made at COP28.

We must transcend differences, overcome obstacles and forge a path towards a sustainable future. The time is now, and the call is clear: step up for the planet, for humanity and for the generations to come. ■

TURNAROUND

How realistic is the goal?

Farhat Ali

Former Chief ABB Pakistan

President Xi Jinping of China in a congratulatory message to Prime Minister Shehbaz Sharif stressed that "China and Pakistan should continue their traditional friendship, strengthen exchanges and cooperation in all fields, jointly build an upgraded version of the China-Pakistan Economic Corridor (CPEC), continue to deepen the China-Pakistan all-weather strategic cooperative partnership and build a closer China-Pakistan community with a shared future in the new era to bring more benefits for the people of the two countries".

Embedded in this customary message of greeting is the undeniable message of the President to get moving with the China Pakistan Economic Corridor (CPEC) and jointly build up an upgraded version of the CPEC and a close-knitted China-Pakistan community. The upgraded version is not defined but could well mean something novel over the prevailing model of the CPEC and more in favour of the people of the two countries.

Ahsan Iqbal, the federal planning minister for planning and development, took no time to respond and is reported to have stated: "Our coalition government has restored the confidence of China in the CPEC. We are ready to start five new corridors with China under the project. We will implement China's offer with full determination." The statement has not defined these five new corridors.

In the same breath, he stated that the Chinese investment of $25 billion was made possible in the first phase. "There is very little room in Pakistan's economic situation. Our budget is running entirely on loans," the minister said. He further remarked that over Rs7.5 trillion was needed to repay loans, adding that running expenses, salaries, pensions, and subsidies were in addition to this. "All these expenses are being met by taking more loans," he said. Earlier, Prime Minister Shehbaz Sharif had made an identical point.

While there appears to be an enthusiasm at both ends to move on with the CPEC with a new vigour and vision, the realities on ground do not promise to turn this vision into a reality anytime in the near future. CPEC, so far, is all about development tagged to mega loans and largely commercial loans.

In FY2024, Pakistan faces an estimated debt maturity of USD 49.5 billion, with 30% as interest payments, excluding bilateral or IMF loans. The majority of debt accumulation has supported a consumption-driven and import-heavy economy, lacking investment in productive sectors or industry.

Pakistan's cumulative public debt exposure to China is estimated at $67.2 billion for the period from 2000 to 2021. That surpasses the $46 billion recorded for the same period in the World Bank's International Debt Statistics, based on voluntary disclosures from Pakistan.

A significant portion — $28.4 billion — of Pakistan's loans from China was in the energy sector. Experts believe Islamabad actively sought Beijing's support in the field, accumulating the largest amount of Chinese energy financing of any country. Most of which is in the power generation sector.

The random deployment of loans into the power generation was flawed in more than one way. The misconceived increase in power generation was not matched with the power evacuation capacity of the transmission and distribution network of the system nor with the economic and industrial growth pattern of the country with the result that there were delays in power evacuation and its non-utilisation by the consumers on account of low demand and unsustainable tariffs. Idle power plants do not generate revenue but accumulate debt, which over-extended period of time spins out of control.

The outstanding dues of power projects of the China-Pakistan Economic Corridor (CPEC) have alarmingly increased to a record Rs493 billion or $1.8 billion as of last month, showing an increase of over three-fourths in a span of just seven months. China is unhappy about this development.

The most vulnerable are the imported coal-fired power plants. The report showed that out of Rs493 billion, Pakistan owed Rs97 billion to the imported-coal fired Sahiwal power plant – the highest obligation to any Chinese energy project that also represents one-fifth of the Chinese outstanding energy dues.

Whereas, Rs82 billion is owed to the coal-fired Hub power project, Rs80 billion to the coal-fired Port Qasim power plant, and Rs79 billion to the Thar coal project. One can say that moving from imported fuel oil to imported coal has been unwise.

The Chinese government has multiple times raised this issue at all forums. It has come to the point that China linked the approval of a $600 million new foreign commercial loan with the prior settlement of the debt that Pakistan owes to the Chinese power plants.

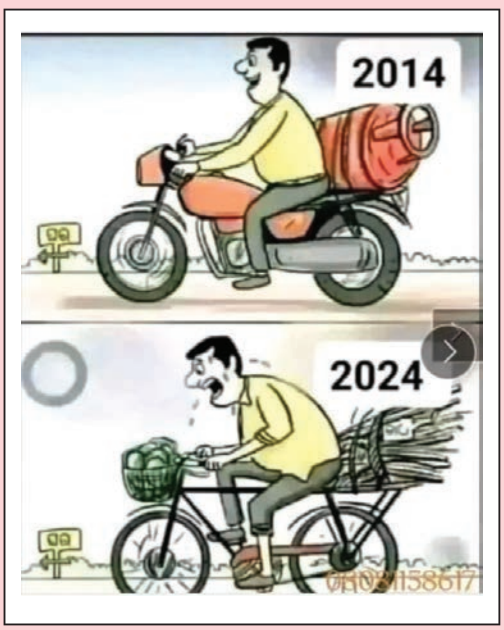
China, in the past, had also raised the issue of Pakistan's overall public debt un-sustainability and its implications for obtaining $6 billion to $7 billion new loans for the Mainline-I railways project of the CPEC. The loan liabilities to Chinese lenders and outstanding payments liabilities to Chinese Independent Power Producers (IPPs) would not go unnoticed by the IMF while firming up the foreseeable Pakistan's new agreement with the Fund.

It has shown serious concerns on the growing and unsustainable circular debt in the energy sector and the country's energy and financial managers' inability to come up with a realistic and sustainable solution.

The IMF did not approve the Rs1.27 trillion circular debt reduction plan recently submitted to it. The IMF objected to the government's proposal on the grounds that it carried serious fiscal risks, as it also rejected the proposal of issuing Rs745 billion additional supplementary grant.

China's technological growth in artificial intelligence, IT and unimaginable innovations in industry and science has taken the world by surprise. Pakistan's industry, IT technology, etc., are looking towards the West. It's about time our industry looked at China's markets and technology transfer.

There is much for Pakistan's businesses to gain from China. The approach so far is only under-leveraged. It's the private sector's call. ■



NATURAL DEPOSITS

Minerals economy

Mining is an industry where initiatives to attract global investors are mandatory

Umer Farooq

The writer is a policy advisor in the Policy and Economics Branch of Energy and Natural Resources, Government of Canada

As the dust settles from the recent elections and the formation of government, it's clear that the previous coalition is taking the reins of power. In their limited previous term, Shehbaz Sharif and his cabinet highlighted Pakistan's mineral resources — (over) estimated at $6 trillion — as the linchpin of the country's economic revival. The ambition aligns with the global race for green energy transition that has seen a rise in mining activities globally. However, having mineral resources does not suffice; the focus is on navigating a complex and competitive global mining landscape.

It takes decades to convert mineral deposits into a mine. Patience is key in the economic ecosystem of mining. The identification of 'critical minerals' stands at the forefront of strategic resource management. All mining-centric economies regularly update their list of critical minerals that reflects the shifting sands of economic, strategic, and technological priorities. Does Pakistan have a list of priority minerals? No, not at this point.

