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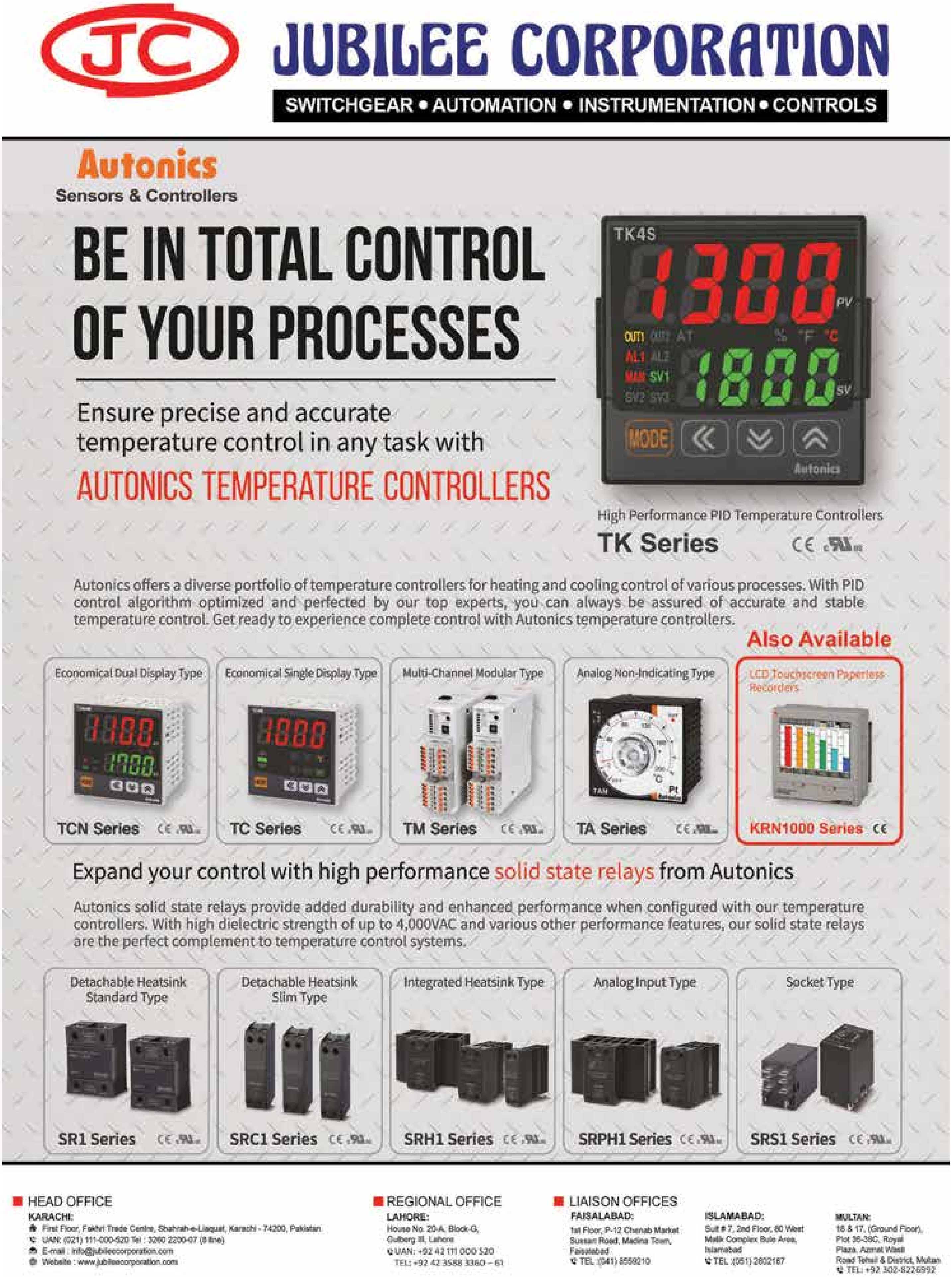

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FROM THE EDITOR'S DESK...

Problems with energy policy

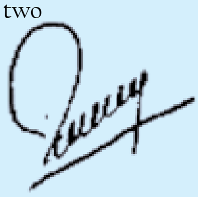
The Indicative Generation Capacity Expansion Plan 2021-30, approved by the Council of Common Interests (CCI), has already run into troubles with Sindh considering raising it at the next joint session of parliament and, if needed, going to court about it. But that much was expected when the government pressed for giving hydel projects the lead in the country's energy mix over the next 10 years. That rubs not just the Sindh government the wrong way, which was counting on wind and solar energy projects based in its province to get a larger, and much fairer, share, but also environmental and climate experts and activists who are always up in arms about such things.

The point is that hydel comes with significant environmental and social costs. It is because of just such reasons that the leading international financial institutions (IFIs) have moved away from financing such projects. And the government's contention that most of the projects are run-of-the-river projects is simply not true because almost all the hydel (approximately 97pc) is going to come from large dams, which will surely exacerbate environmental issues as well as water-related internal social conflicts. How that is in the interest of anybody, especially the power needs of households and industry, is difficult to see just yet.

There's also the point that such projects are forbiddingly expensive. The PTI (Pakistan Tehreek-e-Insaf) government made a big fuss about scarcity of water and need for dams when it first came to power. It even invited Pakistanis from all over the world to contribute to a fund that would be used to build dams; but it soon turned out that neither IFIs nor expat Pakistanis were much interested in financing such outrageous, unfeasible projects when there were far better and more affordable alternatives available. Pakistan is, after all, a developing country which will not be able to finance the kind of projects that it has now put at the centre of its energy policy for the next decade. Surely, the energy crisis should not make the government forget the Balance of Payments (BoP) crisis that also hangs over our heads.

