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# ENERGY UPDATE

COUNTRY FACING ACUTE SHORTAGE OF **5,000 MW POWER**

27 POWER PLANTS OUT OF ORDER: **SHEER MISMANAGEMENT BY PTI REGIME**

THE ECONOMY NEEDS **RAPID IMPROVEMENT**

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FROM THE EDITOR'S DESK...

# Shahbaz govt facing daunting task to repair tarnished economy

TheShahbaz Sharif led government would be facing a daunting tas not only for the country's economy but it even badly tarnished the image of the country. The ousted party left the power while proving that this was not a political party but actually a gang of usurpers, that continued to destroy each and every sector of the government without realising that their nasty performance would derail the economy to the level of extremely alarming that people would be thinking of the fact the country has reached to the brink of bankruptcy.

The worst ever performance theousted govt has shown was the energy sector after a biggest failure in foreign policy and the people would soon be facing the brunt of massive load-shedding, which has almost started to take its toll.

The new government would have to make revolutionary measures in order to make country load shedding free by declaring the import of solar panels and its allied equipment duty free for domestic and industry besides providing renewable energy solution financing interest free.

The Ousted government not only promoted the corrupt policies of the PPP and PML-N regimes, but also brought unparalleled deterioration in all spheres of life, especially the economy and governance. the bad-governance, incompetence to handle economic crisis and failure to provide relief to the masses already suffered a lot under poverty and inflation. The national kitty suffered losses of billions of dollars due to sugar, flour, petrol and medicines' scandals, showing the government's failure to act against the Mafias. The prime minister had not sought any money trail from his friends involved in various scams and also from those in the cabinet who own billions of rupees

The economy was on the verge of collapse due to ill-planning of the government. Inflation and unemployment became the trademark of the incumbent government. The life of the poor turned miserable due to backbreaking inflation. The IMF had virtually taken control of the State Bank and economy of the country.

As the former governments were also responsible for the crises facing by the country the PTI kept the status quo and failed to bring any change in over three years. The PTI, PML-N and PPP were two sides of the same coin.

In order to save the economy from total disaster and avoid a possible bankruptcy, the newly elected government has left with only way to ban import of all kinds of imports of luxury items and slashing the GST to 5%.
In order to avoid a severe energy crisis, industrial and domestic sectors should declare duty-free on import of solar panels and given interest free loans.

**ENERGY UPDATE**



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# PTI Govt leaves behind a monstrous circular debt

## Will the incumbent govt transfer the debt burden onto the consumers?

Sajid Aziz

The incompetence of ousted government of PTI has resulted in mounting of huge circular debt that has eached to the mosntrous level of Rs2.476 trillion until December last year and if taken into account 2.5 months more the debt may well reach over Rs2.575 trillion so far. We had been sounding alarm bell on these pages and have pointed out so many times that PTI government is mounting the circular debt on energy sector that could be unmanageable in days to come and many experts and mainstream media too joined us in this campaign and raised alarms repeatedly by warning Imran Khan's government to address this issue before leaving the government without paying these debts. However all the voices and alarms proved to the unheard and it is feared more likely that the new government may shift this burden onto the poor consumers in the shape of levies and price adjustments.

The scourge of circular debt of the cash bleeding power sector has gone up by Rs1,328 billion in the last 40-month rule of the PTI government, climbing up to Rs2,476 billion till December 2021. "The Circular Debt (CD) stood at Rs700 billion when the PTI government assumed reins of power in August 2018. It has now gone up to Rs2,476 billion, indicating that it increased by Rs1,328 billion in the last 40 months period.

It clearly demonstrates that the PTI government failed to curtail the addresspiling up of circular debt. On an average, accumulation of debt stood at over Rs33 billion on a monthly basis in the last 40-month period. The government thus resorted to address the issue with introducing the Circular Debt Management Plan (CDMP) in a bid to fulfil the conditions of IMF and World Bank loans and envisaged an ambitious target to bring it down to Rs1,890 billion till June 2022. It plans to slash it down by Rs520 billion during December-June period of FY2022.

The breakdown of circular debt shows that the payable to power producers stood at Rs1,494 billion, GENCOs payable to fuel suppliers Rs79 billion and amount parked in Power Holding Limited (PHL) Rs904 billion, so the total amount on account of whole Circular Debt had climbed to Rs2,476 billion till December 2021. The government had made tall claims that it curtailed the circular debt and brought it down to Rs22 billion in pre-Covid-19 scenario but the outbreak of coronavirus derailed the curtailment programme.

There has been a gap of Rs357 billion in the shape of unpaid subsidies of Rs8 billion, unbudgeted subsidies of Rs17 billion, IPPs interest charges on delayed payments Rs67 billion, PHL mark-up Rs11 billion, pending generation cost through quarterly adjustment and fuel adjustment Rs100 billion, non-payment by K-Electric Rs67 billion, DISCOs' losses inefficiency Rs46 billion, DISCOs under recoveries Rs66 billion and other adjustments Rs8 billion till December 2021.

Out of the total gap of Rs357 billion, the government paid Rs161 billion through available fiscal space but there is a net addition of Rs196 billion in the first six months of the current fiscal year 2021-22.

The un-budgeted subsidy, including AJK and KE, stood at Rs75 billion. There is an outstanding receivable of Rs292 billion from KE because of lingering subsidy dispute between the KE and the Government of Pakistan.

According to an official statement issued after the Cabinet Committee on Energy CCOE has approved the revised Circular Debt Management Plan (CDMP). The three-year plan targets to minimize the annual build-up of Circular Debt as well as reduction in the stock. The CCOE reviewed the current situation and projections of the power sector circular debt while approving the CDMP. It also noted the monthly report of merit order violations in the power plants dispatch due to transmission constraints and other technical reasons. Similarly, the committee also noted the implementation status of Master Agreements and PPA Amendments with the IPPs.

Furthermore, the CCOE also approved the recommendation of introducing a special tariff category for Urban Mass Transit projects in the Schedule of Tariff. The tariff will be applicable to Karachi Circular Railway and other urban mass transit projects.

The newly elected government under Mian Shehbaz Sharif should refrain from passing on this huge burden onto the shoulders of the poor consumers otherwise the masses would also treat him in the same manner they have done with Imran Khan whose government has done nothing except lip service by his cronies occupying the key posts.

# Country facing acute shortage of 5,000 MW power

Sajid Aziz

The country is currently running an electricity deficit of over 5,000MW that has forced authorities to shed load to reduce the burden on generation infrastructure, leading to rolling blackouts across the country. This is not an outcome of some force majeure, but a job perfectly botched by power managers, who according to independent experts seem to be off their rockers. To make things worse for consumers, Nepra has also approved an additional fuel cost adjustment (FCA) of nearly Rs4.7 per unit for ex-Wapda distribution companies (DISCOs). For K-Electric there will be another Rs3.3 per unit additional FCA. The FCA for electricity consumed in February for DISCOs is likely to yield over Rs38 billion additional funds to the companies and for January nearly Rs3.5 billion for K-Electric in April.

DISCOs have repeatedly been demanding an increase in FCA to generate additional funds. There are two points of significance here. One: whatever fuel adjustment is made, ultimately consumers end up bearing all additional burden as they pay more for their bills that include such adjustments. In fact, 'adjustment' is just a euphemism for the cost that consumers pay to generate additional funds – money – for distribution companies. Two: the shortfall that consumers face even after all such 'adjustments' have been incorporated. Nearly 5,400MW shortfall is not small in magnitude nor mild in intensity in terms of the crisis that is set to befall consumers. Even more disturbing is the fact that this deficit is not caused by lack of capacity to generate electricity. The main reason is that required volumes of fuel are not available to sustain power generation that is highly dependent on consistent and uninterrupted fuel supplies. Another reason for the shortfall is not the capacity but the technical incapability to rectify tripping at Karachi Nuclear Plant (K-2). Unless our power managers are able to keep K-2 constantly in order so that it does not go out of the system frequently, the shortfalls will persist. There is also an inordinate delay in commissioning K-3, which is still in the testing phase. To compound this ordeal for consumers, there are also repeated technical faults at Chashma Plant-1.

The way the government has managed – rather mismanaged – our power sector in the past couple of years leaves much to desire. If the government has been claiming that generation capacity of 40,000MW is available, then we have a right to ask why the country is facing a shortage of over 5,000MW, especially when summer has hit the country. The government has been approving unrealistic reference fuel cost estimates that are not in consonance with the regulator turnout. The 'experts' who manage the power sector must have better analytical skills coupled with effective financial management expertise. When actual fuel costs are persistently much higher than the reference rate, it reflects on poor management skills that ultimately affect common consumers across the country. The citizens of Pakistan cannot afford more and repeated price shocks like this, nor are they ready for an increase in the base power tariffs that add to their burden. They need affordable and uninterrupted power supply – not 10-12 hours-long loadshedding. ■

# PAEC completes RFO of Chashma N-plant in record time

EU Report

Pakistan Atomic Energy Commission (Paec) engineers and technicians have completed the Re-Fueling Outage (RFO) of the nuclear power plant C-3 at Chashma in a record minimum time of 26 days. The RFO of the Pressurized Water Reactor (PWR) is a routine requirement for replacement of fuel and maintenance every 14 to 18 months, which is normally completed in 60 to 79 days. But this is the first time in the history of Pakistan nuclear industry that Pakistani engineers and technicians completed the RFO within the shortest-possible time. All six nuclear power plants of the Paec are operational with optimum capacity factor and generating 3,560 MW electricity. Four nuclear power plants at Chashma are supplying 1,340 MW while K-2 and K-3 in Karachi are feeding 2,220 MW to the national grid, reaching 18.3 per cent of the total electricity generation from all sources. The nuclear power generation in the country has proved to be reliable, cost-effective and above all zero-carbon emission electric source.

# LONGi solar with latest technology helping out clean energy transition in Pakistan

Director LONGi, **Ali Majid**

—◆— Mustafa Tahir —◆—

Ali Majid, the Director Sales at Longi Solar, has a deep understanding of the potential and problems of the renewable energy sector of Pakistan. With a vast experience in the clean energy market of Pakistan, Mr Majid in an interview with the Energy Update elaborates the progress so far made to introduce renewable energy systems especially solar power for domestic, commercial, and industrial customers across the country.

He continues to say that;

**Q: What is LONGi and its progress?**
**Majid:** As the world's most valuable and largest Solar Technology Company, LONGi is the leader in the clean energy transition. Our technological and manufacturing leadership in solar wafers, cells and modules underscores our commitment in helping accelerate the clean energy transition. By offering high-quality, reliable products and systems, we provide holistic solutions for the solar and renewable industry.

**Q: How does LONGi reflect its global leading position?**
**Majid:** LONGi ranked first in global shipments volume of modules in 2020 (24.53 GW) and 2021. I think this is the recognition of our products' value from customers. And we created and keep the world records in all main technical directions of solar PV (LONGi P-type PERC 24.06%, P-type TOPCon 25.19%, N-type TOPCon 25.21%, HJT26.30%, P-type HJT with gallium-doped 25.47%, indium-free HJT 25.40% with low-cost technology). Once the technology of the industrial chain is mature and the cost is reduced, LONGi will launch the most cost-effective, stable and reliable products to our customers which can bring the most return of your invest. We have a strong R&D team to ensure that we have always been a global leader in technology.

**Q: How much your company is investing in R&D?**
**Majid:** In terms of R&D resources, LONGi has a professional team of over 800, across silicon material, cell & module R&D centers and a national enterprise technology center.

As of the end of December 2020, LONGi had obtained 1,001 authorized patents and invested 2.592 billion yuan on research and development throughout the year, accounting for 4.75% of operating income.

In 2022, LONGi company will continue to maintain high intensity R&D investment and deliver high value results. Mass production has been implemented consecutively for different modules, with substantial reserves for the supply of new products and technologies.

**Q: What is your market share in Pakistan?**
**Majid:** LONGi Solar has shipped to Pakistan over 370MW in 2021, and is the largest PV Modules supplier in Pakistan among other Tier1 companies. Our modules almost cover the whole Market of Pakistan. We have distributor-partnerships in Lahore, Karachi, Multan, Islamabad, Peshawar and other major cities. And Pakistan market size is growing exponentially quarter wise and has surpassed 2.6GW in 2021, which is set to be increased minimum 20% in 2022. We are confident that LONGi's shipment volume will be much higher in 2022.

**Q: How many Distributors/Partners you have in Pakistan? Also, how much volume of business you are doing with them?**
**Majid:** LONGi Solar has vast network of distributors as well as channel partners, project partners in all across Pakistan. Around 50% of the PV Modules are being consumed by Distributors/Reseller whereas 50% of the panels are being used for the project. We support and encourage our partners to build local warehouses in Pakistan. We have a complete after-sales service in Pakistan, including sales manager, technical manager and sales suppport to provide localized services to distributors and customers in Pakistan. We support the development of our clients and seek multi-party cooperation including technology, marketing and finance.

AS OF THE END OF DECEMBER 2020, LONGI HAD OBTAINED 1,001 AUTHORIZED PATENTS AND INVESTED 2.592 BILLION YUAN ON RESEARCH AND DEVELOPMENT THROUGHOUT THE YEAR, ACCOUNTING FOR 4.75% OF OPERATING INCOME

**Q: Do you have any financial cooperation with Pakistan's bank?**

**Majid:** Yes, in order to provide better financial services to solar energy users in Pakistan, we signed an MOU with the largest local bank - Habib Bank. We all know that working life of photovoltaic modules is more than 20 years. Only the photovoltaic enterprise with healthy finance can truly protect the value of customers. LONGi's financial situation is very stable. In the PV Module Tech Bankability Ratings, LONGi is ranked as the only AAA-rated manufacturer, based on numerous demanding criteria. It maintains the world's leading manufacturing capacity and product technology level, showing a stable level of comprehensive strength and the ability to respond to market changes.

Over a number of years, LONGi has consistently maintained an industry leading ability to mitigate risk and adapt to market changes and, as part of operations, the company prioritises financial health and stability, with its liabilities to assets (L/A) ratio at a low level (59.38% , 2020) compared to other global PV manufacturers.

**Q: We've heard that some buyers have complained that they have bought fake panels, would you explain?**

**Majid:** From another point of view, it proves that LONGi genuine panels have excellent quality, that's why there are fake panels. Different from other companies, LONGi pays special attention to brand image. Recently we launched 'One Module One Code' identity system to ensure full lifecycle customer value. Clients are able to verify the authenticity of LONGi modules and check product documentation by simply scanning QR codes or modules can be verified through LONGi official website.

**Q: Are there some super large modules on the market, what are LONGi's main logic about products technology road map?**

**Majid:** Based on the new build capacity and the entire industry chain, M10 wafer size was introduced by LONGi to realize the standardization of the manufacturing system and application system. It also realizes the reduction of module manufacturing costs and system BOS costs.And through analysis on module manufacturing and deployment processes, optimal module dimension is determined and corresponding wafer/cell size of 182mm is reduced. LONGi believed that the increase of size should keep in size of 182 (182-72c, 2.56M (m252), 32.3kg, ~ 550W): Lighter, easier to install, and more secure. The size of PV modules is not the bigger the better. It is necessary to comprehensively consider the boundary conditions of manufacturing cost, transportation, reliability, manual installation, etc. ■

DAM DELAYED

# In maiden visit, PM Shehbaz urges completion of Diamer Bhasha Dam by 2026 instead of 2029

EU Report

Prime Minister Shehbaz Sharif urged the authorities to expedite the Diamer Bhasha Dam project and have it completed by 2026 instead of its currently scheduled time of 2029.

The newly elected prime minister issued the instructions during his visit to the site to inspect the project's pace of work and activities. He was accompanied by other PML-N leaders, including Shahid Khaqan Abbasi, Marriyum Aurangzeb and Khawaja Asif.

PM Shehbaz was briefed by Water and Power Development Authority (Wapda) Chairman retired Lt General Muzammil Hussain. He was informed of the issues resolved after efforts made by Khyber Pakhtunkhwa and Gilgit Baltistan administrations.

"Some of the problems were resolved by the Wapda chairman and his team very speedily. I am sure that all of you are going to work as a team and make efforts for the biggest energy project and complete it as early as possible," he said. He said that he could understand that the terrain of the area was hard to work on and there were financial problems but he was glad to know that the project was able to raise funds from the international market.

