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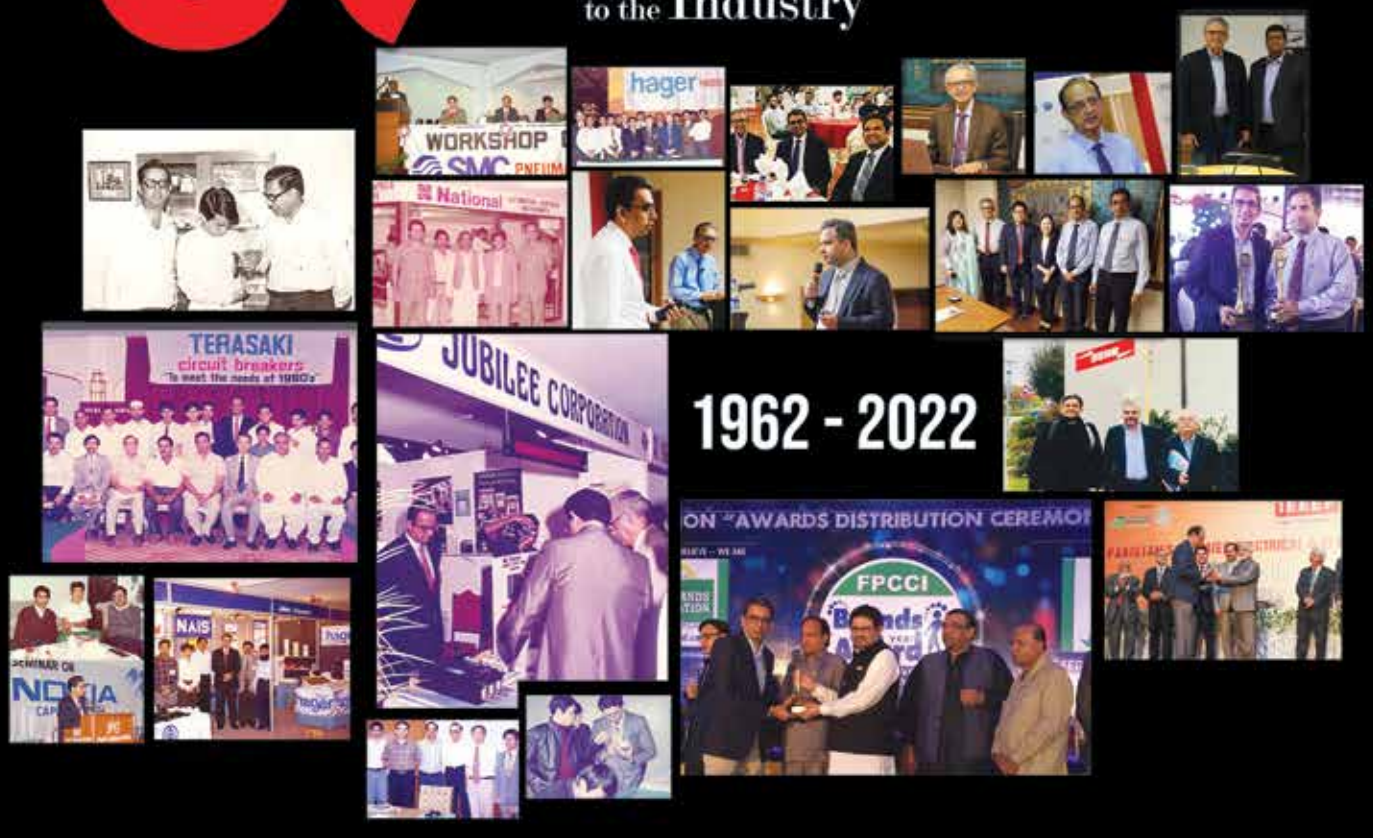

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SCAN ME

FROM THE EDITOR'S DESK...

Seasonal gas sector scramble

Just as winter typically raises the spectre of gas shortage, it also always brings the spectacle of the government scrambling to tilt the headlines in its favour. This year it decided to amend the Natural Gas (Development Surcharge) Ordinance, 1967, including altering definitions for prescribed and sale prices to enforce recoveries and punitive measures. In layman's terms, it means that a number of very senior people have sat down and once again discussed issues that should have been addressed at least 10 years ago and now they expect the people to appreciate all the effort that is being put in for their benefit. And if history is any guide, it'll get everybody thinking that things will get better next time; until the cycle repeats itself all over again.

The fact is that the gas sector's main problems are very straight forward and require much less scrambling to address properly. It's not just a story of an epic waste of a very precious natural resource, one that very few third world countries were blessed so abundantly with, but rather one where the state just does not learn any lesson and not only allows more gas to be wasted every year, some of its own policies actually force more wastage. In the first place, it wasn't very smart of the two state gas behemoths - Sui Northern and Sui Southern companies - to provide gas through their network of pipelines at a much lower price than its extraction and transmission cost and then not expect a circular debt to build.

It also says a lot that they allowed Pakistan to become the lead country in the world in terms of percentage of cars running on CNG systems — a very large number in absolute terms considering our very large population — and then everybody was shocked when they were told that reserves were running low with nothing productive to show for them.

And now they're frustrated that people are complaining about the very large price differential between natural gas and LPG, which most people have to resort to especially since pipeline pressure isn't what it used to be. And the lowest two income quintiles of the population are the most dependent on cylinder gas and firewood, which means the poorer lot pays a lot more for its cooking and heating than the far better off part of our society.

There are also cases of grave injustice, in places like Quetta, where ordinary users are fined if their monthly gas use is below a certain reading. And since they suffer from gas load shedding for most of the day every day. This particular stipulation forces them to keep their stoves and heaters on at full blast when the gas does come so as to avoid the penalty. In this way, the state's own laws push consumers to waste gas, which is simply ridiculous.

All things considered, while it's a very good thing that the government is taking the trouble to amend laws where necessary to correct some of the most glaring discrepancies in pricing. The people have seen many such huddles at crunch time and should be forgiven for dismissing them till they see something more tangible. They would, however, be a little more impressed if their genuine grievances were given a little more serious attention at the top.

A research report has revealed that natural gas for the lowest consumption slab users is under a dollar per MMBtu, while it is $8/MMBtu for the highest consumption slab. And 'the average for domestic consumption is close to $3/MMBtu'. LPG users, on the other hand, have been paying on average $24/MMBtu so far this fiscal.

Surely, the government is aware of these stats since it gets them before the press. And correcting such blatant and unfair exploitation of the neediest gas users, while facilitating wastage of the commodity, ought to be a more urgent matter than one lost to endless meetings and feedback loops. The government's scramble would be more appreciated if it was preceded by strictly defined goalposts. After all, it doesn't do much good to run very fast if it's not in the right direction.

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SCAN ME

Another energy-expensive year

Khaleeq Kiani

Pakistanis will start 2022 from a peak of expensive energy in 2021. The pattern appears set to go on this year with higher average gas rates, oil prices and electricity costs.

There are no indications that a major decline in transmission and distribution losses in the electricity and gas sector are likely to take root in the 12 months from now as the authorities and energy sector entities struggle to sustain a higher recovery rate or inculcate efficiency patterns in the system.

Apart from high global energy prices, the 2021 energy scene in Pakistan was marked by mismanaged imports of oil and gas and lower production of domestic resources, thus adding an additional cost to consumers throughout the supply chain — oil, LNG and electricity.

These governance and supply chain mismanagement issues would have to be addressed if the Pakistan government is to minimise these additional costs in 2022. The fuel cost of power generation for imported coal, LNG and furnace oil has been higher by 20-25 per cent in the recent quarter of 2021 and most of these are expected to generally remain in the same range in the first half of 2022.

The governance and supply chain mismanagement issues would have to be addressed if the government wishes to minimise the additional costs to consumers in 2022

As a pointer, Pakistan's oil import bill increased by 112pc to $8.4 billion in the July-November period, mostly because of higher international oil prices and increased imports of petroleum products instead of crude. In these five months, the import bill of petroleum products increased by 129pc to $4.15bn when compared to the 89pc increase in crude import bill of $2.05bn.

Ironically, import of petroleum product quantities went up by 27pc in these five months against just 1.8pc growth in crude quantities.

November witnessed the peak as the total oil import bill went up by 180pc to $2.2bn when compared to November of 2020 but this was chiefly because of a 309pc increase in the import bill of petroleum products. The increase in quantities was 113pc in November for products against just a 6pc increase in crude imports while local refineries operated at sub-optimal capacity ultimately leading to closures. This obviously had an additional direct cost on consumers besides the indirect cost of loss of foreign exchange.

The import cost of LNG also more than doubled to $1.92bn in the July-November period (up 120pc) even though import quantities were down. It should be remembered that the international LNG market witnessed record increases in the winter months which may not be able to sustain this trend but Pakistan authorities would need to improve their forecasting and planning capabilities to not only ensure sufficient quantities but also at an appropriate price mix.

The prices of petroleum products, particularly that of petrol and diesel, are also anticipated to be on the higher side or generally stay stable in 2022 given the expected revival of the International Monetary Fund (IMF) programme under which the government is required to increase petroleum levy by Rs4 per litre every month till it reached a maximum of Rs30 per litre from about Rs13 at present. The government also has to gradually increase sales tax rates on these products.

Electricity consumers faced a double whammy — significant increases in base tariff under requirements of foreign-funded programmes and record-breaking fuel price adjustments. In November alone, the national distribution companies were allowed a whopping Rs4.75 additional fuel cost recovery from consumers while K-Electric would follow suit with Rs5.5 per unit additional burden.

The trend is anticipated to go on throughout the year on account of base tariff to ensure full cost recovery and payment of huge circular debt under the IMF programme and a mixed bag of imported fuel cost impact — oil prices going up and LNG slightly going down from the peak seen in 2021.

The price of surplus electricity amid subdued economic growth will continue to haunt the consumers this year and cost the government quite a political capital as it gets closer to the election cycle. The gas shortage would keep increasing as a result of politically motivated gas expansion plans and village gasification, not only by the previous governments but paced up by the current government as well amid falling domestic output. The drastic reduction in renewable producer tariff over the past few years has appeared to have touched rock-bottom and is unlikely to go down further but its impact on overall energy tariff would remain unchanged in 2022 at its existing minuscule level.

International independent forecasts in the meanwhile suggest crude prices moving up to $85-90 per barrel by mid-2022 from the $70-78 per barrel band at present.

The cartel of Organisation of the Petroleum Exporting Countries plus is in no mood to immediately increase their production significantly and the expected attempts by the US to replenish its stockpile released for price control would further support demand pressures. For example, JP Morgan Global Equity Research forecasts oil prices to overshoot $125 a barrel in 2022.

The US Energy Information Agency meanwhile has a different view and expects global liquid fuel inventories to increase and crude oil prices to fall in 2022. "We expect this shift will put downward pressure on the Brent price, which will average $72 per barrel (bbl) during 2022," the EIA said a few days ago adding that the price of Brent will fall from an average of $84/bbl in October 2021 to $66/bbl in December 2022. ■

Courtesy Dawn

Industrial sector grows amid Covid-induced crisis

* SBP annual report says LMS sector achieves 14.9% growth
* Automotive sector posts double-digit growth of 51.1%
* Textile sector production goes up by 15.3%

Mansoor

The industrial sector recovered during Financial Year 2021 (FY21), growing by 3.6 percent against a decline of 3.8 percent last year, said State Bank of Pakistan (SBP) in its annual report 2021 titled State of Pakistan Economy.

According to the SBP report, while other sub-industries also contributed, the Large Scale Manufacturing (LSM) sector's expansion drove the overall industrial performance during FY21. Pakistan's manufacturing sector performed either better or at par with other regional economies, mainly owing to the temporary relief packages introduced by the fiscal and monetary authorities to speed up the recovery after the Covid outbreak.

The construction package provided major support to the construction-allied industries of cement and steel, which recorded double-digit production increases during the year.

Meanwhile, the small-scale manufacturing sector, which was especially impacted by the pandemic last year, returned to its long-term growth trajectory in FY21. The approval and subsequent implementation of the National SME Policy Action Plan 2020 and the SMEDA one-window initiative, which reduced the compliance burden for businesses-especially the small enterprises, may have contributed to this recovery.

In contrast, electricity generation and gas distribution witnessed sharp declines in FY21, despite an increase in electricity production. This can mainly be traced to the reduced allocation of subsidies by the government to the distribution companies (DISCOs), and the higher proportional increase in intermediate consumption as compared to output.

The construction industry also expanded by 8.3 percent in FY21 compared to 5.5 percent last year. The construction industry, along with its allied industries of cement and steel in the LSM, received support from the government through several incentives. The announcement of the construction package reduced the cost for both buyers and sellers through tax reductions, while amnesty for real estate developers and Naya Pakistan Housing Scheme aided growth in this sector.

SBP also played its part by reducing mark-up rates and introducing mandatory targets for banks to ensure lending to the construction sector. In addition to an increase in general government expenditures, spending by the private sector on construction activities boosted growth in this segment.

The SBP promoted housing and construction finance for the low-income group and set mandatory targets for banks to increase their lending to this group. These measures contributed to an increase of Rs101 billion in housing and construction finance loans during FY21 to Rs249 billion by the end-June 2021, from Rs 148 billion last year.

The significant inflow of remittances in FY21 in Pakistan may also help explain the growth in this industry. The LSM sector rebounded sharply with 14.9 percent growth in FY21, compared to a decline of 9.8 percent in the previous period. The major push came from the textile, construction-allied, automobile sectors and food-beverage-&-tobacco sector. The incentives introduced after the first Covid wave aided these industries.

The textile sector was one of the beneficiaries of the energy package and the SBP's concessionary finance schemes, which lowered its cost of production. The market-based exchange rate also helped the export-oriented textile industry. The growth in the production of the food processing industry was driven primarily by an increase in sugar output, in the wake of the bumper sugarcane harvest.

The automobile industry also recovered from constrained output over the past two years. On the other hand, the export-oriented leather sector was not able to return to growth despite the fiscal and monetary incentives offered.

The production of the textile sector rose by 15.3 percent during FY21, compared to a contraction of 10.4 percent last year. Most of this growth was recorded during H2-FY21, as the cotton textile industry remained largely operational during this period in contrast to last year when mobility restrictions had hampered production activities.

Wholesale and retail trade posted growth of 8.4 percent during FY21, the highest growth since FY06. Aided by capacity expansions over the past few years, the cement industry responded to the increase in demand for the commodity by setting the record for output, which grew by 27.3 percent during

FY21. The monetary and fiscal stimuli, along with the lowering of FED on cement, facilitated the growth in FY21. The duty was reduced from Rs2 per kilogram last year to Rs 1.5, which reduced the price of a 50kg cement bag by Rs 25.

The production of the textile sector rose by 15.3 percent during FY21, compared to a contraction of 10.4 percent last year. Most of this growth was recorded during H2-FY21, as the cotton textile industry remained largely operational during this period, in contrast, to last year.

Driven by the production of long-steel products, the output of the steel industry expanded by 15.6 percent during FY21, compared to a double-digit decline in each of the past two years. The rebound in the industry can be traced to an increase in construction activities in the country.

The petroleum sector was one of the major beneficiaries of the ease in mobility restrictions, as evident from the increase in output of petrol and diesel products. The growth in these categories led to an overall increase in the output of 18.1 percent in FY21, against a double-digit decline last year. The rebound in overall economic activities during FY21 had a spillover impact on the petroleum sector's production. As indicated by mobility indicators, the transport and wholesale, and retail trade activities returned to pre-Covid levels.

Wholesale and retail trade posted growth of 8.4 percent during FY21 – the highest growth since FY06. Along with the base effect, the segment gained growth on the back of strong LSM growth, better agriculture harvest, and increase in imports while in the case of finance and insurance, acceleration in gross value addition from commercial banks – the segment with the highest share - augmented subsector's growth to 7.8 percent in FY21, compared to 1.1 percent growth in last year.

The subsector of other private services grew by 4.6 percent in this fiscal year. This sector comprises diverse economic activities, such as activities related to the computer, professional, scientific and technical, education, health, recreation, cultural, and sports. The subsector's professional, scientific and technical activities, which accounts for almost 61.0 percent share in this segment, grew 5.6 percent in the current fiscal year. ■

Power generation in Nov goes up by 14pc

EU Report

Power generation in November 2021 went up by 14 percent year-on-year. The same has gone by nearly nine percent for Jul-Nov period year-on-year. These are good numbers, without being extraordinary. The suggestion from different quarters- that these numbers indicate a switch to electric heating from natural gas users in the wake of concessional winter package on incremental electricity consumptiom - is unfounded.

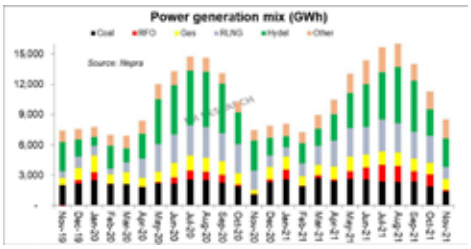
Recall that the government has also substantially curtailed natural gas supply to captive power producers, which should have led to more grid consumption from industrial users. While the step is good for the overall financial health of the power system, it must not be mistaken for organic demand growth of the same magnitude. What must also be kept in mind that power demand flattened and then dipped just before and during Covid. The growth should be viewed in that context.

Now on to the more important part, that is the generation mix. Staring right at the face is furnace oil-based power generation which has more than doubled during the 5-month period to 5.6 billion units. The share in generation has shot up to nine percent, lying to rest all previous claims of zero furnace oil-based power generation. The fuel bill for the same exceeds Rs105 billion, which is thrice more year-on-year.

The authorities' inability to timely arrange imported gas has at times caused FO based plants to be run ahead of order. At other times, it has been the inability to evacuate power form RLNG based plants that have necessitated FO based generation to maintain the base load. In some cases, FO based generation has followed the merit order, due to significantly pricier RLNG, especially in the last two months, where a number of RLNG based plants sat lower on merit order of dispatch than a few FO based plants.

The system constraints have laid bare the state of affairs in the energy chain, as the existing gas quota for power plants does not meet the demand. It has been officially stated that for RLNG based plants to receive adequate imported gas at all times, nothing less than a new terminal would do. It must be remembered that government carries its own set of priorities when it comes to natural gas supply, where domestic and fertilizer usage takes precedence over power sector.

Nuclear generation has been the savior,



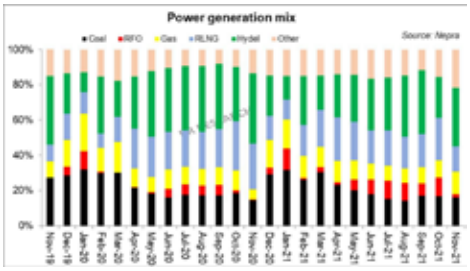
more than doubling in absolute terms and share. Without it, given limited LNG availability (that too at record high rates), depleting gas reserves, and lower hydel supply – furnace oil generation could have been even higher than it was.