The constitution requires a federal or provincial government not satisfied with a CCI decision to take it to a joint session of parliament, which is exactly what the Sindh government has decided to do as soon as it gets the minutes from the CCI meeting. The Singh look
Tu government asserts that the PM, who presided over the CCI meeting, went there with his mind pretty much made up because of his alleged anti-PPP (Pakistan People's Party) bias. Clearly, this matter has been made controversial for no apparent reason whatsoever. And while it now heads to parliament and then most likely to the courts, the government cannot be absolved of responsibility for having opened yet another can of worms; this time about a matter as sensitive as the country's energy requirements.

There should be a better way of conducting cost-benefit analyses of available energy-producing resources and getting everybody to adopt the most feasible options. As things stand, some parties, especially the federal and Sindh governments, simply agree to disagree about everything under the sky no matter how important one thing or the other is for the country or the people. Pakistan needs to move away from such partisan politics and adopt a more inclusive policymaking framework. If we can't agree about something as straightforward as solving our energy problems by using our available resources, then there cannot be much that we can all work together on. If we always take one step forward and two steps back, the whole country will end up regressing.



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Financial and corporate OIL SPILL

Khaleeq Kiani

The debacle of Hascol Petroleum Limited (Hascol) has sent shockwaves across Pakistan's energy, corporate and financial sectors. About 19 banks and financial institutions appeared to have drained over Rs55 billion in outstanding loans in a company that is not only in financial default but put on the default counter by Pakistan Stock Exchange.

While the third-largest oil marketing company (OMC) until 2017-18 with 12.3 per cent market share is apparently on the verge of bankruptcy and involved in the process of restructuring, its sudden downfall has left regulators — State Bank of Pakistan (SBP), Securities & Exchange Commission of Pakistan (SECP) and Oil & Gas Regulatory Authority (Ogra) — in complete awe. As an OMC, it is licensed by Ogra for oil marketing, its liabilities and default is affecting SBP's licensee banks and financial institutions and SECP is responsible for corporate market stability.

The flabbergasted parliamentarians are questioning the regulators as the company's share price plunged from over Rs350 to less than Rs8 and its market share at around 6pc in a short period. Last week, different committees of the senate including those on finance and petroleum took up the matter in back-to-back meetings. Senators want criminal actions not only against the troubled listed company but also its auditors.

The regulators put on record in parliament that banks and major shareholders of the company are looking at restructuring options while the petroleum division has reported at least two strong business groups ready to take over the troubled entity at depressed share price once financial restructuring is concluded.

Chairman Ogra Masroor Khan has assured the Senate Standing Committee on Petroleum that Ogra's concern was that shareholders interests remain protected but more importantly the consumers should not suffer because of any dry out situation. He said the regulator has engaged with the company to fulfil its license responsibilities to not only keep its 611 fuel stations wet but also to ensure 20 days of product coverage.

Hascol board Chairman, Alan Duncan alleged that the prior management was 'atrocious and had misused the trust, did not maintain proper records and ran the business unprofessionally'

SBP's deputy governor Jameel Ahmad reported to the Senate committee on finance that the company took huge exposure to one client and something wrong happened there as there were also backward and forward links in this case. However, he said the financial market regulator SBP had examined the episode and the banks had not committed any regulatory violations while extending loans.

"There is misappropriation in Hascol in addition to inventory losses," said SBP Executive Director Inayat Hussain. The company's bank liabilities were only Rs24.3bn a year earlier and swelled to Rs56bn.

In its report, SECP said that as of June 30, 2021, Vitol Dubai Limited with 40.21pc shares was now the major shareholder. "The company has outstanding loans of Rs55.562bn from 19 banks and development finance institutions as of June 30, 2021, had defaulted in repayment of loans." The banks have classified most of their exposure and created provisions of Rs39.34bn. The National Bank of Pakistan (NBP) has the highest outstanding exposure of Rs18.824bn while Habib Bank Limited (HBL) has the 2nd largest exposure of Rs5.44bn.

The last publically available financials of Hascol are as of September 30, 2020. In view of non-disclosure of subsequent financial statements and non-holding of Annual General Meeting, the PSX has put the company on the defaulters list. The Central Depository Company has frozen ordinary shares held in its system accounts of sponsors, directors and senior management.

"Moreover, even the financials as of September 30, 2020, cannot be relied upon" because of subsequent disclosures by the company on June 21, 2021, before the PSX that the company's Internal Audit received a whistleblower statement and evidence regarding the creation of a series of false purchase orders in 2019 and the position was being investigated.

Subsequently, on July 08, 2021, the company clarified to the PSX that possibly fake purchases pertained to fixed assets and not to oil imports. In a meeting with the banks' representatives on April 30, 2021, the newly appointed Hascol board Chairman, Alan Duncan — a British politician and a former minister — alleged that the prior management was "atrocious and had misused the trust, did not maintain proper records and ran the business unprofessionally".

"In the presence of huge negative equity of Rs29.54bn as per latest available financials as of September 30, 2020, and expected further deterioration in the subsequent periods, the revival of Hascol appears beyond the capacity and intention of the major shareholder M/s. Vitol alone," SECP told the senate forum.

It said it intends to initiate an investigation of Hascol to ascertain the factual position relating to the adverse financial position of the company. The result of the investigation may be helpful in further ascertaining the level of mismanagement in the affairs of the Hascol.

Till 2017-18, the company's financial health was reasonable even though its growth model was apprehensive but as a commercial business model, the regulators did not intervene. Its market share was at 12.3pc which has dropped to 6pc now. The company's sales dropped from Rs234bn in December 2018 to less than Rs85bn in September 2020 and its assets dropped from Rs74bn to about 60bn. The SECP noted huge losses of Rs25bn in the company's annual accounts of December 31, 2019, published in August 2020 and restatement of 2018 accounts, converting profits into losses. The company also changed the name of a related party from Vitol Dubai to Vitol Bahrain in its previous accounts.