The prime minister said power generation from the project, once it begins, would help the economy immensely along with fulfilling irrigation requirements and protecting the country from flash floods. He added it would make the country "prosperous and progressive".

He appreciated Wapda, Chinese companies and the Frontier Works Organisation for their combined work on the project. PM Shehbaz urged international investors to come forward and invest in the project so that its power generation could begin as soon as possible.

The premier said Dasu dam was also on its way towards completion and very soon it would be operational and help the country overcome its energy crises.

The prime minister also announced the construction of a 13-kilometre-long tunnel at Babusar Top. Additionally, the premier asked the chief secretary and Wapda chairman to finalise a proposal for a 300-bed hospital within one week.

**Experts say early completion not possible**

Regarding the early completion of the project, the experts who have completed hydropower projects in the region claimed that it was impossible to complete the 4400-megawatt project in four years and instead it would actually take more time than the scheduled time.

Engineer Abdul Tawab, who served as a director at Pakhtunkhwa Energy Development Organisation and also completed several projects as project manager, told that Diamer Bhasha Dam Reservoir may take around four years to be completed and its diversion of the Indus River and tunnel was not an easy task. Replying to a question, he said the project was not only an energy project but also the biggest reservoir site of the country.

Chairman Wapda, during the briefing, had also told the prime minister that it would be impossible to complete the project in such a short period of time. ■

# 27 power plants out of order:

## Sheer mismanagement by PTI regime

Khaleeq Kiani

Prime Minister Shehbaz Sharif was informed that 27 power plants having a combined generation capacity of more than 7,000 megawatts are out of order due to technical problems or fuel shortages at a time when citizens are faced with power outages across the country.

The Ministry of Energy presented the list these power plants during the briefing and put the blame on the lack of direction and political support for fuel arrangements.

It was explained that nine major power plants with a generation capacity of 3,535MW were not working because of fuel shortages. They include four plants that remain closed due to LNG shortage, two due to furnace oil shortage, one for lower coal inventories and another due to the expiry of a gas supply agreement.

Besides, 18 other plants were not available for a long time due to technical faults and the lack of repair and maintenance.

Closure of these 7,000MW plants adds to citizens' woes as summer bites Former prime minister Shahid Khaqan Abbasi, who also held the petroleum ministry portfolio in the past, pointed out during the briefing that there was a complete lack of coordination among the petroleum and power divisions of the energy ministry and the matter should be addressed at the outset on priority instead of wasting time in the blame game. He advised that the power division should immediately come up with its demand forecast to see what could be done immediately in consultation with the petroleum division and follow it up with a mechanism for such planning and arrangements.

Prime Minister Sharif requested Mr Abbasi to volunteer his time and expertise and advise the two divisions in this regard because it appeared to be a serious issue and could not be left unaddressed.

A source who attended the meeting said the briefing by the energy ministry appeared to be a charge sheet against its past political leaders, as it was explained that there would be no power shortage but plants were shut for fuel and technical constraints.

The meeting noted that the previous government did not take timely steps to remove technical faults or arrange spare parts for repair or proper maintenance procedures had not been pursued. Most of the faults were of administrative nature but some also involved policy problems. The prime minister expressed displeasure over the overall situation and lamented that the citizens had to face extended hours of load-shedding across the country while power plants were shut for one reason or the other, even though these should have been available for generation in these testing times.

"This kind of negligence is unacceptable," the prime minister was quoted as saying while directing the power division and its companies to address these challenges immediately. "We cannot tolerate such a situation to prolong as the people suffer during the holy month of Ramazan," he was quoted as telling the power division.

The sources said the prime minister would be holding a series of sessions on both sides of the fuel and electricity suppliers and producers over the next couple of days.

According to a presentation, the 210MW Liberty power plant has been closed since Dec 18 due to gas supply disconnection by Sui Northern Gas Pipelines Ltd on account of non-payments because of funds stuck in circular debt.

Besides, four plants having a combined capacity of 1,200MW — including Rousch, Nandipur, Fauji Kabirwala and Gas Turbine Faisalabad — have been out of the system since Dec 13 due to the non-availability of regasified LNG.

On top of that, the 120MW Habibullah Coastal power plant was also not operational due to the expiry of its gas agreement in October 2019. Also, 550MW Jamshoro and 840MW Muzaffargarh plants were also closed since April 8 due to the non-availability of furnace oil.

It was reported that it was not clear how long these plants would remain out of the system. The Sahiwal coal-fired plant of 620MW was not functional due to a coal shortage since March 20 but is expected to be back on stream by April 20.

Also, 18 plants with an overall capacity of 3,605MW were out of order — some of them for more than a year — due to technical reasons. The prime minister directed that all faults should be removed and plants should be brought on stream urgently.

Meanwhile, power regulator Nepra also sprang into action and took serious notice of load-shedding taking place across the country.

The regulator has summoned the chief executives of power plants that aren't working due to fuel or technical reasons to Islamabad on Friday to come up with explanations with evidence.

The regulator also took notice of complaints pouring in from consumers of all distribution companies, including K-Electric, over excessive power cuts and called their CEOs for an explanation on April 19. ■

*Courtesy: Daily Dawn*

# The economy needs rapid improvement

Humayun Akhtar Khan

It won't be easy to manage the massive economic mess that the country faces. The problems have built up over many governments and can be addressed only with sustained effort. To ward off the economy's present free fall, I suggest a few areas of focus.

First, revive the current IMF programme. There are many pros and cons to seeking IMF help. But that discussion is for another time. When an economy is in a precarious stage, it is no time to pick quarrels and stop foreign inflows. We badly need foreign exchange to meet urgent debt servicing commitments.

This might leave the government in an awkward position to reverse a few of the concessions announced since passing the 'mini budget' in January 2022. But it is a small price to pay for regaining stability. Once the economy is back on track, the government should ease the lives of those most affected by high prices of essential goods. At the same time, even now the Ehsaas/BISP programmes should be used to help those most in need.

Second, rescheduling of external debt. All our external debt indicators show high risk. Total external debt is 35 percent of GDP, revised and rebased; $13.4 billion paid in FY21 as debt servicing, principal and interest, was about four percent of GDP, or more than half of our goods export. It was 22 percent of foreign exchange earned from exports and remittances. Today, we are at a point where it seems that the main business of the government is to borrow from wherever possible to manage the current account and the fiscal deficit. All other responsibilities have become subsidiary.

It won't be easy. Pakistan has sought rescheduling before, only to find that the economy is back to where it was. Also, our request would be soon after the G20's voluntary postponement of dues during the Covid-19 emergency. Yet there is no option. The country must use all its political and strategic levers to persuade lenders to do so.

This time our approach must be different. First, we must ask for rescheduling from all lenders, not just the Paris Club and China. About 28 percent of our total foreign debt is from IFIs. Though their debt is low-cost, the tenure of debt and new borrowing to service past loans builds up the cost of their debt. The government would have to persuade them by contacting major world capitals that have influence over IFIs. Of course, Pakistan has been less than judicious in its use of foreign loans. Lenders too though have funded low-impact projects and programmes, whose ideas often originated with the IFIs. This is clear from their own evaluation reports. While the projects didn't work, our taxpayers were left holding the bill.

The other, more important, change in approach is that the request for restructuring must have an accompanying economic growth plan. Creditors must know that Pakistan has a plan to pay back. The economic growth plan must have a component to build private productivity and exports. CPEC is a useful vehicle for Pakistan to attract labour-intensive and export-oriented FDI from China. Also, it is time to make SEZs operational. They have been talked about extensively, but with no result on the ground. Exports are the only way to pay back foreign loans. In case rescheduling happens, the government must use part of the savings to return high-cost loans. Partly, the savings must go for importing key equipment for industry.

Another proposed change from the past is to request that lenders must not charge interest during the rescheduling period. As I said, it won't be easy, but we must try to gain lenders' confidence to make the exercise meaningful for us.

Third, re-negotiate IPP agreements. Power-sector reforms of the 1990s, done on the advice of IFIs, have led to a collapse of power supply. Our economy could not support the cost of the 'reforms' that were put in place. Also, the sector is too complex to be solved by the simple idea of market economics and private participation.

Having earned massive profits, the original investors have mostly left. It is now clear that the consumer or the government cannot meet the cost of power along with the generous concessions that IPPs avail. In any case, with the build-up of debt caused by non-payment of tariff differential subsidy, IPP profits are more often on books rather than immediately realized. There is no option but to review these agreements.

This will be a test for the government. Decades of preferring favoured sectors over

others has brought the economy to this perilous stage. It is time to break the nexus between decision-makers and special interests. We can begin with IPPs and move to other such areas. Done successfully, this would build business confidence by sending a message of the government's resolve to deal with special interests.

Fourth, restructure the PSDP. Immediately, we do not need fancy studies such as a 25-year vision. What we need is a robust plan to grow exports. The decline in exports from 19 percent of GDP in 1990 to less than 8 percent in 2021 is a sad travesty and a major cause of present problems. All public investment must serve the goal of increasing exports. From now on, one of the government's main focuses must be to make available public goods that help selected export industries or key import substitution industries. So, the PSDP must make targeted physical and human investments that serve a short list of such industries. Under top-level supervision, all relevant parts of the federal and provincial governments must come together. In addition to the main players, they include the HEC, science and technology and its affiliates such as PCSIR, the IT ministry, NAVTEC, FBR, and provincial departments.

We must make special efforts to strengthen the micro and SME sector. It is time to forego the calumny of considering SMEs as tax evaders. SMEs mostly do not receive government services. They are left to access them with their own methods. SMEs have the potential to support LSMs, create jobs and create entrepreneurship. The State Bank of Pakistan's recent effort for digitization of the economy will help productivity. This must continue and other key areas must complement, especially the FBR, where delays often increase cost for business.

Also, to strengthen industrial growth, the government must revive DFIs. Fixed cost long-term project financing was key to the industrial growth of the 1960s. DFIs have been done away with on IFI advice. That has not served us well. The private sector needs predictable and fixed cost project finance. Growth in exports is the outcome of an economy's total strength. Its decline is therefore a reminder of falling standards and abandoned responsibility.

Lastly, improve governance to support private enterprise. In some areas, the government is no longer a service provider, but an obstacle. If allowed to decline, the country would fall into a morass from which it is hard to recover. The private sector needs timely and low-cost services. The government must make them available. It must improve delivery through supervision, enforcement, and training. We cannot allow the civil services to decline anymore. ■

*The writer is chair and CEO Institute for Policy Reforms, and a former commerce minister.*



# Matiari-Lahore transmission line set for full load test after Eid

EU Report

The final test for the 660kV High Voltage Direct Current (HVDC) Matiari-Lahore transmission line on full load of 4,000MW is being scheduled after Eidul Fitr as the current administrative situation does not allow the authorities concerned to do so in the ongoing period, Dawn learned on Thursday.

However, the official sources claim that the plants from where the 4,000MW power generation is supposed to be evacuated are complete and there are no generation-related issues on the part of department concerned.

"Last year, before commissioning the Commercial Operation Date (COD) of the project on September 1, last year, we had carried out various tests of the line. The last test we were supposed to conduct was to check the line on full load of 4,000MW (direct current). However, we couldn't do so since the generation was not available at that time," National Transmission & Despatch Company's Deputy Managing Director (Planning & Engineering) Muhammad Ayub told Dawn. "However, before commissioning, we got the line tested by putting the load of 2,200MW on one side and the same load on the other side. This test was successful," he added.

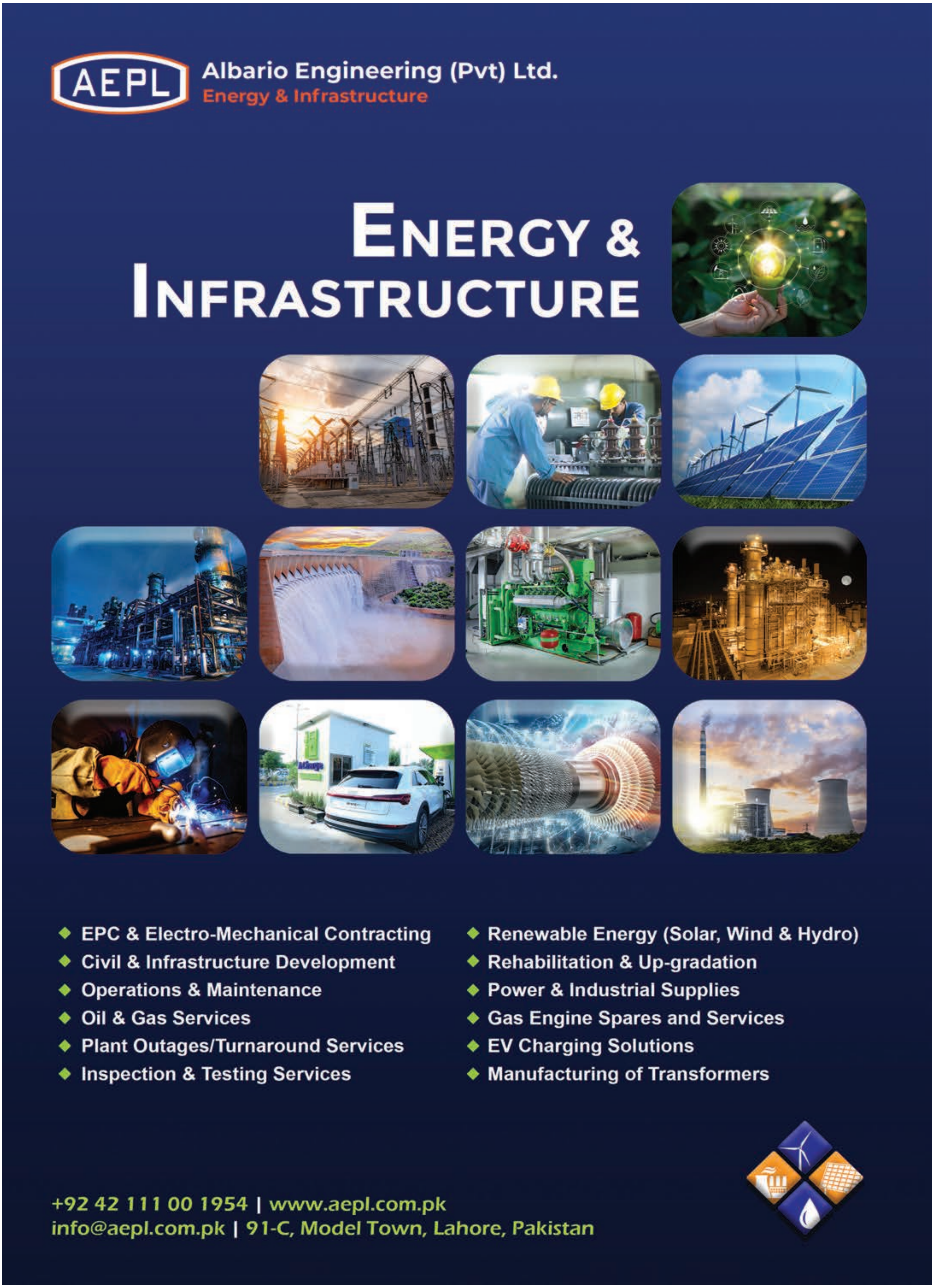
The China-Pakistan Economic Corridor's flagship HVDC line project had achieved its COD on September 1, 2021 as per the timeline agreed between the NTDC and Pak Matiari-Lahore Transmission Line Company (PMLTC). Prior to its COD, eight power tests on different voltage levels were performed successfully.

The NTDC official said the power generation in south for the Punjab load centres has crossed 5,200MW. These included 1,100MW (each) K-2 and K-3 nuclear power plants, 1,320MW Port Qasim, 660MW Lucky and a coal-fired plant in Thar. He said the power sector is currently passing through a very critical time in terms of shortage of gas, coal, Residual Fuel Oil (RFO) and other issues.

"In the current scenario, we are not in a position to test the line on full load of 4,000MW since we are worried how to meet the increasing demand. However, it will be much easier after Eid and we will able to conduct this test," he said.

The NTDC official said the other issue is the distribution of the 4,000MW to the load centres in Punjab (north), as 500KV mega grid station namely north Lahore is currently under construction and it would take one year to complete.