The fuel bill for the second month running has skyrocketed to monthly high, requiring an upwards adjustment north of Rs 4.3 per unit. October monthly adjustment in lieu of FCA is just a month old, where consumers were hit with a record Rs4.75/unit. The average fuel cost

for November 2021 is more than twice the revised reference tariff of Rs3.74/unit. The revised reference tariff is already up by 50 percent from the same period last year.

The remaining winter months could see more of the same in terms of generation mix.

There could be some respite in terms of monthly adjustments, but that would still



remain north of Rs2/unit, even in the best-case scenario of crude oil not shooting up from current rates. While most of the fuel cost increase is unavoidable, some of it could surely have been dealt better with more focus on addressing technical constraints, and effective communication over fuel supply. ■

BEL leader vows to continue investment in green energy

Nassir Kasuri
CEO, Beacon Energy Limited

Khalid Iqbal

Energy Update: Tell us for knowledge of our readers about the brief history, background, basic aims and objectives of Beacon Energy Limited (BEL)?

Nassir Kasuri: BEL was launched with the realization that the world is facing an unprecedented challenge in the form of climate change. Beaconhouse' core mission has always been to act as a force for positive change in the society, and being a part of addressing the climate change challenge is integral to our objectives.

Recent times have seen unpredictable weather patterns wreaking havoc on agriculture, causing flash floods, and depriving people of their livelihood. Some countries' largest metropolitan cities have become so polluted that their air far exceeds level considered suitable for human life.

There has never been a more pressing need for companies that balance social need with business imperatives. BEL will continue to invest in green energy initiatives with a view to ensure that all its investments are a step towards achieving the international communities' net zero carbon emissions targets.

EU: In what manner, your organization will be helpful in the efforts of the government to make Pakistan self-sufficient in generation of clean and affordable energy for its sustainable development?

Kasuri: Quite apart from helping to address the climate change problem, in the case of Pakistan renewable energy plays a very key role in energy security. Most of our energy is currently produced using expensive imported fuel. This is one of the central causes for our current economic plight, and is the primary contributor to our circular debt crisis, increasing current account deficit, and is a major component of the current inflationary pressures the country is facing.

Sunlight is abundant in Pakistan and the cost of solar production is now amongst the lowest of all energy sources. Offsetting expensive imported fuel is a integral component of the government's current strategy to address some of the aforementioned issues.

We are proud of the fact that every system installed by BEL contributes to independence and resilience of the country. There is really no way that Paksitan can be energy independent without fully embracing the potential of renewable energy.

EU: Please tell our readers about the present achievements of BEL for the development various sectors including wind, solar, hydro and waste to energy in the country?

Kasuri: BEL is primarily focussed on solar energy for the time being. We are one of the few companies in the country that is equally focussed on hybrid and grid systems, as well as being equally committed to residential and business users. This means that we cover a much larger amount of space in the solar market than many other companies. This has required the development of dedicated teams that understand a diverse range of technolo-

gies and how they can be optimized to service a variety of different customers.

Furthermore, we have developed our own energy and system monitoring app (BEL Connect) which is far more powerful and versatile than the generic apps being offered by the most solar companies. Our deep understanding of business and consumer needs meant that our monitoring app gives customers the information they need whether they have one BEL system or one hundred. There is no other solar monitoring system in Pakistan that is equally geared towards providing meaningful data for large multi site business users and single site residential customers.

Furthermore, BEL is one of the few companies in Paksitan to introduce the concept of smart battery mangement. The programmable Battery Mangement System (BMS) will soon be introduced which is INTRIX system that adjusts battery storage for either load shedding support or peak time billing offset depending on your local conditions. We have a dedicated Network Operations Centre that optimizes these systems in real time over the cloud, ensuring a high degree of energy independence while optimizing your return on Invesment.

EU: Do you think the govt policies are favorable for the international investors and local IPPs in the renewable energy sector?

Kasuri: For the most part, yes. The State Bank of Pakistan gives highly subsidized loans to businesses and homeowners to promote the installation of solar systems. This has certainly helped spur the adoption of solar systems in Paksitan.

However, I feel much more needs for building local supply chains so that we can move towards import substitution in this industry. The government will need to facilitate local investors by ensuring a favorable tariff regime and ensuring ease of doing business in order to begin developing a vertically integrated solar industry.

EU:) Tell us about the environment and CSR activities of your organization?

Kasuri: Most of Beaconhouse's large custom built campuses have already been solarized and we intend to cover our remaining branches in the next one to two years. Even now, renewable energy produced by Beaconhouse schools has offset 2023 tons of CO2, which is equal to planting approximately 4102 trees. We hope scale this up multiple times with the addition of most of our remaining physical infrastructure in the near future. ■

Pakistan is energy insecure

Dr Farrukh Saleem

Pakistan is energy insecure. Our national security and energy security are deeply linked. To be certain, energy security continues to be the most neglected dimension of our national security. For the record, the energy sector will make or break Pakistan's economy. For the record, the energy sector's management, particularly the sector's exploding circular debt, will make or break Pakistan's energy sector.

For Pakistan, energy security means three things: adequate supply of energy; reliable supply of energy and a reasonable price. The four as of energy security are: availability, affordability, accessibility and acceptability.

Pakistan's current energy mix is 35 percent indigenous gas, 31 percent oil, 12 percent coal, 8.7 percent LNG, 7.7 percent hydroelectricity, 2.7 percent nuclear, 1.1 percent renewables and a small fraction from imported electricity. We import more than one-third of our energy needs and this dependence on imported fuels means energy insecurity. In the next four years local gas production is projected to fall from 4 billion cubic feet per day to 2 billion cubic feet per day that would translate into even greater energy insecurity.

We import over $20 billion worth of petroleum products, petroleum crude, liquified natural gas and liquified petroleum gas. We import coal worth $2.5 billion a year. More than 85 percent of the oil consumed is imported and 54 percent of coal is imported. We end up spending more than 80 percent of our export earnings on importing fuel. Our fuel-related imports result in a multi-billion dollar current account deficit which we fill by borrowing from wherever we can-multilateral $60 billion; bilateral $36 billion; commercial $16 billion and bonds/sukuks $11 billion.

The consequence of fuel-related import dependence is a high degree of energy insecurity. We need to move towards 'energy sufficiency' and then to 'energy security'. According to the United States Energy Information Administration (EIA), "Pakistan may have over 9 billion barrels of petroleum oil..." That is 50 years worth of consumption. According to the EIA, "Pakistan holds sizable shale gas reserves of 105 trillion cubic feet (Tcf)." That is 73 years worth of consumption.

If India has found 3.6 billion barrels of reserves just across the Pak-India border, why can't we do the same? Here are the four things we need to do: First, an independent, professional upstream regulator. Second, a new Hydrocarbon Exploration Licensing Policy. Third, Open Acreage Licensing. Fourth, removing regulatory uncertainty caused by the 18th Amendment (these recommendations as per the EIA).

We need to do two things: Reduce the share of imported fuels and reduce the cost of energy (in order to enhance our energy security). Imagine; we currently lose more than "55 percent of the primary energy used for electricity during generation." Imagine: generation losses in our thermal power plants range from 40 percent to 60 percent. The Asian Development Bank (ADB) has five recommendations: increase the share of alternative energy sources. Residential rooftop solar solutions. Indigenous coal mining. Invest in infrastructure to reduce energy losses and theft. Better building and insulation standards.

Our import-driven energy policy is not sustainable as it is making us more and more energy insecure. We have a Rs3 trillion circular debt because we have an import-driven energy policy. We are going to have a $40 billion trade deficit because we have an import-driven energy policy. We are going to have a $15 billion current account deficit because we have an import-driven energy policy. Our rupee is falling because we have an import-driven energy policy. We must urgently capture the real nature of this threat to our national security – and then work on mitigation measures. ■

CHEAP AND CLEAN ENERGY need of the hour

Ali Tauqeer Sheikh

Global climate targets will not change if Pakistan commits to net zero emissions. But Pakistan's economic growth may get a boost that present misplaced policies cannot deliver. Unless Pakistan redirects its energy investments, the energy crisis, circular debt and urban pollution will keep worsening. Renewable energy (RE) can bring down the cost of development remarkably, reduce pressure on foreign exchange, strengthen outreach to underserved communities, and reduce emissions for cleaner air in the cities.

Pakistan's energy policy has gone in the opposite direction of global trends. Pakistan abandoned its earlier targets of 1,235 megawatts of wind and 430MW of solar, determined in the 2006 policy for development of RE for power generation. The Alternative & Renewable Energy (ARE) policy adopted by this government in 2019 reset the target for energy from renewable sources by 2030 to 30 per cent excluding hydropower. This target was reduced further to 12pc by the Indicative Generation Capacity Expansion Plan approved in 2021. IGCEP committed to the 'least-cost option'; yet it has revisited the definition and included seasonally flowing hydropower in the RE category, that ARE had not. This change of heart has effectively elbowed solar and wind energy out of the equation and paved the way for foreign investments in hydropower instead of solar that can be commissioned at one-fourth the cost and time, mostly with domestic financing. It has also accentuated differences between the provinces who have more nuanced perspectives.

All this was happening at a time when solar power had become the cheapest electricity in history — cheaper than coal and gas in most major countries. The cost of electricity from solar photovoltaic (PV) panels has decreased by 90pc since 2009, according to the annual World Energy Outlook 2020, by the International Energy Agency. Instead of following the economic logic, Pakistan looked the other way. Our neighbours, India and China, followed the economic imperatives.

During this period, India attained the fourth global position in wind power and fifth in solar installed capacity. Their renewable power generation capacity has recorded an annual growth rate of over 17pc. The Indian government had an initial target of 20 gigawatt capacity for 2022 and that was achieved four years ahead of schedule. This quick success was enabled by importing PV panels from China while the 1,000MW Quaid-i-Azam solar park floundered and languished. In China, likewise, the RE capacity reached an estimated 40pc of the total installed capacity, and about 26pc of total power generation. India and China are now both leading Asia on green energy and have achieved an accelerated economic growth rate by reducing the cost of development.

The market for RE is created by the high costs and pollution levels of coal as a source of energy. Its global pipeline has collapsed by 76pc since the Paris Agreement. Forty-five countries have already committed to no new coal power plants. Pakistan announced it would shelve two coal plants producing only 2,600MW whereas, at the same time, Bangladesh declared the cancellation of 10 such planned plants of 8,711MW. Pakistan's announcements lacked both courage and homework.

No wonder the country has backtracked from the commitment made by Prime Minister Imran Khan at the Climate Action Summit in December 2020, where he had declared: "We will not have any more power based on coal." It has since been changed to no more 'imported' coal. He had also committed to liquification and gasification of indigenous coal. No plans for nine operating and another five almost completed projects have so far been announced. As it is a new romance that just started a few years ago, Pakistan has not yet consigned coal to history.

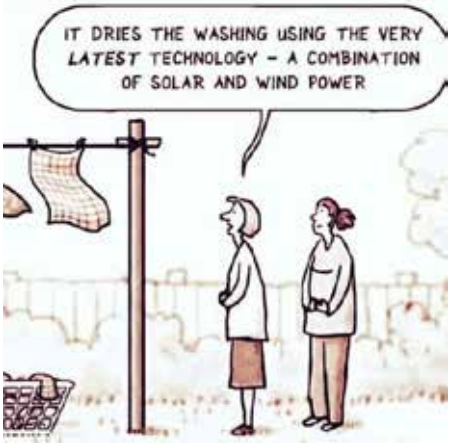
It is against this background that coal imports have been growing at an annual rate of 19.26pc. While the coal power plants were justified on the basis of low-grade Thar coal, in reality, the energy wheel is run by importing high-grade South African coal. In addition to the use for energy, coal is also imported for our fast-expanding cement industry, now propelled to fuel the housing construction to turn around the economic growth rate.

Once the cheapest source of energy, hydropower has now been superseded by solar and wind despite their intrinsic limitations of time of the day and wind velocity, particu-

larly because of the breakthroughs in long-term energy storage batteries. Except for the Tarbela and Mangla dams, all other public-sector hydropower projects have witnessed delays and cost overruns. The average per unit cost at the 969MW Neelum Jhelum Hydroelectric Project, for example, has escalated to 16-18¢ kilowatt per hour, compared to 4-5¢/kWh from solar power plants. In the absence of any financial closing before starting construction, the envisioned large dams (Diamer-Bhasha, Mohmand) and 'run-of-the-river' ones (Dasu, Kohala, Suki Kinari, Karot, Azad Pattan) will face similar cost overruns. Their pricing structure will be multiple times more expensive. Clearly, water storage needs must be separated from energy needs. Solar plants can be installed within months and the State Bank can help further reduce their prices by cutting financing costs through simply extending the longer tenure of loans to say 20 years, instead of the present seven to 10 years.

While we have excess electricity production, the government does not always acknowledge that 61 million people still have no access to electricity or suffer from poor quality of access. Almost 46pc of our rural population is living without electricity. It is estimated that $20 billion is required to upgrade the transmission network by 2040. Off-grid solutions can help reach the underserved areas rather than waiting decades for the upgradation of transmission lines.

Electricity can be provisioned through solar mini or micro-grids to bring light to their lives. In addition to getting urban population off-grid through solar home systems, solar energy can also be supplied to schools, health facilities, SMEs, etc. through microfinance facilities and models of rural energy entrepreneurship. The National Electric Vehicles Policy will become more meaningful if the charging infrastructure for the emerging EV market is supported by hybrid solar systems. It is imperative that Pakistan adopts pro-poor approaches to energy production and supply to reduce the cost of economic development. After all, reliable, cheap and clean energy is a right of all citizens. ■



ENERGY RANKING

Clean power status: **Pakistan still at the bottom**

—◆— Sabir Shah —◆—

At a juncture when most countries on the world map are sharing their experiences on auspicious global platforms to find ways and facilitate the process of shifting from fossil-based systems like oil, natural gas and coal to renewable sources like wind, solar and lithium-ion batteries etc, the incumbent Pakistani regime is hell-bent upon blaming its political foes for energy shortages, soaring electricity tariffs, and the surging circular debt.

According to the Geneva-based World Economic Forum, the increasing penetration of renewable energy into the energy supply mix, the onset of electrification and improvements in energy storage are all key drivers of the energy transition. The key findings from the World Economic Forum's Energy Transition Index 2021 reveal that Pakistan is ranked 104th among 115 nations striving for the energy transition in a bid to ensure a secure, sustainable, affordable, and reliable energy future amid the crises generated by the COVID-19 pandemic.

Denmark, Finland, and the United Kingdom are among the top 10 countries that are improving their energy system performance and sustainability outcomes by putting in place stable regulatory environments, diversified energy mix, and cost-reflective energy pricing methodologies. Moreover, countries with rising energy demand, such as China, India and Sub-Saharan African nations, have registered the largest gains but their scores on the latest Energy Transition Index remain low in absolute terms.

India rests at 87th position, while China occupies the 68th position. Here follows a list of 50 top-ranking nations in this context: Sweden, Norway, Denmark, Switzerland, Austria, Finland, United Kingdom, New Zealand, France, Iceland, Netherlands, Latvia, Uruguay, Ireland, Lithuania, Estonia, Spain, Germany, Portugal, Belgium, Singapore, Canada, Croatia, United States, Albania, Costa Rica, Italy, Israel, Colombia, Brazil, Slovenia, Hungary, Georgia, Chile, Australia, Paraguay, Japan, Romania, Malaysia, Luxembourg, Malta, Peru, Slovak Republic, Azerbaijan, Czech Republic, Mexico, Argentina, Ecuador, Korea and Panama. Here follows some more salient features of the 50-year-old World Economic Forum's Energy Transition Index 2021: "The scaling of nascent technologies and an increased focus on climate change has fixed global attention firmly on the decarbonisation of energy systems. This journey is far from over. As of 2018, 81% of the world's energy was still supplied by fossil fuels, the global greenhouse gas emissions rose through 2019 and more than 770 million people around the world still lack access to electricity". ■

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Super green energy storage technology to replace generators

People will switch off generators with Kilowatt Labs system

Waseem Ashraf Qureshi
CEO

M. Naeem Qureshi

We will make the people in Pakistan switch off their generators and in their place, we will provide them with the option of green energy storage technology.

This was stated by CEO of Kilowatt Labs, Waseem Ashraf Qureshi, in an exclusive interview with the Energy Update. The Killowatt Labs has recently entered into a joint venture with a leading industrial group to start for the first time indigenous production of super capacitor-based energy storage systems in Pakistan.

Following are the important excerpts from the interview for our readers, in which Mr Qureshi talked about his new industrial business venture in Pakistan.

Energy Update: What are the details of your new business venture in Pakistan?

Waseem Ashraf Qureshi: We deal in super capacitor-based energy storage technology. We own a patent for the purpose. In this context, we have set up a factory here. Earlier, we made much efforts to market the product locally after importing it, but there were two to three major bottlenecks in this regard.

The cost of the product was much higher due to import duties whereas after-sales support was another problematic area for us. Then, we decided to launch a joint venture in Pakistan with a big industrial group following which we started engagement with five big industrial groups. The Ghani Global was one of them that is known for its fast-track process of decision-making, so we have started collaboration with it. This partnership between Kilowatt Labs and Ghani Global is on 50/50 per cent sharing basis. The value of this joint venture is $10 million. This joint venture involves foreign investment whereas, we are anticipating to generate 2,000 job opportunities of varying nature out of this investment. We have acquired a plot spread over 13 acres area in the Faisalabad industrial zone for setting up a factory.

Now we will start the process for procuring the required machinery for our upcoming industrial unit. We have plans to locally produce from the basic raw material to the finished products. We will not merely act as local assembling unit that would operate after importing the super capacitor. We will ensure the indigenous production of super capacitor. The company has incorporated for the purpose and Rs630 million have been initially raised, so we are now good to go. Now our main focus is import of the machinery for starting our plant. We hope to launch the plant by the second quarter of year 2022.

EU: To what extent your new industrial venture will rely on export of raw material from abroad?

Mr Qureshi: Up to 60 per cent of our raw material would be imported while rest 40 per cent would be procured. Electronic equipment would be the main item that would be imported from outside the country. We will do ourselves assembling, casing, housing, and enclosing at our manufacturing unit. On top of it, we will do in-house manufacturing of super capacitor. This is going to be a big venture in Pakistan. The total value of battery storage market in Pakistan is Rs 80 billion as we have the aim to get 25 to 30 per cent share in it after the first year of our operation.

EU: What are your other business plans for Pakistan?

Mr Qureshi: We have also established another company namely Power Electronics Rental Company. This company will launch the rental model as it would enable people to rent out batteries (for energy systems) to those who don't have the capacity to purchase them outright. Then, we will also introduce several new technologies in the country related to the charging stations and micro-grids. We are going to introduce a new energy model whose special feature would be provision of battery charging service at the doorstep of the customer. A vehicle would arrive at the home of the customer for recharging a discharged UPS battery. We will provide temporary power solutions. We will make people to switch off their generators and in their place, we will provide them with the option of green energy storage technology.