Perhaps mainly because of repeated re-statements of financial accounts for previous quarters, for half-yearly accounts for the period ended June 30, 2020, the auditors gave disclaimer of opinion. A disclaimer of opinion arises if the auditor simply refuses to provide an opinion, given limitations on the scope of the audit, or if significant material weaknesses in the internal controls and reporting material mean that an opinion can't be delivered.

The SECP said as per unaudited accounts for nine months ended September 30, 2020, the accumulated losses have increased to Rs43bn and loss in nine months stood at Rs21bn. During the period from February 2020 till September 2020, three CEOs of the company resigned. The company blamed exchange losses, the difference between cost price and regulated price, decrease in sales due to the overall decline in sales of the petroleum sector underpinned by the economic slowdown.

Regarding the increase in the cost of sales, the company claimed unfavourable fluctuation in the international oil prices, market vitality in the backdrop of uncertain global and local economic conditions coupled with the massive devaluation of Pakistani rupees as reasons and said the cost of finance increased due to increase in borrowings by Rs21bn."Excessive capital expenses and aggressive growth in multiple areas proved to be a drain on already weakened cash flows," SECP noted.

In June this year, statutory auditor Grant Thornton Anjum Rahim Chartered Accountants resigned owing to concerns over the reliability of financial records, accounting system and record-keeping of prior years. SECP is now holding a couple of investigations before initiating "criminal and civil proceedings" against the company and auditors. ■

Tarbela project extension to meet rising energy demand

EU Report

Timely completion of Tarbela Hydropower Project will help in meeting the rapidly increasing demand for electricity in the country and improve the energy mix by enhancing the share of clean energy, said Federal Minister for Economic Affairs Omar Ayub Khan.

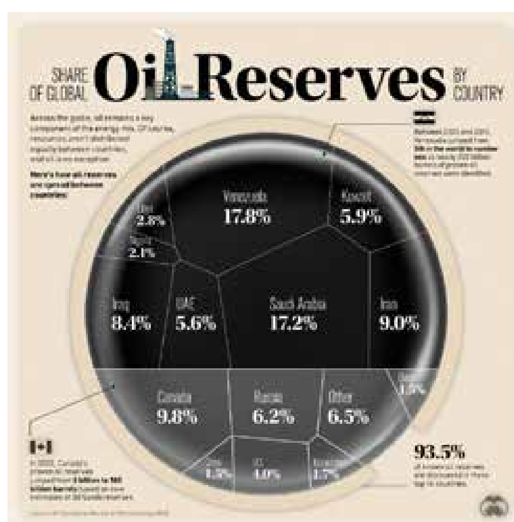
The minister said that to expedite implementation of the projects to ensure their completion on time.

"Local people have suffered a lot due to land acquisition for the construction of dams in the 1960s and 1970s and now project authorities should create job opportunities for them, especially the affectees of Tarbela Dam, as per project and contract agreements," he emphasised.

The minister directed the meeting participants to review the performance of already completed community development schemes.Khan emphasised the need for formulating the community development schemes in consultation with local people of the region to meet their genuine needs.

While reviewing the progress on the Dasu Hydropower Project, he stressed the need for resuming all the development activities and directed the authorities to accelerate project implementation to ensure timely completion of the scheme.

"Revamping and augmenting the power transmission system is critical to ensure a smooth and efficient evacuation and supply of power," he said. The minister also ordered the relevant authorities to identify the critical path and set timelines for expeditious implementation of all the foreign-funded projects. ■



EXCLUSIVE INTERVIEW

Building water reservoirs in country as much necessary as building water storage in our homes

WAPDA CHAIRMAN

Lt Gen Muzammil Hussain (retd)

Engr. Nadeem Ashraf

"Building water reservoirs in the country is as much necessary as building water storage in our homes". This was stated by Chairman of Water and Power Development Authority (WAPDA), Lieutenant General Muzammil Hussain (Retd), during an exclusive detailed interview session with the Energy Update. In his interview, he talked on a range of issues mainly concerning the prevailing water crisis in the country and strategies being adopted across the country to overcome it and efforts being made to generate more hydroelectricity in the best interest of power consumers as being a cheaper energy resource.

Following are the important excerpts from his interview for our readers:

Energy Update: Will Pakistan be able to successfully overcome the present situation of water scarcity?

Lt Gen Muzammil Hussain (Retd): Whichever country in the world strategizes its planning, first of all it identifies threats to its national security. The national security is not just confined to the concept of defence of your borders, this subject is based on three to four components. The first and foremost aspect is human security. This aspect is linked with the food security and energy security. The land, sun, and water resource is available to us as we just need a strategy to make use of these resources. This strategy has been missing in the country for the last over 70 years. There is a lot of rhetoric in the country that we are an agrarian society and agriculture is the backbone of our economyas either we don't believe in this rhetoric or otherwise. If we do believe then we don't have the ability to convert that rhetoric into the principle of development. The water situation in the country is not as adverse as what is being reflected in the national discourse taking place on this issue. But it is a fact that we are unable to manage our water resources in the appropriate manner.

EU: How much water quantity is available in the country for our use particularly in the agriculture sector?

Lt Gen Muzammil Hussain (Retd): We have been receiving 140 to 145 million acre feet of water since last many decades as the water quantity in the country increases to 170 to 180 MAF in the wet years and reduces to 90 to 100 MAF in the dry years. But this quantity of water was suf-

and here WAPDA alone is doing projects worth $ 26 billion. It is a fact that water reservoir and hydroelectricity projects are very capital intensive for a country like Pakistan as it doesn't have the fiscal space allowing it to spend billions of dollars for such purposes. That is why we are constructing these projects with less burden on the national exchequer.

ficient only when population of our country was between 30 million to 40 million. But now we have one of the fastest population growth rates in the world. Along with this situation, we didn't adopt the requiredstrategic mitigation measures across-the-board at the policy-level in the water sectorkeeping in view the aspect of economic development. We also haven't done the required research and scientific development in this sector as neither there was any improvement in the governance at all the tiers. The water carrying capacity of our canals have been reduced to 98 MAF from 104 MAF. We consume only 48 MAF water. Around 30 to 40 MAF more water is available to us but nobody likes to talk on it. Up to 40 to 50 per cent of water we use in the agricultural sector never reaches the farmland. We didn't take any action in this regard for the last thirty to forty years.