"We can test the line on 4,000MW but are unable to distribute it since the grid station meant to do so is not complete. The approximately 2,000MW generation that we are getting through this line at the moment is being distributed by another grid station after being converted into alternate current (AC)," Mr Ayub maintained.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## Getting cheap oil and gas from Russia

# Ousted PM Imran Khan's exploitation fails

Sajid Aziz

As the PTI government has been ousted by the opposition through a majority no-confidence vote recently, the PTI Chief Imran Khan has started exploiting the situation by claiming that the foreign and internal forces have conspired to topple his government as he has toured Russia and negotiated to buy cheap oil and gas but IK might be unaware of the fcat in the negotiations between the two countries can always be progressed whether an individual remains in power or not. It is more likely that his move and all the claims of conspiracy against him would be bounced as

Pakistan is almost finalising the pln to buy the cheap oil and gas despite an attempt by the other side to arrange some alternative sources to provide Pakistan a deal like the Russian one.

According to Financial Times, a Russian-built gas pipeline despite international pressure to isolate Moscow economically, as the US ally searches for alternatives to ease a domestic energy crunch. The outgoing Finance Minister Shaukat Tarin had already disclosed that a deal with Russia to build the multibillion-dollar Pakistan Stream pipeline "is almost done". Also known as the "North-South" project, it will transport liquefied natural gas from the southern port city of Karachi to Pakistan's north. "We need a gas pipeline to transport LNG from south to north. That'll become almost essential for us in the next two or three years," he said. "Either there's an alternative for us or we'll go ahead with this deal… This is the best alternative as of now, and this was obviously done before Ukraine." Pakistan, a western ally during the cold war and during the post-2001 "war on terror", has refused to condemn Russia's invasion of Ukraine despite public pressure from the EU, UK and others. Islamabad has drifted closer to Moscow in recent years, partly as authorities look for ways to shore up energy security and believe jeopardising ties with Russia would be too costly. While Pakistan produces gas, in recent years it has also started importing from the Gulf as energy demands rise. The EU, too, needs Russia's energy sector, sourcing about 40 per cent of its gas from the country. The bloc has announced plans to cut imports by two-thirds this year. But Pakistan's relationship with Russia risks straining links with the west. IK had visited Moscow on the same day Russia invaded Ukraine last month. It was the first visit by a Pakistani prime minister in more than 20 years. The EU, UK, Australia and others "urged" Pakistan to condemn Russia in a UN General Assembly vote. Pakistan abstained from the vote. Tarin said he hoped Russian officials would soon visit the country to finalise the deal for the Pakistan Stream pipeline. The pipeline, to be built by a collection of Russian companies, is estimated to cost more than $2bn. The Soviet pipeline that keeps Europe hooked on Moscow's oil Well before the latest surge in oil and gas prices, Pakistan was struggling with a widening current account deficit and double-digit inflation exacerbated by rising global commodity prices. Pakistan last month resumed a contentious $6bn IMF programme to stabilise the country's balance of payments and shore up government revenues. But Tarin said the conflict presented a new "crisis" that would push up the cost of imports including energy and wheat, which Pakistan previously sourced from both Russia and Ukraine. Higher prices following the US ban on Russian oil and gas imports would affect Pakistan "very negatively" unless Washington unlocked alternate energy sources, he said. Energy makes up about a quarter of Pakistan's import bill i.e. around $14b. He added that a nuclear deal between the US and Iran would allow Islamabad to revive a plan to build a pipeline delivering gas directly from Iran to neighbouring Pakistan, which is suspended because of international sanctions. "If there's a deal… this is the cheapest option. It's next door," he said. "It'll be very good for us." Tarin said it was "only fair that people should respect" Pakistan's "neutral" stance.

While keeping up its neutral stance, the newly elected government should continue to the accord with the Russian bloc to buy cheap oil and gas as the country is in dire need of such deals wherein Russia offered us almost $35 per barrel which is the cheapest price in the world. During the past few years particularly PTI's tenure thePakistan's relations with its all time and trusted ally Saudi Arabia have remained tense and getting cheap oil from this source has become rare. ■

# Ushering the future of energy: **Engro Energy hosts the Pakistan Energy Symposium**

EU Report

The potential of renewable energy to bridge the gap between energy supply and demand in Pakistan is significantly important to the country's power sector. Renewable energy projects have the ability to improve the energy security and outlook of the country, provide socio-economic benefits, reduce local pollution and mitigate climate change.


A measured and systematic approach is critical to ensure that the vision of an open electricity market can be achieved successfully in the country.

To discuss the importance of power market liberalization in Pakistan while shedding light on the opportunities and challenges for the energy market, Engro Energy Limited (EEL) in collaboration with the National Electric Power Regulatory Authority (NEPRA), Ministry of Energy, Govt. of Sindh (GoS) and other notable stakeholders held a conference by the name of 'Pakistan Energy Symposium' on April 1, 2022.

The goal of the conference was to welcome the Competitive Bilateral Trade Contract Market (CTBCM) model as the energy-based company is planning to set up a Renewable Energy Park in Jhimpir which will serve the power to industrial customers under B2B mode through a dedicated transmission line which will be built by Sindh Transmission & Dispatch Company (STDC).

In the first phase of the project, Engro Energy plans to provide up to 400MW of electricity by early 2024 with the potential to increase this generation to 1GW by the end of 2029. Similarly, approximately 1.2 billion units of renewable-based electricity generated in this strategic facility will enable import-substitution worth PKR 13 billion per annum.


Additionally, it would also make major contributions toward environmental sustainability, by reducing the $CO_2$ emissions by approximately 400-kilo tons per annum, which is equivalent to planting almost 20 million trees.

The energy-based company is heavily involved in the energy sector by providing industries access to economical, reliable, and green energy to fulfil the country's power requirements. Moreover, the effort to establish the RE park is also in line with Pakistan's vision to deploy a green energy mix whereby up to 60% energy requirements of the country are met by clean sources.

As a step toward market liberalization, Engro Energy has signed a term sheet with Agha Steel Industries, a leading Steel manufacturing company for providing ~50 MW of Renewable based power to Agha Steel from its RE Park. The company has also signed a Letter of Intent (LoI) with Engro Polymers and Chemical Limited for conducting a bankable feasibility study for the development of 70 MW hybrid wind and solar based renewable power from its RE Park and 75 t/h steam for their petrochemical facility at Port Qasim.

Furthermore, the massive build-up towards reaching Pakistan's potential in the world of renewable energy is essential and such agreements are a step forward in establishing a sustainable way forward for the country's overall energy security. ■

# SYED SALMAN MOHIUDDIN

## WOVES TO SUPPLY UNINTERRUPTED POWER TO REMOTE AREAS OF PUNJAB/SINDH

**Country Manager, Goodwe Pakistan**


Khalid Iqbal

"Our focus has been on remote and rural areas of Sindh and Punjab provinces where there is an abundance of solar power so to ensure uninterrupted power supply to the residents". This was stated by Syed Salman Mohiuddn, Country Manager Goodwe in Pakistan, during an interview with the Energy Update.

Following are the important excerpts of his interview in which he mainly talked about the products of his company and its relevance for Pakistani renewable energy market.

**Energy Update: What is the best offering of your company for the domestic power consumers in the country during summers?**

**SSM:** The government has allowed the regime of net-metering. So in our view, the best option for domestic consumers is the use of an on-grid inverter under the regime of net metering. We encourage prospective domestic consumers to use this option. The on-grid inverter is the best option as being the most economical. The government also supports this option. But the thing is that the option of the on-grid inverter is a failure at such places where there is excessive power load shedding that also continues during the daytime. The on-grid inverter will not function if the grid is not available during the daytime. Then for such areas, our best offering is a three-phase hybrid inverter of the ET series. Our ET three-phase inverter series is counted among the top two solar brands in the world also including our 10 KW model. The best thing is that we don't bind our customers to use any particular brand of battery with our inverter. All top of the line models of tier-one lithium-ion batteries are compatible with our system. Our distribution network and stock are available for selling these inverter solutions. Then we have been holding seminars in collaboration with the Energy Update for the awareness of the installers and consultants of the projects related to the prospective secondary selling of our products. We have informed the installers and EPC contractors that the stock of our products is available along with the availability of the service centres. Our products are also economical as compared to our competitors. We are economical despite that our hybrid options are considered tier one products that are placed at the topmost position. This is a very important feature given that the Pakistani market is a very cost-conscious market.

**EU: Is there any application of your products to supplement the efforts of the government to energize faraway areas through solar power?**

**SSM:** You would be glad to know that the company, which has been undertaking the project of the Sindh government to install solar systems at the government-run schools in the province is using Goodwe products up to 100 per cent. Needless to mention that our focus has been on the remote rural areas of Sindh and Punjab where there is abundant availability of solar power. We have been doing more work in such areas so that their residents could also get an uninterrupted power supply.

**EU: What more should be done in Pakistan to ensure quality and standards in solar systems?**

**SSM:** A solar power system comprises basically three components i.e. a solar PV panel, an inverter, and a battery. There is a need to make sure that proper standardisation is ensured for all these three components separately for the guaranteed usage of the tier one products. This proper standardization and recognition of the tier one products should be ensured as has been the worldwide quality assurance practice in the solar sector.

**EU: What is your viewpoint regarding the government's taxation system for the renewable energy products available in the local market?**

**SSM:** There has been resentment in our industry against the recently imposed general sales tax on solar power equipment. Our industry is of the view that this tax shouldn't be imposed. This tax is particularly damaging for our prospective residential and commercial customers because the majority of them are not registered to pay such a tax. Eventually, the cost of the solar systems for them would phenomenally increase as they are required to pay an extra sum as a penalty as they are not registered to pay this GST. ■

# A 'Charter of Development'

Ali Tauqeer Sheikh

TURMOIL and mayhem need not be an essential fallout of the present political transition. Earlier, during a similarly complex crisis, two exiled political leaders in 2006 had agreed on the Charter of Democracy (COD).

Despite several setbacks, the COD played an important part in providing bipartisan consensus on the direction of legislative decisions, reflected in the 18th, 20th and 25th constitutional amendments, the seventh NFC Award, and special status for Gilgit-Baltistan, among others. Given the country's precarious economic condition, this is the time for political leaders to collectively craft a covenant for an accelerated and sustainable economic turnaround. The country needs a 'Charter of Development' to lay the foundation for transformational change through climate-resilient and low-carbon development.

The COD was the first agreement between two large national political parties on the future of democracy. It set the tone for a rights-based approach to politics by committing greater economic and political powers to the provinces and even to local governments. This and many other expectations, particularly dealing with a code of conduct and a truth and reconciliation commission, remain unfulfilled.

The recent PPP-MQM-P 'long-term partnership' agreement on the 'Charter for the Rights of the People of Sindh' builds upon the COD. It shows how political parties can outline the contours of economic development in the midst of political jockeying. It was endorsed by all opposition parties, creating the possibility for similar rights-based agreements with leaders of the smaller provinces.

The 18-point PPP-MQM-P agreement can be divided into two categories. Most points cover primarily local issues such as enhancing quotas and jobs up to grade 15. This category reflects the dictum, 'all politics are local'. These points show how Sindh's politics in general and the MQM-P's in particular are still held hostage to the post-Partition agenda of integration of Mohajirs in the local economy through misplaced affirmative actions.

The agreement also includes the introduction of local government in the province, as per the Sindh High Court's decision. This is an unmet promise of the COD on which the PML-N also failed in Punjab. Not having fully functional and empowered local governments will stunt economic development and increase climate vulnerabilities. It is only at this level that the country can build the foundation of climate adaptation and climate mitigation and their co-benefits.

The PPP-MQM-P partnership will need to address issues in light of long-term climate trends. The second part constitutes the core of the agreement. The fundamental aim is "to promote social justice and secure economic well-being" of the people of Sindh, "especially those who are left behind", a notion borrowed from the SDGs, even if the agreement has not made any reference to them. These points focus mostly on long-term urban development issues at the operational level: a) prevent ghettoisation, b) channelise urban growth, c) a master plan for Karachi d) a transportation system, and, e) rehabilitation infrastructure in the city's industrial areas. While these are important, the agreement does not show what transformational benefits will accrue if implemented.

Urban-rural bifurcation is only an administrative measure. Every urban settlement has an ecological footprint that goes well beyond its boundaries. Only an integrated approach can help deliver sustainability. Yet, the agreement is totally silent on rural development and on such issues as water distribution, salinity, groundwater degradation, malnutrition, stunting and decreased agricultural productivity. These are core development issues for Sindh and every other province in Pakistan. While MQM-P pretends that the urban settlements can survive without a hinterland, the PPP, despite its huge intellectual reserve, has missed an opportunity to weave into the agreement the growing climate vulnerability that is detrimental to the economy and people's rights in Sindh, as elsewhere in the country.

For climate resilience, the PPP-MQM-P

partnership will need to address these issues in light of the long-term climate trends (decreasing rainfall and increasing temperatures, droughts and seawater intrusion) and recurring threats such as heatwaves, tropical storms, epidemics and urban flooding. Likewise, no charter on the rights of people can gloss over land grabbing, encroachments, mining of riverbeds, tanker mafias and street crime.

Analysis: How long will MQM-PPP 'marriage of convenience' last?

Finally, the agreement has not addressed the stubborn challenge of determining the federal, provincial and local governments' roles and responsibilities necessary for providing essential environmental or municipal services such as potable water, solid waste, sewerage, health and urban transportation services, or clean air. Without constantly stepping on each other's toes, the signatories needed to craft a vision for dynamic urban development. Starting with Karachi, but also incorporating other places like Faisalabad, Peshawar, Rawalpindi, Multan, Hyderabad etc, cities need to become engines of growth that build robust backward and forward linkages with the hinterland. For this, the country needs a new development paradigm to serve as the basis of a 'Charter of Development'.

The COD is a unique example in Pakistan's democratic history of creating common ground and constructing a shared vision. Its declared purpose was strengthening democracy and restoring the country's constitutional character. Development was not the fundamental consideration. During the last 16 years, more than two-thirds of the COD's 36 points have been implemented, fully or partially. While it may be an opportune time to seek COD's renewal and endorsement by other political parties, new existential threats posed by climate change have emerged. The mainstream political parties now need to co-create a shared direction for climate-smart development. The present political transition offers an important opportunity to build upon the COD experience.

Finally, the road to democracy in Pakistan is littered with alliances, coalitions, long marches and movements, not to mention dharnas and strikes; it is rare that Pakistan's political parties have worked together to create common ground.

Going forward, such agreements and consensus-building initiatives are important tests of democratic leadership. They will help build the norms and social infrastructure of democracy. Dismissing them as unethical deals or mukmaka can be detrimental. At the time of the signing of the COD, the PTI had not emerged as a national political force. The test for the initial proponents of the COD is to see if they can reach out to PTI leaders for creating necessary common ground for climate-resilient and low carbon development under a 'Charter of Development'.

*The writer is an expert on climate change and development.*

FOREIGN INVESTMENT

# Auction of 14 oil and gas blocks gets muted response from foreign firms

Khalid Mustafa

The auction of 14 on shore oil and gas blocks drew a tepid response from foreign companies with only local firms dominating the bids, sources said.

The Petroleum Division received bids for only nine offered blocks. The division failed to attract any foreign direct investment (FDI) in the blocks.

Moreover, DG Petroleum Concessions (GDPC) attracted zero bids for five blocks out of 14, which include Block No 2967-6 at Sibi, Block No 3071-5 at Fatehpur, Block No 2871-7 at Khangarh West, Block No 2770-4 at Islamgarh and Block No 2762-2 at Desert.

Local companies and their joint venture came up with their bids for nine blocks, with the minimum investment to be carried out by them in these blocks being over $70.2 million in three years.

A statement said the petroleum division had publicly opened the "bids for 14 onshore blocks for grant of Petroleum Exploration Rights through open bidding on April 18". "Bids were received for nine blocks and opened by the bid opening committee in the presence of companies' representatives. The minimum investment to be carried out by the exploration and production companies in these blocks would be over $70.2 million in three years."

According to the results, for Block No 2866-5 (Kalat West), Pakistan Petroleum Limited (PPL) and Mari Petroleum Company Limited (MPCL) came up with a joint bid. The companies won the block for exploration and production activities for oil and gas.