For Pakistan to rise in the mining sector, an essential step involves determining which minerals hold the greatest value and potential. Once that has been done, the new government will need to design a comprehensive policy to cover the entire minerals value chain. This would include i) upstream — the exploration and extraction of minerals; ii) midstream — processing and refining; and iii) downstream — manufacturing the products for the end-user. Overlooking a single piece of this chain could derail the anticipated outcomes for the entire sector.

The reliance on domestic capital is important for national prosperity; however, mining is an industry where initiatives to attract the interest of global investors are compulsory. The successful revival of the Reko Diq project shines as the country's beacon of hope in this area. Apart from that, the establishment of a new federal initiative, the Special Investment Facilitation Council, to de-risk the project investment is important: however, the settlement of the Reko Diq project through international arbitration and legislative support remains a cautionary indicator for foreign investors. It is anticipated that the SIFC will be able to prevent such events and act as a pivotal concierge service for future mining projects in the country. An enhanced mandate for the SIFC must guide both the federal and provincial regulatory regimes in terms of facilitation in this challenging area.

We want to develop the whole value chain of minerals.

At the heart of every mining endeavour lies a stark reality: most projects fade away in the exploration phase, never reaching the stage of operation, let alone fruition. We are standing at the starting line. Let us value the economy of the Reko Diq project. Figures may vary, with some estimates of the project deposits at over $100 billion — keeping today's prices in view. The project, with its promise of an aggregate turnover and exports of above $2bn per year, 7,000 jobs during the peak construction phase, and a staggering annual output of 80 million tonnes of gold and copper concentrate, paints a picture of opportunity that invites foreign interest. This comes with a projected $7bn infusion of — mainly foreign — investment, with over $250m already poured into exploration and feasibility studies. These numbers don't only speak to the potential of Reko Diq project and mining, they also whisper of prosperity and invite foreign interest in other minerals.

Exaggeration and overestimation of deposits tend to bring dire consequences that can result in regional grievances. The recent discoveries of high-value minerals in Pakistan came out of Balochistan and KP — provinces at odds with the federal regime. Such overestimates fuel regional discontent. Presently, minerals account for merely 2.5pc of the country's GDP. Assertions of a leap above 5pc associated with mineral exports are misleading. ■

Growing circular debt burden

Nepra has failed to conduct technical audits of independent power producers

Arshad H Abbasi

Engineer Arshad H Abbasi has an extensive experience of working on water and power issues in Pakistan and Afghanistan

Pakistan is encountering a serious political and economic turmoil amid record inflation, chiefly due to the high cost of electricity to the extent that it is now challenging national sovereignty. The majority of Pakistanis pay their bills that are far higher than their monthly income. One major reason behind the hike in power tariff is the galloping circular debt in the power sector.

In 2006, the threat of circular debt intensified due to the criminal oversight of the national power regulator, Nepra. The main goal of Nepra's creation was to provide a steady supply of electricity at a reasonable price, but it was also intended to address other issues facing the power industry, such as system losses, growing expenses, high tariffs and generation capacity constraints.

But Nepra has not only completely failed to meet its fundamental goals, it has also hugely troubled power consumers. Here is a summary of its misdoings.

In the year 2012, a roadmap was handed over to Nepra to reduce T&D losses. But after 12 years, Nepra has failed to act on the solution, and has instead shifted the load to consumers. In one big blunder, it granted the licence to thermal plants having low efficiency. When the efficiency of a plant is high, it consumes less gas, coal or oil and generate electricity at low cost. Awarding licences to less efficient plants that create enormous capacity payment is akin to committing a heinous crime.

Determining the electricity tariff, contingent upon the project's cost, is the most crucial responsibility of any power regulator. The cost of solar, hydropower, wind and coal power plants was never scrutinised according to global rates. This is one of the reasons why the cost of electricity in Pakistan is too high.

Nepra has, since its inception, failed to conduct technical audits of independent power producers (IPPs). While the caretaker setup was in the saddle, the minister concerned had released a report on IPPs, which only addressed the capacity payment of the tariff, constituting only 30-40% of the total cost of electricity. There is always the need for a technical audit in order to know the real efficiency of a power plant versus the nameplate efficiency. Addressing the efficiency could save the hike in electricity cost. On the contrary, Nepra proudly allowed a utility to run a plant at 26% efficiency even though there are power plants in our country that remain under-utilised despite having more than 62% efficiency. If the amount of gas used had been shifted towards a more efficient plant, the cost of electricity would have been halved. This has a severe impact on the global environment too, as a low-efficient power plant emits more CO2 into the atmosphere.

Establishing an institution in Pakistan always means corporate standard buildings, marked by high salaries and benefits, luxury cars, latest laptops and cellphones, and complimentary amenities on a par with those of the best companies in Pakistan. Nepra's best architecturally designed building in the capital city providing incredible views of the Margala hills offers a great work environment — something that is not even available to Nobel laureates. Despite this, Nepra only gives this unfortunate country a recipe for disaster. The nation is collapsing under the weight of circular debt while Nepra is proving to be a Nero for Pakistan.

Nepra continues to plan publicity events as the country searches for ways to arrest the circular debt and reduce the cost of electricity. Nepra's yearly revenue in FY23 stood at Rs3 billion, but after unrestrained spending, that amount has dropped to Rs623 million.

Nepra continues to issue new generation licences at a time when the country already has over-installed capacity and consumption is constantly decreasing. Nepra seems ignorant of the fact that consumers have been shifting towards home-based solar power system — something that is piling up enormous capacity payments. The primary reason behind Nepra's non-performance relates to the process of choosing the Chairman and members. Since the very inception, the requirements for choosing the Chairman have been altered by an Act to suit the preferred candidate, disregarding the significant impact it has on the national economy.

In order to promote transparency and fairness, there is the need to make use of Artificial Intelligence in the businesses of all power regulators.

Nepra's ageing policies are severely harming Pakistan — the fifth-most populous country of the world and also a nuclear-power. The IMF, whose mission is currently on a visit to Pakistan to conduct the Second Review of the $3 billion Stand-by Arrangement, should strongly call for revamping Nepra. That the growing circular debt burden will have serious financial repercussions goes without saying. ■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Oil majors, multinationals slowly opting out of Pakistan

Despite having potential, the county has been unable to exploit and grow its domestic energy asset base

Syed Rashid Husain

Guyana is the newest kid on the global energy bloc. The country's growing oil assets, regarded by some as the find of the decade, are increasingly under the spotlight, giving rise to a new tug of war. As is always the case, attempts to grab the assets are on, both at the geopolitical and corporate levels.

Guyana's offshore oil sector is booming, with over 11 billion barrels of oil equivalent resources discovered so far. Production is expected to reach roughly 620,000 barrels per day (bpd) once its Payara field reaches maximum capacity, and it could exceed 1.2 million bpd by 2028. So far, 30 discoveries have been made, and many more are expected. With production anticipated to begin in Yellowtail in 2025 and Uaru in 2026, the country's output could touch the 8m barrels equivalent per day, according to recent Standard & Poor's Global estimates. However, the emerging resources are not without a curse.

Neighbouring Venezuela, boasting a large army with 337,000 personnel, is asserting ownership of the resource-rich Essequibo region of Guyana. Once supermajor Exxon made a swathe of high-quality oil discoveries in the waters off the Essequibo region, Venezuelan President Nicolas Maduro's sabre-rattling intensified.