EU: What should be the best strategy to utilize the water resources available in the country?
Lt Gen Muzammil Hussain (Retd): We are required to manage, conserve, and store water at the same time. Water is available to us in the country for only three months and we have to consume it also during rest of the nine months of the year. Same is the situation at our household as water comes for few hours a day but we have to use it for 24 hours. We need to build water storages to manage this situation as the tank of running water is our storage at home but we haven't built such storages in the country. We have 90 MAF water available in Indus River, Jhelum has 24 MAF water, while Chenab River has 26 MAF. Out of 90 MAF water of Indus River, we store only 6 MAF water while only 7 MAF water of Jhelum River is stored. Whereas no quantity of water is stored in the case of Chenab River as we don't have suitable sites available for the purpose.

EU: What is the way forward for the government to overcome this situation?
Lt Gen Muzammil Hussain (Retd): The government is now fully supporting the WAPDA's plans in this regard. At present, we have been doing 11 projects in the country including that of water storage and hydro power generation. Once all these projects are completed by 2028-29, 11 MAF additional water storage capacity will be available in the country. Pakistan annually produces 120 billion units of electricity from all sources as out of this, 30 billion units used to come from hydro power generation. This contribution has been increased to 37 billion units due to hard work by our team during past two to three years. The energy basket mix of the country should go in favour of hydroelectricity because of two reasons i.e. this resource is abundantly available in the country and secondly it is much cheaper than the other energy sources. We will add 44 billion units more of hydroelectricity after completion of our ongoing projects. If up to 40 to 45 per cent of your energy mix is based on hydroelectricity then it will be very viable and cost-effective for the country. I use to say that we don't need more electricity in the country but need cheap electricity. There is sufficient electricity in the country but it is not affordable. We could get cheap electricity from the abundantly available resources of water, solar and wind.

EU: How much funding is required to complete ongoing projects of WAPDA?
Lt Gen Muzammil Hussain (Retd): Our ongoing projects are worth US $ 26 billion as government's share in this massive spending is about 20 per cent. Rest all comes from the innovative financial model done by my people. I would say that $ 26 billion is such a massive amount that it outnumbers even our foreign exchange reserves and GDP

EU: Tell our readers about progress so far achieved by WAPDA to build K-IV project?
Lt Gen Muzammil Hussain (Retd): Karachi is the only metropolitan city of the country that generates up to 60 per cent revenue resources of Pakistan but we have been unable to provide electricity and water to its residents. In 2005, when the planning was started to build K-IV project, it was evaluated that Karachi required 1300 million gallons of water supply every day. This requirement should have been increased to at least 1500 MGD till the present day. No tangible progress was made on the K-IV project from 2007 till 2020. Keeping in view complexed and dismal situation on K-IV, the Federal Government, in consultation with the Sindh Government, handed over this project to WAPDA in first quarter of the 2021. There are four main components of the K-IV project i.e. bringing water at a distance of 121 kilometers from the water source of Keenjhar Lake, installation of electrical and mechanical equipment for the project, 80 to 100 MW power supply for the project, and enhancement and improvement in the Karachi water distribution system once K-IV water reaches the city. The augmentation in the water distribution network is the responsibility of Sindh Government. The K-IV project will remain incomplete if any one of these four essential components is missing. We have already appointed a unified consultant for first three components. The consultant is preparing design of the project to its full capacity i.e. 650 MGD. In accordance with the prevailing international standards, we will not use any open channel to bring water to Karachi under K-IV project as pressurized pipes will be used for the purpose to ensure 100 per cent delivery of water of the project to the people of the city. We are determined that we will be able to bring K-IV water to the people of Karachi by September/October 2023. ■

Gas storage *why and how?*

Syed Akhtar Ali

At the moment, Pakistan gas supply risk is increasing due to depletion of domestic gas resources and increasing reliance on imported liquefied natural gas (LNG).

It is expected that reliance on LNG will increase with the continuous depletion of local fields and increasing demand.

Several times, reportedly, the line pack pressure has increased beyond safe levels, risking the system. Pakistan has adopted a Floating Storage and Regasification Unit (FSRU) model as opposed to land-based gas terminals – the latter has considerable storage space as opposed to the FSRU. Thus, prima facie, there is a need for gas storage in Pakistan.

There are other reasons for having the gas storage. Normally, winter demand and prices of gas are high and summer demand and prices are low internationally, although this summer LNG prices are unusually high.

Normally, it is found that buying excess gas in summer and storing it for winter makes a business sense. For countries, it provides supply and price security as well.

With the emergence of gas markets, storages have become even more important. In the gas market context, a large number of suppliers procure gas at various times. Supply and demand cannot often be matched and thus storage becomes vital for the operation of gas market.

Gas storages are difficult and expensive due to pressure and flow requirements. There are mainly three types of underground storages – depleted gas fields, salt caverns and aquifers.

The most widely used are depleted fields, although salt caverns and LNG tanks are rapidly emerging as storages.

The underground gas storage requires base gas, which is also called cushion gas. This gas is required for maintaining pressure in the field in order to maintain the flow. This base gas remains permanently in the reservoir until the end of the life of storage facility.

This component of gas forms a major part of capital expenditure (capex) and a bottleneck in financing. The other component is working gas, which is routinely injected and withdrawn.