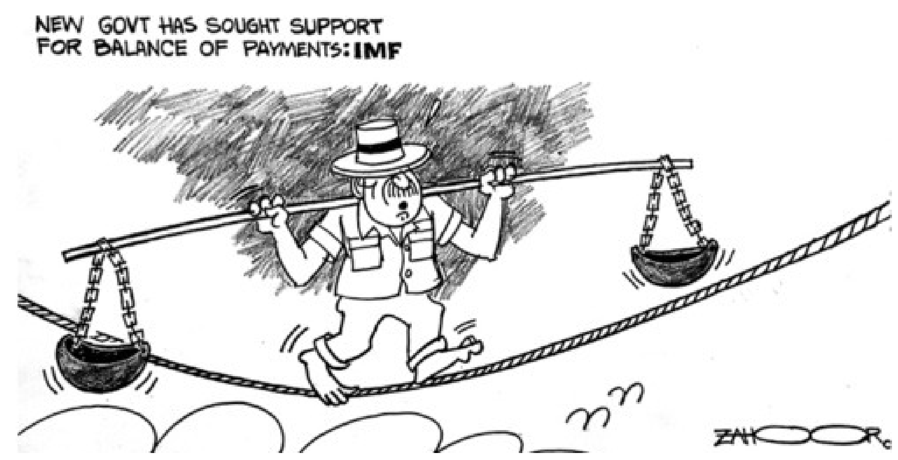
Likewise, for Block No 2967-5 (Mach), MCPL, PPL and United Energy Pakistan Limited (UEPL) came up with a joint bid for 10,454 work units, whereas Oil and Gas Development Company (OGDC) and Pakistan Oilfields Limited (POL) would have the license to carry out exploration and production activities for 781 units.

MPCL, PPL and UEPL also submitted the joint bid for Block No 2867-9 (Dadhar), and won it for exploration and production activities in 3,209 work units. In the same block, OGDCL and POL won the bid for exploration and production activities for 937 work units. MPCL and UEPL won Block No 2969-11 (Meeran Pur) for 210 work units, and Oil and Gas Investment Limited (OGIL) won rights for 153 work units in the same block. PPL and MPCL jointly won the bid for 360 work units in Block No 2869-15 (Sui North). OGDCL and POL won the bid for 458 work units in Block No 2966-2 (Chah Bali).

OGIL won Block No 3171-2 (Nurpur) for 111.5 work units and Block No 3072-9 (Okara) for 169.5 work Units. OGDCL won Block No 3269-3 (Wana) for exploration and production activities with 236 work units.

The statement said the successful companies would spend over $810,000 in social welfare for the areas of their respective blocks besides investment in E&P activities. "For blocks that have discoveries, investments of several hundred million dollars would be made by these companies to develop the production." ■

*Courtesy: The News*



# Reprofiling the economy

Hassan Baig

Pakistan's economic performance is very discouraging. There is an immediate need for a policy shift on the economic front. One of the options could be to reprofile the economy to overhaul the economic performance, getting rid of the heavy load of IMF debt. But it is not only the IMF conditions that are creating problems; there are also other factors. So, what is the way forward?

The reprofiling of the economy could be one of the policy options to take decisions regarding monetary and fiscal policy initiatives. The incentives for investors are key to attract investment in the country. The investment climate can be created by providing security to investors so that they can feel secure in all respects, especially security to their investment and profits. Economic reforms need to be strengthened to attract foreign direct investment, which could in return contribute in a big way to boost GDP growth. Before going into the details of factors other than the core issues of the economy, let's discuss the possible contours of economic reprofiling as a policy option for economic growth.

The fiscal and monetary policy works in tandem to balance and support each other to achieve optimum level of economic growth. Pakistan's economy is suffering from external and internal debt with all sorts of economic ills including but not limited to high inflation, low investment, high security risk and least incentives for businessmen. The downward revision of policy rate by the State Bank of Pakistan is crucially needed to attract and create an investment-friendly atmosphere in the country. But that is not possible if we still want to go with the umbrella of the IMF programme. We have to calculate and estimate the reprofiling of debts and fiscal deficits and results thereof. So, the first policy intervention as part of the reprofiling of the economy is to bring down the interest to acceptable levels to promote investment in the country.

The interest rate needs to be brought down to 3.5-4.5 percent from the present level of 9.75 percent, which would not be possible in a short period of time. What is to be done is to revise the policy rate slowly and steadily in two years. The possible mechanism could be to bring it down by about 100 basis points every three months for the first year and 50 basis points for the next year again on a quarterly basis. The estimated investment through this policy intervention could range approximately from $25 billion to $50 billion in two years. That can bring a revolution to the country, but it would again depend on our security atmosphere. Practical steps need to be taken to provide safety and security to the investors, otherwise such intervention will only contribute to the surging inflation. The current double-digit inflation is already playing havoc.

The massive depreciation/devaluation of the Pakistani rupee is another blow to economic stability. The exchange rate needs to be revised; it should be brought back to Rs125 per dollar, as our exports and imports are almost inelastic, especially our exports. One of the purposes of devaluation is to enhance exports but we need to adopt some other measures to enhance our exports to earn foreign exchange. By doing so we can avoid adding to our debt and servicing liability. The estimates are that by such reprofiling vis-a-vis interest rate and rupee appreciation we may avoid the cumulative effect of the debt burden by about 50 percent, comparing our liabilities today.

GDP growth through these monetary policy measures can be achieved at about 6.5-8.5 percent per annum through the proposed intervention to make it sustainable. Foreign direct investment (FDI) could contribute a lot, again subject to proper and practical steps ensuring economic reforms on a long-term basis. The foreign debt of the IMF, World Bank, ADB and others could be offset by pursuing a more aggressive investment policy, coupled with impressive GDP growth enhancing exports to get rid of their conditions. The investment climate in the country can only be generated through a robust strong economic system supported by a strong political system that needs to be strengthened through rule of law. It is beyond any doubt that political stability is a precondition for sustainable growth. The role of politicians and institutions is all the more important to strengthen the political system to achieve sustainable economic growth.

The government needs to create incentives for the people to contribute to the economy by providing subsidies. The cost of doing business is so high that no one wants to take risks. The factors of production, except for labour, is so high that the manufacturing sector, especially large-scale manufacturing, is not feasible in the present scenario of a high cost of energy. It has to be revised downward by providing subsidies to the manufacturing sector to enhance exports and make products competitive. Export growth is needed to pay back multilateral and bilateral loans. The total external loans of about $127 billion are a real problem for Pakistan, as the main chunk of our annual budget goes into debt servicing.

Fiscal side reprofiling is immediately needed, as we see a lot of subsidies and exemptions done away with to fulfil IMF pre-conditions. The development budget was slashed by about Rs300 billion, exemptions of Rs300 billion withdrawn, rates of energy raised to generate almost Rs600 billion. The cumulative effect of these fiscal-side measures has contributed nothing to the economy but brought more inflation, offsetting the feel-good factor of our growth in exports and foreign remittances. The tax targets for the FBR have been revised upward for the first time in the history of Pakistan due to these fiscal measures overall contributing to the disturbance of the common masses.

Incentive schemes, including exemptions in taxes to the vital sectors of the economy, are absolutely needed to enhance growth. Amnesty schemes should be reintroduced for more investment and taxes, as Pakistan has been surviving and thriving over the informal economy. Exports should be incentivised for foreign reserves and remittances to pay back our costly loans. The overall incentives – right from growers to industrialist manufacturers to services sectors, especially e-commerce – should be extended. These fiscal measures, incentives, exemptions and subsidies of about Rs2000 billion will generate about $15 billion to $25 billion in addition to our current foreign reserves, enough to pay back our loans in 7 to 10seven to ten years.

The long-term planning and reprofiling of the economy on the above policy lines is immediately needed to get out of the present economic mess. The IMF programme should be discontinued; instead, a new mechanism as proposed above may be put in place to support foreign reserves and pay back loans. Otherwise, we may face a Sri Lanka-like crisis situation in the coming days and months. ■

*Courtesy: Dawn*

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NEWS

# GoodWe signed a 100 MW solar inverter distribution agreement with TradeCorp at Solar Pakistan 2022

GoodWe Technologies Co., Ltd, a leading-edge PV inverter and energy storage systems manufacturer, showcased the latest PV and energy storage solutions at Solar Pakistan 2022 and signed a 100 MW distribution contract with TradeCorp onsite.

Tailored to the growth of energy needs in Pakistan, GoodWe's latest outstanding PV and energy storage solutions presented at the show were warmly welcomed and appreciated by many visitors.

Particular attention was given to the SDT G2 Series: three-phase inverters with a range of 4-25kW, which, thanks to its excellent technical parameters, high maximum efficiency (up to 98.4%), and excellent value for money, dominates in Pakistan and is one of the best options currently available for household and small C&I buildings on the market.In the field of residential energy storage solutions, where GoodWe has been recognized as Global No. 1 Hybrid Inverter Supplier by Wood Mackenzie and has the widest portfolio range, the ET series attracted the most interest: the three-phase hybrid inverters won hearts and minds with its outstanding technical features, high maximum efficiency (up to 98.2%), integrated back-up function and uninterruptible power supply (UPS) - switching to UPS in less than 10ms.

Visitors at the show were also attracted by GoodWe's HOT & TRENDY giant: 1100-1500V HT Series! It's the ultimate high-power inverter for ground mounted utility projects with an extensive list of features designed to reduce system and O&M costs, ensuring the lowest levelized cost of energy (LCOE). With upto 12 MPPTs, PLC communication and compatibility with bifacial modules, internal humidity detection and endless safety features and options, HT series were deemed to take the market by storm.

More than a show, Solar Pakistan 2022 also marks the first time GoodWe cooperate with TradeCorp in the 100MW Solar inverter distribution agreement. This milestone shall open an immense amount of growth opportunities for both parties and ultimately bring about more


choices and benefits to end users in the market with high quality PV solutions from Goodwe and professional services from TradeCorp.

Mr. Shoaib, TradeCorp. CEO commented, "TradeCorp is honored to become GoodWe distributor and continue its efforts in setting-up the highest standards of excellence in providing best solar solutions in the region. We believe that the collaboration with GoodWe will further reinforce our product portfolio and offer more opportunities to accelerate the energy transition in Pakistan"

"GoodWe is committed to providing differentiated solutions for Pakistan customers, hopes to provide users with more diverse energy solutions, to create and meet the broader energy demand. GoodWe is ready to fly with the country to higher heights of service, quality and excellence." said Syed Salman Mohiuddin, Country Manager of GoodWe Pakistan during the expo.

# Indian converts plastic waste into sneakers

The menace of plastic pollution is spreading in the country though its a worldwide problem that affects the marine environment but it taii king its toll in Pakistan as no govt or private agency is cambatting with the environment pollution seriously.

The problem is not just about million tons of plastic floating in our oceans and its contribution to climate change, but it is also about its effect on the health of human beings.

Although many western nations have banned the use of plastic bags, developing countries in Africa and Asia still use plastic bags. In 2021 India alone has generated 17.5 million metric tons of plastic waste, according to data from Statista.

Other estimate shows that India produces more than 25,000 tons of plastic waste every day, which accounts for 8-10 percent of total waste generated by the country. It's for this reason that one Indian tech startup is on a mission to reduce the plastic pollution problem by reusing plastic waste to create sustainable shoes. And that's why the founder of one Indian tech startup is on a mission to reduce plastic pollution while creating jobs for people in India.

Ashay Bhave is India's newest green entrepreneur and founder of Thaely ('which literally translates to plastic carry bags in Hindi) an Indian footwear startup that makes $100 sustainable sneakers from the

worldwide waste of plastic bags. Since 2021, Thaely has recycled over 50,000 plastic bags and 35,000 discarded plastic bottles into 'sustainable' sneakers.

Bhave got the inspiration for his footwear company back in 2017 while he was pursuing a Bachelor of Business Administration (BBA). The company's name 'Thaely,' literally translates to plastic carry bags in Hindi. According to Bhave, the idea for Thaely was part of a design project he worked on during his college years.

# Nation may face countrywide darkness

## System generating 50pc less electricity

The country's power system is reportedly generating about 50 percent less electricity - 18,000 MW - against dependable capacity of 35,630 MW due to which the entire country is facing 8 to 10 hours of unscheduled loadshedding across Pakistan.

Prime Minister Shehbaz Sharif has convened a meeting, the. Ministry of Energy has been directed to share a comprehensive brief and presentation on all issues including reasons for the ongoing loadshedding, circular debt, required tariff increase, fuel shortage, recovery of Discos and losses to be discussed during the meeting.

The system of Karachi Electric (KE) is separate from power Distribution Companies (Discos) that supply electricity to the country. However, KE is being supplied around 800 MW electricity these days from the national grid due to substantial shortfall in its Disco system. Presently, the country's installed capacity is 37,773 MW. Pakistan's hydel generation installed/dependable capacity is 9,874 MW, of which 1,946 MW is on scheduled outage, however 4,525 MW is not available due to low hydrology. Hydel generation depends on IRSA indent/reservoir level/ hydrology. Installed capacity of RLNG/HSD/LSFO is 7,438 MW whereas dependable capacity is 6,862 MW. Of this, 10 MW is on forced outage whereas 2,605 MW is not available due to fuel shortage, which shows that only 4,247 MW capacity of RLNG/HSD/ LSFO is available.

The reason for lower generation from RLNG/ HSD/ LSFO is that 600 MMCFD RLNG is allocated during peak hours against demand of over 700 MMCFD. GTPS, Rousch, FKPCL are under forced outage due to non-availability of fuel.

Installed capacity of Residual Fuel Oil (RFO) is 5,706 MW whereas dependable capacity is 5,060 MW. Of this, 958 MW is on forced outage, 900 MW is not available due to system congestion, 1,635 MW is not available due to fuel shortage. This implies available RFO capacity is only 1,567 MW. Jamshoro thermal power plant unit -1 is operational.

The available capacity of coal is 3,063 MW against installed capacity of 5,280 MW and dependable capacity of 4,944 MW. Of this, 1,881 MW is on forced outage. Engro- Thar complex is under forced outage, Sahiwal coal unit-2 is under forced outage, Port Qasim coal unit-1 is under forced outage.

Installed capacity of gas-fired power plants stood at 3,536 MW while dependable capacity is 3,282 MW, of which 1,275 MW is on forced outage whereas 212 MW is out due to fuel shortage.

Nuclear power plants are operating on full dependable capacity of 2,305 MW. Nuclear installed capacity is 2,490 MW.

Karachi Nuclear Power Plant (K-3) whose installed and dependable capacities are 1,100 MW and 1,040 MW respectively is running on commissioning (testing stage). It is delivering 750 MW free electricity in the evening and night.

Generation from wind farms stood at 535 MW against installed/ dependable capacity of 1,585 MW with 1,050 MW not available due to low wind. Four wind power plants are running on commissioning test. Solar plants with dependable and their installed capacity is 400 MW but supply is only 100 MW due to cloud cover, and are not available during night.

# Energy-efficient products may end power crisis

## PSQCA says residential sector consumes 47% of total generated electricity

Experts have said that the power crisis of Pakistan could be resolved if energyefficient products were made available for the residential sector that consumed about 47% of the total electricity generated by the country. In a joint statement on Friday, Pakistan Standards and Quality Control Authority (PSQCA) deputy directors stated that about 8 million fans were manufactured in Pakistan every year. "Ceiling fans consume 85 to 150 watts of energy which cannot be compared with products of other nations," he said. PSQCA Directors Muhammad Rizwan, Asghar Ali and Asad Khan Kirmani made these comments during an awareness seminar titled 'Minimum Energy Performance Standard for Electric Fan' in Gujranwala.

The officials highlighted that standards for energyefficient fans had been revisited with the consultation of all stakeholders and 15 companies had voluntarily begin manufacturing of their products under the new rules. As per the vision of the government, PSQCA is cooperating with the companies manufacturing energyefficient fans and other product, and the authority was also granting technical support for rating of their products, they added.

The representatives called on the industrialists to produce world-class products without compromising the quality of raw material. The statement added that in line with the government's vision of ease of doing business, the PSQCA would facilitate industry in licensing.

The officials added that PSQCA had already developed 6,127 standards for various items. On this occasion, Gujranwala Chamber of Commerce and Industry (GCCI) President Muhammad Shoaib Butt appreciated PSQCA's efforts and stated that sessions such as this one would ultimately help industrialists to meet the challenges of the new era.