Energy-deficient Pakistan could learn from Guyana in successfully exploiting its energy assets via active global player participation

Venezuela is now claiming its rights to a 61,000 square mile area of Guyana, comprising roughly two-thirds of the sovereign territory. A heated debate between the two countries has begun. Caracas is accusing Georgetown of awarding Exxon illegal drilling licenses. It says Guyana has no right to award such licenses. Venezuela has also objected to Exxon's drilling campaign, claiming the supermajor was engaging in corrupt conduct with key opposition figure, Maria Corina Machado, to move ahead on the project.

Matthew Smith reported in his piece in Oilprice.com, "Recent evidence suggests heightened military activity along Guyana's border, raising fears of a potential invasion. By the end of 2023, there were fears Venezuela would use its military to annex the contested region." To many, this is reminiscent of the invasion of Kuwait by the forces of Saddam Hussain in 1990.

Later, however, the presidents of Venezuela and Guyana agreed to resolve the dispute peacefully. Yet despite the agreement, "evidence of heightened Venezuelan military activity along Guyana's border has [re]emerged, sparking fears Caracas is preparing to seize the [resource-rich] Essequibo by force."

In the meantime, a corporate battle is also ongoing. Currently, Exxon controls all production in Guyana, holding a 45 per cent share in a consortium that includes the Hess Corporation and the China National Offshore Oil Corporation (CNOOC) as minority partners. Last October, Chevron Corp agreed to acquire Hess Corp for $53bn.

Analysts point out that Chevron's bid to purchase Hess in October was primarily aimed at securing its 30pc stake in the Stabroek block off the coast of Guyana, currently one of the world's fastest-growing oil developments and the biggest crude discovery in a decade.

Exxon is now claiming it has a right to first refusal of any sale of the Stabroek block off the coast of Guyana, containing at least 11bn barrels of oil. Late in February, ExxonMobil said

it may pre-empt Chevron Corp's acquisition of a 30pc stake in the giant Guyanese oil block. Many say the possible move by Exxon to pre-empt the Chevron-Hess deal could result in the breakup of Chevron's $53bn deal to buy into the field.

Chevron stands adamant there's "no possible scenario" where Exxon or CNOOC could buy the stake, adding that it remains fully committed to the Hess deal. Exxon and CNOOC's right of first refusal is "not applicable" to its merger with Hess, Chevron said in an emailed statement sent to the media. "As described in the S-4, there is no possible scenario in which Exxon or CNOOC could acquire Hess' interest in Guyana as a result of the Chevron-Hess transaction."

However, Exxon is insisting that it has a duty to its shareholders to explore the right of first refusal over the change of ownership of the Hess stake.

In recent months, oil majors have struck a flurry of mega-deals to secure stakes in proven reserves without building new projects that would increase global supplies. Capitalising upon the sentiment, Guyana has been trying to attract more large oil producers to dilute Exxon's dominance of the country's energy output.

It recently held an offshore block auction that drew bids from TotalEnergies, Petronas and Qatar Energy. A battle royale between the oil giants is thus underway in Guyana. The ongoing corporate dispute over Guyana's Stabroek Block and the possibility of invasion of Guyana by Venezuela underscores "how important the emerging basin is to global crude markets", Bloomberg underlined in a piece. The evolving battleground of Guyana once again underlines oil and geopolitics are virtually inseparable.

For energy-deficient countries like Pakistan, Guyana presents a case study. The country has been successful in exploiting its energy assets through the active participation of global oil majors. Such projects require considerable investments and technological knowhow — oil majors' posses both.

However, for oil majors to get involved in any such projects, political and economic stability in host countries remains a must. Consistency in policies is required and on a long-term basis.

Pakistan is not meeting these prerequisites. Despite having the potential, it has been unable to exploit and grow its domestic energy asset base in recent decades. To some, it has been a lost decade in many senses.

Oil majors and multinationals are slowly opting out of Pakistan. To achieve a semblance of success in the energy sector, we need to reverse this trend. Pakistan, and especially the Ministry of Petroleum, has a lot to relearn. ■

Courtesy Dawn

PRIORITISING PEOPLE

Corporate window: Patience wearing thin

Afshan Subohi

Pakistanis deserve better. It is imperative for an elected government to strive to enable people to live lives free from want, fear and indignity.

However, history unequivocally demonstrates that a government's success hinges on recognising its citizens as the purpose and agents of development. Prime Minister Shahbaz Sharif's government and his economic team, led by Finance Minister Aurangzeb Khan, need to clarify the vision of the ruling coalition in this regard.

The targets of a five-year economic revival plan — currently in development — encompass reducing poverty, creating jobs and improving revenue generation. However, the precise strategy for achieving these objectives remains to be seen, particularly for a resource-starved coalition government pursuing stabilisation policies under the close watch of the IMF.

Historically, stabilisation policies have entailed economic hardships, which the people of Pakistan have repeatedly borne with the promise of future gains. Unfortunately, they have not always been able to partake equitably in the benefits of subsequent economic growth spurts. This dynamic partially explains the unpopularity and abrupt exit of past regimes despite the higher average growth rates recorded during their tenures.

The government's wellbeing depends on prioritising and protecting its people grappling with falling family incomes and rising living costs During his first week in office, Finance Minister Aurangzeb Khan shared his insights and economic priorities through interviews and media interactions covering various issues. Expressing confidence in the prime minister's leadership, he pledged to continue the 'commendable' work initiated by caretaker finance minister Dr Shamshad Akhtar.

Mr Khan highlighted the improvement in key economic indicators during the first quarter of the current fiscal year, attributing it to Dr Akhtar's strict adherence to stabilisation policies. He emphasised that these measures have bolstered Pakistan's position, enabling successful engagement with the IMF to conclude the review and secure the release of the last $1.1 billion tranche of the nine-month Stand By Arrangement.

He was hopeful that the successful completion of the current programme would pave the way for negotiations for a larger, longer programme during the IMF and World Bank's meetings in Washington in April. Emphasising the importance of stabilisation policies, he referred to them as the 'Pakistan programme' for which he vowed to seek the IMF's backing.

Privatisation is a priority, with plans underway to privatise Pakistan International Airlines (PIA) and, eventually, power distribution companies. The finance minister also hinted at forthcoming reductions in both foreign exchange and policy rates.

Notably absent from the discussion were the concerns of workers and salaried classes facing immense economic strain, grappling with dwindling family incomes and depreciating asset values. His stance appeared to lean towards the overly simplistic trickle-down theory, perhaps assuming that all members of society, regardless of class, gender, region or profession, would inevitably reap the benefits as the economy stabilises and grows.

Such unfounded assumptions have failed to materialise in the past, and clinging to them now could pose significant risks for a fragile government and a nation already teetering on the brink of an economic crisis.

"It's absurd for Shahbaz Sharif's government to test peoples' patience at this time. While direct cash transfers to the poorest are essential given Pakistan's lack of a social security net, the working masses in the middle of the social spectrum are feeling the squeeze with falling family incomes and rising living costs. The government must provide policy support to them, along with caring for risk-averse bankers, barons and brokers," remarked an analyst.

Speaking on the resilience of the Pakistani people, he noted, "Whether it's rooted in faith, strong family ties or other factors, Pakistanis consistently demonstrate their ability to rebound from adversity. Despite enduring dictatorships, natural disasters, war fallout, the pandemic, terrorist strikes and governmental betrayals, they exhibit remarkable resilience. Not only do they persevere to survive, but they also actively engage in the political process.