Operationally, there are two types of gas storages – base load and peaking. Base load storages are for long-term and seasonal requirements and normally depleted field reservoirs are suited for base load operations.

For gas market operations and routine peaking requirements, salt caverns are used as these have faster withdrawal rates.

Depleted field storages are normally of larger capacity as opposed to salt caverns and LNG terminals. Cushion gas requirement for such storages is also very high at almost 30-50% of the total storage capacity.

Salt caverns have the advantage of lower cushion gas requirement. Salt caverns can be built in a series of several caverns, which are added gradually as demand increases.

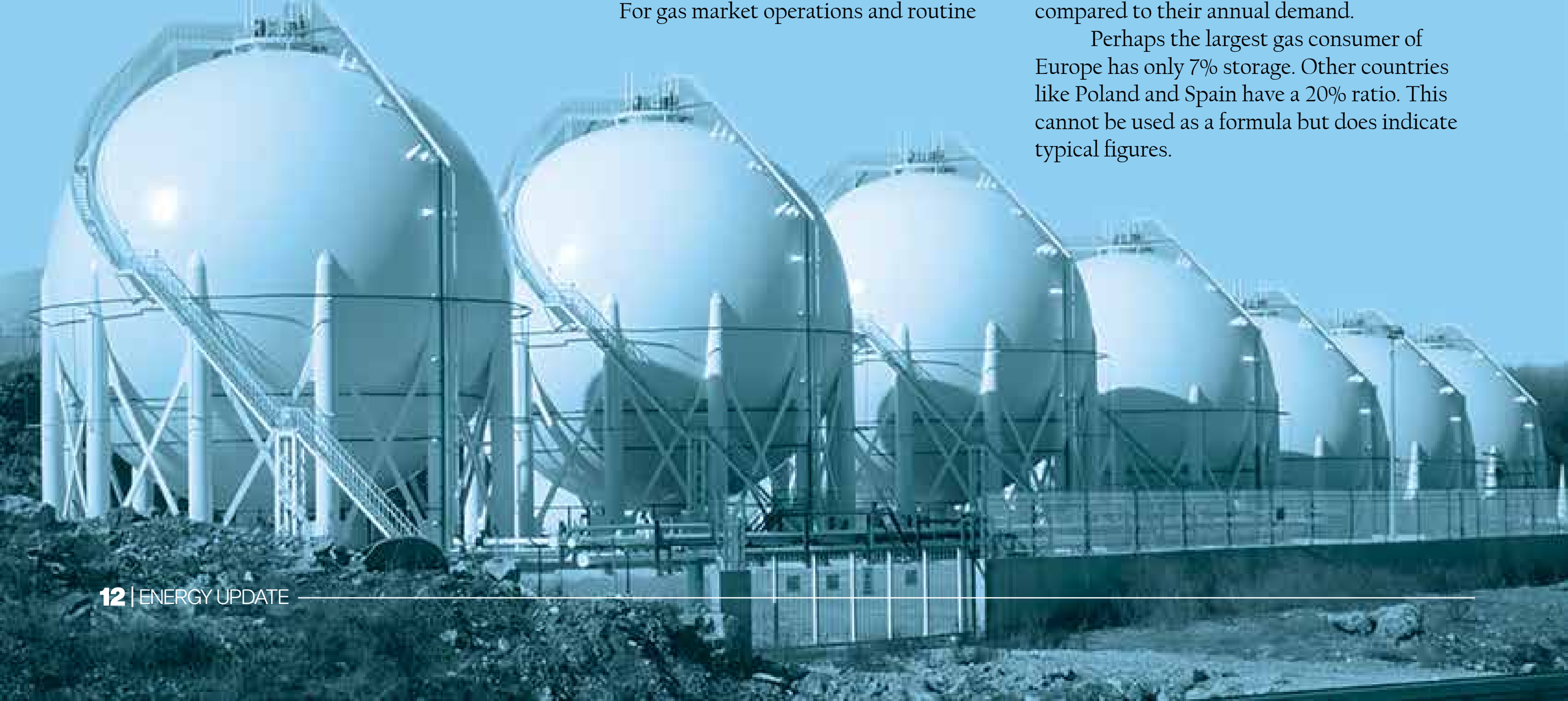
Typically, the depleted gas storage costs $700-1,000 million, depending on the capacity and gas prices. Cushion gas may have a share of 30-40% in this cost.

Salt caverns are cheaper. Recent cost estimates for an ongoing salt cavern storage project in Turkey have been put at $2.5 billion for a storage capacity of 5.4 billion cubic metres. A total of 48 caverns, of 630,000 cubic metres each, are being developed while six are already in place.

Gas storage capacity requirements depend on many factors including the risk situation, fund availability, tariff affordability, local construction costs, storage fields, etc.

However, indicative data from industrialised countries may give some idea. Large consumers like Germany, Italy and the Netherlands have one-third storage capacity as compared to their annual demand.

Perhaps the largest gas consumer of Europe has only 7% storage. Other countries like Poland and Spain have a 20% ratio. This cannot be used as a formula but does indicate typical figures.



Pakistan's case

Pakistan has both depleted gas fields and salt deposits. Depleted fields are mostly in Sindh and salt deposits are in Khewra in Jhelum. There are implications for establishing gas storages in the south or north.

Gas market is in the north and depleted resources are in the south. There would be transmission infrastructure issues for gas storages built in the south. In the north, being closer to demand areas may suit the characteristics of salt caverns.

Currently, a gas storage study is being carried out under the Asian Development Bank (ADB) grant while earlier a study has already been done. However, it is almost a decade old.

As half of the capex may go to cushion gas, new gas development and price regime may have pushed the decision-makers to commission another study.