# Pakistan's political crisis has been an energy crisis, too

David Fickling

The political crisis that pitched Pakistan's prime minister Imran Khan from office wasn't just about the failure of his anti-corruption agenda and mismanagement of an economy where inflation running at nearly 13% has driven months of opposition protests. It's also, as with so many of Pakistan's political crises, about energy and exchange rates. For decades, heavy dependence on imported energy has constrained growth. To break out of its chronic pattern of stagnation, Pakistan needs more power for its industrial, household and transport sectors. Whenever that has happened in the past, however, a rising bill for imported fossil fuels has prompted one of its periodic balance-of-payments crises. The International Monetary Fund bailout that's widely expected within months would be Pakistan's 19th since the early 1970s.

The problem has been recognized for years. Former prime minister Nawaz Sharif planned to reduce the power sector's dependence on imported gas and fuel oil with a fleet of nuclear and lignite coal plants. Khan, by contrast, cancelled some of those coal generators and pledged to more than double hydroelectric output to lift renewables to 60% of the generation mix.

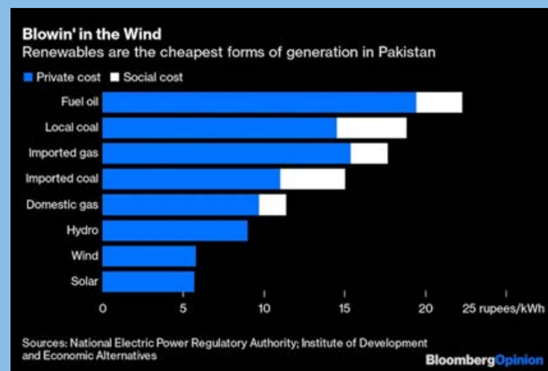
The failure of both policies to back wind and solar, however, has cut Pakistan off from by far the cheapest source of indigenous energy. Until that's fixed, it will continue to lurch from one economic disaster to another.

The challenge of providing power to the world's fifth-most populous nation means Pakistan's energy plans don't lack for ambition. Imported LNG that currently provides nearly a fifth of grid generation is expected to drop close to zero by 2030 as gas is diverted to the household and industrial sectors, according to the government's latest power system plan. Hydro, which currently accounts for about a third of the mix, would rise to 50%, or 92 gigawatts, over the same period. In theory, that would drive the imported share of grid power down to 12% from about 41% of the total.

The problem lies in that over-dependence on hydro, however. Dams in Pakistan are notoriously vulnerable to fickle monsoon rains, with low water levels last summer causing rolling power cuts of seven hours a day or more. A major cause of China's grid shortages late last year was a similar light rainfall season, which drove hydro generation in October to fall 12% from a year earlier, prompting a resurgence of coal mining.

Faced with such a situation, Pakistan would have little option but to increase imports of fossil fuels to make up the shortfall, forcing the government to choose between power cuts and a currency crisis. In the longer term, climate change itself may have unpredictable impacts on the availability of glacier-fed water in the Himalayas, further decreasing the reliability of dams.

The biggest loser remains wind and solar. Despite costs that are two-thirds lower than local coal and cheaper even than hydro, they're envisaged to make up a stubbornly small 10% or so of the power mix as late as 2030. Doubling or even tripling that share would diversify domestic generation sources and provide a back-up to hydro without reaching the levels at which their




own variability should be a problem for the grid.

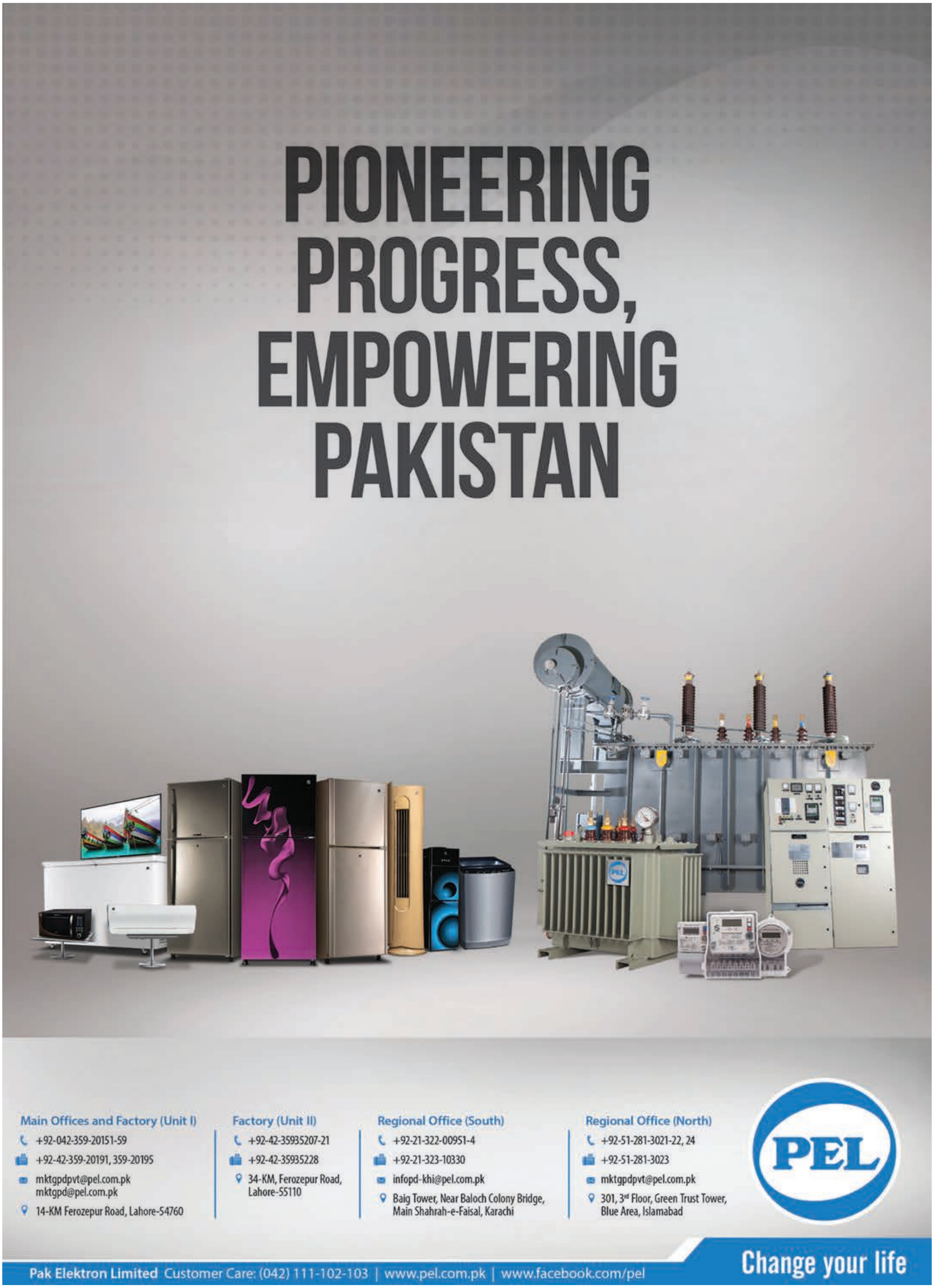
Renewables will also ensure that Pakistan — one of the countries most at risk from climate change, with some of the world's most polluted cities — won't be causing long-term dam age to its own population and environment.

In his negotiations with the IMF, new prime minister Shehbaz Sharif should look to roll back the perverse taxes on renewable power that have been imposed as part of previous talks, and replace fuel subsidies introduced last month with direct support to low-income households instead. He should also advance proposals to install wind and solar power and sell Pakistan's fossil-fired generators into the Asian Development Bank's Energy Transition Mechanism as a way to fund their early closure.

Beyond that, the government should look to the example of the investments made by Asia's second-richest man, Mukesh Ambani, just across the border in India's Gujarat state. Reliance Industries Ltd.'s Jamnagar oil refinery at a stroke eased the pain of India's oil imports on the country's current account, providing a stream of oil product exports to offset its crude imports. Now he's planning to invest $78 billion on renewable and green hydrogen projects there to take advantage of one of the world's best resources of wind and solar power.

Such ambition could ultimately turn energy from an eternal liability for Pakistan, to an asset. Politicians who don't want to see their careers ended by one of the country's perennial economic crises should take heed. ■

*Courtesy: Bloomberg*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# Growing energy crisis

EU Report

The energy sector mess is growing. The subsidies on petroleum are not only unstainable fiscally, but if they continue, there could be possibility of shortages in May or June (situation is under control as of now), and if the hydel flows do not normalize, given high LNG and coal prices, the electricity load shedding cannot be ruled out, as the demand is growing.

The problem in the petroleum sector is that cashflows of the OMCs are drying out. PTI government paid Rs20 billion in subsidy and last week another Rs11 billion were disbursed against the price differential claim (PDC). However, not increasing the price of petroleum products on 16th April wasn't a wise decision. The subsidies are growing at a pace of Rs2 billion per day. The build up is happening fast. This would require more fiscal space and the industry would need more money.

The good news is that there is no shortage in the coming few weeks. HSD reserves are at 19 days while for petrol (MS) the stocks are enough for 23-25 days. However, with 6 days working week, consumption may increase a bit. Then there would be Eid holidays to lower the consumption. The government should announce week long Eid holidays to conserve energy.

Growing international HSD prices are increasing the PDC. There is shortage internationally, and that is why premium (over crude) on HSD is increasing. In Pakistan, peak season of HSD is coming – as Mid-April to Mid-May is usually the time for wheat harvesting and agriculture demand increases. Government must be very careful in managing HSD supplies as any shortage could create food security issues. The good thing is that around 70 percent of HSD demand is met through local refineries. In comparison, around 70 percent of MS demand relies on imports.

The real problem is continuation of import of HSD and MS. OMCs' cash flows are drying up. PSO receivables are approaching Rs600 billion. International prices are increasing amid government receivables (against PDC) accumulating with OMCs. They need higher financing from banks. But after Hascol fiasco, banks are reluctant to lend. SBP is trying to sort this out. Big companies – such as PSO, Shell and APL, may not be at the risk of default from the lens of banks and may continue to get financing and import. However, credit lines for smaller companies is drying and banks may not entertain them unless the PDC issue is resolved.

Then prices of coal and LNG are skyrocketing. Government has commitment of 7-8 cargos a month for May and June. The government has floated tenders for three cargoes each in spot for the next two months. The expected price is $30-32 /mmbtu. It is not advisable to import at these rates for power production, as even after the high premium, generation on HSD is cheaper. Then hydel supply is already lower this year. And the government should run its FO plants at full capacity.

The demand from the power sector could create more problems to ensure supply chain of HSD and FO in the next two months. The circular debt is growing with increase in fuel cost which is not passed on. IPPs cashflows are becoming tight. There are signs of fuel shortage in IPPs, along with payment issues. Energy crisis could become serious, if not managed right. Unfortunately, there is no cabinet yet to take charge. ■

# To Mother #BilqeesEdhi With Love

(A true and uplifting story that may make you cry and warm your heart)

Twenty-eight years ago I was abandoned in a baby carriage at the #EdhiOrphanage located in Karachi, Pakistan. You found me, you named me after your mother Rabia Bano, you forged my identity, then you gave me a home. Because of you today...I am a somebody, I have an identity, and I have loving parents to call my own. You fought for woman's rights, you were an activist, a philanthropist, a rebel for the good cause. You taught me the power of woman, to always have an unwavering sense of self and to be unapologetically ambitious.

Because of you, a little Pakistani girl orphaned at birth dared to dream. Because of you I am an independent woman with a graduate level education and a place in the world to call my own. You gave me opportunity. You awarded me a chance to dream, and you presented me with freedom.

To the world you were Bilquis Edhi, but to me you were Bari Amma (Elder mother). Thanks to you I have two loving parents who made sure I had everything a little girl could have ever asked for. I went to a great high school, got scholarships throughout college, did an internship in NYS Assembly, Bronx District Attorney's Office, U.S Congress, U.S Senate and went to law school to purse a masters in Cybersecurity and Data Privacy Law. All. Because. Of. You.

or those of you who are reading about Bilquis Edhi for the first time... I want you to know who she was to me, and to all of Pakistan. #BilquisEdhi was a hero, she was a mother to so many orphans (like me) and a powerhouse for humanity.

Losing Bare Abbu (#AbdulSattarEdhi) was tough, but your loss has made me feeling orphaned again today...

My name is Rabia Bibi Osman, and I will forever be a proud #Edhi baby.

**Rabia Bano Osman**
Senior Privacy &
Compliance Analyst at Nike

# Four firms join project to make 150MW from city garbage

EU Report

The Sindh government has signed a letter of intent with four foreign energy companies for a waste-to-energy project for production of 150 megawatts daily from the garbage produced in the city.

The signing ceremony was attended among others by Energy Minister Imtiaz Shaikh, Karachi administrator barrister Murtaza Wahab, consuls general of the United States and the United Arab Emirates, the ambassador of The Netherlands and representatives of the four energy companies.

On behalf of the provincial energy department, alternate energy director Imtiaz Shah signed the agreement with the representatives of the firms belonging to US, Denmark, The Netherlands and China.

Addressing the ceremony, the energy minister said that under the slogan of "Green Energy, Clean Karachi" the provincial government had signed the letter of intent with world's reputed energy companies, achieving another milestone as the waste-to-energy project would produce 150MW to 175MW of energy daily from garbage collected from the city. "This project will not only help clean the garbage from city, but it will also help meet our energy requirements," he added.

Mr Shaikh said that the unique waste-to-energy project had been planned according to the vision of PPP chairman Bilawal Bhutto-Zardari and this project would be expanded to other cities of the province in future. He said that the provincial government would provide land for the project at a landfill site in the city. "An approximate investment of 600 million US dollars is expected in this project and about 6,000 to 8,000 tonnes of waste will consumed daily for production of 150 megawatts of energy daily through this project," he said. The energy minister said that Sindh again took a lead in the country by not only preparing a Sindh waste-to-energy policy, but also initiating waste-to-energy projects in the province.

He said that Karachi alone produced over 15,000 tonnes of municipal waste, while other cities in the province approximately 2,000 tonnes each day, besides agriculture waste in the form of bagasse, cotton sticks and rice husk. "Converting this waste into energy can generate significant amount of electricity."

He said that the waste-to-energy policy of the province would utilise resources and dispose of the waste efficiently.

Energy secretary Abu Bakar Madni told the participants in the meeting that the conventional landfill sites usually failed to exploit the potential of waste as an energy resource.

"The anaerobic decomposition of organic waste in landfill sites leads to the release of methane to atmosphere, which is not usually controlled and captured and as such it has been one of the most negative side effects of landfill sites." He said that waste-to-energy referred to a variety of treatment technologies that converted waste into electricity. ■

## Engro to set up energy park in Thatta

Engro Energy Limited and Agha Steel Industries signed a term sheet to provide renewable energy (RE) to Agha Steel from its renewable energy park. Engro Energy is establishing the park at Jhimpir, District Thatta in Sindh. According to the company, it would be a first of its kind hybrid wind and solar PV park that will provide up to 400MW of electricity by early 2024 in first phase.

Speaking on the occasion, official from Agha Steel said the partnership would help them contributing to a low-carbon and renewable energy-reliant economy in coming years. They informed that the company had decided to bring down its production cost by utilizing RE for its products.

Ahsan Zafar, CEO of Engro Energy, said creation of the RE park was in line with country's vision to deploy a green energy mix. He stated that purpose of the park was to open up energy market and help spur economic growth through increased industrialization and export-lead growth in the country. ■

# KP demands separate block of candidate projects of 3,000MW

EU Report

Khyber Pakhtunkhwa (KP) has urged the federal government to allocate a separate block of at least 3,000MW of candidate projects in the next iteration of IGCEP for hydropower projects at par with renewable energy schemes.

The request was made by KP Chief Secretary Dr Shahzad Khan Bangash in a letter to Secretary Power, Syed Asif Hyder Shah. His letter is in response to a letter of the Board of Investment (BoI) of February 11, titled "foreign direct investment of $3 billion by Korean investors is jeopardized".

According to the Chief Secretary, Khyber Pakhtunkhwa province has the highest untapped hydropower potential yet has limited resources. This untapped hydropower potential will generate sizable revenue for the province, however, non-inclusion of the private sector projects in the Indicative Generation Capacity Expansion Plan (IGCEP) will either delay/ halt or completely stop the process of development in the field of energy in KP.