EU: What is your viewpoint regarding future of renewable energy sector in Pakistan?

Mr Qureshi: There is very tremendous growth of green technologies in Pakistan as we have made this investment after receiving very encouraging survey reports and case studies. We hope that this investment will create jobs, business prospects and will also enable the industry to grow. We also hope to get the rightful protection from the government. ■

Govt aims to achieve 60pc renewable energy mix by 2030: moot told

EU Report

Punjab Minister for Housing, Urban Development and Public Health Engineering Mian Mahmood-ur-Rasheed has announced government's plan to convert 60 per cent of power consumption to solar energy by 2030.

This he said while addressing the audience at a "Sungrow Power Day 2021 – Lahore Chapter, a grand event" organized by Sungrow, the global leading inverter solution supplier for renewables at a local hotel. Environment Protection Agency (EPA) Punjab Director General Ambreen Sajjad and Public-Private Partnership (PPP) Punjab Chief Executive Amjad Ali Awan were guests of honor, while leading national and international companies' experts and high officials also participated in the event.

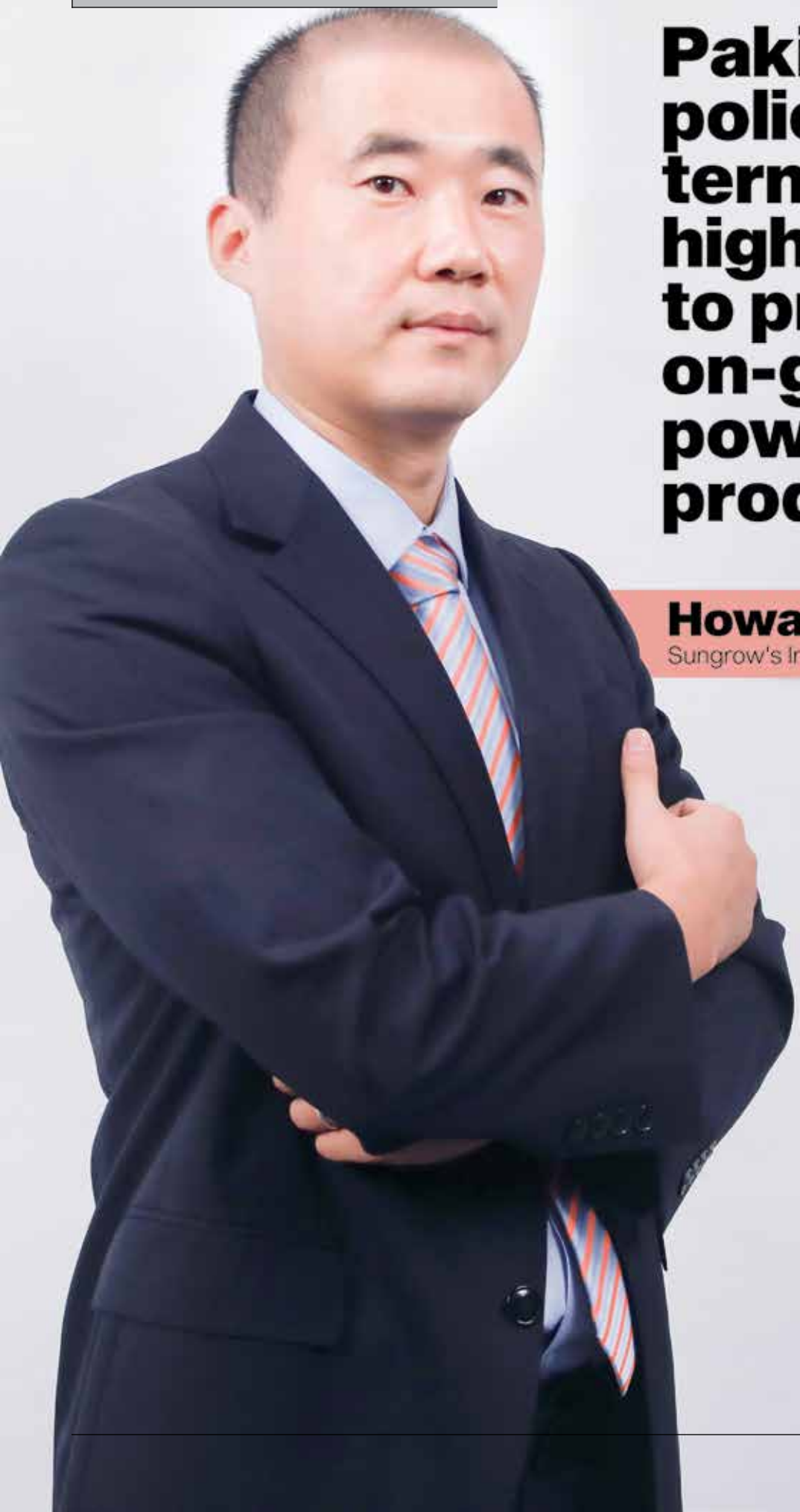
The minister said that Punjab government had already initiated a robust plan with funds amounting to billions of rupees to convert universities, schools in remote districts of Punjab, all educational institutions and industrial units to solar energy in the province. "Another very encouraging trend is being witnessed where people are converting mosques in urban areas to solar energy on self-help basis," he said, adding that a mosque, whose monthly electricity bill had exceeded Rs500,000 per month, had come down to zero.

He said that the federal government had implemented a very effective solar power policy in order to ensure provision of solar energy paraphernalia to the consumers on a very subsidized rate. "Pakistan is already producing 1,600MW electricity through solar energy," he added.

PPP Unit Punjab Chief Executive Amjad Ali Awan informed that up to 70 per cent generation of electricity in Pakistan was based on thermal energy, which explains the mega scale of carbon footprint in the country. "This is the time to benefit from solar energy, especially when 80 per cent of capital cost has been slashed since it was first introduced in the country," he said, adding that solar energy had the cheapest tariff of 5 cents/watt in Pakistan.

Mr. Howard Fu, International Director, Sungrow said that the company was committed to providing clean and sustainable power solutions for customers. "By June, 2021, Sungrow achieved over 182GW+ installation worldwide, which altogether generated more than 257.3 billion Kwh clean electricity and offset 205.8 tons of CO2 so far. Sungrow is the leading brand both globally and locally in Pakistan. We achieved altogether 850MW of closed projects till now" he added.

Usman Waheed, Country Manager, Sungrow Pakistan, said that the company has been providing comprehensive solutions at all three tiers including utility scale, commercial & industrial scale and residential scale with zero percent failure rate. Sungrow's dedicated service also receives great satisfaction from local clients. In the future, Sungrow will explore more opportunities and provide clean power for more people in Pakistan.



Pakistan's policies termed highly helpful to promote on-grid solar power products

Howard Fu
Sungrow's International Director

M. Naeem Qureshi

The policies of the Pakistani government to introduce the system of net-metering and set targets to enhance the share of clean electricity in the national energy mix have been highly helpful to promote the usage of on-grid solar products in Pakistan, said Howard Fu, International Director of Sungrow, the global leading inverter solution supplier for renewables,, accepted the exclusive interview of the Energy Update. Mr. Fu talked about the potential and future of the Pakistani renewable energy market.

Following are the important excerpts from Mr. Fu's interview

Energy Update: Tell us about your experience and association with the solar industry?

Howard Fu: My interest in engineering and in the field of electricity took me to Sungrow. There has been a huge potential of renewable energy in China. When I came to Pakistan for the first time, there were mostly off-grid solar products available in the local market. Now because of the net-metering policy of the Pakistani government, the demand for on-grid products has been growing. I am happy that the market for solar energy products has expanded in the

in the last two to three years. Two to three years ago, the situation was so much different as nobody knew about Sungrow in Pakistan. Indeed, the demand for solar products has increased in Pakistan in the last three years. I am so happy that Pakistan has achieved all this.

EU: What is your viewpoint regarding the potential of the Pakistani solar market?

Mr. Fu: Pakistan has massive potential to utilize solar power for energy generation. Sunlight exposure available in Pakistan for solar power generation is really impressive and far superior to that available in many countries. Then policies of the government to use the net-metering system and increase the share of renewable energy in the national electricity mix by the years 2025 and 2030 have been very good initiatives to promote usage of solar power in the country. It is also good that utility-scale solar projects are being launched in the country. In the next two to three years, more such utility-scale projects will be launched in Pakistan. Therefore, the future of the solar industry is very bright in Pakistan.

EU: What is the plan of Sungrow to establish its manufacturing facilities outside China?

Mr. Fu: Just a few years ago, Sungrow established its first manufacturing facility outside China in India and this year, Sungrow set up a new one in Bankok The manufacturing units have been established in view of the large size of the overseas market. We have entered the Pakistani market for the marketing and sales of our products. At a later stage, we could think about doing product development and manufacturing in Pakistan. At present, the size of the Pakistani market has not been so much enormous that we could readily think about establishing a manufacturing facility in the country.

EU: How's so far your working experience in the Pakistani market?

Mr. Fu: We have been receiving very positive and encouraging feedback from our customers in Pakistan as they have been fully satisfied with our products, solutions and services. This reflects our policy that we are fully responsible and answerable for our products after their sale as we make sure that they continue to the full satisfaction of their users. We are resolute to maintain the high-quality services in the Pakistani market with the higher level of dedication and commitment to promoting the usage of renewable energy in the country. ■

Sungrow Power Day Seminar

Sindh to establish mini, micro grids to solarise off-grid villages

EU Report

The Sindh government with its aim to utilize the massive solar energy potential of the province is working to unveil a policy to establish mini and micro grids to energies the off-grid villages at the most affordable cost in partnership with the private sector.

This was stated by Sindh Secretary for Energy Abu Bakar Madani while speaking as the chief guest at the 'Solar Power Day Seminar 2021' organized by Sungrow Pakistan at a local hotel. The Sindh energy secretary informed the audience that the provincial government had been working on a number of initiatives to tap indigenous renewable energy resources of the province with the aim to provide affordable energy to the people of Pakistan. These clean energy resources include wind, solar, biomass, small-scale hydropower, and waste-to-energy potential available in Sindh.

He said the Sindh Energy Department had launched the World Bank-funded Sindh Solar Energy Project envisaging a 400 MWs capacity solar park and provision of 200,000 solar home systems in 10 districts of the province having low energy access. The same project was also being implemented to produce an additional 20MW solar power through utilization of the rooftops of the public sector buildings in urban areas, mainly the hospitals, he added.

He told the audience that the Sindh government had already installed 352 solar PV hybrid systems in 225 primary health facilities in 13 districts of Sindh. Moreover, 150 MWs (3x50 MWs) of upcoming on-grid solar PV power projects in Sindh had achieved the milestone of financial close, he said.

Sindh Transmission and Dispatch Company (STDC) CEO Saleem Shaikh told the seminar that recently, the STDC had signed a MoU to develop 400MW first-ever hybrid (wind/solar) renewable energy project in Pakistan on B2B model. He said the STDC fully stood for the cause that the immense solar power potential of Sindh should be utilised for overcoming the problem of electricity shortfall for every domestic consumer in the country.

HESCO Director Irfan Ahmed said that Pakistan had to make much more efforts to take full advantage of the abundantly available solar energy resource in the country.

Usman Waheed, Country Head of Sungrow Pakistan, said the seminar had been organised to celebrate the successful installation of solar energy projects of 850 MW capacity all over the country by his renewable sector company. He said Sungrow had been facilitating the installation of more solar power projects in Pakistan to help produce over 1GW clean electricity expected to be achieved early next year. ■

SUNGROW

Clean power for all

The global leading inverter solution supplier for renewables, with a mission of clean power for all

Sungrow Power Supply Co., Ltd (Sungrow) is the world's most bankable inverter brand with over 182GW installed worldwide as of June 2021. Founded in 1997 by university professor Cao Renxian, Sungrow is a leader in the research and development of solar inverters with the largest dedicated R&D team in the industry and a broad product portfolio offering PV inverter solutions and energy storage systems for utility-scale, commercial, and residential applications, as well as internationally recognized floating PV plant solutions. With a strong 24-year track record in the PV space, Sungrow has power installations in over 150 countries of the world.

As a leader of innovation in the solar industry, Sungrow possesses a dynamic R&D team which consists of over 2,100 employees. The company has also invested its own in-house testing center approved by UL, CSA, TÜV Rheinland, and TÜV SÜD. In 2019, Sungrow launched the world's largest inverter factory. The company's global annual production capacity reaches 90GW, including 10GW from an India factory.

Offering a wide range of solutions and services, Sungrow is committed to providing clean power for all and is steadfast in its efforts to become the global leader of clean power conversion technology.

INNOVATION DRIVEN

Since its establishment in 1997, the company has always focused on the field of renewable energy based on its power conversion technologies, adhered to the market demand-oriented and technological innovation as the power source of enterprise development, and cultivated a professional R&D team with rich R&D experience and strong independent innovation ability.

It has undertaken more than 20 major national science and technology projects, presided over the drafting of a number of national standards, and is one of the few enterprises in the industry that master a number of independent core technologies.

INTERNATIONAL CREDITS

The company's core product: photovoltaic inverter has passed the certification and test of many international authoritative certification agencies such as TÜV Rheinland, TÜV SÜD, UL, CSA, etc., and has been sold in batches to more than 150 countries such as Germany, Italy, Australia, the United States, Japan, India, etc.

The company has successively won the honors of "national key new products", "China famous trademark", top 30 Chinese new energy enterprises, top 100 global new energy enterprises, national level "contract abiding and trustworthy" enterprises, and the best enterprise employer in Asia.

According to BloombergNEF's 2021 Bankability Survey, Sungrow ranks as the World's Most Bankable Inverter Brand for three consecutive years. Sungrow is also the top inverter brand used in term-loan financed projects. In addition, Sungrow gets AA rate of MSCI ESG rating for two consecutive years, confirming its long-term attractiveness to environmental, social and governance investments. In 2021, Sungrow also ranks No.1among Chinese enterprises in terms of corporation performance on environmental protection, sustainability and governance.

It is a national post-doctoral research station setting enterprise, national high-tech industrialization demonstration base, national recognized enterprise technology center, and national level industry Industrial Design Center, "China's most potential enterprise" of Forbes, etc., with comprehensive strength ranking first in the global renewable industry.

GLOBALIZED OPERATION

As simple and logical as it may seem to use renewable energies to meet climate challenges, you probably ask yourself why the entire world isn't using clean power yet. As the world cries out for cheap and clean energy, what would be more obvious than to turn to the sun? The world's energy demands can be satisfied with just three hours of sunshine every day.

Sungrow has been engaged in clean power generation since 1997. Our product solutions and services are helping to produce clean and green energy in more than 150 countries. Our R&D team is composed of international experts committed to providing first-class solutions to our global customer base - and to the globe we all live on.

There are over 190 countries or nations that inhabit the world. We've managed to install clean energy plants in all of them. That is a good first step towards a cleaner climate, but we still have to do more work. After all, we all share the same climate and we all breathe the same air.

OVER 182GW POWER

As of June 2021, our accumulative inverters shipments reached 182 GW -- a number equivalent to annually generating around 257,300 GWh of clean electricity and eliminating 205.8 million tons of carbon dioxide per year.

This number may sound quite impressive, but compared to worldwide energy consumption we still have room to grow.

In the future, Sungrow will adhere to the development mission of "Clean power for all", based on the new energy equipment business, accelerate the development of photovoltaic power generation system integration business, innovate and expand new business in the field of clean power conversion technology, keep close to customer needs, actively participate in global competition, and strive to build the company into a respected global first-class enterprise. ■

Diversifying gas use

Syed Akhtar Ali

The gas crisis has been caused by continuously depleting local gas resources, and rising LNG prices. Cheaper local gas supplies will continue to decrease due to the lack of any major success in finding new gas over the last several decades. Small discoveries have been made. It would be advisable to reduce dependence on gas and diversify into the equivalents and substitutes. In this space, we will explore what can be done in this respect.

There are three classes of energy users: urban high income (UHI); low and middle-income urban and semi-urban residents; and low-income rural. The first group lives in posh areas with plot sizes of 500 sq yds or more. In some areas, the plot size has come down to 250 sq yds. There are high-rise posh apartment complexes as well. They can probably pay high or very high prices for energy which they are already doing under the present tariff system. The first group has many options. It can switch to electricity and LPG. It can install air-conditioners which provide both heating and cooling. It can install roof top solar and water heaters. It can switch to electrical water heating. The current problem for this group is that they are significantly hooked on piped gas for cooking, heating and water heating. Geysers are gas guzzlers. During this crisis, many have shifted to other options. The issue is one of improving the availability of other options, logistics, supply chain systems and information. Both prices and non-price instruments (such as continued low supply and pressure) can be used to discourage this segment away from gas.

The real sufferers are those from the low-income urban and semi-urban areas. This group's typical income may be under Rs50,000-100,000. It lives in small houses and apartments in formal or katchi-abadis. A very large portion lives in semi-urban and rural areas expanding at a fast rate. It is a large and politically active population segment. They are mostly office workers, industrial workers and small traders. They practically have no option except for cheap electricity and gas, and can't buy or afford LPG which is priced several times higher than their gas bill rates.

Most of the gas subsidy goes to this class and will continue to be so. Expansion is taking place in this group and new gas demand will also come from this sector – although there is a case for gradual enhancement of its low gas tariff, especially in the expensive LNG regime whose share is increasing by the day. This group may use biomass efficient and clean stove where living conditions permit. It can be a viable substitute for piped gas for this class as we shall discuss later. They (those earning Rs50,000 and above and living in small single or double-storey houses and portions) may also install one or two solar panels as well if there are credit schemes.

There are around 33 million households in Pakistan. It may be noted that only 25 percent of the population (around 10 million connections) gets piped gas due to limitations on network expansion. In contrast, there are 30 million domestic gas connections while 90 percent of the population has electricity connections. The rural population almost entirely depends on unorganised biomass in the form of tree trunks, shrubs etc. A small portion uses LPG, charcoal and kerosene. Rural areas do have a higher income class which can install solar facilities and have done so already. They will almost never get system piped gas both due to physical and investment reasons. Biogas and biomass efficient stoves are their solution.

Lately, biomass efficient stoves have been developed and deployed in many parts of the world with varying levels of success. These stoves do not produce smoke and are run on biomass pellets. They can also be used for improvised heating due to its non-smoking characteristics. Some market for this has already developed in Pakistan. However, these stoves are expensive – between Rs4000 and Rs7000. Pellets are being sold at a price of Rs36 per kg; one kg per day may be sufficient for an average family.