The typical summer and winter prices of LNG have a difference of $2 per mmbtu. For the first time in the past seven years, the LNG prices are high in summer these days and have reached $15-plus. What repercussions it would have on winter prices is not known.

The recent price experience indicates merit of long-term contracts as opposed to the earlier perception against it due to lower spot prices. Now, it is the opposite.

In Pakistan, there is scepticism among a section of the people regarding high capex on gas projects including the storage, giving rise to add-on costs and prices.

Literature survey on the subject indicates that the network is optimised and system cost decreases due to the gas storage. Moreover, if there is a difference between winter and summer prices, it would pay for itself.

Also, it is possible to adopt a business model whereby one or more gas producing countries may agree to store their excess gas in Pakistan's storage facilities.

This gas may be their property and they may be allowed to sell in the local market at prevailing market prices. This may halve the capital cost of the project as cushion gas will cost as much as 50% of the project cost. Oil is being stored by the UAE in India under this model.

The use of semi-depleted fields can be considered as well. This will enable the utilisation of most of the installed equipment, reducing the upfront capex.

Part of the cushion gas can be financed through installment payments to the field owners equal to the cash stream that they would have received in case of continued operations.

Alternatively, in the case of LNG, there are storage opportunities in the form of land terminals and Floating Storage Units (FSUs).

FSUs are relatively cheaper. Old LNG ships that are not sea-worthy can be converted to FSUs at a relatively low cost. FSUs are installed with a regasification unit on barge or on land. A number of developing countries have installed FSUs.

Pakistan Petroleum Limited (PPL) and Oil and Gas Development Company (OGDC) are the owners and operators of most of the gas fields in Pakistan. They should be actively involved in gas storage planning, development and even operation of storage projects.

Exploration and production companies are well versed with gas extraction. What would be new for them are gas injection operations. Cushion gas purchase investments can be minimised by utilising the existing gas in semi-depleted fields. ■

Nepra orders inclusion of hydropower in renewable energy category

Khaleeq Kiani

Expressing concern over long delays, the National Electric Power Regulatory Authority (Nepra) has directed the power sector entities to immediately include hydroelectric power in the definition and scope of renewable energy and submit a compliance report at the earliest.

In a letter to managing director of the National Transmission & Despatch Company (NTDC), managing director of the Private Power & Infrastructure Board (PPIB) and chief executive officer of the Alternative Energy Development Board (ARDB), the regulator recalled that last year it had asked for inclusion of "hydropower in the scope and definition of renewable energy in various energy policies, rules and regulations".

"Furthermore, it was desired to make necessary amendments in all relevant documents and include hydropower in the scope of upcoming ARE (Alternate and Renewable Energy) Policy 2019," said the letter. It said Nepra Chairman Tauseef H. Farooqi raised the issue at various forums and, therefore, a report on the latest status regarding regulator's advisory issued in June 2020 be submitted at the earliest.

Officials said the government had announced the AREP in August last year with a commitment that hydropower would soon be included in the renewable energy category. Under the AREP 2020, the government set a target of increasing the share of ARE in total power supply to 20 per cent by 2025 and 30pc by 2030 from about 5pc at the time.

Then power minister Omar Ayub Khan had also announced in August last year that hydropower would soon be included in the ARE category and its share would be increased to 60pc of power generation by 2030.

However, hydropower did not make it to the AREP 2020, although the federal government decided to merge the PPIB and AEDB — the former set up to promote private investment particularly in hydropower projects and the latter created to promote wind, solar energy, etc. This has angered the power regulator.

Earlier, the regulator had clearly expressed its frustration that hydropower was not being considered under the scope and definition of renewable energy, which was contrary to the standards used worldwide.

The regulator argued that hydropower is the most advanced and mature renewable energy technology and is being utilised extensively to generate electricity in more than 160 countries, including Australia, Norway, Brazil, Canada, Vietnam, Sweden, the United States and China. ■

Refinery policy:

Do it in a refined manner

EU Reports

The refinery policy is in the making for over a year. The idea of the policy is to incentivize new players to come in and jack up production of the country's overall refining petroleum products to at least by cent percent, and to upgrade the existing five refineries to start production of Euro-5 specification products and also reduce the production of residual fuel - furnace oil, the demand of which is dying the world over, including Pakistan.

The policy, after deliberations with the existing players was circulated last fiscal year and some of the features were incorporated in the Finance Bill 2021 for the current fiscal. The incentives would have been applicable after the approval of the cabinet. When that issue came before the Economic Committee of the Cabinet (ECC), the Planning Minister, Asad Umar, raised some issues and underscored the need for routing the policy through Cabinet Committee on Energy (CCoE) which he heads. There are some reservations that Asad Umar, Ali Zaidi, the minster for maritime affairs, and others have, on which deliberation is ongoing and a decision is expected soon.

Before discussing the issues raised by ECC members, it is important to contextualize these for better understanding of the refining sector. The last refinery policy in Pakistan came in 1997, and it is of utmost importance to have a new policy for future investment. Right now, the existing refineries get a subsidy of 7.5 percent on diesel products in the form of deemed duty and the objective is for them to upgrade by using the amount raised by this duty. Some refineries did invest sporadically for upgradation, but overall investment was not satisfactory.

The new policy draft recommends having a 10 percent duty on both petrol and diesel for existing and new refineries, and the policy says the old refineries would benefit from day one provided they commit to invest. Right now, the customs duty on diesel is at 13 percent while it is 5 percent for petrol; but refineries get benefit of 7.5 percent for diesel and none for petrol.

Then there are tax holidays for green field investment and upgradation by the existing players. The income tax holiday for the new players is for 20 years with duty-free import of plant and machinery. For the existing, the tax holiday is for 10 years on the revenue streams emanating from additional volumes based on upgradation. Plus, the duty-free import of plant and machinery as is the case for new refineries.