He said, a hydropower project had a life of over 80 years, and if properly maintained its life could go up to 100 years. As per the policy, these plants will be transferred to the government of KP, at a notional cost of Re 1 at the end of 30 years, and the government will then be in a position to produce power at a very nominal cost over a longer period of time with a sizable revenue resource.

CAPEX for hydropower plants consists of 70%- 80% of local inputs which is reinvested in to the local economy in the form of land, cement, steel and labour, whereas in all other sources of electricity 70-80% of the CAPEX is spent on imported materials/ machinery. This not only drains our foreign exchange reserves, but also provides no benefits to the local economy.

The hydropower energy, in addition to elimination of foreign exchange risks, also eliminates the risk of energy availability due to any geo political crisis that may result in discontinuation of supply from abroad.

Dr Bangash said hydropower plants were the toughest projects to construct because each project had a unique structure. "These plants can only be made at a specific location thus land acquisition risk is high, the studies required to assess feasibility are very site specific, and the construction period is long."

He maintained keeping all those aspects in view, which increased construction time, cost and risk, both directly and indirectly, the parameters for inclusion of hydropower projects in IGCEP needs to be altered and the projects should be compared within the technology rather than comparing it to other sources of power such as wind and solar etc.

He maintained that direction on that aspect had already been provided by Council of Common Interest (CCI) in its 47th meeting held on June 21, 2021, wherein the following decision was minuted "in order to determine the basis of least cost and to ensure that the consumer gets the cheapest electricity, while ensuring levelized tariff for different fuels / technologies the government shall conduct necessary consultations with the provincial governments on parameters/ basis / assumptions at the time of development of generation framework." However, no such consultation has been done with KP. ■

## Winder Dam to be completed by 2025

EU Report

The Winder Dam project of 3 megawat capacity would be completed in 2025 which is situated across the Winder River that would store 54,000 acre feet water. The dam is located at a distance of 125 Kilometer from Karachi, 66 Kilometer from Uthal. dear

He said that the Winder Dam would have 54,000 acre feet water storage and 10, 000 acres of land would be irrigated in the area adding that agriculture.

He said that the Winder Dam would have 54,000 acre feet water storage and 10, 000 acres of land would be irrigated in the area adding that agriculture and livestock would be progressed in the area after completion of the dam.

"About 54,000 acre feet of water storage capacity will be created and more than 10,000 acres of land will be irrigated from the conclusion of the Winder Dam", he said. He said water supply to the lands from the dam through canal could also be ensured. ■

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# Beginning of a new era

Engr. Hussain Ahmad Siddiqui

June 2016 is marked with the government's holistic decision to transfer Heavy Mechanical Complex (HMC), the giant industrial unit, to the Strategic Plans Division (SPD), and t he beginning of a new era for reviving the company's past glory.

As a result of long and unsuccessful privatisation process, HMC had reached a critical stage of gradual denudation of its recognised strengths in human resources, technologies, and productivity. The situation had resulted in several constraints and limitations, primarily that of technical and financial nature. The process of divesting the c omplex had played a pre-dominating role in making it nearly a sick unit. In 1989, half-hearted efforts were made by the government to restructure the company that did not bring the desired results and its production capacity remained grossly under-utilised.

Privatisation process of the industrial SOEs started in 1992. Various attempts were made in subsequent years to divest HMC but without any success. The 1990s therefore saw decline of the company as its order book substantially reduced and the government also withdrew various fiscal concessions and policy support for indigenisation that were available to HMC in the past. The technology assimilated and expertise developed by HMC in sugar and cement industries was not being utilised effectively and properly mainly due to saturation in these sectors. Resultantly, it lagged in its core activity areas and could not keep pace with the technological developments around the world. Also, its product diversification plan could not be implemented due to lack of financial and marketing support from the government through its policy framework. Still, HMC was able during 1998-2001 to develop collaborative arrangements with the international companies to produce equipment for chemical, oil, gas, and power sub-sectors, in line with the market demand.

Performance of the company therefore improved significantly during subsequent years. Nonetheless, its role remained restricted to that of a sub-contractor, and it failed to achieve higher value-addition, optimal indigenisation, and sustainability in new areas, including equipment and components produced for strategic organisations like the Khan Research Laboratories (KRL) and the Pakistan Atomic Energy Commission (PAEC). The contributions made by HMC managing directors Anwar Janjua and Ali Enser during this critical period were notable.

During the year 2007 HMC was delisted from privatisation and was mandated to implement a rehabilitation and upgradation plan in view of its depreciated plant machinery. The government had decided to approve proposals for upgrading its technology and machinery based on the plan for which an initial allocation of Rs1 billion was also promised. The government was expected to engage independent engineering consultants to carry out detailed studies, seeking administrative and technical approval of recommendations for revival and restructuring of the company.

The fact is that HMC production facilities have become outmoded and anachronistic, and thus plant capability is no more compatible. When installed in 1970s its plant machinery was well-advanced to the level that even engineering industrial units in China were not having comparable facilities. A typical example is that of a large 3,000-tonne capacity hydraulic press, which was especially designed by the Chinese for installation at HMC given that a hydraulic press of this large size was not available in China at that time.

The fact is that HMC production facilities have become outmoded and anachronistic, and thus plant capability is no more compatible. When installed in 1970s its plant machinery was well-advanced to the level that even engineering industrial units in China were not having comparable facilities

Since then, however, no major investment has been made to replace and modernise the installed plant machinery, though rehabilitation of major machines was done at HMC on a regular basis under supervision of the Chinese engineers. A few schemes were prepared but could not materialise due to lack of requisite support from the government. Only a few machines were added during 1980s from the western sources to augment its capabilities in the manufacture of components for thermal power plant.

Thus, HMC was placed under direct control of the Ministry of Industries & Production during the government of General Pervez Musharraf. HMC was given to the SPD, and Chairman PAEC (Anwar Ali) was appointed chairman of the board of directors. Somehow, within two years the SPD lost interest in managing HMC, and its setup was reorganised by the ministry. Now the Minister for Industries & Production was made chairman of HMC, and its board of directors was reconstituted, also to include the secretary and additional secretary (or joint secretary) of the ministry. HMC's Dr Mohammad Ashraf Butt was appointed the CEO.

It was during this period that an ambitious balancing, modernisation, rehabilitation and expansion (BMRE) plan estimated to cost Rs21.54 billion with foreign exchange component of $156.44 million was prepared. Steel melting, casting and forging facilities were to be overhauled and upgraded by installing modern instrumentation and by adding an induction furnace and a heavy-duty forging press. Heavy duty computers, numerically controlled (CNC) machines, precision welding machines, material preparation equipment and others were also to be installed, according to plan.

Since HMC's competitive edge in the areas of sugar and cement has eroded over a period of years, it was planned to expand and diversify its products range to cover equipment for energy, chemical, petrochemical, agro-based and other industries, and infrastructure sector, besides acquiring latest technology for its product line. A well-conceived business plan, on short and long-term basis, was thus in place as per the BMRE plan with focus on manufacturing, in a big way, major and critical equipment for power generation plants based on various energy resources. The comprehensive product range was planned to include equipment for hydroelectric, coal-based, thermal, wind power, and urban and industrial waste power. Meanwhile, the Product Design Center, a major component of the BMRE project, was upgraded and renewed emphasis was placed on acquisition of advanced technology.

International tenders for the BMRE equipment were invited along project financing. As expected and logical, the response was only from the Chinese companies. There were three bidders but only one bidder qualified as technically and commercially responsive. It was the state-run China IPPR International Engineering, a daughter company of the original designer and planner of HMC. In 2011. China offered the foreign exchange component for the BMRE project. The project however remained unimplemented, primarily due to the political-bureaucratic complicity to make commissions and kickbacks in the deal.

Given these conditions, it was therefore a prudent decision to transfer HMC to SPD/PAEC for management and for implementing the long-delayed BMRE plan. First, a revised feasibility study was prepared by new owners through consultants. Then international tenders were issued for procurement of machinery but without success. It was only in January 2021 that HMC embarked on implementing the BMRE plan, in phases. It is now commissioning a bar rolling mill of 150,000 tonnes per annum capacity and upgrading the existing continuous casting plant. Also, the electric arc furnace and ladle furnace are being installed for steelmaking, as envisaged in the BMRE plan. Recently, HMC/PAEC has signed agreements with six Chinese companies for strengthening its technical capacity and capability to meet future demands of industrial equipment domestically.

The business plan has been modified but, seemingly, a pragmatic approach has not been adopted. With the commissioning of a bar rolling mill and converting steel billets it plans to produce steel rolled products required for construction industry, instead of high-quality steelmaking as originally planned. Likewise, the company plans to fabricate steel towers for transmission and distribution of 220kv and 500kv electricity. This is disappointing. Restructuring of HMC at huge cost was planned for undertaking production of high-tech and value-added products, which is not currently focused. Reportedly, no efforts have been made to acquire state-of-the-art technology for manufacturing equipment for energy sector including power plants based on renewable energy resources, which is the planned core business. It shall be in national interest that HMC's original character and charter of producing capital goods shall be retained.

Prospects for growth of HMC are indeed very promising, and major re-structuring will make it once again a viable entity for a long term. While the company is celebrating the golden jubilee its new owners shall remember its founding fathers and past leaders, as some are already drifted in oblivion. ■

*Courtesy Dawn*

RESCUING ECONOMY

# Lessons from Sri Lanka

EU Report

The economic crisis that Sri Lanka is facing now can be instructive for other countries too. Sri Lanka finds itself unable to pay its external debt and an imminent default is round the corner. The country has already announced that it would default on its external debt pending a bailout package from the International Monetary Fund (IMF). The situation is challenging and nearly impossible to control. One of the main reasons is the dwindling foreign exchange reserves which in turn result in reduced import of essentials. If Sri Lanka defaults – which it will most likely do – the country will free up foreign currency to finance desperately needed essentials such as food items and petroleum products. There is also an acute shortage of imported medicines on which clinics and hospitals rely heavily. Scarce supplies have agitated the people who are venting their anger in demonstrations while protests are gaining momentum.

Sri Lanka is seeking around $3 billion in IMF support over the next three years to revive the economy. Pakistan too has relied on market borrowing through international sovereign bonds. When such bonds mature, the country needs to pay or else default. Pakistan's bonds are also maturing in the coming months, though there is a grace period. Pakistan also needs billions of dollars to service its debt this year, whereas foreign exchange reserves are declining – mostly due to the mismanagement by the previous government. In its biannual regional update, the World Bank has warned that indicators of ability to pay, such as external debt repayment ratio to exports and remittances, are the highest in Pakistan and Sri Lanka in the South Asian region, with the situation 'worrisome' in Sri Lanka where heightened fiscal and external risks led to a series of sovereign credit rating downgrade. The Bank has also warned Pakistan that the country will have to curtail its budget deficit and current account deficit.

When a country borrows heavily as Sri Lanka did from Beijing for infrastructure projects, it may end up with standing white elephants. To repay, the country expedites privatization of majority stakes of national assets including ports. New infrastructure projects must result in a boost to tourism and trade. The snowballing of crises is not an uncommon phenomenon if a government fails to increase its vital revenues. Just imposing wide bans on imports to conserve dwindling foreign currency reserves may give fleeting relief but is unlikely to help in the long run. Reserves saved in this manner soon fly out of the country and the crisis worsens if foreign assistance doesn't arrive in time. Like Sri Lanka, Pakistan has also been relying on credit facilities for fuel but for how long can a country continue on a path like this? Friendly countries are not likely to offer a helping hand every now and then. These are all dire lessons and Pakistan would do better by avoiding the path that Sri Lanka took. ■

# GE found responsible for Guddu Power Plant

EU Report

An inquiry committee constituted for investigating the countrywide blackout that struck January 9, 2021, last year due to an accident at Guddu Power Plant, has found M/S General Electric (GE) grossly negligent under the Contractual Service Agreement (CSA) and, therefore, primarily responsible for the accident and consequent losses.

Pakistan suffered a major countrywide power shutdown on January 9, 2021 after the National Transmission and Despatch Company (NTDC) power system encountered a major breakdown due to the tripping of the Guddu Thermal Power Plant. This caused tripping of high transmission nationwide and brought down the system frequency from 50 to zero in less than one second. Under the agreement, GE is responsible for a scheduled inspection, supply of initial spares, diagnostics and online performance monitoring, O&M advisory services, asset performance management and operational excellence system as they are included in the scope of covered maintenance.

The investigations found that the unit became non-functional due to damage to some internal parts.

Official documents revealed that the Federal Secretary Ministry of Energy (Power Division) has now instructed through official communication on March 31, 2022, to take immediate action including Central Power Generation Company Limited (CPGCL), under close supervision of the Government Holding Company Limited (GHCL), must approach M/S General Electric to compensate for the loss of Rs10.8 billion plus cost of repair and maintenance involved in the restoration of unit GT-14 of 747 MW Combined Cycle Power Plant (CCPP), Guddu.

If General Electric does not compensate for losses, the relevant authorities may legally and prudently evaluate options of "black-listing" such services of M/S GE and referring the case to NAB or FIA after consideration and approval of boards of directors (BODs) of CPGCL and GHCL.

The Chief Executive Officer (CEO) of CPGCL is further required to complete the E&D proceedings against the-then Chief Engineer/TD and Plant Management forthwith with exemplary punishment under rules to ensure that necessary SOPs are put in place. The CEO of Government Holding Company Limited (GHCL) has been directed to supervise necessary action at the earliest. Besides, he must ensure adequate insurance cover for the plant is in place for future eventualities.

The Federal Secretary of Energy (Power Division) also directed suspending CEO Government Holding Company Limited with immediate effect and its Board of Directors advised holding an E&D inquiry against him for failing to supervise and monitor the operation at CPGCL and failure to hold a proper inquiry, recovering claim from General Electric etc for actions leading to possible loss to a public sector plant. Besides, the Government Holding Company Limited was instructed to immediately take stock of operation at all GENCOs to identify shortcomings and get the deficiencies removed to secure power plants from any eventualities.

Furthermore, the federal secretary has also sought an explanation while suggesting replacing the Board of Directors of CPGCL for their failure. ■

*Courtesy The News*

# PBC suggests removal of fuel subsidy

EU Report

Pakistan Business Council (PBC) has recommended the government to withdraw the general subsidy on fuel by replacing with targeted assistance through BISP by restoring fiscal prudence.

"Avoid further populist measures that also result in increasing the inflation," PBC suggested the government. In a letter written to Prime Minister Shahbaz Sharif, PBC Chief Executive Ehsan A Malik asked the government to stem the pressure on forex reserves by reducing imports and raising regulatory duty on import of non-essentials.

He said regulatory duty on fuel imports was impractical and instead the government should focus on limiting import through conservation measures such "as work from home; early closure of commercial centres and wedding halls and rationing of fuel for private vehicles". "Don't allow the country to experience the kind of challenges confronting Sri Lanka," PBC asserted. The council sought to secure bilateral and multilateral funding for the country by reviving the International Monetary Fund (IMF) programme.

PBC urged for maintaining a competitive exchange rate by targeting REER in the 95-105 range and avoiding egoistic/unsustainable measures to prop up the local currency. It also termed the support to exports imperative and urged the government to continue with the regionally competitive energy tariff and other export incentives.

It also asked the government to come up with additional incentives for non-textile exports and to widen the geographical dispersion. PBC emphasised upon equitable taxation and proposed the government to accelerate the Federal Board of Revenue (FBR) reforms to broaden the tax base, and increase the advance and withholding tax rates on non-filers.

"Don't burden existing taxpayers further and avoid knee-jerk revenue seeking measures that impact the long-term health of the economy," it stated. It sought to review anomalies that arose from hasty changes to meet the claimed demands of the IM like multiple taxation of inter-corporate dividends and other anomalies in group taxation, tax credits for investment and other exemptions that still had time to run.

PBC urged for phasing down the inequitable minimum and advance taxes on the formal sector which raise the cost of doing business. As part of stable and competitive energy for industry, it recommended to liberate industry from legacies of past energy contracts, cross subsidies, system inefficiencies and theft and to fast forward the work on additional LNG terminals. ■

Mohiuddin Aazim


Globally, food and energy prices are up. During March, the Food and Agriculture Organisation of the United Nation's food price index rose 12.6 per cent from February. It was the highest monthly rise since 1990. And, average crude oil price on March 14 stood above $106 per barrel, up from $85 on February 14 — showing an increase of about 25pc.