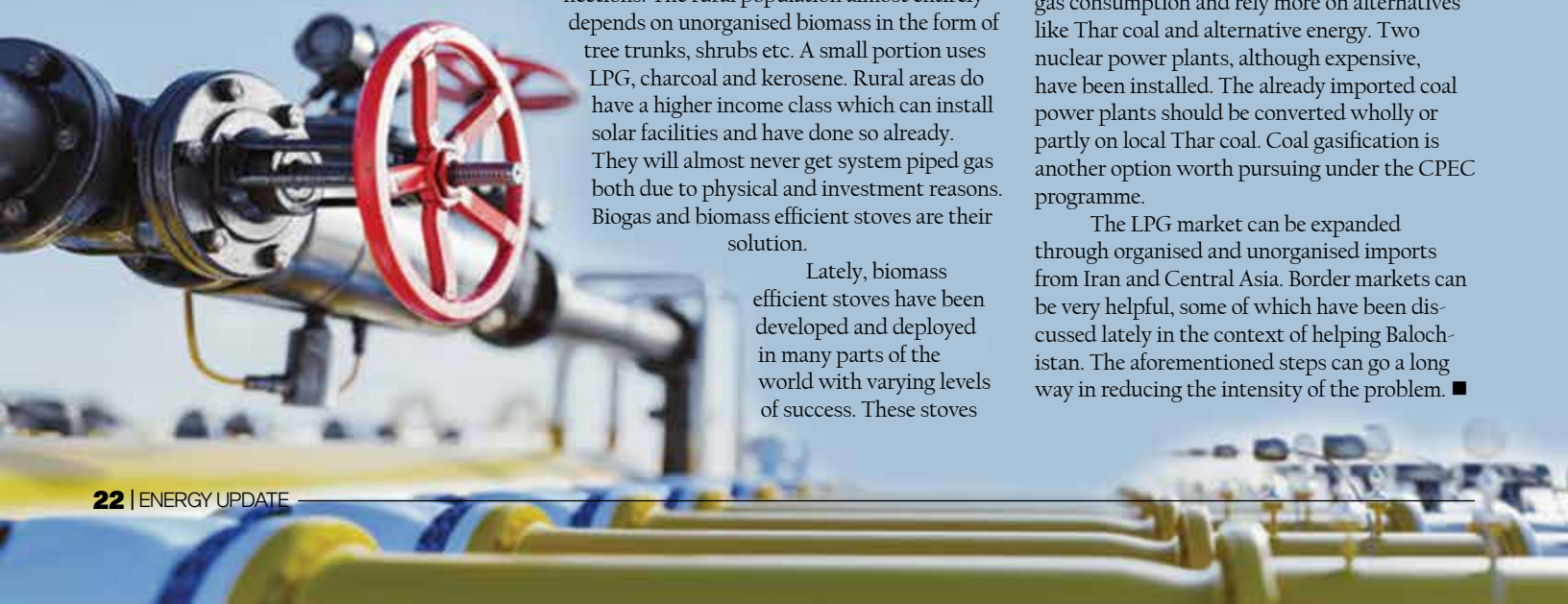
An organised and government-supported programme may be able to bring down prices and improve affordability. A network of 100-200 biomass pellet producing programme may go a long way towards energy supplies for the 70 percent population of this country. A biomass plant costs around Rs2 million. It can generate substantial economic activity and employment in the rural economy, saving time and improving health conditions.

Biogas has tremendous potential. It has been estimated that there is a potential of production of some 600 mmcf of biogas. Pakistan is one of the largest milk producers and consumers in the world. There is a large milk and livestock sector contributing some 20 percent to the agricultural GDP. There are two types of biogas – raw and processed. Raw biogas contains some 50-60 percent methane and is good enough for domestic heating. It can be produced in smaller home plants and medium-sized community plants. Community plants can install small, distributed pipe systems as well.

Biogas can also be processed and cleaned to pipeline quality standards. In Germany and elsewhere it is being done already. There was a time when the EU had a target of supplying 20 percent of its gas requirement from biogas. Emergence of solar has diluted this target. In high-priced LNG times biogas can add to energy security and help save foreign exchange. For price reasons, the CNG sector can be ideal for getting involved in this. There is a considerable potential for saving gas consumption in the water heating sector. Current gas geysers are gas guzzlers. Solar Water Heaters (SWH) can easily replace geysers. China and Turkey have installed millions of solar water heaters.

The power sector should gradually reduce gas consumption and rely more on alternatives like Thar coal and alternative energy. Two nuclear power plants, although expensive, have been installed. The already imported coal power plants should be converted wholly or partly on local Thar coal. Coal gasification is another option worth pursuing under the CPEC programme.

The LPG market can be expanded through organised and unorganised imports from Iran and Central Asia. Border markets can be very helpful, some of which have been discussed lately in the context of helping Balochistan. The aforementioned steps can go a long way in reducing the intensity of the problem. ■



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Pakistan far behind in clean energy sector

Farhat Ali

The recently announced World Economic Forum's Energy Transition Index 2021 has ranked Denmark, Finland and the United Kingdom among the top 10 countries that are well on their way to transition from fossil-based energy mix of oil, natural gas and coal to renewable energy sources like wind, biogas, biomass, solar and renewable battery technology.

The 50 top-ranking nations in this category are mostly European countries. In the process, many of these nations have already reached the mark to provide their consumers a reliable, environment-friendly and cost-effective source of energy while the other nations in the category are well on their way. They have exploited all available resources to generate energy — be it garbage, stormwater, whatever little sunshine they have, wind, waves and other available sources. The quest for identifying newer resources and the technology in the sector continues.

Ironically, of the 115 nations that have been ranked by WEF, Pakistan is ranked 104th. This is so in spite of the fact that the country is blessed with abundance of sunshine, heaps of garbage, and water resources to generate energy from run of the river and mega hydropower plants and corridors to harness wind energy. But, in spite of the immense potential, the country currently only produces a meagre 1.16% of its electricity through solar, whereas 64% is still from fossil fuels as per available data of 30 Apr-2021. For a comparable comparison, if one looks in the region, India is world's 3rd largest consumer of electricity and world's 3rd largest renewable energy producer with 38% (136 GW out of 373 GW) of total installed energy capacity in 2020 from renewable sources. Ernst & Young's (EY) 2021 Renewable Energy Country Attractiveness Index (RECAI) has ranked India 3rd behind the USA and China.

Alternate Energy Development Board (AEDB) of Pakistan was established in 2020 with the mandate to reduce government dependence on fossil fuel and its gradual replacement with renewable energy. The delivery of AEDB has been pathetic and its present status is virtually of a non-existent entity.

The focus of successive governments, in all these years, has

been on thermal power with an influx of all sorts of Independent Power Producers (IPPs) based on oil and lately on coal and LNG. As a consequence, today, Pakistan produces the most expensive electricity in the region, if not in the world.

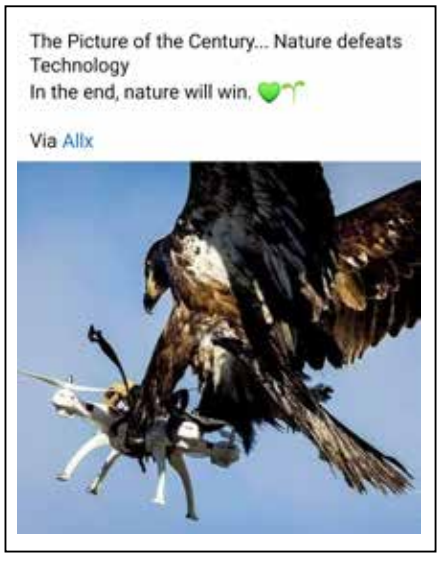
The industry, therefore, finds it extremely difficult to afford its cost. Moreover, there exists a circular debt of Rs 2.3 trillion, which is denting nation's fragile economy whereas, development in renewable energy remains depressing. In short, country's energy sector is still in a terrible mess while the energy planners are clueless.

Some industrial and residential consumers have invested in solar systems on their premises as complimentary to national supply under the net metering policy of the government. Nations which have excelled in transition to renewable energy incentivised the private sector to step in and they did. As a consequence, busines speople invested, earned a healthy return on investment and provided the consumers quality electricity with affordable tariffs in a deregulated market driven by quality of service and offered tariffs.

It is important to note that neither Private Power Infrastructure Board (PPIB) nor National Electric Power Regulatory Authority (Nepra) has truly incentivised the private sector to venture into the sector. Successive governments have aimlessly doled out billions of rupees in the shape of gas and power to textile and export industry in particular. Unfortunately, however, they have failed to come up with a realistic financial plan aimed at incentivizing potential investors in renewable energy.

Renewable energy along with a deregulated market is the future of Pakistan's power system. ■

Courtesy Business Recorder



CLIMATE CHANGE

Climate change affecting women agri workers' health: study

EU Report

The increased temperature has led to severe impacts on the livelihoods and health of women agriculture workers in Sindh as they face difficulties in breathing, itching, while heat strokes are common health problems among them.

It was the key finding of a study, titled 'Impact of Rising Temperature on the Health of Women Farm Workers', recently conducted by the Sindh Community Foundation, a rights-based organisation.

The study discusses initial evidence of the impact of climate change on human health, specifically women cotton pickers. According to the study, deforestation is one of the leading factors causing the temperature rise in Sindh. Fifteen years ago, Sindh had 2.2 million acres of land, of which 600,000 were under forest cover providing a better source of living to local communities. But sadly, now hardly 15 per cent of this 600,000 acres of forest in Sindh is now in katcha (riverine) area, and the rest of the area was utilised for housing, development of infrastructure, and agriculture purposes after deforestation.

Citing the example of Matiari, a district located along the Indus River that once had thick forest and its maximum temperature used to be 42 degrees Celsius in the middle of summer, the study said that during the past five years, the average temperature of the district had increased to 48 degrees Celsius, impacting women agricultural workers' working capacity during the cotton-picking season.

A number of women cotton workers experienced an increase in temperature and suffered from sunstroke and heat-related health problems, the study said. "There is lack of vegetation, and removal of trees from agricultural lands compels them to sit in the open sky even during the break time. The shadow of trees has been reduced in the last 10 years," reads the study.

"They [agriculture women workers] do not receive any compensation for health problems nor do they get support from their landlords. They have to go to a nearby health facility which [does not have] proper medicine and facilities."

Health and occupational safety is the right of workers but the law does not cover the agriculture workers, the study found.

The study also revealed that due to locust attack, heavy monsoon falls, and severe pest infestation, the production of cotton has decreased dramatically, as a result, women agricultural workers had been receiving lower wages.

The study also mentioned that the poor implementation of related legislation and policy measures, such as the Sindh Women Agricultural Workers Act 2020, and Sindh Occupational Safety & Health Act 2017, had exacerbated the effects of climate change on the women agriculture workers. ■

Improving power DISCOs' performance

Distribution companies need to install software, hardware to detect fraud, collusion

Syed Akhtar Ali

Inefficiencies of distribution companies have been considered as one of the main power sector problems, although this is not the sole issue and performance improvement alone may not allow to get rid of the problems and difficulties of the sector.

Losses may at best be halved and brought to the level of 8-10%. Technical improvements such as smart meters alone may not be a panacea but organisational changes would be required as well. We will discuss some of these issues and strategies in this space.

One of the DISCO performance metrics is T&D losses, which include technical and commercial losses. The latter includes theft and there is no dearth of it in the system.

In Pakistan, aggregate T&D losses have amounted to 17%, a slight improvement over immediate years. Interestingly, the situation in India is more or less the same. There, these losses are 21%, which have come down from 33% in 2003.

There should be no complacency, however, in India the financial condition of DISCOs is almost equally bad, requiring billions of dollars of bailouts by the central government.

There is so-called circular debt too, which as per latest data was INR 1.39 trillion – our corresponding figure is PKR 2.3 trillion, roughly equal taking into account the exchange rate difference.

It should be noted that the Indian economy and population are 8-10 times larger than that of Pakistan with installed generating capacity of 373,436 megawatts, of which 89,636MW is renewable and 45,699MW is hydro.

Reasons are almost identical between the two countries – poverty and low paying capacity of consumers, theft and leakages, corruption and inefficiency.

Average may, however, be a deceptive metric. It can hide good and bad performers. Pakistan's average of 17% hides worst performers Pesco, Mepco and Hesco with T&D losses of 38.8%, 14.93% and 38.55% respectively and good performer Iesco at 8.54%.

One thing that appears to be common among high T&D loss entities is their size and geographical areas – Qesco, Pesco, Hesco and Mepco have geographical areas of 334,616 square km, 77,474 square km, 81,087 square km and 105,505 square km, respectively.

By comparison, K-Electric's jurisdiction is 500 square km, which has a peculiar urban domain. Qesco is a supplier to the largest province, which is sparsely populated. Large areas mean larger distances between control centres and field offices and facilities. Distance breeds remoteness, lack of control and oversight, and field officers' fiefdoms.

It is said that the farthest point from the head office should not be more than 100 km to enable senior managers to travel to field offices and facilities.

Small and cogent DISCOs have been discussed over the years. Pesco's division into two or three companies is on the cards. Hesco has been divided already into two parts. There is indeed a strong case for dividing large geographical domains of DISCOs into two or three parts.

It may also be noted that with the implementation of Competitive Trading Bilateral Contract Market (CTBCM), electricity selling business is slated to be taken away from DISCOs and given to independent licensed companies as has been done in most advanced

countries.

Thus, one-third of the turnover may be privatised. If geographical division is implemented as well, the DISCOs size would be reduced to 20-30% of the existing parameters.

The size reduction along with wire-only status may enable the DISCOs to improve their efficiency as money and market aspect may be taken away from them and they would be restricted to asset management.

In the reduced size, the risk of managing DISCOs may come down and competition among takers may increase. Lesser companies may delve into buying and running DISCOs.

In the current situation of large assets and turnover, only foreign companies and their joint ventures may venture, which may result in foreign exchange drain.

Privatisation has been opposed by trade unions and they have managed to discourage it, although it is the government which did not have clear plans and strategy in this respect. This may continue to be the case.

Companies can, however, be divided without going into privatisation. In fact, the prospects of privatisation may improve. Only accounting and billing has to be separated along with a few other manageable organisational adjustments.

Smaller companies may require cheaper management and smaller boards as well. T&D losses and other pilferages may be controlled due to closer control and oversight.

This is the step one that could have been taken by any hesitant government. High-loss DISCOs may be initially taken up for this task.

Interesting developments have taken place for the reduction in T&D loss (theft, leakages, billing frauds, etc).

A Canadian company has developed a smart and mobile sensor, which can be installed (clipped with ease) on transmission or distribution wires and major electrical parameters can be measured. It has an inbuilt wireless communication module, which instantaneously transmits data to an analytical software platform. Anomalies in the energy flow can be diagnosed with the help of database. The sensor at $100 a piece is not a bad deal.

It is not required to be fixed at one place but is mobile. Hence, a few teams per district can have sets of these sensors to keep monitoring possible anomalies and theft. Fifty sensor sets per district can enable formation of a viable anti-theft squad. For 100 districts, it would be 5,000 sensors. In $1.5 million, a whole country-wide project can be launched.

However, there is a catch in it. It requires the support of a software platform, which can be costing more than the hardware and the consultant's fee. The company offers a performance-based payment. It brings its own software and hardware and takes a share in the savings from loss reduction.

Remarkable progress has been made in the area of data mining and analytics and forensic software. Billing analysis can reveal cases of fraud and collusion in meter reading, bills compilation and payments received. There can be internal or external issues. It would be advisable that our DISCOs (both electrical and gas) employ these software or employ specialised consulting services in this respect.

We would emphasise the redesign and revival of smart meter programme, which has the potential of reducing theft. The current programme is purposeless and not feasible. If implemented, throughout Pakistan, it would cost more than seven years and almost 10 years.

A redesigned programme focused on distribution transformers would be cost effective and can be fast-tracked to two years. Priority should be given to high-loss DISCOs where the initial ground already exists through the earlier US-aided pilot projects. ■

APPOINTMENTS

Azam takes charge as PM's aide

Prime Minister Imran Khan has appointed Azam Jamil as his Special Assistant for Tourism Coordination. With an illustrious career in the hospitality and tourism industry starting with Intercontinental Hotels in the mid-seventies and spanning well over four decades, Azam has been responsible for spearheading some of the key projects and institutions that shape Pakistan's tourism industry in the present day. Educated at the Aitchison College and Burn Hall, he went on to gain higher degree at the University of Karachi and was ultimately sent to Cornell University by Intercontinental Hotels. Azam has held numerous positions during his career, which include Chief Operating Officer of the Hashoo Education Division, Corporate Director for Sales & Marketing Serena Hotels South & Central Asia, Corporate Director Training and Development Serena Hotels South & Central Asia, and Senior Consultant for TEVTA Punjab, Akhuwat and Jaffer Brothers Ltd. Azam was directly involved in the opening of hotels including the Islamabad Serena Hotel and Serena Hotels in Kabul and Dushanbe. The Aga Khan Development Network with which Azam was associated undertook the restoration of the Shigar and Khaplu Forts. His most recent achievement with regard to the hospitality and tourism industry include the conception and execution of two gold standard hospitality schools under the Hashoo and Akhuwat banner. Azam has represented Pakistan at the World Travel Mart, London and the ITB Berlin for over 10 years. ■

Haque Nawaz joins board of Gas & Oil Pakistan

Haque Nawaz has joined the Board of Directors of Gas & Oil Pakistan Ltd. He holds master's degrees in Business Administration and Organic Chemistry. Mr Nawaz is a director at the board of Bank of Azad Jammu & Kashmir since June 2021 and has previously worked as the acting Auditor General of Pakistan. He also served as Joint Secretary as well as Additional Finance Secretary in the Finance Division. Mr. Nawaz has also been associated with the Pakistan Military Accounts Department and the Ministry of Foreign Affairs as Deputy Chief Accounts Officer and Director Foreign Audit. He also served in the United Nations Peacekeeping Mission in Kosovo. A certified director from the Pakistan Institute of Corporate Governance, Nawaz has represented the Finance Division of the Federal Government on the boards of Pakistan International Airlines, Pak Libya Holding Company (Pvt.) Ltd., Pakistan State Oil Company, Pakistan Shipping Corporation, Civil Aviation Authority and many others. The Gas & Oil Pakistan Ltd has welcomed him on joining its board of directors and looked forward to his contributions to strengthening the company. ■

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Price of compromised sovereignty

Mosharraf Zaidi

The most recent wake-up call for the Pakistani elite was last week's mini budget. Nearly every aspect of this mini budget exposes a profound crisis at the heart of what is and what will be Pakistan for the over 110 million Pakistanis below the age of 23. Let's count some of the more obvious crises to begin with.

Shaukat Tarin, the finance minister, was left dangling despite a six-month timeline afforded to the good folks that brought him into office in the first place, to convert his status to one of holding elected office, i.e., the Senate of Pakistan. Tarin's selection itself was a product of the need to replace Abdul Hafeez Shaikh, whose Senate election was lost (either by commission or by omission), despite all mathematical indicators suggesting a safe win.