The objection Asad Umer raised is valid. He plausibly asked why existing refineries are being incentivized (duty of 10% each for petrol and diesel) on mere promise of investment in the future. That is like consumers paying for the investment to be made by refineries, and in essence sharing the risk without any return. This is just like charging surcharge of Neelum Jehlum project from consumers on electricity bill. Asad argued, rightly so, that the incentive should kick in from the date of commencement of commercial operations (COD).

However, refinery players are saying that without the incentive, they would not commit investment. That is not right. The government is giving them incentives in the form of tax holidays and for future returns. The duty structure is to remain 10 percent till 2026 and it will reduce thereafter. The government can allow the duty incentive for five years after COD, but there should not be any upfront dole-out before COD.

Having said that, there is dearth of investment in the sector, and the country needs to ramp up its refining capacity and to upgrade the existing one. But the policy needs to be balanced. Refining companies are demanding that the government should have a midway where the duty collection is realized once they complete certain verifiable milestones on the new investment, but the benefit from the day they commit for investment is still asking for too much.

Then there are international consultants who are not fond of age-old technology and methods. They argue that deep oil conversion refining is doable but not preferable, as modern technologies are simpler. Another complication is that the oil importing lobby is dead against refining process in Pakistan, arguing that it is more economical to import refined products instead of importing crude oil and refining it locally due to economies of scale being adverse in the latter case.

We are of the view that national security considerations demand that we increase and upgrade our refining capacity and also massively expand the local ullage capacity for white and black oil. However, this must be done the right way. All the consultation that has been done is based on petroleum ministry discussions with existing players without involving any international independent expert and without doing any study to see what is right for Pakistan and what should be the incentives. There is no policy in the upstream oil segment for the past 25 years, and it should not be done in haste. The government should critically evaluate the matter both - from economic as well as national security considerations - before committing itself to the route to be taken. ■

GOVT SHOULD ADDRESS ISSUE OF DUTY ON BATTERIES FOR SOLAR SYSTEMS FOR DOMESTIC CONSUMERS IN PAKISTAN

Syed Salman Mohiuddin
Country Manager, **Goodwe Pakistan**

Khalid Iqbal

"The government should address the issue of duty on batteries for solar systems so that the domestic consumers in Pakistan should opt opt much cheaper energy solution for their homes", this was stated by the Country Manager, Goodwe Pakistan, Syed Salman Mohiuddin. While talking to the Energy Update (EU), in an exclusive interview, he said about the services and products of his company for the renewable energy market of Pakistan, Mohiuddin also talked about his views about the prevailing situation of Pakistan's energy sector. He continues to say that.......

EU: Introduce your company to our readers?
Syed Salman Mohiuddin: Goodwe is a leading worldwide solar inverter brand. We have been present in Pakistan since the last five years through our valued dealers. We have major installations in residential, commercial, utilities segments of the Pakistani market. We have products for all these three segments that are compatible with the Pakistani market and environment. Goodwe's presence is strongly felt in the Pakistani market owing to our distributors. Over the period of the last five years, we have maintained the number one position in Pakistan and seven other countries as well. We were ranked at the eighth position in the global ranking in the year 2020. Our products available in the Pakistani market are both single and three phase.

EU: To what extent renewable energy sources are useful for Pakistan?
Mohiuddin: Pakistan's energy requirement is ever-growing. The electricity demand is fast growing. The conventional energy sources are not sufficient enough to overcome our energy shortfall. We have to switch to renewable energy resources to fulfill this demand and the most economical and most effective renewable energy resource available in Pakistan is solar power. Both the installation and operation of the solar energy system is quite easy. The cost of operation of the solar energy system is also the lowest. We have to start making efforts from today to exploit the renewable electricity resources available in the country as our conventional energy sources have been depleting fast. After five to 10 years, we would be able to increase the share of solar power in the national energy mix. Solar power is

surely the future for us.

EU: What is the business strategy of your company for the Pakistani market?

Mohiuddin: We have been launching our products in Pakistan in accordance with the requirements of different segments of consumers. We, first of all, launch a product in a particular segment of the market and later on we keep on upgrading it. We are at number three position as far as our share in the Pakistani solar market is concerned. This third position only pertains to the market of tier one solar products. The most serious challenge to the growth of the solar energy source in the residential segment of the Pakistani market was net metering as this challenge has been overcome.

The government has been extending due support to the power utilities in order to help their customers switch to the option of solar power. A greater number of residential customers have also started using the option of solar power in case they have enough space to install the solar system. We do need special products having higher efficiency to fully utilize the option of net metering. Then we also do need hybrid grid-side systems for the residential sector owing to the issue of frequent power load-shedding so that both PVs and battery storage could be utilised to ensure uninterrupted power supply through the option of solar power.

On the basis of one such hybrid system introduced by us in the Pakistani market, we have gone ahead of all of our local competitors. We are able to cater to the needs of the residential consumers on the basis of our hybrid system. In the last exhibition attended by us, our hybrid stood out in the entire expo. Our product stood out in the expo among the similar hybrid products by other leading manufacturers. We do hope that Goodwe is going to become the leading manufacturer of such hybrid products in Pakistan in the next couple of years as what we have already achieved in Turkey, the Netherlands, and Australia where have clinched the leading position among all the competitors.

EU: What is your viewpoint regarding the government's policies for the solar energy sector?

Mohiuddin: The government's support for the solar sector has been praiseworthy in the form of waiver of duty and taxes on the solar inverters and panels. But one more challenge is still present in the solar sector i.e. duties on the batteries for the solar systems. This duty discourages the sale of the hybrid solar systems that is, otherwise, the need of the hour in Pakistan's residential sector due to the issue of load-shedding. Instead people still prefer to install the diesel-powered electricity backup generators as less cost is required to install them.