"Imposing higher fuel and power rates on citizens would be not only unjust but also risky. I firmly believe that the future of both the government and the country hinges on recognising the primacy of citizens and prioritising their wellbeing. Policies must give due consideration to their aspirations for sustainable, inclusive development." ■

Courtesy Dawn

A plan for electricity prices

government is yet to present any plan that breaks the cycle

Ammar Habib Khan

The writer is an independent macroeconomist

There is a new government in place. Similar to previous governments, this one also does not have any plan in place to arrest economic stagnation, and move towards any modicum of sustainable growth. The faces at the helm have been around for three decades, and their plans remain grounded in the last century. The world has moved on, and so has the region, but Pakistan continues to be stuck in a low-growth trap.

In order to unlock economic growth, we need to unlock export-oriented industrial growth. This needs to be broad-based export-oriented growth, rather than serving a specific sector only. The core tenet of any industrial policy is availability of affordable energy. The government, since it doesn't have any plan, continues to pass on the increase in electricity prices (largely a function of inefficiency) to consumers. More importantly, as prices are increased, demand for electricity goes down, resulting in lower off-take of electricity from the grid, which inadvertently results in another round of increase in prices to cover for capacity costs, and other inefficiencies.

The government is yet to present any plan that breaks the cycle. It continues to increase the price of electricity, further burdening the consumer, and inadvertently industrial growth, without undertaking or even planning for any serious reforms. A complex circular debt resolution plan, which has failed multiple times over the last few years continues to see the light of the day, only to fail again. The lack of imagination is appalling, and such lack of imagination is holding back the potential of almost a quarter of a billion people, just because the usual suspects do not have a plan.

As electricity prices continue to increase, and as demand remains flat or goes down, there will be a mass exodus of industrial units from the grid, making electricity more expensive for the remaining consumers on the grid – mostly households and commercial entities. Even though high electricity prices may not work for the consumer, the government likes high electricity prices – because that leads to higher tax collection. In some sadistic way, higher electricity prices result in higher taxes, which allows tax authorities to boast about how they have increased tax collection, even though it wrecked the economy at large.

This is what the government needs to do. Almost one-fifth of an electricity bill is just various taxes and government charges – cut those in half. This can potentially unlock demand for electricity, and drive industrial growth. Rreduction in taxes would mean that the tax authorities may have to actually do work on expanding the tax net, and increase taxes through more direct means, rather than extracting the same through consumption. If we want the economy to have even an iota of hope to get on a sustainable growth trajectory, this will have to be done.

As taxes on electricity consumption are reduced, and consumption increases, overall capacity charges will also reduce, triggering positive cyclicality. Similarly, gas prices across the board also need to be rationalized, such that domestic consumers pay a fair price for the gas they are consuming. Currently, gas companies have protected consumers, based on the level of consumption of gas. As gas is barely supplied to households, even the richest consumers become protected consumers. The concept of protected consumers should strictly be linked to household income, and not consumption of gas. If any subsidies do need to be provided to the most vulnerable economic segments, the same can be reallocated through direct cash transfers via BISP, rather than through distortion of energy pricing.

Available gas should then be reallocated to the highly efficient natural gas fired power plants, rather than inefficient captive power. This will automatically reduce the price of electricity through more efficient usage. Since electricity prices are reduced through the above measures, industries will have an incentive to remain on the grid and move towards more efficient utilization of machinery, and processes. As industries and commercial entities alike start using the grid again, the positive cyclicality associated with lower capacity charges will kick in again.

These are policy decisions that can be executed within a few weeks, and the impact can be seen almost instantaneously. Detractors may say that these are all difficult decisions, and even theoretical at best. Such detractors must acknowledge that through lazy policy we have succumbed almost quarter of a billion people to a life of misery. Maybe it is time to be more ambitious, and actually do something to pull people out of their misery and put them on a path of sustainable growth. ■

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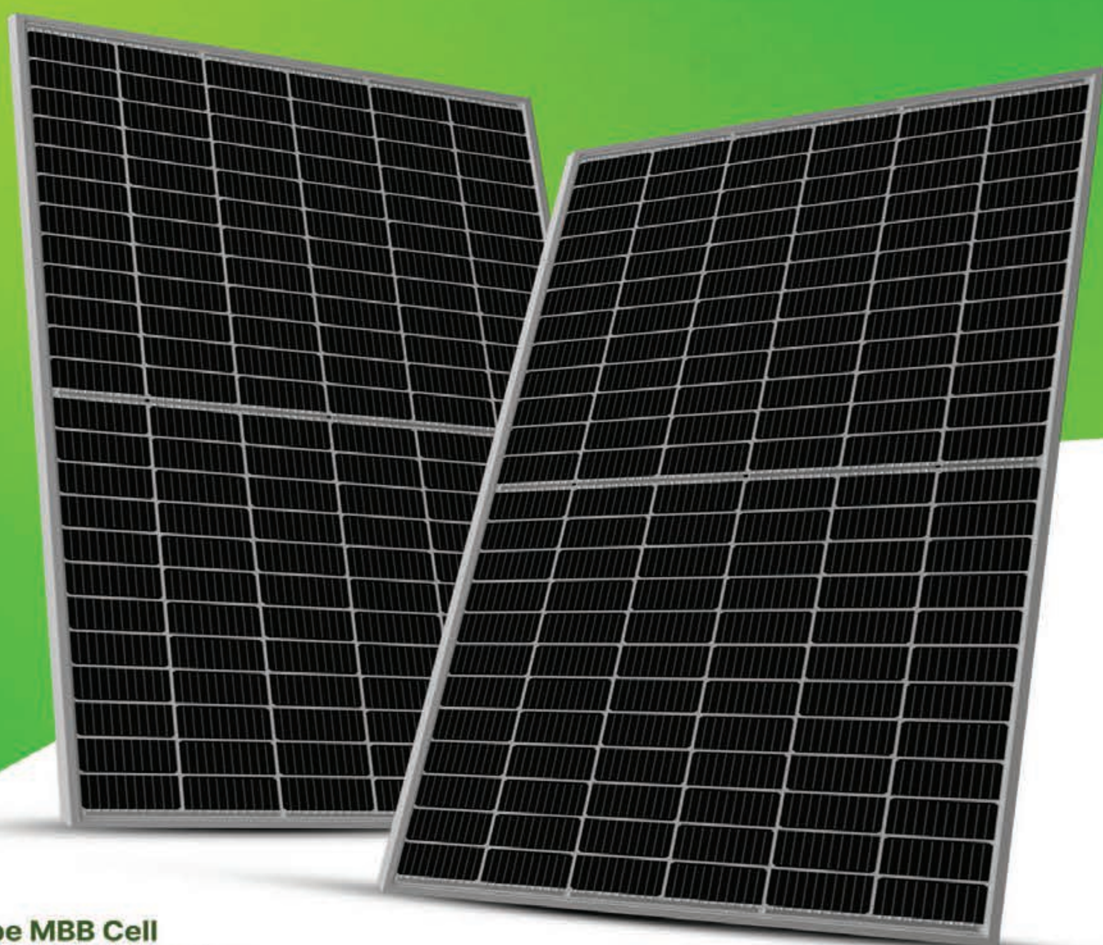

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How to solve the 'bijli' problem

Pakistanis demand cheap and plentiful electricity – everywhere all at once – and it is nowhere in sight

Engineer Khurram Dastgir

The writer is a former member of the National Assembly

Electricity draws incessant howls of outrage from Pakistanis. From industrialists to lifeline consumers, from plutocrats to labourers; everyone is unhappy. Pakistanis demand cheap and plentiful electricity – everywhere all at once – and it is nowhere in sight.