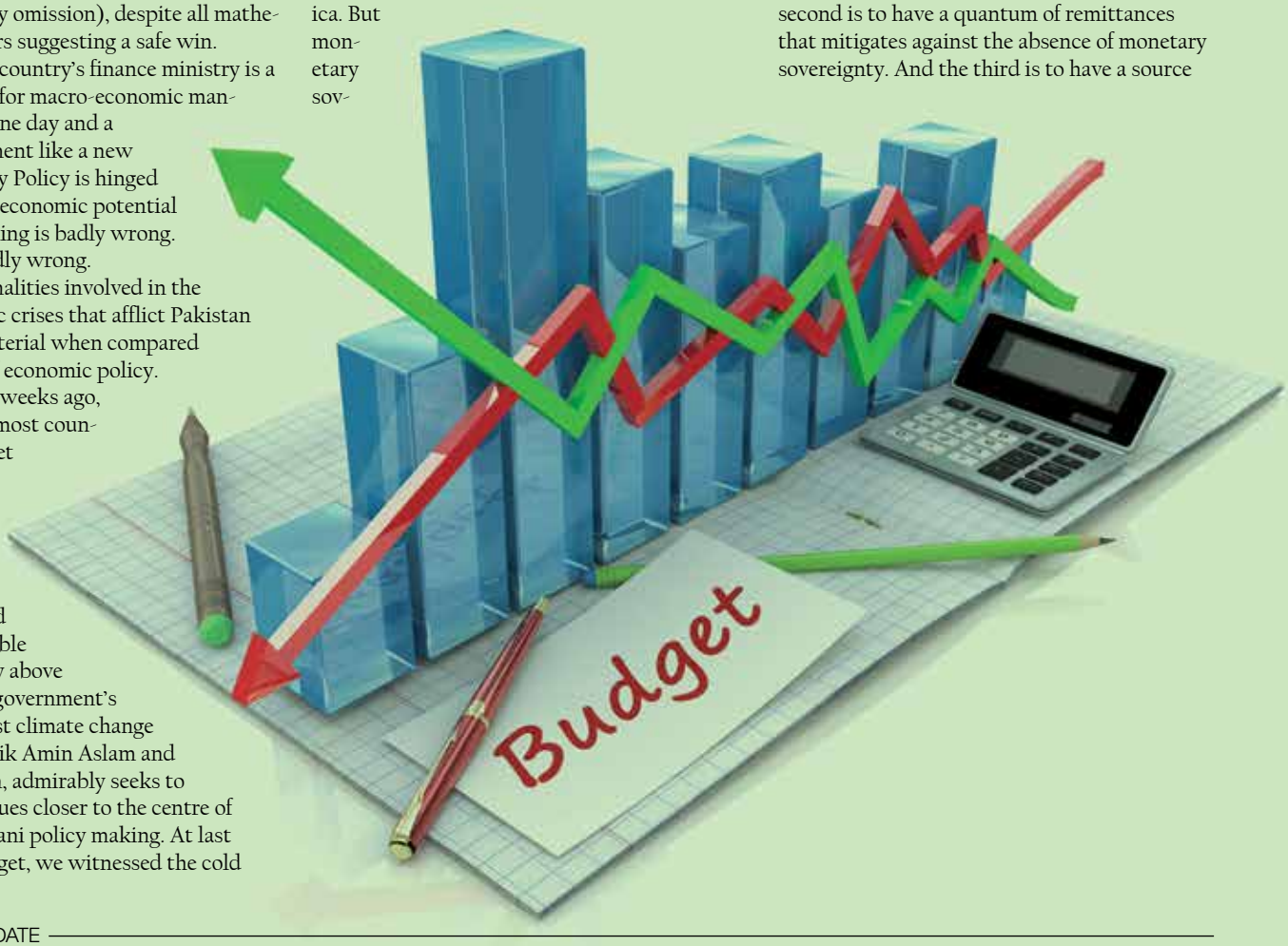
When the country's finance ministry is a merry-go-round for macro-economic management talent one day and a milestone document like a new National Security Policy is hinged on the country's economic potential the next, something is badly wrong. Something is badly wrong.

The personalities involved in the various economic crises that afflict Pakistan are largely immaterial when compared to the content of economic policy. At COP26 a few weeks ago, Pakistan joined most countries on the planet in declaring its intention to engage in a coherent climate transition that would privilege renewable sources of energy above fossil fuels. The government's reasonably robust climate change team, led by Malik Amin Aslam and Rina Saeed Khan, admirably seeks to bring climate issues closer to the centre of gravity of Pakistani policy making. At last week's mini budget, we witnessed the cold hard mathematics of the insatiable appetite of the Pakistani uber-elite take a flame thrower to the foundational logic of mitigating climate risks. Solar electricity, hitherto untaxed, will now cost an extra 17 percent but neither fiscal nor climate related reform will result from this bargain.

The perpetual cul-de-sac that the Pakistani elite finds itself in is a product of these kinds of choices. Keep replacing one macro-economic manager with another, keep chasing little bitty scraps of revenue from economic transactions, consequences be damned. In a geo-economics first Pakistan there are two kinds of sovereignty that matter – monetary sovereignty and fiscal sovereignty. Economists like Stephanie Kelton and other Modern Monetary Theory economists would argue that there are very few monetary sovereigns, the most obvious being the United States of America. But monetary sovereignty isn't anchored entirely in the pure freedom a country enjoys doing what it pleases with its currency. Rather it is whether a country can make decisions about money supply that are principally informed by domestic economic interests, such as price and wage inflation. Pakistan is not a monetary sovereign.

Fiscal sovereignty is a relatively much simpler proposition – a truly fiscally sovereign country affords itself the power to decide on how much it taxes its people to keep the lights on. The mini budget presented last week is the equivalent of a contractual arrangement that confirms the absence of such fiscal sovereignty.

In the short run (and everything the Pakistani elite does is for the short run), there are only three ways through which monetary sovereignty can be proxied. The first is to have a quantum of exports that mitigates against the absence of monetary sovereignty. The second is to have a quantum of remittances that mitigates against the absence of monetary sovereignty. And the third is to have a source



of low-cost lending that mitigates against the absence of monetary sovereignty. In short, if you don't have your own dollars, you need to have either products and services that the world can't live without (exports) or skilled and unskilled labour the world can't live without (remittances) or sugar mommies and sugar daddies that will pay your bills for you.

Pakistan's elite have lived and thrived off the labour of its remittance generating expat workers and the availability of grants and cheap loans for so long that the country does not know how to even begin making products and services that the world needs. The recent external pressures on Pakistan are not because expat and migrant workers have stopped sending home money, but rather because the country's various creditors have begun to harden the terms under which their benevolence is available. Whiny complaints about the US or China or Saudi Arabia or the IMF are the obvious and the easiest out for a Pakistani elite that simply refuses to introspect and reform.

The lack of fiscal sovereignty is even more comical in terms of the dynamic that sustains the Pakistani elite. The wealthy Pakistani would like anyone but the wealthy Pakistani to pay for the extravagance that the Pakistani elite affords itself. The mini budget is a perfect example of the embarrassing and cancerous Pakistani tradition of paying the bills by cutting into the family budgets of poor and middle-class Pakistanis. Since the early 1990s, a parade of insipid, colourless and remorseless robot-men have pimped the idea of tax reforms with virtually zero impact on the country's bottom line. Those stricken by isomorphic mimicry continually bank on metrics like tax-to-GDP ratios and resulting bloated debt profiles. But the truth is that fiscal stasis in the country is a product of a low-risk, zero innovation, and therefore, low growth economic culture. Exactly the kind of culture that we might expect when the strongest and most able in the room are given subsidy after subsidy after subsidy, are never held to account, and are allowed to continue to dominate all key decisions.

Sadly, the top of the pyramid within elite Pakistan is occupied by greying men, all too stupid or myopic to realise this. The short-term cost of ridiculous new taxes and the inevitable inflation in the country is borne by poor and middle-class families, especially in the cities. But the medium and long-term cost is systemic and will ultimately be borne by the Pakistani uber-elite: because at some point, the costs will overrun the system.

In the next three decades, most estimates indicate continued dramatic population growth. By 2047, when the young population is expected to peak, the total population in the country will almost certainly exceed 325 million. Not a single of the macroeconomic systems in place today is capable of catering to even the 220 million population we currently have. Price controls, vaccinations, local government administration, environmental regulations, food and drug administration, schooling, maternal and neonatal health – every one of these systems has failed. ■

30 years on, no drilling at Kohlu Block yet

EU Report

Despite passage of 30 years to the award of exploration license of Kohlu Block-28 to Tullow Pakistan, drilling at site could not take place yet allegedly owing to less attention of the Energy Ministry and Petroleum Division's Directorate General Petroleum Concession (DGPC).

According to sources, Kohlu Block has estimated gas reserves of 16 Trillion Cubic Feet (TCF). "Tullow Pakistan Developments Limited was even not given access to Kohlu Block and later this company quit its business after failing to initiate exploration," said the sources.

They added that the Ministry of Energy and DGPC had so far not given due attention towards the Kohlu Block.

The total area of Block 28 is 5,856.60 square kilometers and this is Pakistan's largest exploratory Block in terms of area. This Block 28 remained stranded for decades due to different reasons including unfavorable security situation, less attention of MoE and DGPC. However, Mari Petroleum Company Limited (MPCL) farmed-in in the Block in April 2018 and acquired operatorship in October 2018. And, so far MPCL has completed initial work to start drilling including seismic survey, and it is likely that the MPCL will start drilling of first well during the next financial years, said the sources.

Due to the efforts of former managing director (MD) of Oil and Gas Development Company Limited (OGDCL) Zahid Mir, the operatorship of Block 28 was obtained in 2017 and MPCL obtained the operatorship of this Block in 2018.

Partnership of MPCL is 95 percent and OGDCL is 5% in Block 28 of Balochistan province. The sources said that instead of providing security to Tullow Pakistan Developments Limited to start drilling activity at the site, MoE and DGPC had not given due interest in the exploration of Block 28. On finding not friendly cooperation to initiate drilling at Block 28, Tullow Pakistan Developments Limited decided to quit business and later the company sold its assets in 2013 to close business in the country, said the sources.

As per initial estimation, expected initial gas in place (IGIP) is 5 Trillion Cubic Feet (TCF) and recoverable (70 percent) is 3.5 TCF in accordance with Smaller Leas Trend while expected IGIP is 17 TCF, recoverable (70pc) is 11.9TCF and total potential IGIP is 22 TCF while recoverable 15.4 TCF on Bigger Leads. Similarly, potential commercial value of the gas reserves is US$ 110 billion (@ US$ 5 per MMBTU) while realistic value is US$ 77 billion (@ US$ 5/ MMBTU). ■

RS650BN BURDEN ON CONSUMERS

Govt fails to improve power sector's performance

Mushtaq Ghumman

The federal government has failed to bring any significant improvement in performance of power sector during 2021 and retained its focus on increase in tariff to enhance recoveries of Discos.

During the year, consumer tariff was increased nine times through Quarterly Tariff Adjustment, inclusive of base line tariffs as per the agreement with the World Bank, and Fuel Cost Component (FCA) mechanism. The cumulative additional financial burden of Rs650 billion was passed on to the consumers, except lifeline consumers.

Informal discussion with officials and official documents shows that Discos recoveries were less than 90 percent in 2020 declining to 88 percent in 2021, almost ten percent less than the targets set by National Electric Power Regulatory Authority (Nepra). Discos were pressured by their administrative organization, Pepco, which was renamed as Power Planning and Monitoring Company, to improve recoveries - a feat that led to sending "bogus" detection bills to consumers. Losses in Hesco, Sepco, Qesco and Pesco remained far higher than Punjab-based Discos.

Nepra revised the loss target of Discos from 15.53% to 13.46% which was notified by the GoP in February 2021. The actual T&D loss of Discos for FY 20-21 stood at 17.32%. Officials claim that due to revision in loss targets, circular debt increased from Rs42 billion to Rs120 billion per annum. The stock of circular debt has risen to an alarming Rs2.5 trillion level due to dismal performance of the power sector.

The officials further contend that while revising the Discos loss targets, Nepra has not incorporated any margin on account of law-and-order situation which was previously allowed to Discos, whereas a margin of 5.2% has been assessed for K-Electric in its Multi-Year Tariff determination. Power Division has suggested the government to remove this disparity.

Power Division has suggested that following guidelines be issued to Nepra: (i) T&D loss assessment methodology should be revised in consistent with the practice adapted for K-Electric; (ii) Discos loss targets should also include a percentage margin on account of the prevalent law-and-order situation;(iii) for future target setting, 5-year gradual loss reduction targets should be determined starting from actual loss level of 17.82% in FY 19-20, on the same pattern as adopted for K-Electric; and (iv) T&D loss targets for FY 20-21 & FY 21-22 should not be further reduced as the period has already lapsed.

Power Division has hinted that if proposed guidelines are not incorporated, excess losses of more than Rs500 billion would accumulate in circular debt in next five years.

There was no letup in load shedding in those areas where losses are more than 10 percent, especially in areas of Hesco, Sepco, Qesco and Pesco, where people are facing load forced shedding even in the winter, when overall demand is just 10,000MW. The revenue-based load shedding is being carried out as per agreement with the IMF, World Bank and ADB.

The incumbent government has completed 660MW HVDC (High Voltage Direct Current) Matiari—Lahore transmission line, which began during the tenure of PML-N government. However, a dispute still exists between NTDC and the Chinese company on costs which would now be included in the revised tariff.

The transmission system of NTDC has improved due to which 23,633MW electricity was transmitted on June 11, 2021 as compared to 23,303 MW in July 2020. Some generation has also been included in the system after which installed capacity is around 40,000MW whereas dependable capacity is 33,000MW but the system can transmit only 23,000 or 24,000MW.

The regulator, in its reports, has pointed out deficiencies in the Discos' system and suggested their privatisation. The Privatisation Commission has been given the assignment to give Discos to private sector management contracts and performance contracts, which has not yet been completed.

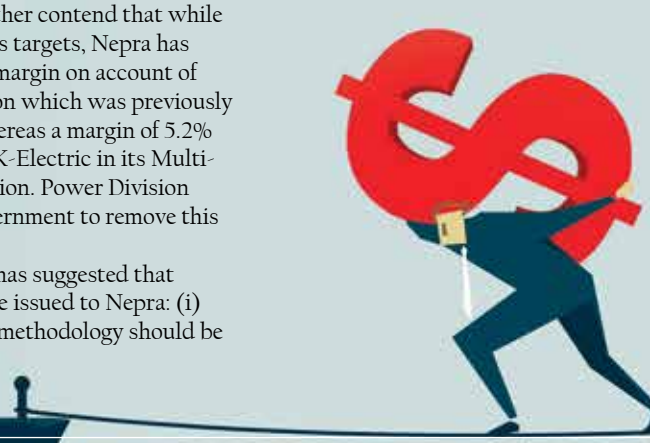
The performance of Karachi Electric (KE) has improved with respect to distribution network, but it still has not commissioned its 660MW RLNG-fired power plant at Port Qasim, which was due in November 2021.

The regulator has conducted a comprehensive analysis of power plants operating under Wapda for the FY 2018-19 and 2019-20 which was presented to the Authority and shared with Wapda and in-house professionals. Pursuant to instructions of the Authority, a meeting was conducted with Wapda, CPPA-G and NTDC on1 September, 2021 in order to further discuss the following issues: (i) conversion of tariff structure of old Wapda hydel power stations from "take or pay" to "take and pay"; and (ii) non-imposition of Liquidated Damages (LDs) by CPPA-G on Wapda on account of Wapda hydel Power Stations availing higher outages than allowed limit as specified in their PPAs.

M&E Department initiated hourly analysis of KE's generation dispatch data to verify compliance with its Economic Merit Order (EMO). Accordingly, shortcomings in certain areas of system operation were highlighted and shared with KE, along with directions to resolve its shortcomings and ensure economic dispatch as per the EMO. Moreover, a substantial amount was withheld from KE's monthly fuel price adjustment claim on account of EMO violations.

The government has also finalised new agreements with IPPs of pre-1994 policy, 1994 policy, 2002 policy and 2015 aimed at bringing down tariff by Paisa 43 per unit in the next 40 years. Power Division has paid the entire agreed amount to pre-1994, 1994 and 2015 (renewable though not projects set up under China Pakistan Economic Corridor), but IPPs of 2002 policy have not been paid even 40 percent as the first instalment of agreed amount.

Courtesy Business Recorder



No decline yet in trade deficit

Tahir Amin

Pakistan maintains a trade deficit due to high imports of energy products including fuel, machinery equipment and chemicals, says Pakistan Bureau of Statistics (PBS).

The PBS in its "annual analytical report on external trade statistics of Pakistan's fiscal year 2020-21" stated that the country started having trade deficits from fiscal year 1955 till this date. Pakistan joined the World Trade Organization in 1995, but its terms of trade remained favourable, the report noted. Main import partners are the United Arab Emirates and China.

The report noted that exports during July-June 2020-2021 totaled Rs4,041,927 million as against Rs3,369,782 million during the corresponding period of last year showing an increase of 19.95 percent.

In terms of US dollars, the exports during July–June 2020-2021 totaled $25,304 million (provisional) against $21,394 million during the corresponding period of last year showing an increase of 18.28 percent. Imports during July–June 2020-2021 totaled Rs8,982,441 million (provisional) as against Rs7,029,819 million during the corresponding period of last year showing an increase of 27.78 percent. In terms of US dollar, the imports during July-June 2020-2021 totaled $56,380 million(provisional) as against $44,553 million during the corresponding period of last year showing an increase of 26.55 percent. The balance of trade figures from July-June 2020-2021 were (-)4,940,514 million in terms of rupees and (-)31,076 million in US dollars, it added.

The highest share to the growth in total imports is that of food group.

During fiscal year 2021, food group having 14.81 percent share of the total imports, witnessed a growth of 53.91 percent and its import reached $8,347.8 million as against $5,423.9 million during the fiscal year 2020. Within food group, surge was observed in the import of wheat, sugar, palm oil, and dry fruits.

Due to supply disruptions, 3,613 MT of wheat was imported amounted to $983.33 million. Likewise, by the reason of deficiency of production, sugar import bill clocked at $128.65million.

Milk, dry fruits, tea, spices, and pulses all showed increasing trend and increased by 17.54 percent,128.93 percent, 8.97 percent, 29.31 percent, and 15.48 percent.

Machinery group with 18 percent share in overall imports increased by 15.47 percent and reached $10,147 million during fiscal year 2021 as compared to $8,782 million in fiscal year 2020.

Petroleum group imports bill, having a share of 20.15 percent of total imports, plummeted and showed negative growth of 8.26 percent during the period of July-April 2020-21 as compared with the same period of last year and dropped to $8,697.8 million from $9,481.0 million due to sharp rise in demand and international price of petroleum.