Faced with a large fiscal deficit, Pakistan can neither afford to continue to subsidise local energy products any longer nor can it afford to let its food import bill inflate further. The merchandise trade deficit is already too high — about $35.4bn in nine months to March 2022. This deficit is so large that even nine month's home remittances ($23bn) fall short to finance it. This means energy prices in Pakistan should start rising soon and already high food prices should become higher.

The food inflation rose in 14.5pc and 15.5pc in March year-on-year in urban and rural areas respectively. The recently administered heavy dose of monetary tightening and requirement of 100pc cash margins on imports of non-essential items cannot play a direct role in containing energy and food inflation. Future reading of the non-food, non-energy (NFNE) core inflation measure of the central bank would prove this point. During March the NFNE core inflation increased 8.9pc and 10.3pc year-on-year for urban and rural Pakistan, up from 7.8pc and 9.4pc in February. The World Bank in its latest report has also singled out Pakistan as the country offering maximum energy subsidies and termed them unsustainable

General inflationary pressures may recede somewhat — after a lag of a few months — thanks to the 250 basis points (bps) increase in the central bank's key policy rate, the rupee's recent rise and the imposition of a 100pc cash margin on the imports of 177 non-essential yet commonly used import items. But that would be more due to a contraction in domestic demand. This means Pakistan's economic growth would soon start decelerating.

The World Bank has predicted 4.3pc growth this year, down from 5.6pc a year ago. The Asian Development Bank believes growth would be 4pc. But given the feared demand contraction in April-June, the last quarter of FY22, even 4pc-4.3pc growth would be encouraging. The fragility of the current PML-N led broad coalition government and ongoing nationwide toxic political protests by ousted prime minister Imran Khan could also take a heavy toll on GDP growth.

The new government says it has inherited an "unmanageably large" fiscal deficit that was booked during July 2021-March 2022, the first nine months of FY22 under the previous government. Miftah Ismail, former finance minister, says that the budget deficit for FY22 could go up to 10pc of GDP — the highest ever in the country's history, which logically leaves little space for the new government to boost economic growth through higher spending.

The recovery of the rupee is primarily a reflection of the interest rate hike and the requirement of 100pc cash margins on imports of non-essential items — fundamentally the rupee remains as weak as it was before

Financing of "Ramadan relief and cheap wheat flour packages" announced by the new government may also fatten current expenses if the fiscal room is not created for it through the gradual withdrawal of the subsidy on petroleum products. Just before its departure, the PTI government had heavily subsidised petroleum products. The International Monetary Fund (IMF) is against it and is insisting on its withdrawal. The new government understands the importance of remaining in the IMF's programme and the programme cannot continue without gradual withdrawals of energy subsidies in particular — and all other subsidies in general. The IMF has made this clear. What the current government can do at best is to seek some time to implement 'subsidy reforms'. The World Bank in its latest report on South Asia has also singled out Pakistan as the country offering maximum energy subsidies and termed them "unsustainable". Requesting the IMF to let the energy subsidy programme continue is just not possible.

A dramatic recovery in the rupee value after the regime change seems temporary. After hitting an all-time low of 188.19 against the US dollar on April 7, the rupee gradually rose to 181.69 on April 14. This impressive recovery of 3.4pc within a week is primarily a reflection of the 250bps hike in the interest rate and the requirement of 100pc cash margins on imports of non-essential items introduced on April 7. Fundamentally the rupee remains as weak as it was before the exit of Imran Khan from power.

Exports of goods and services, remittances, inflows in Roshan Digital Accounts, you name any source, and there is nothing to suggest that Pakistan is going to attract unusually large forex inflows in near future. And, the State Bank of Pakistan's forex reserves (as of 8th April) are just below $11billion — not enough to foot even two months of merchandise imports bill. Imports of goods should eat up a little less of our precious foreign exchange if international energy and food prices rise slower than before or don't rise at all — which is fancy thinking at best. The tighter interest rate would undoubtedly contract overall imports to some extent but after a time lag and at the cost of decelerating the pace of economic growth. Whereas the interest rate tightening would take some time to depress broad domestic demand its effect is sure to be felt immediately in large-scale manufacturing (LSM). LSM output has risen 3.9pc year-on-year in seven months through January 2022. February and March readings are already expected to reflect the effect of the mid-December interest rate hike of 100bps when the central bank raised its key policy rate from 8.75pc to 9.75pc. Now the 7th April's 250bps further hike that took the policy rate to 12.25pc might choke LSM growth during April-June, the last quarter of FY22 — or even beyond that.

Much depends, however, on to what extent the tighter interest rate depresses the private sector credit offtake. In nine months of this fiscal year (between July 1, 2021, and April 1, 2022) the private sector's net borrowing from banks stood at Rs1.198 trillion. Post-April 7 credit data would be important to watch.

*Published in Dawn, The Business and Finance Weekly*

# Why wind power growth is slowing in the U.S.

Haley Zaremba

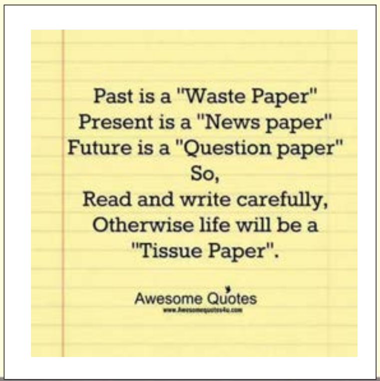
In 2020, at the height of the novel coronavirus pandemic, it seemed that renewable energy was finally getting its chance to rise to the top of the global energy sector and reset the world's trajectory toward a genuine green energy transition. COVID-19 had provided an unprecedented interruption to the status quo and given the world a unique window of opportunity to reset the industrial rules of engagement with intentionality and future-thinking optimism. Oil prices bottomed out, it seemed that the era of peak oil was finally upon us, and renewable energy was receiving more column inches and investor attention than ever before. And for a while, that hoped-for push toward decarbonization was realized. By a number of metrics, 2021 was the best year for clean energy on record. Last year saw a record $105 billion in private investment in renewable energies, batteries, electric transport, hydrogen, and carbon capture. Sales of electric vehicles doubled from 2020 levels, and the energy industry added 37 GW of new wind and solar power capacity to the grid. The outlook was great, but even with these strides, experts warned that the growth rate for these sectors would need to continue to ramp up in order to have any hope of meeting climate goals.

This makes it all the more devastating that so far in 2022, not only has the rate of growth decelerated for renewables, the sector has taken a serious hit from ongoing supply chain issues and market volatility which has been exacerbated by the ongoing Russian war in Ukraine. Even before this year, however, the wind sector, in particular, was already showing signs of trouble. Instead of soaring to new heights in 2021, new wind power installations actually decreased last year as compared to 2022. The United States and China, the two countries responsible for the bulk of new wind power capacity, both saw decreases last year. In China, this may be due to the end of the country's feed-in-tariff, while in the U.S. supply chains and pandemic complications have been cited as the root issue.

Indeed, this week the annual wind energy conference WindEurope is taking place in Bilbao, Spain, and the tone has been more worried than celebratory. "The state of the supply chain is ultimately unhealthy right now," Sheri Hickok, GE Renewable Energy chief executive for onshore wind, told a conference panel. "It is unhealthy because we have an inflationary market that is beyond what anybody anticipated even last year. Steel is going up three times."

According to reporting from Recharge, Nordex chief executive José Luis Blanco said that even before the Russian invasion of Ukraine, "the economics in the wind industry had been destroyed due to price pressures from competitive tenders coupled with a low visibility of wind capacity pipelines due to failed government policies." Blanco says that turbine-makers have been forced to sell their product at a loss as part of a "self-destructive loop."

If these conditions continue, it will be impossible for Europe to reach its goal of tripling wind power capacity by 2030. What's more, a new report from the Global Wind Energy Council says that the wind will need to pick up dramatically worldwide in order for the global community to meet the goals set by the Paris climate accord in order to avoid the worst impacts of climate change. "At current rates of installation," read the report published Monday, "GWEC Market Intelligence forecasts that by 2030 we will have less than two-thirds of the wind energy capacity required for a 1.5°C and net-zero pathway, effectively condemning us to miss our climate goals."



# Solar Pakistan Lahore

A picture with Zafar Iqbal Watto Director Rehman Habib, Rehman Palwa, Naeem Qureshi , Yogi Wajahat and Halima Khan

Team Energy Update at Stall of Goodwe with Syed Salman Mohiuddin & Engr. Faiz Bhutta


At Stall of Inverex, CEO Inverex Zakir Ali, Marketing Head Anas Zafar, Azrum Ansari (Fronius) & Naeem Qureshi

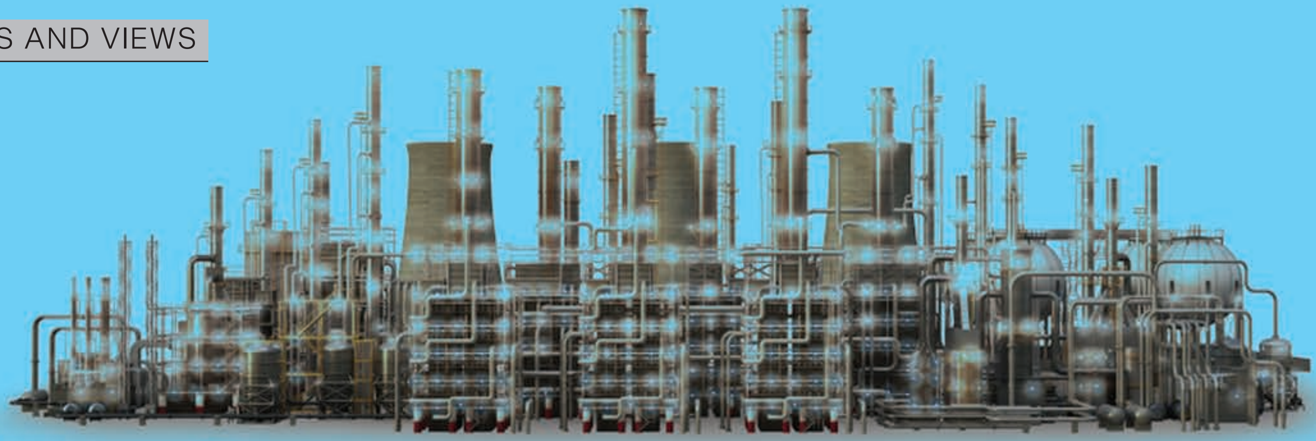
Team PPDC Visit Qarshi Labs Hattar with Mir Masood


At Stall of Sungrow with Howard FU, Summaiya Nisar and Team Energy Update

A Group Photo of Solar Conference Lahore. MD-CEO AEDB Shahjehan Mirza, CEO Fakt Saleem Tanoli, Zaigham Rizvi, Naeem Qureshi, Shahid Khan and others


Mubeen ur Rehman from Al-Bario Engineering received 14th Int'l CSR Awards 2022

Naeem Qureshi receiving an appreciation shield from Minister Industries KPK A. Karim. M. Attaullah and Mir Masood and others seen in the picture



# Refiners say policy limbo puts $5bn upgrade at stake

Khallid Mustafa

Refineries on Monday appealed to the government to approve the draft of refining policy, up in the air for over two years, fearing this delay might jeopardise industry's $4-5 billion upgrade plans and $8-10 billion investment in the greenfield projects.

Country's oil refiners have also asked the government to consider their proposal submitted with Ministry of Energy in February for running furnace oil (FO) fired power plants having near 1,500MW or equivalent generation capacity on regular basis, as per an Attock Refinery Limited (ARL) letter dated April 15, 2022 to Secretary Petroleum. Refineries, in the letter written with the subject 'Refineries role in averting products availability crisis' pleaded that this proposal would help avert the recurrence of petroleum products' scarcity and glut of FO because of ullage issue that happens almost every year. "This proposal along with approval of new Refining Policy will allow the existing refineries to upgrade and expand their respective units to produce Euro-V compliant fuels with increased production."

Refineries also called on the secretary petroleum to convene a meeting to discuss the proposal at the earliest. They argued that in order to avoid recurrence of such situations, a permanent solution was critically important to enable maximum utilisation and sustainability of the sector and to ensure availability of petroleum products to the maximum possible extent.

The letter also referred to the meeting, chaired by secretary petroleum and attended by chairman OGRA and refineries officials on March 31, 2022, wherein directions were given to all refineries to enhance their production to meet the growing demand of petroleum products in the country, especially FO and diesel.

During the meeting, it was assured that despite serious challenges being confronted by the sector, the refineries would certainly endeavor to enhance their respective throughputs, especially maximisation of FO production, keeping in view problems in sourcing LNG supplies from the international markets.

The letter also asked the petroleum secretary to recall that a few months back (December 2021-January 2022, refineries were struggling to operate due to high stocks of FO owing to little or no consumption in the power sector.

Some of the refineries even had to shut down their operations because of ullage problems and some had to export FO at substantial financial losses. The growing demand of petroleum products in the country coupled with changing geopolitical situation necessitates the need for having a modern and vibrant refining sector in Pakistan to ensure its energy security, refineries also said. It must be noted that the then SAPM on Energy Draft, had almost finalised the refining policy draft, but the government did not give a green-signal because of the disputed tax holiday. According to the draft, the new policy seeks extension up to December 31, 2022, for availing tax holiday under clause 126B of Finance Act 2021-22, to obtain government approval for setting up new deep conversion refineries from existing deadline of December 31, 2021. The new policy also says there shall be no duties and sales tax on import of crude oil, being the main raw material of refineries, from July 1, 2022.

In August 2021, the energy ministry submitted a new Refinery Policy to ECC (Economic Coordination Committee) of the Cabinet.

Now the newly-formed cabinet will discuss the policy and according to sources Mr Miftah Ismail already has the document about the refining policy to study. ■

*Courtesy: The News*

# Naveena Group launches 50MW wind energy project

EU Report

Naveena Group is one of the leading business conglomerates in Pakistan with incredible sales of 300 million dollars dedicated to the business of progress and sustainability. The Group now has a diversified portfolio excelling in Textile, Steel, Construction, and notably growing in Energy. The Group has been exporting its textile products to top international brands across the globe for 35 years and takes pride to have played a significant role in the economy of Pakistan by making major contributions to the foreign reserve. The Group has been making incredible business via all the industries it is associated with. In line with its values on sustainable development, Naveena Group invested in a 50MW renewable energy project worth 65 Million dollars located at Jhimpir. Naveena Group will supply clean wind energy at 4.7 cents per unit which is the cheapest cost of renewable energy, supplied in the country. The project has started its commercial operations on the 13th of April 2022. Naveena group is making incredible business in the textile and steel sector. Its subsidiary Naveena steel aims to redefine quality standards and fulfill the infrastructural requirements of the country by producing international quality steel rebars with a capacity of 300,000 TPA. Another subsidiary of Naveena Group is Naveena Developers which is all set to make its mark in the construction industry across the country.

# Sungrow bags 100 MW sales contract and new product launch during SOLAR Pakistan 2022

Sungrow, the global leading inverter solution supplier for renewables, signed a 100MW contract with its reliable partner Energy for You during the SOLAR Pakistan Expo 2022. This contract consolidates Sungrow's leading position in Pakistan's renewable energy industry. Sungrow also launched two significant products: the ultra-powerful SG350HX and the brand-new generation three-phase C&I inverter SG125CX onsite, which can better explore Pakistan's tremendous potential to generate power from renewable sources.