A library can be filled with reform advice, reports, books, diagnostics, and the 'way forward' for the electricity sector published over the last three decades. Yet no subject is as resistant to positive change, and no other is as complex and consequential for the national economy. The sector has hundreds of thousands of employees spread in every nook of the land, has massive exposure to international donors, and has an annual turnover of more than Rs3000 billion.

The Power Division, which administers the electricity sector, is probably the most challenging assignment in the federal government. It has five distinct quagmires: generation, transmission, distribution, finance, and the regulator. This exceedingly complex morass gets compressed each month into a single piece of paper: the bill for the consumer.

The electricity bill is a summary of Pakistan's historically poor governance. No wonder reading the bill is a nightmare. It is cross-hatched with a plethora of tariff categories, taxes, adjustments, and fees that have nothing to do with electricity. It is a vehicle for obtaining revenue that the citizens do not pay otherwise or the officials neither have the ability nor the integrity to collect.

On one hand, many regions of the country deem free electricity their ransom for staying with the federation or payment for a deprivation the federal government owes them to rectify. On the other hand, central regions pay for the brazen theft in other parts of the country.

In an insightful recent monograph on the subject, Prof Ijlal Naqvi calls electricity losses "an indicator of state capacity". The federal government collects bills in the areas where its state capacity is better – the five distribution companies beginning with Islamabad and ending at Multan. The rest of the country – north, west, and south – lies in a deep pit of theft and losses, precisely the areas where the writ of the state is feeble.

All is not despair, however. Although the public saw only higher bills, the 2022-23 PMLN-led government made the landmark achievement of shifting of balance in Pakistan's electricity generation decisively towards domestic fuels. In a mere sixteen months, the Shehbaz Sharif government added more than 5000MW new generation capacity to the system, two-thirds of which is domestic or sustainable energy.

The addition included the completion and operationalization of pending CPEC projects, 1980MW from Thar coal alone. The K3 nuclear plant 1100MW was completed and put into operation as well as the Karot Hydroelectric generation of 720MW capacity. The state-of-the-art 1266MW Haveli-II LNG plant was completed and put into operation. There was consequently a remarkable decrease in load-shedding from summer 2022 to summer 2023.

Rules and processes for an open and free market for competitive trading and bilateral contracts in electricity were notified. The Advanced Metering Infrastructure (AMI) project was launched to install direct-reporting electricity meters for all industrial, commercial, bulk, and agricultural users nationwide.

Transmission lines for the Diamer-Basha and Sukhi-Kinari projects as well as downstream grid stations were launched to ensure ready evacuation before generation begins. One achievement on this account was the completion and operationalization of the crucial Thar-Matiari transmission line within four months. The landmark Pollan-Jeevani transmission line connecting Iran's grid directly to Gawadar was agreed upon, built, and completed swiftly ahead of time and inaugurated jointly by PM Shehbaz Sharif and the president of Iran.

Shehbaz Sharif's previous government restored electricity and rebuilt destroyed infrastructure swiftly nationwide in record time after the devastating 2022 floods. It also reduced the circular debt of electricity by Rs154 billion on June 30, 2023 compared to the record level on March 31, 2022 left by the previous government. Sharif's government removed import duty on all components for domestic manufacturing of solar panels and removed GST on the import of solar panels. Moving ahead of the rest of the world, PM Sharif broke ground last summer on the 1200 MW Chashma 5, which will be the largest nuclear-powered electricity plant in the country.

Yet the killing piece of paper, the dreaded electricity bill remains. How to deliver inexpensive and abundant electricity to Pakistan? How to unshackle the consumer from crushing capacity charges? How to reduce the purported 'theft' but also the subsidies that are twice the amount of theft? How to reduce expensive electricity and increase less expensive electricity?

The answer is in one comprehensive phrase: energy transition. First of all, PM Sharif should reiterate clearly his previous government's policy that all new power generation in Pakistan shall henceforth be based upon indigenous resources, of which major ones are: solar, Thar coal, hydel, nuclear, and wind. The new government should ensure full-steam progress on under-construction large-scale hydel-power projects at Dasu and Diamer-Basha. Ensure Chashma-5 is built at pace and commissioned.

Second, PM Sharif should revive and push in full force his 10,000MW solar initiative from 2022, beginning with the first 600MW. Part of the solar initiative is the extant proposal for thousands of 1-4MW rural-grid-based micro-solar plants and the conversion of all federal government-owned buildings to solar.

These projects foundered previously because of strict import controls that discouraged bidders. Now they are feasible eminently, all the more so because the international price for panels has declined substantially.

Third, replace all 33 million plus electricity meters in the country with AMI meters. This single technological innovation will reduce theft, enhance data collection, improve the quality of billing dramatically, and thereby enable further efficiency-enhancing and theft-resistant reforms.

Fourth, categorically reject all extensions of existing contracts with independent power producers (IPPs). Most of these contracts are due to expire in the term of this government (2024-29). Concurrently, negotiate with remaining contractors an extension in terms of debt instead of smaller current repayments.

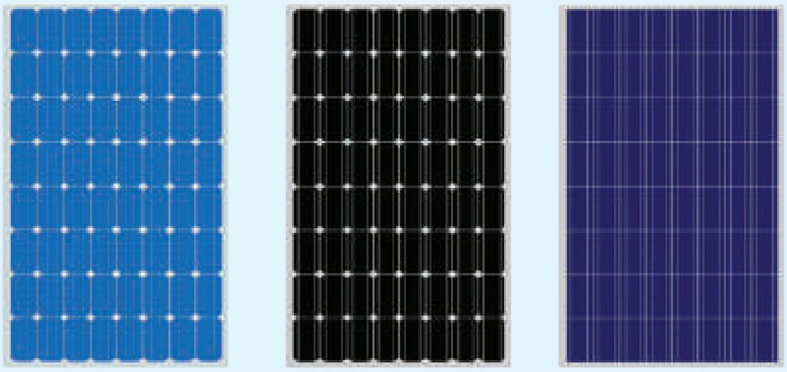
Fifth, undertake massive reform in all five parts of the electricity sector and re-engineer the Power Division, which has become a hollow, under-qualified, and obsolete administrative shell. Nothing should be unthinkable when reforming. Nothing.

The above suggestions are by no means a comprehensive list but first steps towards mending a broken sector. These will perform indispensable pro-poor and pro-growth functions: reduce the price of electricity; reduce the strain on our balance of payments; and reduce carbon emissions.

If the current government has the will to reform, follow up, and do the tough work necessary, Pakistan's future generations will benefit from clean, economical energy to generate new employment and power our coming economic growth. ■

SOLAR TECHNOLOGY

Types of solar panels and their performance



Mustafa Tahir

The Writer is Deputy Editor of Energy Update

In the market, there are four main types of solar panels available, each with varying performance based on its type or quality. These panels are categorized as monocrystalline, polycrystalline, monoperc, and thin film. Each type serves different purposes and locations, and their performance can vary by 15% to 25%.

Monocrystalline Solar Panels

Monocrystalline solar panels generally offer up to 20% higher efficiency as compared to other types. They are more expensive and have a higher carbon footprint during manufacturing but are known for their durability and long-term performance.