Imports during May 2021 and June 2021: an increase of 185.84 percent was observed in imports as compared to the same period of last financial year. Subsequently, the imports bill for the whole fiscal year 2021 clocked at $11,357.9 million as compared to $10,411.5 in fiscal year 2020 and exhibit a surge of 9.09 percent.

Exports of textile manufacturers, which accounts for 60.86 percent in total exports witnessed a remarkable increase of 22.93 percent during fiscal year 2021 in comparison with a negative growth of 6.01 percent of last year and amounted to $15.399 billion in fiscal year 2021 as compared to $12.527 billion during fiscal year 2020.

Courtesy Businiess Recorder

Huawei FusionSolar holds second summit

From (LtoR): Robin Xing, Director Digital Power Business Huawei Pakistan, Engr. Tahir Basharat Cheema Energy Expert, Khawaja Munseb Country Sales Director Huawei Pakistan, Engr. Faiz Bhutta Energy Consultant addressing on the occasion.

Mustafa Tahir

Huawei FusionSolar organized its second summit on 28 December 2021 at a local hotel in Lahore to convey its brand message, as Huawei offerings lead to PV solutions and expertise in digital technology for solar Industry which is the integral part of renewable energy source and sustainable for the future industry demand.

The event managed to gather all professionals from C&I and Installers along with government officials from NEPRA, AEDB, PSA, and experts from Energy Update. The event started with the welcome speech by Mr Robin Xing, Director Digital Power Business Huawei Pakistan, who highlighted Huawei's substantial growth over the year and facilities to the solar industry through its new and digital solutions.

Guest of Honor Shah Jahan Mirza through video message shared his thoughts on how energy industry is intending to grow. He said the government is particularly taking strategic measures to ensure the growth of this market considering the need for better optimal electricity. The second Guest of Honor, Ather Rehman, Deputy Director National Electric Power Regulatory Authority (NEPRA), appreciated the global technological companies for integrating into the arena of renewable energy. He further added that solar energy had emerged as the most viable solution for the domestic consumers who had been upset by ever increasing cost of electricity. Tahir Basharat from Energy Update highlighted the opportunities in renewable energy and venturing of technology innovative solutions to ease emerging electricity issues. Khawaja Munseb, Country Sales Director, Huawei Smart PV Pakistan; Service Director, Huawei Smart PV Pakistan, Sarmad Chaudhary; Thomas, Chief Technical Officer, also spoke on the occasion.

At the end, awards were given away to the top performers of 2021 and certificates distributed among those who passed the service training program.

From (LtoR): Thomas Technical Officer and Sarmad Chaudhry and other addressing on the occasion.

From (LtoR): Khawaja Munseb Country Sales Director Huawei Pakistan, Robin Xing, Director Digital Power Business Huawei Pakistan, Sarmad Chaudhry, Irfan Ahmed Director HESCO, Zubair Motiwala Industrialist Leader, M. Faaz Diwan Director Diwan International and Thomas addressing on the occasion.

Sindh welcomes venturing of big tech giants for renewables: moot told

Mustafa Tahir

Big global technology companies venturing into the arena of renewable energy is indeed good news for domestic electricity consumers in Pakistan, who should switch to solar power at the earliest for slashing their power bills. Sindh welcomes venturing of big global tech giants into local renewables. This was stated by Sindh Energy Secretary, Abu Bakar Ahmed Madani, while speaking at the Huawei FusionSolar Residential Summit Pakistan, held here at a hotel. The provincial energy secretary said the domestic consumers should immediately install solar power systems to generate electricity on their own for their household needs.

He emphasised that solar energy had emerged as the most viable solution for the domestic consumers who had been upset by the ever-increasing cost of electricity provided by the power utilities. He said the government was also under the obligation to promote the usage of alternative sources of power generation owing to its limitations to cut down the power tariff in the country. He said the power consumers in Sindh, especially in its rural areas, had started adopting the option of solar energy to get electricity for their homes and workplaces.

Glimpse of Audience

The energy secretary said that Sindh was fully part of the ongoing global campaign to cut down the usage of furnace oil and natural gas for reducing environmental pollution.

Noted leader of industrialists in Karachi, Zubair Motiwala, said that Pakistan being an energy-deficient country had to rely on alternative resources of power generation. He said the renewable energy resources should be utilised as the country face power shortfall during summers and severe natural gas shortfall during winters. He said the industries sooner or later had to switch to renewable resources to avoid shutdowns during winters due to ever-widening gas shortfall. Irfan Ahmed, HESCO Director, said the solar energy option should be used to lessen the issue of power load-shedding and reduce power tariffs for the consumers. He said that big technology companies could play a major role to build recharge facilities for large electric vehicles. Robin Xing, Huawei's Director Digital Power in Pakistan, said the Huawei had been involved in solar power ventures for residential, industrial consumers and utility-scale projects. He said that solar energy was like God's gift to Pakistan as this was an enormous clean power resource available due to the ideal temperature and irradiation in the country. He said the renewable energy policy of the government had also been helpful to tap clean power generation sources available in Pakistan. Engineer Khawaja Munseb Ali Arshad, the Country Sales Director of Huawei Technologies Pakistan, said that green digitalised energy systems are the specialised technological offering of Huawei for carbon-free Pakistan. He said that Huawei had special focus on research and development activities as up to 60 per cent of its employees were doing R&D-related work at 12 different centres worldwide. ■

Robin Xing Presenting Memento to Secretary Energy Sindh Abu Bakar Madani

Robin Xing Presenting Memento to President KCCI Idrees Memon, CEO Diwan International Saleem Diwan also seen in the picture.

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Mustafa Tahir

Fronus Annual Awards and Product Launch 2020-2021 ceremony was held at a local in Lahore. Special guests of the ceremony were Noman Ahmad Langarial, Provincial Minister for Profession and Management; Malik Asad, Provincial Minister for Housing; and DIG Special Branch Jahanzeb Azhar Khan.

The event highlighted the achievements made by Fronus CEO Naveed Butt. He told the audience that in a very short span of time, Fronus had become the No. 1 solar company in Pakistan by gaining the trust of customers. He said that his company had imported solar equipment worth Rs3 billion to pakistan in 2021, adding it was also the dimestic company to introduce lithium battery in Pakistan. Mr Butt announced that the 2022 awards and new product launch ceremony would be held in Turkey.

Technical Heads - Murtaza Memon, Owais Khan and Haq Nawaz - briefed the participants about the state-of-the-art product Solar Inverter Razer Series. The Razer series is being introduced in pakistan for the first time with a replacement warranty, the moot was told. Director Solar Solution Chaudhry Mukhtar, Chairman Fronus Tariq Mughal and other dignitaries distributed prizes worth Rs200 million including vehicles. Around 26 lucky draws were also held at the event.

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The gas crisis

—Hina Maher Nadeem—

Under Article 158 of the 1973 Constitution of Pakistan, the province which is well headed in natural gas shall have precedence over the rest. Sindh produces 70 percent of the natural gas of Pakistan; however, in the third week of June this year, the Sui Southern Gas Company (SSGC) stopped gas supply to industries in Karachi for an indefinite period, which gave rise to an environment of panic in the industrial sector.

The reason, according to the federal government, was the shortfall of 200-250 mmcfd, resulting in 4.3 percent decrease in gas production from June 8 to 15, creating a one-of-its-kind crisis in the summer months.

The Pakistan Peoples Party government back in 2008 had inherited a considerably worse gas shortfall that it overcame through the confidence of the Parliament through the Gas Infrastructure Development Cess (GIDC) Act 2011.

It's been a decade since the transformation of the GIDC Act 2011 to the GIDC Act 2015; where do the entities of section 4 stand? The law clearly states that the collected cess would be used by the federal government only on Iran-Pakistan (IP), Turkmenistan-Afghanistan-Pakistan-India (TAPI) gas pipeline projects, LNG or other ancillary projects.

The estimated cost for the IP gas pipeline was stated to be 271 billion, TAPI 31 billion, North South gas pipeline 20 billion and the underground gas storage project at 75 billion. According to figures provided by the PTI government to the Supreme Court, Rs2.95 million were collected in lieu of cess till June 30, 2019. In July 2020, the collected cess amounted to Rs307 billion.

In 2015 when he was the petroleum minister, Shahid Khaqan Abbasi had claimed that the IP gas pipeline would be completed by the end of 2016, but all in vain. Surprisingly, there has been no mention of the GIDC projects in the Pakistan Economic Survey since 2015.

The PML-N government plugged the shortfall by importing LNG from Qatar. The PTI government admitted before the Supreme Court that it is following the same policy. Chapter 14 of the Pakistan Economy Survey 2019-2020 clearly has, "to meet shortfall, the (PTI) government has initiated the import of LNG".

Regarding the above cited facts, Justice Mansoor Ali Shah has brought the PTI and PML-N government in the dock. In the case M/s Cherat Cement Co. Ltd., Nowshera etc v/s Federation of Pakistan (C.R.P No. 421/2020), he observed in Para. 12 of his dissenting note: "The documents (submitted before this court) show after a decade of charging GIDC ... There is no sign of development of the gas pipeline projects in Pakistan. Absence of the said projects and emphasis on the import of LNG from Qatar in the latest Pakistan Economic Survey hazards a guess that the government is either not willing to or is unable to complete these pipeline projects and that is why there is shortfall.

The GIDC Act is purpose specific, which is to meet the gas shortfall through IP, TAPI etc. The import of LNG from Qatar has no mention in it. How is it then justified for a government to go beyond the scope of this act, override Parliament, and spend the cess on a non-GIDC entity?

The question arises: is the rule of quid pro quo satisfied? Does there exists a transparent correlation between the collection of cess and expenditures?

Article 266 of the Indian Constitution and Article 78 of Pakistan's are twins. In Ratilal Gandhi v. State of Bombay (AIR 1953 Bom. 242), the apex court of India ruled, "When moneys are received as a result of fees imposed for a specific purpose ... such fund doesn't form part of the Consolidated Fund under Article 266." Whilst, to this date, the crystal clear Article 78 is ambiguous for the Governments of Pakistan. Intentionally? Maliciously?

The expression "all revenues" used in Article 78 (1) of the constitution covers revenues like tax and duties etc., raised for the government's purposes; they have to be credited in the Federal Consolidated Fund. The rest are compensatory fees falling under the expression

"all other moneys" used in Article 78(2), which have to be credited to the Public Account; the government can't utilitise the amount submitted in the said account as per its own pleasure and will.

In the Durrani Ceramic case (PLD 2015 SC 354), the Supreme Court elaborated that the cess is a fee in lieu of the future benefits avowed; it shall not be considered tax, which is charged on the facility already in existence and being provided by the government. In the violation of this judgment, the government mentioned the cess ibid as "Tax Revenue" in the annual budget statement of FY 2019-2020 and 2020-2021. In the annual budget statement FY 2021-2022, it particularly cited the cess this year to fall in the category of Articles 78 (1). The government continues to credit cess in the Federal Consolidated Fund, which allows the utilisation of the cess collected for "any purpose" of the government.

In M/s Khurshid Soap & Chemical Industries (Pvt.) Ltd v/s Federation of Pakistan (Civil Appeals No. 1113-1115 of 2017 etc, the Supreme Court ruled, "The proceeds of cess shall be identifiable in the accounts by using separate accounting codes."

Despite being asked religiously, the DAG failed to furnish the statement of the GIDC accounts on the behalf of the government and instead furnished a general statement of Federal Consolidated Fund. To quote Justice Mansoor, the "initial reluctance and then the failure to place on record the GIDC account's statement gives rise to an adverse inference against the federal government under Article 129(g) of the Qanoon-E-Shahadat Order 1984. It shows that the collected amount isn't physically present in the account and has already been spent elsewhere."

He also added, "The government plans to start the NSGP project only. This project will not generate natural gas, but is a support infrastructural project and will not address the shortage of natural gas in the country."

The dissenting note of Justice Mansoor Ali Shah is no less than a charge-sheet against the present and previous governments. It goes without saying today's gas crisis is due to the non-execution of the act of the parliament; it is a government-made problem.

Only the implementation of the constitutional measures taken in 2011 can help Pakistan overcome the gas crisis. ■

FUEL SHORTAGE

Petroleum demand on the rise in Pakistan

EU Report

There are two ways to look at growing petroleum sales in Pakistan. The rising consumption of petroleum products indicate rising demand which is fueled by many factors such as rising auto sector sales, improving industrial and manufacturing activity, higher agricultural activity, better control of smuggling through borders as well as economic activity.

At the same time, rising petroleum consumption in the country also means higher imports of the same, which make a significant portion of the total. Higher imports of crude and petroleum products, which have been over 8 percent in FY21, along with rising inflation, fuel the current account deficit.

A look at last six years show that until FY17, petroleum consumption in the country was growing and the pace really picked up after FY13 as rise in demand by the power sector increased infrastructure and development activity, growing car sales and an overall increase in economic growth along with lower prices triggered volumetric sales by the oil marketing companies. However, the pace slowed down beyond that with the change of the government as prices rose and economic activity entered a standby mode during the election year. Also, structural changes, reforms, a new IMF Programme and massive currency depreciation all slowed down economic activity that reflected in petroleum product consumption in the country.

Also as CPEC entered the second phase, development and infrastructure activity slowed and government tried replacing FO with other imported/indigenous fuels like RLNG and coal, demand was affected, which was also reflected in otherwise robust petrol consumption.

Oil and petroleum consumption witnessed a sharp recovery in FY21 after a dip in pandemic hit FY20 due to rise in demand by the power sector as the hydel and RLNG generation remained subdued during the year. Petrol volumes were driven by the recovery seen after COVID lockdowns and restriction, and rising car sales. HSD volumes were spurred by industrial and agriculture growth as well as curbs on smuggling.

Parsing petroleum consumption by provinces show that bulk of the consumption continue to come from Punjab; its share has stood at 61 percent in FY21 in overall consumption that includes furnace oil, high speed diesel, motor spirit, JP-1, Kerosene, etc. – data from OCAC shows. Product wise, FO's rising trend can also be seen in Punjab's rebound in fuel's share where its share stood at 43 percent in FY20 and 56 percent in FY21. Its share in petrol consumption has increased from around 60 percent in FY05 to over 63 percent in FY21. For HSD, Punjab accounted for 61 percent in FY21 versus 57 percent in FY05. ■

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Our Story

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With the vision to bring latest technology trends in the country, self-made entrepreneurs Mr. Akbar Noor Mohamed Sheriff and his father Noor Mahomed Sheriff laid the foundation of an engineering company, Jubilee Corporation, in 1962. Later, Mr. Noordin Sheriff, former electrical engineer at Siemens Pakistan, also joined and brought his valueable technical knowledge and experience to the company founded by his father and elder brother, by introducing the concept of High Rupturing Capacity fuses based on German Technology in the market.


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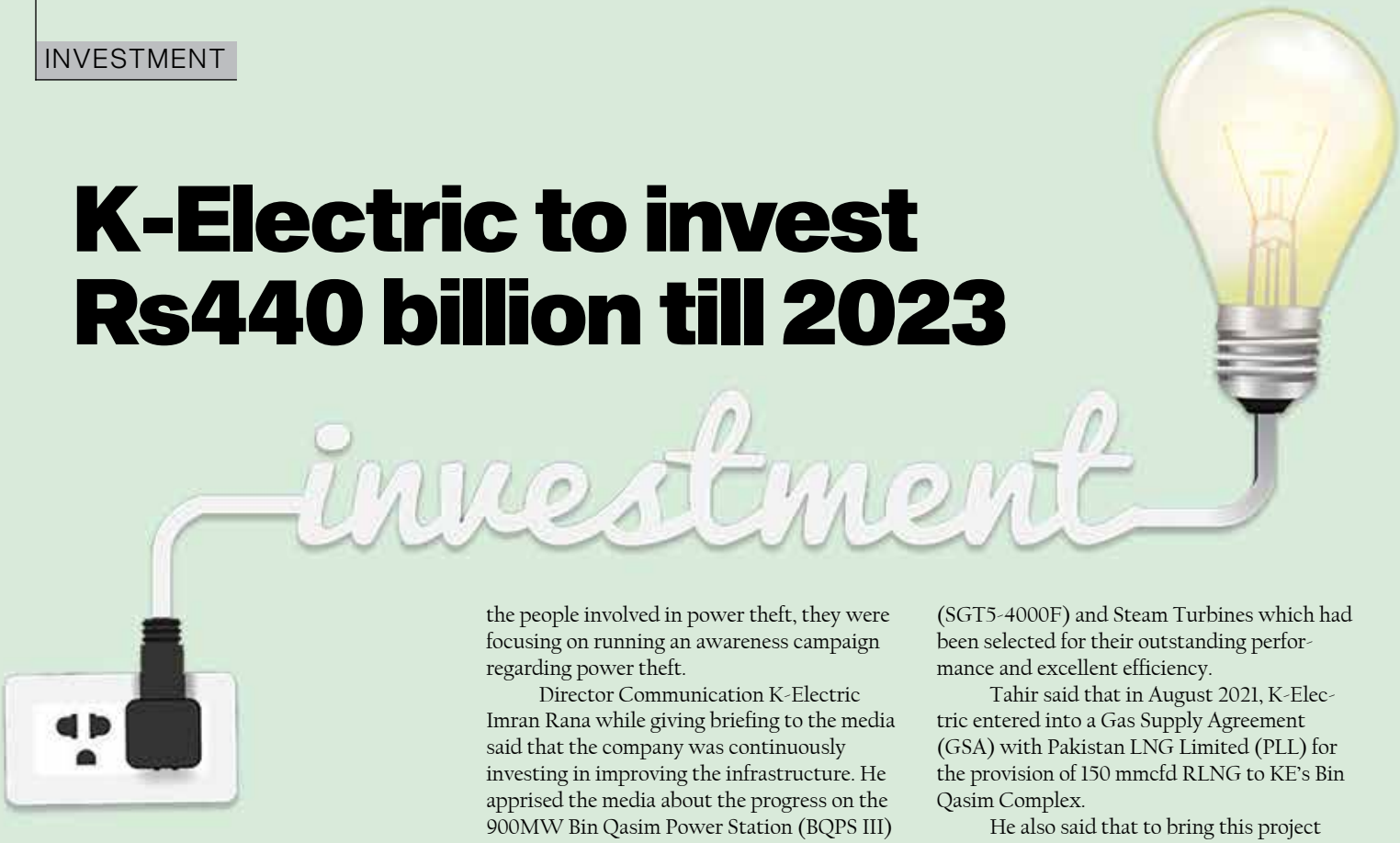
K-Electric to invest Rs440 billion till 2023



Hassan Abbas

K-Electric will invest Rs440 billion till 2023 out of which the company has invested Rs229 billion up till now.