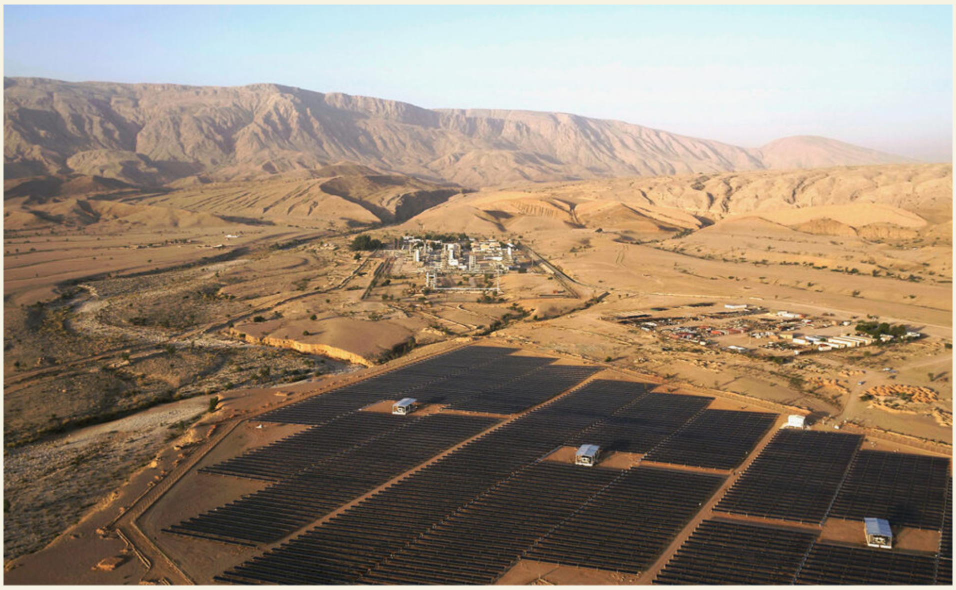

Pakistan is a perfect place to develop solar power due to its high levels of solar irradiation, and the government also enacts Indicative Generation Capacity Expansion Plan 2021-2030 to facilitate the renewable energy transition. To help meet Pakistan's targets of clean and green energy, Sungrow expands its cooperation capacity with local distributors to better empower small and medium enterprises (SMEs) as well as the emerging residential users. The upcoming 100 MW sales contract helps provide more clean power for local users in Pakistan.

During this event, Sungrow also introduced two powerful inverters from its product portfolio. The SG350HX is now the strongest string inverter for utility-scale PV plants. It has a maximum output power of 352 kW, compatibility for large-format high-efficiency and bifacial PV modules by offering 40A MPPT applicable for MV terminations, and thereby guarantees an incomparable return of investment for stakeholders. The new generation SG125CX is an updated version tailored for Pakistan's Commercial and Industrial users with output at 400V. With the increased power to 125kW, it can meet almost all C&I needs across the country. Besides, SG125CX is equipped with enhanced safety protection and it is more convenient to install, operate and maintain.

"On the basis of Sungrow's existing strong competency in Pakistan's renewable energy industry, we are planning to penetrate into more sectors; especially the residential and SMEs. We are confident in continuing leading this booming market with cutting-edge technologies and industry-leading solutions", said Howard Fu, Country Director of Pakistan, Sungrow. ■

# Lucky Cement launching solar-plus-storage project

EU Report



Lucky Cement, the largest cement producer in Pakistan, is launching a solar-plus-storage project with 5.589MWh of energy storage, which would be the largest in the country.

The stock-listed company is partnering with local renewable energy firm Reon Energy to build the 34MW solar PV project with storage at its Pezu plant, located in the northern province of Khyber Pakhtunkhwa.

The storage will improve the reliability of the power supply to the plant by smoothing out the intermittency of the solar PV plant and allow for a rapid response in case of a drop in power supply. The press release claimed the solar PV at the Pezu plant will be the largest 'on-site' solar project in the country and the energy storage system will be the largest too.

Noman Hasan, Executive Director, Lucky Cement, said: "Considering the global environmental challenges, it is important to invest in such technologies, especially on the industrial level. Being an industry leader we understand our responsibility towards the environment and through such investments, we are committed to ensuring a sustainable future." Reon Energy will supply its Reflex energy storage system for the project. It said Lucky Cement is the third company in the country to buy the solution.

On its website, Reon describes Reflex as a customisable energy storage solution with a lithium-ion battery and a 15-20 year average lifetime. The company has developed its own energy management system (EMS) platform called SPARK which it says has been designed to maximise performance, reduce risk and to increase system flexibility in order to improve the levelised cost of energy (LCoE).

Energy storage is at a very early stage in the Pakistan market. One of the country's independent transmission & distribution (T&D) infrastructure operators NTDC launched a tender for a 20MW BESS pilot project in September last year. ■


10

# New government cautioned against imported coal-based power plants

EU Report

Former Federal Climate Change Adviser, Malik Amin Aslam, has cautioned the newly elected government against launching again new imported coal-based power generation projects as doing so wouldn't be in the interest of Pakistan.

The former Climate Change Adviser expressed these remarks while taking part in a dialogue on "Pakistan's New Government: the future for Energy and Environment" organised by the Third Pole.

Aslam recalled on the occasion that shelving new power generation plants based on imported coal was one of the key policy initiatives of the previous government to improve environmental conditions in the country.

He said the previous government of former prime minister Imran Khan had cancelled contracts for imported coal-based power plants to be installed in the country with a cumulative capacity of 2400 MWs.

He mentioned that the same political party had once again come into power in the country that in its previous regime had launched several projects of new power plants based on the imported coal.

Except for the issue of imported coal-based plants, Aslam said that he didn't see any reason that the new government would take any decision, which could harm or reverse the initiatives launched by the previous Imran Khan regime for the protection of the environment.

He recalled that the previous government had set the target that up to 60 per cent of electricity generated in the country should come from renewable sources of energy.

The former Federal Adviser said the previous government of Imran Khan had also formalised the policy to introduce electric vehicles in the country.

He said that the 10 billion tree tsunami drive, and increasing the number of national parks and protected areas in the country were some of the important initiatives of the previous government to improve the environment and reverse the phenomenon of climate change.

Aslam said that international donor agencies had been more than willing to fund projects related to environment and climate change in Pakistan but the capacity of the provincial governments had to be enhanced to fully utilise these funds at the grassroots level.

## Zhenfa Pakistan to produce 179 GWh solar power


Zhenfa Pakistan New Energy Company Ltd (ZPNECL) is a Special Purpose Entity SPE of Zhenfa Energy Group, China The 100 MW Solar PV Project by Zhenfa Pakistan New Energy Company Limited is in Chaubara-Layyah, Punjab-Pakistan. The land has been allotted by the Government of Punjab to Zhenfa Solar Pakistan (Pvt) Limited. The total land area of the Project is 650 acres. The proposed site is located at latitude of 30°54'11.86"N and longitude 71°33'36.21"E with elevation of around 150 meters. The 100 MWp Solar PV in Layyah is expected to produce 179 GWh per annum with capacity factor of 21.5 %. The levellized tariff awarded by NEPRA is 3.76 cents/USD in January 2020. The Construction was started in Feb 2021 and COD was achieved on 13 April 2022. The project has installed approximately 229,855 PV modules (Si-Mono PERC half cut) by JA Solar of 435 Wp each and 26 Central invertes by Sungrow of 3125 kW each. The PV Trackers are by Arctech and this is largest Tracking PV Project in Pakistan. The Turnkey EPC Services were provided by PowerChina Huadong Engineering with split of Off shore and On shore Contracts. The complete scope of Owner's Engineering services were provided by OMS (Pvt.) Ltd. The project is one of its kind and will help Country in mix of Renewable Energy with least cost.

## FPCCI saves 60% in electricity bills through solar power

Mr. Irfan Iqbal Sheikh, President FPCCI, has stated that solar system installation at Federation House has proven to be an example and a benchmark in saving precious financial resources through the use of renewable energy. He added that Pakistan is blessed with the sunlight throughout the year; and, we must adapt and make a transition towards solar power; which may save billions of rupees per annum in Karachi alone. Mr. Irfan Iqbal Sheikh mentioned that electricity bills of the FPCCI Head Office have dropped by a whopping 60 percent and sometimes savings go up to 70 percent; which will translate into millions of rupees and will reflect positively in our balance sheet. Resultantly, we will have more financial resources for R&D and trade promotion activities. FPCCI Chief maintained that this is an example of just one building and one organization; and, that too is not even a large one – given the number of employees and the working space dedicated to the FPCCI employees at Federation House. Mr. Irfan Iqbal Sheikh maintained that, being the apex chamber of the country and an iconic building of Karachi, we have received a lot of appreciation for leading by example; and, inspiring more than 240 trade bodies and associations across Pakistan to convert to solar power. We are delighted to be referred to as a case study in successful and cost-saving transition to a renewable energy source, he added.

# PAEC Likely to Default on Loan Repayment as Nuclear Plants Face Financial Crisis

EU Report

Pakistan's nuclear power plants are facing severe financial problems, which may lead to Pakistan Atomic Energy Commission (PAEC) defaulting on foreign loans repayment.

According to a Business Recorder report, operations of nuclear power plants and repayment of foreign/local debts have become difficult in the absence of required payment by the Central Power Purchasing Agency – Guaranteed (CPPA-G).

As per the report, the Strategic Plans Division (SPD) has urged the concerned stakeholders to hold an inter-ministerial meeting to discuss and address the evolving situation.

Nuclear power plants are being managed under the National Command Authority-approved Nuclear Power Vision 2050, which envisages the generation of over 40,000 MW of electricity by 2050.

So far, six power plants (four at Chashma and two at Karachi) are contributing around 3,500 MW of baseload electricity to the national grid. To achieve future targets, preliminary work planning is underway for the C-5 project (1,100 MW), Chashma Engineering Complex (Fuel Fabrication Plant), and Indigenous Nuclear Power Plant (340 MW). These projects are to be funded by revenues from operating plants and Chinese loans.

However, over time, these power plants met with financial constraints due to outstanding payments. The matter was highlighted to concerned quarters several times but there was no substantial improvement in the situation.

The report maintains that the prospective situation is likely to aggravate, which may lead PAEC to default on foreign loans repayment, especially on K-2/ K-3 projects.

It advises the government to treat nuclear power plants differently as compared to IPPs and Gencos, as nuclear power plants are closely monitored and reported upon by International Atomic Energy Agency (IAEA).

# Ogra holds public hearing in response to SSGCL's petition

Waim Iqbal

The Oil and Gas Regulatory Authority (OGRA) held a public hearing at Karachi on a petition of the Sui Southern Gas Company Limited (SSGCL) for an increase of 44.8 percent in gas prices to meet revenue shortfall for financial year 2022-23. The gas company has projected average Prescribed Price at Rs1,013.02 per mmbtu. It has also projected RLNG cost of service at Rs16.47 per mmbtu with effect from July 1, 2022.

The petition was filed before the OGRA on February 14, 2022 for Determination of its Estimated Revenue Requirement (DERR)/ prescribed prices for Financial Year 2022-23.

An amended petition was filed on March 9, 2022 segregating revenue requirement petition in terms of activities, i.e., transmission, distribution and sales.

The petition said that the gas company had sold gas worth Rs263.5 billion and its operating cost stood at Rs25.1 billion. Its return on asset was Rs7.9 billion.

The company had requested a subsidy of Rs1.37 billion on LPG air mix projects and Rs15 billion on account of UFG adjustment on LNG volume handled basis. The company contended that it is facing a total revenue shortfall of Rs88 billion and sought over 44 percent increase in gas prices effective from July 01, 2022 to meet revenue requirement.

The SSGC has also claimed capital expenditure amounting to Rs37,618 million against indigenous and RLNG the expenses claimed against UFG control activities are justified in view of 13.98 percent UFG projected by the company.

Besides, the petitioner (SSGC) has estimated RLNG cost of service at Rs16.47 per MMBTU with effect from July 01, 2022.

The petitioner has projected Rs1,395 million for laying of 189km distribution mains to connect various new towns and villages. The key issues are whether the company's claim on account of transmission and distribution costs at Rs22,585 million for FY 2022-23 is prudent, considering the fact the indigenous gas supplies are declining.

The question raised in the hearing was whether the claim of the company of Rs2,761 million on account of Expected Credit Loss in the light of compliance of IFRS 9 is justified based on the fact that the company is operating under monopolistic regime and is less exposed to financial risk.

The other question in public hearing was whether the claim of the company for addition of 132,000 new domestic gas connections on indigenous gas and 713 commercial/ industrial connections on RLNG are justified, while ensuring continuity and security of gas supply to existing, as well as, prospective consumers.

The question raised in public hearing was whether the company's proposed expansion of distribution network of 1,123km amounting to Rs7,719 million is prudent, considering the fact that the SSGCL no longer holds exclusivity to develop gas schemes in its franchised area of Sindh and Balochistan provinces. ■

# WEMS hosts Iftar dinner

EU Report

Water Engineering and Management Services Pvt Ltd (WEMS), a leading company Operating in the field of Water & Wastewater Treatment as EPC Company, hosted Iftar Dinner at Lahore on 13th April 2022. Engr Jawed Salim Qureshi - Chairman 4B Group, Mr Nadeem Qureshi Chairman FPCCI Punjab and large nos. of Engineers and Professionals participated in Iftar Dinner. Engr Malik Saleem Ullah Saeed extended Warm welcome to participants from Textile, Engineering, Power & Energy, Chemicals, Oil & Gas, Food & Beverages, Pulp & Paper, Cement, Sugar, Paint, Automobile industries Engineering Goods Manufacturers, Contractors, Consultants and Academia. Engr Malik Saleem whole addressing highlighted the achievements of WEMS in the field of Water & Wastewater Treatment as EPC Contractor. WEMS take pride in successfully introducing latest technologies in the field of water and wastewater treatment. WEMS is being poineer company in this field extended turnkey solutions on International standards at competitive prices backed up by excellent after sales services. Engr Malik Saleem demanded from the government to provide interest free or soft loans to industrial sector so that industrial sector can install wastewater treatment and recycling plant to protect environment and conserve precious resource, water for generations to come. He further emphasised to wave off General Sales Tax and Custom Duties from Imported equipment / components which are used in water & Wastewater Treatment. He also said that there is need of Water Treatment institute or academy to train the Engineers and develop skilled manpower for design, Engineering and Operation & Maintenance of Water Treatment Plants. It will lead to save precious foreign exchange and reliability of plants operation.

## PM inaugurates Metro Bus Service from Peshawar Morr to New Islamabad Int'l Airport

Prime Minister Shehbaz Sharif has reaffirmed the commitment to work tirelessly for the welfare of the people.

Inaugurating Orange Line Metro Bus Service from Peshawar Morr to New Islamabad International Airport, the Prime Minister said he will work with the same speed that he is used to.

The Prime Minister said that no ticket will be charged from the commuters using this metro service during the holy month of Ramadan. He said fifteen buses have been taken from Punjab Metro Authority to run this service.

Shehbaz Sharif expressed his gratitude to China and Turkey for their contributions in the public transport project. He also asked the Chinese side to reconsider Karachi Circular Railway project as this will bring great dividends for the people of Karachi. He said China is a great friend which has always stood by Pakistan and contributed immensely to building Pakistan's economy.


# Closure of LPG plant caused 50,000 job losses

EU Report

The LPG Industries Association of Pakistan has demanded of the government to restore operations of Asia's largest LPG processing plant, the Jamshoro Joint Venture Limited (JJVL) at the earliest as its closure has not only reduced the local LPG production, thus creating a significant shortfall, but has also resulted in the hike of LPG prices by 172 percent just in two years.

Aided by an increase in international prices of the fuel, LPG prices in the local market have raised to Rs247 per kilogram from only Rs90 per kg two years ago.

In a letter to Prime Minister Shehbaz Sharif, the founder chairman of LPG Industries Association, Irfan Khokhar, said the closure of JJVL plant from June 21, 2020 to March 31, 2022 (21 months) inflicted a loss of about Rs 50 billion to the national exchequer.

The willful damage to the country's LPG industry, shareholders of the Sui Southern Gas Company Limited and to the national exchequer was due to incompetence on the part of SSGC management, he said.

The letter pointed out that despite instructions from the Ministry of Energy (Petroleum Division) on October 1 and November 9, 2021, SSGC has yet to resume the supply of gas to JJVL for LPG production.

Appreciating what he termed the premier's efforts for prosperity of the poor people of Pakistan, Mr Khokhar lauded the PM's bold decisions that he took in the past for the progress and benefit of Pakistan.

"You have been delivering to poor people of Pakistan and LPG Industries Association of Pakistan hopes that this dedication for the poor will be continued by your government in future as well," he said.

JJVL can contribute significantly to the LPG industry by producing 10,000MT to 12,000MT of fuel every month, catering to the demand of 750,000 houses while providing employment opportunities to more than 5,000 people. It was established at a cost of Rs40 billion, with 50 percent foreign investment, and its closure has arguably discouraged foreign investors and also adversely affected the country's GDP.

The letter added that JJVL.

"We request you to please restore operations of JJVL on urgent basis so that it can play its role .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