Polycrystalline Solar Panels

Polycrystalline panels exhibit 15% to 17% higher efficiency and are cost-effective compared to monocrystalline panels. However, they may not perform well in extremely hot climates.

Monoperc (Mono-PERC) Solar Panels

Mono-PERC panels show 5% higher efficiency than traditional monocrystalline panels. They are suitable for areas with limited space and are gaining popularity due to their enhanced performance.

Thin Film Solar Panels

Thin film panels have 7% to 10% higher efficiency and are lighter in weight, making installation easier and less costly. They are ideal for projects where weight and space are critical factors.

Generation and Cost Considerations

All solar panels fall into three generations, each with its cost, production, and durability characteristics. These generations are Mono-Si, Poly-Si, Passivated Emitter and Rear Cell (PERC), and Thin Film Silicon (TF-Si).

Mono-Si Panels: Also known as single-crystal panels, these are made from single-pure silicon crystals and have a deep blue color due to their structure.

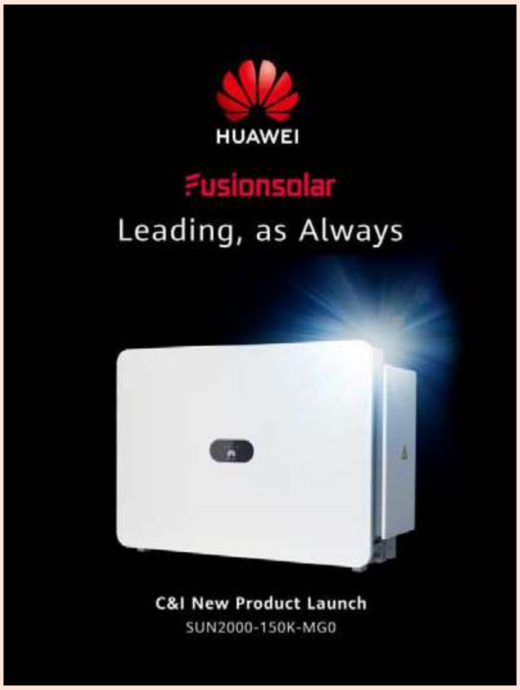
Poly-Si Panels: These panels, with their blue appearance, are made by melting silicon and molding it into various crystals. They have a shorter lifespan and lower efficiency compared to monocrystalline panels.

PERC Panels: These panels represent an advanced standard of monocrystalline cells and offer improved light absorption and electron flow, enhancing their efficiency.

TF-Si Panels: The second generation of thin film solar cells use materials like cadmium telluride and copper indium gallium selenide. They are easier to install and have higher flexibility.

In conclusion, choosing the right solar panel type depends on factors such as cost, efficiency, space availability, and environmental conditions. Monocrystalline panels are durable but expensive, while thin-film panels offer flexibility and ease of installation. Understanding these differences can help consumers make informed decisions about their solar energy investments. ■

Huawei launches revolutionary 150KTL "Hexagon Warrior" Inverter in Pakistan



Mustafa Tahir

Huawei, a global leader in technology and innovation, proudly announced the launch of its groundbreaking Commercial & Industrial Smart PV product, the 150KTL inverter, at a prestigious event held in Lahore. Esteemed experts, scholars, industry leaders, and enterprise representatives from the PV industry were in attendance, bearing witness to this momentous occasion.

The new Huawei 150KTL inverter marks a significant milestone in the evolution of solar energy solutions. As the pivotal component of a PV plant, the inverter plays a critical role in enhancing power generation efficiency, ensuring safety, and reducing operational costs. Huawei's latest offering, the SUN2000-150KTL-MG0 Smart string inverter, is designed specifically for Commercial & Industrial (C&I) scenarios, boasting unparalleled power generation capabilities, proactive security features, long-term reliability, simplified operation and maintenance (O&M), efficient deployment, and grid friendliness.

Key features of the Huawei 150KTL inverter include:

More Electricity Generation: Industry-leading maximum efficiency of 98.8%, built-in PID repair solution, and TOUGHV demonstration resulting in a 3% energy yield improvement.

Active Security: Innovative Smart String Level Disconnection (SSLD), Intelligent DC-to-ground protection, Smart Connector Temperature Detection, and intelligent arc protection (AFCI) for enhanced equipment and asset safety.

Long-term Reliability: Adherence to stringent IPD processes, ensuring product reliability and a service life of over 25 years with a five nines (99.999%) availability rate.

Simplified O&M: Industry-leading component-level insulation detection, reducing O&M time from days to hours.

Efficient Site Deployment: SmartDesign tool for automatic design and optimization, streamlining the site deployment process.

Grid Friendly: Intelligent harmonic algorithm achieving a current harmonic of less than 1%, ensuring grid compatibility.

The launch event was graced by Ch. Shafay Hussain, Minister of Industries, Commerce, Investment, and Skills Development, Government of Punjab, along with distinguished personalities including Sail (Xu Yuanhang), Regional Director of Huawei Fusion Solar, Louis (Yuan Zhiliang), HQ Director, and Robin (Xing Xiaobing), Managing Director of Huawei Digital Power Pakistan.

Huawei FusionSolar remains committed to driving technological innovation, providing customers with economical and reliable green energy solutions, and supporting green and low-carbon transformations across various industries. ■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Cheaper Chinese EVs dominate world markets

Environmental fears, tech advancements drive shift towards sustainable transportation

Gohar Ali Khan

Chinese electric vehicles (EV) are gaining immense popularity throughout the world because of their cheaper rates and amusing features, flooding and astonishing the US and European markets despite tough competition with local industries in the West.

China has knuckled down to do far more work on research and development with a view to having a full command over technologies, manufacturing new products, revamping cutting-edge technologies and providing the world with cheap and attractive goods.

EVs are getting cheaper and abundant and as people are eager to meet global climate goals, climate-friendly technologies such as EVs are becoming the future of global industry. A deluge of cheap Chinese EVs might dent sales of US auto giants including Ford and General Motors to a great extent.

US President Joe Biden has swung into action and issued directives to the US Department of Commerce to investigate potential national security risks from imported Chinese vehicles and address concerns about dependence on foreign supply chains, particularly in critical industries like automotive manufacturing.

This investigation aims to assess any risks posed by Chinese vehicles, including potential threats related to technology, cybersecurity and intellectual property infringement.

US Commerce Secretary Gina Raimondo said rising sales of Chinese EVs in the West were a national security risk for the US and the European Union.

"A sophisticated EV, and then an autonomous vehicle, is filled with thousands of semiconductors and sensors. It collects a huge amount of information about the driver, the location of the vehicle and surroundings of the vehicle," Raimondo said at an event hosted by US think tank Atlantic Council, according to a report.

Earlier, she noted how Beijing had banned the passage of vehicles made by US EV giant Tesla in certain parts of the country, citing national security concerns.

About 70% EV cars and over 95% EV motorbikes of China are dominating the international market, while the US, Europe, Canada, Japan and other countries have lagged behind in cheaper technology.

Although the US and Europe bristle with far better and costly technologies, yet China's sales volumes are so high that the West cannot compete on prices.

China is fully capable of covering production costs due to high volumes, but the US and European car volumes are decreasing quickly and their industries could face the spectre of closure.