This was stated by Chief Distribution Officer K- Electric Amir Raza and Project Head 900 MW Bin Qasim Power Station (BQPS III) Tahir Mahmood while giving a briefing to the delegation of Lahore Economic Journalists Association during their recent visit to K-Electric Head Office and site of BQPS III. Director Communication K-Electric Imran Rana was also present on the occasion.

They said that 900MW power plant of K-Electric was near completion. They said it was expected that Bin Qasim Power Station (BQPS III) would start its power generation in January 2022 adding that it would improve power supply in summer as well as boost the economic activity in the city.

"Once BQPS-III goes completely online, KE will realize annual savings of Rs7 billion which will benefit the national exchequer as well as contribute around Rs300 billion to Pakistan's GDP," they said.

They also said that with the efforts of the company and with the support of civil society, they had controlled power theft as there were no more "Kundas" (illegal connections) in

He said that this they would reduce line losses from 40 percent to 15 percent till June 2022. He further said instead of penalizing the people involved in power theft, they were focusing on running an awareness campaign regarding power theft.

Director Communication K-Electric Imran Rana while giving briefing to the media said that the company was continuously investing in improving the infrastructure. He apprised the media about the progress on the 900MW Bin Qasim Power Station (BQPS III) being set up with an estimated cost of USD 650 million. He also said that the agreement for the provision of RLNG had been signed.

Project Head Bin Qasim Power Station (BQPS III) Tahir Mahmood said that it was a state-of-the-art power plant which was getting completed in a record time.

He said that upon completion (as first unit of 450 MW to be energized) the power plant would be among the top five most efficient plants in the country.

Tahir said that the combined cycle project consists of two Siemens Gas Turbines (SGT5-4000F) and Steam Turbines which had been selected for their outstanding performance and excellent efficiency.

Tahir said that in August 2021, K-Electric entered into a Gas Supply Agreement (GSA) with Pakistan LNG Limited (PLL) for the provision of 150 mmcfd RLNG to KE's Bin Qasim Complex.

He also said that to bring this project online as quickly as possible, over four million man-hours had been employed in bringing the project to meet Karachi's growing power demand. With the capacity to power up to 180,000 households, KE's mission to make 93 percent of Karachi load-shed free by 2023 would come closer to realization due to BQPS-III. He further said to ensure a balanced investment in technology and ecology, they had also made investments in the local environment, with over 100,000 mangroves planted.

Courtesy Business Recorder

Gwadar to get 3,200 solar power units with Chinese help

Gwadar will get about 3,200 solar power generation units with Chinese help, Gwadar Pro reported. An agreement to this effect was approved between China Pakistan Economic Corridor (CPEC) Authority and Chinese Ministry of Environment by the Federal Cabinet recently. This will help resolve electricity issue in Gwadar. Recently, Federal Planning Minister Asad Umar said solar panels would be provided in Gwadar with Chinese help and the project would be started in March.

To support the Pakistani government, China will install 3,200 solar panel units in various houses in Gwadar. "The project is being carried out with direct help of China," Umar announced.

He informed that the 3,200 solar units will be arriving in Pakistan from China by the end of January, 2022 and the installation of those panels would be completed by the end of March. Umar pledged that he would personally monitor and keep the data of the process of installing the solar panels to ensure that everyone in Gwadar benefit from the solar electricity. Fawad Chaudhry has also informed journalists that the agreement had been approved by the federal cabinet, which would be implemented to benefit the Gwadar people. ■

Tapering of stimulus worries industry

Nasir Jamal

The year 2021 was one of Covid variants and supply chain chaos across the globe but the economic story of Pakistan during the year was dominated by a swift recovery from the pandemic, and, of course, soaring inflation.

It was a year when the industry made unprecedented profits as the Imran Khan government ditched the stabilisation policies of the International Monetary Fund (IMF) to pursue procyclical fiscal and monetary policies for building on this early recovery in a bid to improve its electoral chances in 2023.

Consequently, external buffer built from generous 'assistance' from multilateral organisations to fight the adverse economic impacts of the pandemic, as well as loans raised from global markets was used to promote swift growth only to return into the folds of the IMF towards the end of the year for stabilising the economy as, in the words of the central bank, the growth 'exceeded expectations' and the country ran into its usual balance of payment crisis.

The majority of the industry representatives were of the view that Pakistan's re-entry into the IMF funding programme to shore up its balance of payments will mean drastic tapering of its fiscal and monetary stimulus.

The interest rates have already been hiked by 2.75 basis points to 9.75 per cent to contain money supply in the market to support the rupee and moderate import demand growth as the government raised electricity and petroleum prices, and prepared itself to end the tax exemptions and cut its development and current expenditure putting the economy back into stabilisation gear from growth mode.

The industry is also worried about the uneven recovery, with the low- and middle-income households witnessing their purchasing power eroding as the government-State Bank of Pakistan combo implemented their stimulus in complete disregard of already entrenched inflation in the economy.

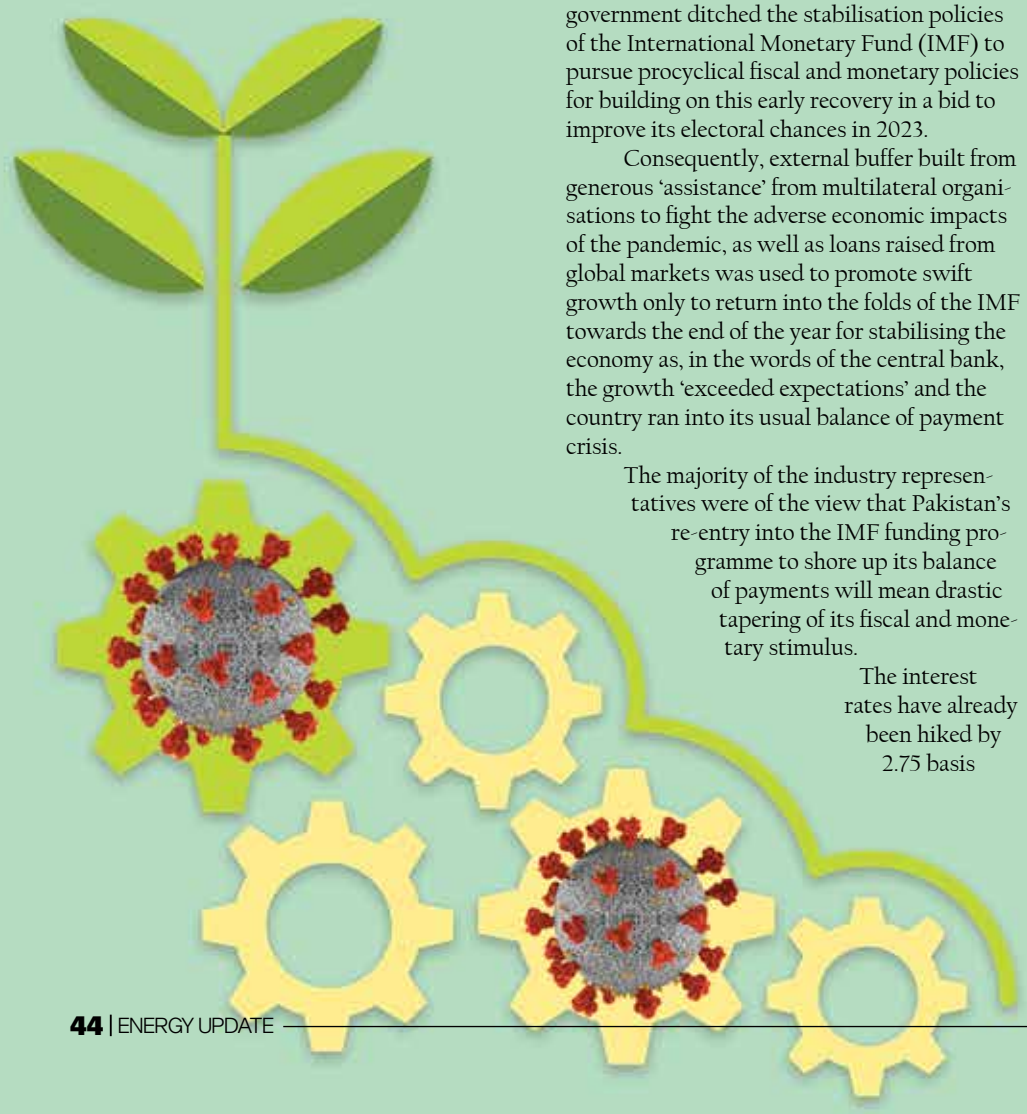
"In 2021, we saw growth return but it was lopsided because it increased income inequality in the country. The industry and the exporters made enormous profits during the year while the low- and middle-income segments of population suffered greatly because of the rising costs of living and income losses," argues Adil Mahmood, the former president of the Sheikhupura Chamber of Commerce and Industry (SCCI). "The situation is going to worsen for the majority of people as we return into the folds of the IMF and make tough fiscal adjustments. It will be a miracle if the government is able to control inflation," he warns.

According to him, the country cannot achieve sustainable growth without policy consistency. "The IMF dollars are but a short term injection; we need to industrialise fast and follow long term policies if we want to grow sustainably."

The companies forming the Pakistan Stock Exchange (PSX) benchmark KSE-100 index reported record profits of Rs875 billion during 2020-21.

Meher Kashif, a former senior vice president of the Lahore Chamber of Commerce and Industry (LCCI), says 2021 was a year of recovery from the once-in-a-century pandemic shock. "The economy did recover but we saw a lot of confusion in the officialdom. The government was not sure what policies to pursue and shifted from stabilisation to growth to stabilisation. In between we saw unemployment rise, inflation soar, cost of production increase and families becoming food insecure. The common people did not receive the fruit of growth. Businesses made massive money but it did not trickle down to people. No new jobs were created because the profits went into real estate as the government relied on the construction sector to get growth.

Shahzad Ali Khan, a former chairman of the All Pakistan Textile Mills Association (Aptma), says the economy is in a bad shape due to the ensuing balance of payment crisis. "The industry has made huge profits during the Covid and afterwards. The economy will continue to grow at around 4-5pc next year.



But this could upend if the current account continues to bleed and the exchange rate weakens," he argues, saying the economic troubles of Pakistan stemmed from the absence of long term policies for industrialisation."We don't even have good policies for agriculture, which remains the mainstay of our industry and exports. How can you hope to grow and enrich your people without fixing your structural issues?

Ghias Khan, President and CEO Engro Corporation says: "The year 2021 has been a promising year in terms of corporate sector's performance. Post-Covid, the pace of recovery for businesses has been phenomenal, owing to PM Imran Khan's business-friendly policies. Given his focus on boosting exports, I am confident that 2022 will be the year we will collectively develop an ecosystem that increases exports and decreases dependence on imports. We are hopeful all policies to attract multi-billion-dollar investments will be expedited, and the national industrial policy will catalyse industrialisation and self-sufficiency.

Tackling climate change and enhancing the participation of women in the workforce should definitely be on the agenda for 2022. We also expect commodity prices, exchange rates, and interest rates to stabilise, otherwise, we will be faced with social unrest and a high cost of capital, while battling with energy price pressures. Omicron's impact on the local and global economy and inflation are the biggest risks."

Quratul Ain Irfan, President Pacific Pharma, says: The year 2022 is going to be a tough one for the local business community and the industry, particularly for the pharmaceutical industry. The continuous hike in the dollar value against the rupee has been a major factor behind the rising costs of active pharmaceutical ingredients (API) since 99 per cent of them are imported. As Pakistan's pharmaceutical industry is a price-controlled sector, it cannot pass on the increase in its cost to consumers. The newly suggested 17pc tax on pharmaceutical APIs will be detrimental to this industry. New taxes and upward movement of the dollar will hamper future investment and growth of this industry. The government of Pakistan should revisit this new tax burden and revert to the previous rate of tax on raw materials to keep medicine within the reach of common people.

bn per annum, should be the first agenda point of 2022. Instead of enabling a black market, and declaring amnesty every few years, the focus should be on reducing taxes and increasing the tax net. All sectors should be taxed at an equal basic tax rate based on income.

Till we can reduce the risks associated with doing business in Pakistan, the economy will not flourish. The risk factors result in investors demanding higher returns which increases the cost of production. For eg, ever since the first independent power producers were set up in 1994, the sector has been in the midst of some controversy. Resultantly, investors are wary of expansion and demand higher returns in every policy.

Another important issue is the performance of the public sector. Private sector organisations are better equipped to run successful businesses, because of their efficiency and the ability to take risks. This would largely be missing in the public sector, which has been paralysed due to constant scrutiny, involvement of the National Accountability Bureau and inflexible rules and regulations such as those laid out by the Public Procurement Regulatory Authority.

Progress will not happen overnight or next year — the starting point has to be the ability to understand the economic model. The GDP can be improved if the 220 million population has access to education and an opportunity to work. This also means encouraging and enabling women, who constitute 49pc of the population, to join the workforce."

Ali Asghar Jamali, CEO Indus motors, says: "The last year was a great one for the auto industry which witnessed an exponential growth of around 70pc owing to the auto policy, the market was expected to cross 350,000 units in 2021-22 that may end up around 315,000 units due to ad-hoc increase in duties and taxes. It is pertinent to mention that the growth has not only benefited original equipment manufacturers but largely translated to vendors and other allied industries. All of this is credited to the newly announced auto policy as transparency and predictability led to a boost in investments. Induis Motors recently announced investments worth $100m to produce 4th generation hybrid vehicles locally. However, these decisions were based on the government's auto policy but unfortunately, recent deviations in the mini-budget will take a toll on the auto sector's growth and investments. The deviations will hurt investors' sentiments and confidence. It may also shatter their trust in PTI's government. I am afraid that if duty hikes continue till budget '23 we see a decline of around 15pc in sales and if the ad-hoc policy continues post-budget too, the decline can be around 25pc. As a country, we must realise that only transparent and predictable policies will result in economic growth."

Courtesy Dawn

Taxing clean energy to affect environment

EU Report

The imposition of 17pc sales tax on solar energy equipment, as proposed in the Finance Supplementary Bill, 2021, shows negativity towards to the prime minister's vision of boosting the share of renewables in the overall energy mix to protect the environment and cut reliance on expensive imported fossil fuels.

The increase in the price of solar energy, owing to the withdrawal of the sales tax exemption, will likely hit the adoption of solar energy in the country, especially by middle-class homeowners, slowing down Pakistan's progress towards clean energy as promised in the National Renewable Energy Policy of 2019. The policy aims to acquire a 30pc share of renewables in the energy mix by 2030.

Solar is the largest segment of the renewable energy industry in Pakistan and a significant uptick was seen in its adoption by residential, industrial and other consumers owing to tax incentives in recent years. The bill also proposes to tax wind power which is the other major segment of the renewable energy industry.

The so-called mini budget introduced in parliament for the resumption of the stalled $6bn IMF funding programme not only taxes solar equipment but also high-efficiency irrigation equipment, effluent treatment plants, and so on. But for what exactly? Just for a few billions in revenue and at the expense of the environment?

The new taxation illustrates how the government's tax policies are completely divorced from its environment policy objectives. Many fear — and rightly so — that the increased price of solar energy will encourage illicit trade and/or the import of low-quality cheaper equipment to meet the demand from middle-class consumers. Indeed, the collection in tax revenue is imperative for a sustainable economy and growth. But that need should not blindside our policymakers. There are other avenues, both undertaxed and untaxed, from which the government can generate a lot more than what it seeks to rake in from taxing green equipment. The finance ministry should review its tax proposal and take out such regressive taxation from the bill.

Courtesy Dawn

PM Khan's 2021 & 2022 risks & prospects

Mosharraf Zaidi

Exactly one year ago, I had identified five risks that Prime Minister Imran Khan faced in 2021. Risk 1: A weak and imbalanced economic recovery. Risk 2: System-wide division and disruption. Risk 3: Escalation of violence in Afghanistan. Risk 4: Further alienation and disengagement of the 'periphery'. Risk 5: Mainstream citizen distrust and disengagement. Today, as I try to close out the year on a note of optimism, let me first offer my assessment of how well PM Khan has managed these five risks.

On the first risk, inflation has severely diminished the value of the GDP growth in the economy in 2021, but the post-pandemic recovery in Pakistan went better than any serious observers expected it to. The worst aspect of PM Khan's economic management in 2021 was not the economic performance of the country, but the manner in which economic issues were escalated into existential tropes. The finance ministry became a merry go round, with Abdul Hafeez Shaikh being left in the lurch first, and Shaukat Tarin left to fend for himself.

The absence of a coherent and mature economic narrative from Islamabad almost forced State Bank Governor Raza Baqir to jump into the fray. Many of the solid long-term measures to digitise the economy, and to force banks to engage more seriously with consumers instead of being T-bill printing presses have been diminished in the public eye because the State Bank is left to run communications ops for a government that has an unreal appetite for circus acts as its spokespersons.

On the second risk, even after Notification Gate, PM Khan has managed to keep his head above water. The real story on the risk to the government from the opposition has not been the PML-N or the PPP, but rather the government's own incessant ability to generate crisis after crisis for itself. More worrying than all of this is the emergence of the TLP as a viable and long-term threat to traditional political machinations. Will the fallout of Notification Gate also mean a subdued TLP in the months to come? This is the hope on which most traditional politicians and Pakistani elites are banking on. Though there can be little doubt that the genesis of the TLP is as inorganic as any other long-term afflictions Pakistan deals with, there is also little doubt that the group's appeal is now as organic as the sinners and saints that make up our political tapestry. More on the TLP below.

The third risk did not materialise to the extent that it could have. This was in part due to the manner of Ashraf Ghani's exit from Afghanistan, and in part to the robustness of the Doha process (for which Zalmay Khalilzad will never quite get the credit he deserves). But the untold story of the relative calm in Afghanistan from August 15 onward, is also that of the deft and tireless diplomacy of Special Envoy Mohammad Sadiq, Ambassador Mansoor Ahmad Khan, the behind-the-scenes work of former DG ISI and now Corps Commander Peshawar Lt Gen Faiz Hameed, and the steady influence of National Security Advisor Dr Moeed Yusuf. Critics of PM Khan cannot have our cake and eat it too. If he is responsible for the plethora of missteps and mistakes his regime has made, then he also gets the credit for appointing Sadiq and Yusuf, and letting them do their jobs.

The fourth risk has been PM Khan's weakest and most disappointing failure. He should have been the PM that was at the forefront of every tragedy, comforting the mothers of missing persons, the children of martyred soldiers, the victims of systemic and targeted attacks, and the protesters that raise their voices against injustice. Instead, he has been holed up in Islamabad, constantly lied to and misguided by people who have cultivated his vulnerability to breathless and ceaseless praise.

He began the year by telling protesting Hazaras in Quetta that they could not blackmail him into expressing solidarity with them, continued his now more than three year record of outsourcing the management of political challenges, like the Pashtun Tahaffuz Movement (PTM), to non-civilian hands, and continued to refuse to engage with the legitimate and elected opposition by branding all of them as thieves undeserving of the stature of political equals.