A decade ago, China was notorious for producing the replica of everything, but this is for the first time that it is manufacturing good-quality, cheaper products in competition with market leaders including the US, Germany, South Korea and others. "That is why, the West is coerced to take some initiatives, while impeding progress of China's growing economy," said auto sector analyst Muhammad Sabir Sheikh.

According to media reports, BYD sold 3 million electrified vehicles in a year, more than any other company, and it now has production capacity to manufacture 4 million cars. China's state-owned shipping giant Cosco [China Ocean Shipping (Group) Company] has ordered 24 large vehicle carriers.

"I think we should not look at the perspective of the US being narrow-minded towards other countries but look at the cost of such policies to its own consumers. The average price of EV in the US has increased significantly in recent years, making it out of the reach for many. Political representatives are more likely to introduce policies that benefit their own constituents and lobby groups rather than foreign producers and consumers," he said.

Chinese automakers, especially BYD, are now the largest producers of EVs in the world. Although their access to the US market is limited, they may route their production through other countries such as Mexico.

One benefit of globalisation is that it provides innovative companies with different avenues to access their target markets and grow. "We see a potential increase in foreign direct investment in third markets with better linkages with the US," said Sheikh.

"One key factor in EV growth is the evolution of battery technology. Also, we are seeing that cars are becoming more autonomous over time. With net zero emission targets, investment in EV is likely to grow," said auto maven and IBA Assistant Professor Aadil Nakhoda. ■

Courtesy Express Tribune

SolaX Power partners with Borussia Dortmund to advance green energy initiatives

SolaX Power is delighted to announce its partnership with Borussia Dortmund, a distinguished football club based in Germany, on March 19. This groundbreaking collaboration marks the first alliance between Borussia Dortmund and a solar energy storage enterprise, symbolizing a significant step towards promoting global green energy initiatives and fostering sustainable development.

Borussia Dortmund is renowned as one of Germany and Europe's premier football clubs, boasting a rich history and a vast fan base. With eight Bundesliga titles and the honor of being the first German team to win a championship in European matches in 1966, the club has garnered domestic and international acclaim. Known for its innovative youth training program and commitment to nurturing emerging talent, Borussia Dortmund's passion for football aligns seamlessly with SolaX Power's steadfast dedication to advancing green energy.

Established as a leading force in solar energy storage, SolaX Power has earned widespread recognition for its cutting-edge technology and reliable products across the European market. Particularly in Germany, SolaX Power enjoys a stellar reputation and occupies a prominent position in the industry. The company's innovative energy solutions not only meet the energy needs of households and businesses but also play a significant role in achieving carbon neutrality objectives.

Founded in 2012, SolaX Power is a publicly traded company listed on the Shanghai Stock Exchange STAR Market, committed to realizing a clean and sustainable future through solar energy innovation. As a globally recognized provider of solar and storage solutions and a pioneer in hybrid inverter manufacturing in Asia, SolaX Power has evolved into a multinational corporation with a workforce exceeding 2,000 employees worldwide. Headquartered in Hangzhou, China, with strategically located branches in the Netherlands, Germany, the UK, Australia, Japan, and the US, SolaX Power serves customers in more than 80 countries.

Through the partnership with Borussia Dortmund, SolaX Power aims to leverage the universal appeal of football to enhance its brand's international presence and promote the values of green and sustainable living. The collaboration will include various initiatives such as stadium advertising, fan engagement activities, and social responsibility projects, collectively advancing the integration of football with green energy and offering global fans a more environmentally conscious experience.

We look forward to collaborating with Borussia Dortmund, embarking on a new era of progress in sustainable development and sports as we strive towards a brighter and greener future.

For more information about SolaX's solar technologies, please contact info@solaxpower.com or info@fronus.com.

2024 may not serve the climate cause well

Rehan Ayub

If 2023 wasn't a good year for climate change, 2024 may not be any better – for those who wanted to hear some good news about climate change. Earth's average surface temperature in 2023 was the warmest on record since at least 1951, according to all organisations that work on global temperatures, including the National Aeronautics and Space Administration (NASA).

They say 2023 did not just break 2016's heat record, but reached close to the 1.5°C threshold nations agreed to in the 2015 Paris climate accords – an international treaty on climate change. As we moved into 2024, the world experienced its hottest January on record, continuing a run of exceptional heat fuelled by climate change, the European Union's Copernicus Climate Change Service (C3S) said.

Meanwhile, US scientists already believe that 2024 has a one-in-three chance of being even hotter than last year, and a 99% chance of ranking in the top five warmest years. Save the planet? How can we be so arrogant? The planet is, was, and always will be stronger than us. We can't destroy it; if we overstep the mark, the planet will simply erase us from its surface and carry on existing. Why don't they start talking about not letting the planet destroy us?: Paulo Coelho, The Winner Stands Alone

As per the United Nations' (UN) definition, climate change refers to long-term shifts in temperatures and weather patterns. Such shifts can be natural, due to changes in the sun's activity or large volcanic eruptions.

But since the 1800s, human activities have been the main driver of climate change, primarily due to the burning of fossil fuels like coal, oil and gas. Burning fossil fuels generates greenhouse gas emissions that act like a blanket wrapped around the Earth, trapping the sun's heat and raising temperatures. The main greenhouse gases that are causing climate change include carbon dioxide and methane.

Ongoing wars in Ukraine and Gaza have shifted the focus of world powers to short-term priorities, away from long-term threats like climate change. The highly anticipated COP28 was held in Dubai amid Israel distracted with dropping thousands of bombs on the small Gaza Strip.

Despite pledges to reduce carbon emissions or calls for phase out of fossil fuel, wars will always outmaneuver the climate cause in getting the world's attention. In this scenario, climate vulnerable countries like Pakistan must not expect some big climate change actions from developed countries. They will likely pledge more and give a few to deal with a catastrophe caused by climate change.

As per official figures, Pakistan contributes less than 1% to global greenhouse gas emissions, However, methane emissions from agricultural production and landfills in the country are quite higher than many other countries, a climate change expert said in a recent training programme organised by a think tank Policy Research Institute for Equitable Development (PRIED).

Other than pushing the developed countries, Pakistan needs to step up its in-house efforts to clean the environment and become more resilient to climate change.

The world is not prepared to save itself from the dangers of climate change. It's high time to understand that we need the earth and not vice versa. So, every human being has to contribute to making it sustainable for the existence of our future generations. ■

Bilawal's promise during recent electioneering

EU Report

Newly appointed Sindh Energy Minister, Syed Nasir Hussain Shah, has said the execution of the ongoing solar power projects would be expedited to fully tap the clean energy potential of Sindh in order to fulfill the election campaign promise of PPP Chairman Bilawal Bhutto Zardari to provide 300 units of free electricity to underprivileged consumers. Shah stated this while chairing an introductory meeting with the officials of the Sindh government's Energy Department after he assumed charge of his ministerial position a day after he took the oath of the office of provincial minister. The new Sindh Energy Minister asked the officials of his department to take care of quality standards and merit while executing the development projects. The Energy Minister was briefed that 15.3 million tonnes of coal was being extracted annually from Block One and Block Two of Thar coal. The Thar coal is being consumed to produce 3,300 Megawatts of electricity for the national grid. Shah was briefed that wind energy projects in Sindh had been producing 1845 Megawatts of clean electricity for the national grid. Three solar power projects of 150MW have been completed in the province. Three more World Bank-assisted solar energy projects will also be installed to generate 400MW of renewable electricity for Karachi Electric.

Punjab CM Launches 'Roshan Gharana' Program, Plans to Distribute 50,000 Solar Systems

Punjab Chief Minister Maryam Nawaz Sharif has announced the distribution of 50,000 solar systems under the "Chief Minister Roshan Gharana" program in the province. The initiative, with a budget of Rs 12.6 billion, aims to provide solar systems to 50,000 protected consumers using 100 units monthly through balloting in Phase-I. During a review meeting on Solar home solutions, CM Maryam Nawaz Sharif directed immediate steps for installing one-kilowatt solar systems and emphasized incorporating the latest technology. The solar systems will include advanced solar panels, inverters, batteries, and other accessories. The distribution of home-based solar systems will initially benefit protected consumers, with plans to extend the program gradually to other consumers in Punjab. Provincial Information Minister Azma Zahid Bukhari, Former Senator Pervaiz Rashid, MPA Sania Ashiq, and relevant officials also participated in the meeting.

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Sindh's energy potential showcased to British High Commissioner, invites investment

Amid persistent economic crisis and high inflation rate, the International Monetary Fund (IMF) and the Pakistani authorities have once again reached a staff-level loan agreement on the second and final review under Pakistan's Stand-By Arrangement, subject to the approval of the IMF's Executive Board. Upon approval, Pakistan will have access to a US$1.1 billion loan.

This loan seems another burden on the whole nation and a debt trap for the country while the worst is it that the government intends to get more loans from the international donor agency. The people have still not received any benefit from the IMF loans secured earlier, as the inflation and joblessness rates are continuously soaring rather than coming down.

Pakistan has been facing an economic crisis for the past few years, and the country's debt burden has been increasing at an alarming rate. IMF has provided several loans to Pakistan in the past to help the country overcome its economic challenges. However, those loans have been secured with strict conditions that have put Pakistan in a debt trap.

It is a matter of great concern that the Pakistani government has once again pushed its people into a quagmire of IMF loans, and coming out of it seems not possible in the near future.

The fact is that we have been trapped by the IMF's debt-trap diplomacy, which is an international financial relationship where a creditor country or institution extends debt to a borrowing nation partially, or solely, to increase the lender's political leverage. The creditor country is said to extend excessive credit to a debtor country with the intention of extracting economic or political concessions when the debtor country becomes unable to meet its repayment obligations. The conditions of the loans are often not publicized as in the case of Pakistan.

Pakistan's government direly needs to provide relief to its inflation-hit people from the IMF loan besides stopping taking more loans for the good of the nation and the country's survival. The fact is that the IMF loan conditions have undermined people's economic, social, and cultural rights. The conditions are further compounding problems of the country and its people rather than coming out of them.

Although the IMF claims that poverty reduction is one of its objectives, some researches show that IMF borrower countries experience higher rates of poverty. It was found that IMF loan arrangements containing structural reforms contribute to more people getting trapped in the poverty cycle, as the reforms involve deep and comprehensive changes that tend to raise unemployment, lower government revenue, increase costs of basic services, and restructure tax collection and social security programmes. ■

Sindh's 3,000MW clean energy projects await approval

Sindh Energy Minister Syed Nasir Hussain Shah informed Chief Minister Syed Murad Ali Shah about 45 proposed clean energy projects awaiting approval in Sindh, totaling a capacity of over 3,000 megawatts. This information was shared during a meeting aimed at improving coordination between federal and provincial agencies for data sharing and revenue collection. Of the 45 projects, 26 are wind energy projects with a combined capacity of 1,875MW, and 19 are solar projects with a total capacity of 1,150MW. These projects are awaiting approval under a competitive bidding system, to be conducted by the federal government. The meeting proposed that the Sindh Energy Department conduct the first round of competitive bidding among projects holding LoIs (letters of intent), or alternatively, the Private Power Infrastructure Board can conduct the bidding as per rules. Additionally, the meeting discussed funding for a rail connectivity project for Thar coal transportation, with a Finance Feasibility Agreement already reached between Pakistan Railways and the Sindh Energy Department, awaiting ratification.

"Sindh plans solar power for 500,000 households"

Sindh's Energy Minister Syed Nasir Hussain Shah revealed that around 500,000 households in Sindh lack electricity access. The government aims to address this by implementing solar power solutions. Shah mentioned plans to build solar parks in various cities to provide free electricity to underprivileged households. He also discussed fulfilling PPP Chairman Bilawal Bhutto Zardari's promise of 300 units of free electricity. Shah advocated for increasing solar power park capacities beyond the current 50 MW limit to 500 or 1,000 MW to meet growing energy demands. ■

AKU signs 3.3MW solar project

EU Report

Aga Khan University (AKU) has embarked on its largest solar photovoltaic (PV) project, partnering with Exide Pakistan Limited for the installation at its Stadium Road Campus in Karachi.

This initiative is part of AKU's commitment to achieving net-zero emissions by 2030. The signing ceremony to kick off the project highlighted the importance of renewable energy in reducing greenhouse gas emissions and transitioning to clean energy systems. With Pakistan's high solar irradiation, solar PV is an ideal solution for energy generation in the country.

The project involves installing 3.3 megawatts of solar PV across the campus's remaining roofs and three large parking areas, providing shade to parked cars. The phased installation is set to be completed by April 2025, contributing significantly to AKU's decarbonization plan.

Dr. Sulaiman Shahabuddin, AKU's President, emphasized the institution's strong commitment to environmental sustainability and climate action through renewable energy initiatives. The collaboration with Exide Pakistan Limited aims not only to benefit AKU but also to set a shining example for other institutions in promoting renewable energy and combating climate change.

The solar project will reduce CO_2 emissions by 1900 tonnes annually, equivalent to the emissions produced by burning 800,000 liters of petrol in a car. This endeavor underscores AKU's leadership in environmental stewardship and positions it as a role model in climate action, both locally and globally. ■

SOCIAL AND BUSINESS ROUND UP

Prime Minister of Pakistan, Mr. Muhammad Shehbaz Sharif presented 'Compliant Taxpayer Awards' to leading taxpayers, exporters, businesses and individuals in a ceremony held at the PM Office. PARCO ranked amongst the Top Five in the Highest Taxpayer (All Taxes) category. Irteza Ali Qureshi, Managing Director-PARCO received the award from the Prime Minister of Pakistan.

3rd Workshop on Oil industry try overview and Product knowledge was held on 28th February in TPPL head Office Lahore. Mr. Asif Iqbal CEO TPPL inaugurated the course and distributed certificates at closing ceremony

Mian Fahad country manager Growatt organized an iftar dinner in honor of Lahore Solar Community

Growatt New Energy Honored to host the Iftar Dinner for their esteemed customers in Islamabad

MD/CEO OGDCL - Ahmed Hayat lak receives Tax Excellence Award 2024 from Honourable Prime Minister of Pakistan - Mian Muhammad Shehbaz Sharif.

Mian Fahad Country Manager Growatt New Energy Hosted Iftar Dinner In honor of Solar Community of Karachi

K-Solar Signed MOU with Gul Ahmed Textile to setup 1.7 MW Solar Project

PPIB holds an international workshop on Hydropower sector in Islamabad. A group photo of the delegates with MD PPIB Shah Jehan Mirza and DG Hydro Dr. Munawwar Iqbal.

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