Women at large, Baloch students, residents of the newly merged districts, Sindhis on the periphery of the wealth and pomp enjoyed by the PPP mainstream, Aurat March organisers, labour unionists, sanitary workers and a slew of non elites for whom access to Zaman Park rolodexes is impossible were pushed further to the periphery in 2021. What is behind the calculus for why he has been so inaccessible to causes, like missing persons, that he used to be so vocal and strident about?

That may be explained by the fifth risk: citizen distrust and disengagement. One year ago, I had warned of the metastasizing

nature of the appeal of narratives like the one espoused by the TLP. The formula is not hard to understand. At less than 23 years, Pakistan's median age is both its golden goose, and its barbed wire noose. More than 110 million Pakistanis are below the age of 23. The vast majority of them are not part of any of the things that excite elite Pakistan. There are no start-ups, nor incubators, nor VCs that will rescue them. There are no seats at LUMS or NUST or QAU for them. Coffee or dinner dates or pre-rishta orientations are a distant dream.

Elite Pakistan – the one that runs parliament, the army, the TV channels and newspapers, and even the best TikTok channels – is itself lacking in the one thing that, even more than jobs and interest free loans, can help Pakistani youth. And that is a sense of community. Pakistan's stock of social capital is already in very short supply. How can these depleted reserves be renewed and refreshed, especially in Pakistan's cities? This is the generational challenge that Pakistani leaders face. So far, their answers do not inspire confidence.

It is hard to shake off the stench of the Sialkot lynching. Like so many others, I have been consumed by a sense of sorrow and shame at the state of a public discourse in which such a horrific crime was committed, en masse, with almost no substantial impact on the inner core of how Pakistanis communicate with each other about their country and its future. But the bestial violence in Sialkot offers yet another entry point for engagement with this fifth risk in the Pakistani discourse.

Why has PM Khan's impressive handling of the Covid-19 pandemic, or his expansion of the BISP social protection mechanism through the expansive Ehsaas programme, or even his government's solid handling of the Afghanistan crisis, not garnered wider traction?

One argument may be that a leader too scared, too witless or too ensconced in his or her bubble cannot possibly excite and engage young Pakistan the way that so many radicals and extremists regularly do. The solution is not to shy away in the face of the challenge of extremists, but to offer a more vivid and exciting version of Pakistan's future to them.

The problem is that PM Khan has spent the first three plus years of his time as prime minister sitting on the same container that he merrily rode into Islamabad on. Now that the tractor trolley that has been pulling him along seems out of gas, PM Khan seems deflated and out of ideas. In 2022, it will not be repairing the damaged relations between him and the selectors that will sustain him and the PTI in power. It will be how successfully he short circuits the equation and engages directly with the electors. Is the leader of the so-called youth too old and grey to understand the situation and adapt to it? The answer to this question will shape Imran Khan's 2022 ■

EV CHARGING

85 locations identified for EV charging stations along motorways

Jawwad Rizvi

There are 85 locations across motorways, which are available for the development of DC-fast charging infrastructure for electric vehicles (EVs) to prevent 'range-anxiety' in adoption of modern electric cars in the country, according to a report.

The report titled 'Developing Electric Vehicle Charging Infrastructure Across Highways and Motorways of Pakistan' was prepared to highlight the issues and potential being faced by the users in adoption of EVs by the LUMS' energy institute in collaboration with the Ministry of Climate Change and the National Center in Big Data and Cloud Computing (NCBC).

There are almost 85 such locations across M-1, M-2, M-3, M-4, M-5, M-9, and N-5. The report also identifies 15 'prioritized' locations for the development of charging infrastructure as a starting point to promote the EVs in the country. It is important to mention here that Pakistan is a signatory to the Paris Climate Agreement and has pledged to reduce the green-house gas emissions in the country by 20 percent by 2030.

In order to fulfill the commitments to the agreement and meet the United Nation's sustainable development goals, it is important to reduce the emissions from the transportation sector.

When EVs will gain a larger share in the transportation sector in the long-term, charging infrastructure will be required at almost all identified location.

The government had approved National Electric Vehicle Policy (NEVP) in 2019 to enable fast-track EV adoption by incentivizing EV users as well as manufacturers. Despite the incentives offered by the NEVP, development of DC-fast charging infrastructure on motorways and highways to prevent 'range-anxiety' remains a critical challenge for widespread EV adoption.

The report is compiled after collecting data pertaining to daily traffic flow on highways and motorways in the country. Besides, various governmental agencies and departments such as National Highway Authority (NHA), National Transport Research Centre (NTRC), National Highways and Motorways Police (NH&MP), and many others also helped in gathering the data.

The data on daily traffic flow on the concerned motorways from December 2019 – October 2020 was collected. Further, data related to M-2 was estimated based on physical observations, estimates, google traffic maps and other sources. Similarly, the research team members traveled across the motorways to identify optimal locations for the development of DC-fast charging infrastructure based on predefined criterion. ■

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ENERGY UPDATE

Pakistan signs $195m agreements with WB

Tahir Amin

The government of Pakistan signed financing agreements of the Electricity Distribution Efficiency Improvement Project worth $195 million with the World Bank in Islamabad.

Mian Asad Hayaud Din, secretary, Economic Affairs Division signed the loan agreement on behalf of the Government of Pakistan, while representatives of the Hyderabad Electric Supply Company (Hesco), the Multan Electric Power Company (Mepco), and the Peshawar Electric Supply Company (Pesco) also signed the project agreements. Anjum Ahmad, operations manager, World Bank, signed the agreements on behalf of the World Bank.

The project objectives are to improve operational efficiency in targeted areas of three electricity distribution companies i.e. Hesco, Mepco, Pesco, and achieve progress on the power sector reform agenda. The "Electricity Distribution Efficiency Improvement Project" aims to support investment programmes of three DISCOs' to improve reliability of electricity supply and reduce technical losses through; (a) new grid stations; (b) augmentation and upgradation of existing grid stations; (c) construction, rehabilitation of transmission lines, modernization of DISCOs operations and management functions, revenue and equipment protection programme, and improving operations and maintenance.

The project will also support the Power Division in fulfilling its policy mandate under the National Electricity Policy, 2021 and implement power sector reforms. The interventions under the project specifically aim at improving governance, technical capabilities, safety, and commercial performance of the DISCOs to better serve their customers.

The project will also support the Ministry of Energy (Power Division) to implement power sector reforms, strengthen its oversight function and support enhancing private participation in the management of the DISCOs.

It will also contribute to focus area on growth by improving supply of electricity to businesses, industry, and agriculture consumers. It also has significant contributions towards achieving the goals for the focus area Green and Clean Pakistan.

The secretary, EAD, appreciated the World Bank management for extending continuous support to the present government to promote inclusive and sustainable economic development. The World Bank's Board of Executive Directors had approved $195 million in financing to support Pakistan in improving electricity distribution and implementing energy sector reforms to increase service quality for consumers last week. "The long-term financial viability of the power sector depends on improving the efficiency of electricity distribution companies that deliver electricity to consumers," said Najy Benhassine, World Bank's country director for Pakistan. ■

Courtesy Business Recorder

Malahat Awan joins board of Gas & Oil Pakistan Ltd

Malahat Awan has joined the Board of Gas & Oil Pakistan Ltd. Mrs Awan brings with her more than 26 years of professional experience in various national and international organizations. She has a Master's degree in Economics with majors in Human Resources and Marketing . She is also a certified director and currently has been serving as Director Corporate Relations and Communications on the board of Institute of Business Administration. Previously, she served as the CEO of British Business Centre and as Manager Corporate Affairs at the British Deputy High Commission. She has served as Deputy Director of Asian Development Bank (ADB) and as Company Secretary of the UNDP. She has also held key positions in the Government of Pakistan. The Gas & Oil Pakistan Ltd welcomes Mrs Malahat Awan and look forward to her contributions in strengthening the company.

PBC launches new awards

EU Report

Pakistan Business Council (PBC) in collaboration with the International Finance Corporation (IFC), has launched 'Employer of Choice for Gender Diversity Awards 2022' through a virtual session. Through the session, PBC invited companies from diverse sectors to apply for the awards, which revolve around gender diversity and disclosure scorecard. The results of the awards will be announced in March 2022. "Developing on the diagnostic results and analysis, PBC is proud to collaborate with the IFC and announce the upcoming Gender Diversity Awards 2022," said Ehsan Malik, CEO, PBC. Speaking on the occasion, Ahsan Jamil, CEO at Pakistan Institute of Corporate Governance, said investors were increasingly recognizing that firms taking positive actions and publicly declaring gender equality practices were likely to be more resilient in the current crisis, and better equipped to succeed in the future.

OGDCL discovers huge oil, gas reserves in KP

Discovery described as biggest one in last decade

Khalid Mustafa

Pakistan's prime oil and gas exploration company, OGDCL has discovered huge oil and gas reserves in the Wali block near Lakki Marwat in KP. The find is being estimated as the biggest one in the last decade, top sources in the energy ministry revealed.

"The Wali block reserves are considered equal or more than the reserves found in the Nashpa field. The Nashpa reserves are equal to 95 MMBOE (million barrels of oil equivalent). Once the Wali block is developed with at least nine to 10 wells, the country will be able to get 100-150 mmcfd gas," the sources said.

When contacted, OGDCL spokesman Ahmad Hayat Lak confirmed the development, as saying that the company had discovered a huge find of oil and gas in the Wali block but he refused to share the details.

The sources further said: "We are at present working at a well, namely Wali-1, wherein the OGDCL experts have found three formations that include Kawagar, Hungu and Lockhart. In the Kawagar formation, there is gas of 11 mmcfd with 1,000 barrels per day, while in the Hungu formation, 11 mmcfd gas with 950 barrels per day oil and in the Lockhart, the OGDCL has found 14 mmcfd gas with 1,000 barrels per day crude oil. And this is how 36 mmcfd gas and 2,950 barrels per day crude oil in total, the OGDCL will get from just three formations in the Wali-1.

However, the Wali block is large in size and the seismic studies have identified huge gas and oil reserves in this block. We have to carve out the development plan in the whole block in the next four to five years, under which the OGDCL will have to dig out more wells in this block."

"However, in the Wali block reserves, the OGDCL experts have found 4.2 percent existence of the carbon dioxide against the spec of less than three percent set by the OGRA. We will have to reduce the CO2 content by less than three percent," the sources said, adding: "The OGDCL can increase the extraction of gas volume from 14 mmcfd to 20 mmcfd from Lockhart, which will be available in the short period of time and to this effect, the SNGPL has been asked to lay down the pipeline of 55 kilometres to get the gas from the Lockhart and connect it to the national grid."

"We are also going to dig another well named Wali-2 as an appraisal well, which will further reinforce the existence of oil and gas reserves," the sources said. The sources further disclosed that the Wali block also has the LPG (propane and butane) in abundance and the OGDCL is planning to install an LPG extraction plant also.

The OGDCL is currently producing 37,000 barrels per day crude oil, which is 48 percent of the country's total production, the sources said, adding that likewise, the OGDCL also produces 900 mmcfd gas, which is 29 percent of the total production. The OGDCL also produces 850 metric tonnes of the liquefied petroleum gas (LPG) per day, which is 37 percent of the country's total production, the sources added. ■

1,500 water projects soon, says Punjab governor

Punjab Governor Chaudhry Mohammad Sarwar has said all the projects of Punjab Aab-e-Pak Authority started under the first phase to provide clean drinking water to citizens were in the final stage which would be inaugurated soon. He said almost 1,500 projects had been started in different areas of Punjab out of which several water filtration plants had already started functioning.

"Sehat Insaf Card is a historic project of the government led by Prime Minister Imran Khan," he said, adding that the incumbent government was taking solid steps to provide relief to people The Punjab governor said clean drinking water would be provided to more than eight million people of Punjab through those projects while the authority was also working on providing clean drinking water to the people in collaboration with various welfare organizations.

He said the Punjab Aab-e-Pak Authority would also provide clean drinking water to more than seven million people with the help of NGOs. Sarwar said the projects of the authority were also underway in the constituencies of parliamentarians of opposition parties. ■

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First-ever ginger harvest inaugurated in Pakistan

EU Report

Special Assistant to the Prime Minister on Poverty Alleviation and Social Protection Senator Dr Sania Nishtar on Sunday inaugurated the first-ever ginger cultivation during the Ginger Harvest Workshop held in the Balkasar area of Chakwal, Punjab.

This was the first ginger harvest piloted in Pakistan. The crop was grown in 11 months. Being an essential ingredient of Pakistani cuisine, ginger is high in demand but unfortunately, it is not grown here, and all the crop is imported to meet domestic needs. At the event, participants learnt from experts about the sustainable production and management of ginger and how to properly harvest the crop.

Speaking on the occasion, Dr Sania said: "Ginger can emerge as a major crop and can be a game-changer for the farming community. Agriculture is profoundly linked to poverty alleviation in Pakistan. Government, private sector, research institutions, innovators and farmers can work together to build synergies and develop agri-value chains. This will lead to greater impact for poverty alleviation, livelihoods creation, economic growth and foreign trade boosting."

Chairman Pakistan Agricultural Research Council (PARC) Dr Ghulam Muhammad Ali, Director Vegetable Research Institute, Faisalabad Muhammad Najeebullah and other experts were also present on the occasion.

Participants were provided with information on how to successfully grow and harvest ginger in the country.

Experts presented research-based information about the agricultural benefits of growing ginger locally.

Muzzammil appointed as spokesperson for energy issues

EU Report

Muzzammil Aslam, the spokesperson for Finance Ministry, has also been appointed as the spokesperson for the energy issues.

This was stated by Hammad Azhar, Minister for Energy, in his Twitter message. According to him, Muzzammil will be performing this role in addition to his role as spokesperson for the Finance Ministry. He has been performing his duty as a spokesperson to the Finance Ministry since October 6, 2021.

Muzzammil has over 15 years of experience in the field of Economics, Equity Research, Business Development, and Financial / Capital Markets. Further, his work on economics has been actively pursued by key government institutions.

By qualification, he holds Bachelor of Commerce and Master of Public Administration Degrees from the University of Karachi, MAS Degree in Economics from Applied Economics Research Centre, University of Karachi, and Master of Science Degree in Economics from the University of Bath, United Kingdom.

Germany shuts three nuclear plants

EU Report

Germany has pulled the plug on three of its last six nuclear power stations as it moves towards completing its withdrawal from nuclear power as it turns its focus on renewables.

The government decided to speed up the phasing out of nuclear power following Japan's Fukushima reactor meltdown in 2011 when an earthquake and tsunami destroyed the coastal plant in the world's worst nuclear disaster since Chernobyl in 1986. The reactors of Brokdorf, Grohnde and Gundremmingen C, run by utilities E.ON and RWE , shut down after three and half decades in operation. The last three nuclear power plants - Isar 2, Emsland and Neckarwestheim II - will be turned off by the end of 2022. Preussen Elektra, which runs the Brokdorf and Grohnde plants, said in a statement that the two had been shut down shortly.

PreussenElektra CEO Guido Knott thanked staff for their commitment to safety: "We have made a decisive contribution to the secure, climate-friendly and reliable supply of electricity in Germany for decades." The phase-out of an energy deemed clean and cheap by some is an irreversible step for Europe's biggest economy even as it faces ambitious climate targets and rising power prices.

The six nuclear power plants contributed to around 12% of electricity production in Germany in 2021, preliminary figures showed. The share of renewable energy was almost 41%, with coal generating just under 28% and gas around 15%. Germany aims to make renewables meet 80% of power demand by 2030 by expanding wind and solar power infrastructure.

Deduction in CPP invoice

Hubco serves dispute notice on CPPA-G

Mushtaq Ghumman

M/s Hubco has served dispute notice to Central Power Purchasing Agency –Guaranteed (CPPA-G) under Power Purchase Agency (PPA) on deductions made in the company's Capacity Purchase Price (CPP) invoice for the period of July-September 2021, well informed sources told Business Recorder.

M/s Hubco's Chief Executive Officer (CEO), Kamran Kamal, in a letter to CEO, CPPA-G has elaborated on the reasons for sending dispute notice to the power purchaser. According to Kamal, the letter is a continuation of various discussions, WhatsApp messages, Hubco's letter of November 12, 2021 and subsequent exchange of position papers on the matter of Project Company Entity (PCE) exchange rate between CPPA-G and Hubco by email.

While the matter is under discussion between CPPA-G and Hubco, the latter is constrained to issue this Dispute Notice as stipulated in the PPA in order to secure its legal position, he said, adding that once the matter is amicably resolved, the power firm will accordingly withdraw the Dispute Notice.

"We reiterate the submissions made in our letter and Hubco's position paper, both of which be treated as an integral part of our submissions and request CPPA-G to reverse the deductions made in PCE component of company's CPP invoices for the months Jul-Sep 2021 and make payment as per submitted position," he added.

As per the terms of PPA Amendment Agreement dated February 11, 2021, until such time that PKR/USD exchange rate reaches 168.6 the applicable indexation for the half year (Jan-Jun 2021) shall apply on the PCE component. The relevant extract of Clause 3.2 of the agreement states:

"For avoidance of doubt until such date, the National Bank of Pakistan TT/OD selling PKR exchange rate reaches PKR 168.60/USD, the USD/PKR exchange rate and USCPI applicable as per the existing arrangement under PPA for the current half year (i.e., January 2021 - June 2021) shall apply."

However, CPPA-G, while verifying the invoices, applied the indexation on the PCE component as per original PPA and made deduction from Hubco's CPP invoices. CPPA-G has contended that clause 3.2 refers to the indexation mechanism applicable for the said half year and not the indexation itself. However, Hubco has shown disagreement with the position taken by CPPA-G, as the "period current half year (i.e., January 2021-June 2021)" was expressly stated in the PPA Amendment Agreement to signify that the indexation applicable and already computed for this specific period was set as a lower limit (floor). The reasons have already been explained and covered in the position paper.

"We request CPPA-G to review the matter in light of position paper and reverse the deductions made on account of indexation of PCE from CPP invoices for the months of July-September 2021 and make the necessary payments as submitted," Kamal added. ■

OGDCL – Fatimid Foundation

ink agreement to establish Fatimid Centre at Dera Ismail Khan

OGDCL a flagship E&P company in petroleum sector in Pakistan is striving to improve the livelihood of the communities through CSR initiatives in social sectors. Keeping in view the demands for health facilities from locals, CSR has given maximum importance to health sector in recent years. Few of the best projects in health sector include OGDCL Free Mammography Camps, OGDCL Free Surgical Eye Camps, Free of cost treatment and medicines to the locals through OGDCL's dispensaries throughout the country around its operating fields. Another feather in the cap in this series is the proposed OGDCL – Fatimid Centre Dera Ismail Khan for the people of Southern Districts of KPK.

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