The people have not been shifting to the hybrid solar systems due to the cost of the batteries of the system. It is necessary to address this issue as one of the methods could be separate designation of the batteries of the solar inverters so that a special SRO could be issued by the government in this case. The world is moving towards lithium ion batteries that are much more efficient and effective in this case.

EU: To what extent solar systems are being used in big cities of Pakistan like Karachi?

Mohiuddin: The upcoming biggest commercial and residential real estate project of Karachi has opted for solar power. They will fulfill 100 per cent of their energy requirement through solar power as they will go for this option in a step-by-step manner. Likewise, many residential and commercial units in areas like the DHA have shifted to solar power. But again it is a fact that a large majority of residential customers have still not been utilizing the option of solar power.

This is because generally the focus of the solar companies working in Pakistan is on commercial and industrial segments. They have lesser focus on the residential sector as one of the reasons could be lack of dedicated products for the residential consumers. We will have enough focus on the residential sector when dedicated products are available at reasonable cost. The electricity tariff for the domestic consumers in the big cities has been constantly increasing whereas the solar electricity tariff is fixed. People, generally, lack awareness about the price and quality of the solar products available in the local market for their domestic energy needs. They also, generally, don't know about classification of solar products on the basis of their quality.

EU: What method should be used to promote quality solar products in the Pakistani market?

Mohiuddin: Pakistan should evolve its own ranking system for solar products as it is a big market. Still, the international ranking is prevalent in our local market. The Pakistan Solar Association should play its due role in this regard. ■

Sindh govt rejects exclusion of its energy projects

The Sindh cabinet, expressing serious reservations on the decision of the federal cabinet which has unilaterally amended Alternate & Renewable Energy (ARE) Policy 2019 approved by the Council of Common Interest (CCI) and excluded several Sindh government's cheap alternate-energy projects and included costly Hydro-power projects, decided to refer the matter to joint parliament.

"The federal cabinet or cabinet committee on energy is not competent to amend any policy approved by the CCI, therefore we would refer the matter to the joint parliament for discussion as we have already referred to the matter of Census." This was stated by the Sindh Chief Minister while presiding over a cabinet meeting. Minister Energy Imtiaz Shaikh briefing the cabinet said that NTDC had submitted Indicative Generation capacity Expansion Plan (IGCEP)-2047 in April 2020 based on certain assumption sets but it was withdrawn on the objections raised by the NEPRA. He added that after a public hearing, NEPRA directed NTDC to update the plan.

The Ministry of Energy (MoE) – Power Division, presented the IGCEP 2021-30 Assumption Set to Cabinet Committee on Energy (CCoE) on April 20, 2021 and the same was approved on April 22, 2021. Sindh cabinet raises voice against non-implementation of water accordThe IGCEP 2021 – 30 was formulated based on the approved Set by CCoE, using generation planning tool, PLEXOS, by considering all the existing as well as committed and candidate power plants. The meeting was told that the CCI in its 47th meeting approved the National Electricity Policy (NEP) on 21stJune, 2021 mandating that the IGCEP 2021 – 30 Assumptions would be approved by the CCI. Accordingly, the Assumption Set was circulated among the provinces for the inputs/comments so that the same may be processed/considered.

Climate of change

Ali Tauqeer Sheikh

WORLD leaders gathered in New York this week for the UN General Assembly meeting coinciding with the 20th Climate Week. These two major events come at a critical moment for climate action as a last-ditch effort to create momentum prior to the global climate summit in Glasgow in six weeks.

The General Assembly and Climate Week cater for two distinct constituencies. They compete and inform each other. Inside the UN halls, the delegates negotiate deals, create consensus and set the direction of their journeys, all this while reiterating their known or predictable positions. On the streets, diverse stakeholders, activists and interest groups raise alternative ideas and propositions. They come together to shape and influence the formal negotiations for speedy climate actions.

This process has grown in importance and outreach since it started in 2009. It has become a marketplace for ideas. This year alone there are over 535 planned events involving scientists, think tanks, CEOs, mayors, parliamentarians, governors, students and delegates from several countries. While for the delegates, planetary or climate considerations are subservient to national interests, the marchers bring disruptive propositions to the table for transformational change. They have been successful in changing the discourse as well as defining the role of civil society and the private sector vis-à-vis the Paris Agreement that has set global climate targets. Hundreds of entities — communities, corporations, universities, city governments and states — have set voluntary targets for their carbon neutrality or transition to net zero emissions.

In the UN halls, however, the dominant economies and the Global South are deeply divided, perhaps irreconcilably. The Western economies have so far focused mostly on mitigation and reducing carbon emissions and it is only now that climate-induced extreme weather events have begun to visit them and give them wake-up calls. Their ideas are persuasive, particularly since they hold the key to financial and technology flows, and host scientific and research institutions.

The Global South, struggling with governance and economic issues is, on the other hand, at the forefront of climate vulnerability, frequently battered by the compound impact of the drivers of climate change. They are seeking international climate finance for adaptation measures as well as resources on account of loss and damage, or irreversible economic and non-economic losses.

The North-South climate divide however is deeper and more complex. The North often sees climate change more as an opportunity than a threat. It is recognised as the ultimate market failure. The Western economies have an element of faith that solutions have to be market-driven and instigated by incentivising technological changes rather than revisiting their consumption or production systems. This has led to increased investments in technologies for renewable energy, mobility, urban transportation, fuel, infrastructure and building material and standards.

These investments are reflected in accelerated economic growth rates and delinking of development from energy intensity or emissions reductions, waste generation, and the use of natural capital. Entire societies are in the process of reinventing themselves and redesigning community spaces, modes of transportation and ways of doing businesses. This has accelerated economic growth and boosted trade with new products and services. While the Global South seeks international finance and technology transfer, economic and trade relations have undergone profound changes. The urge¬ncy for collective action on a planetary scale is being missed by both the North and the Global South.

The world faces an emergency as the toll on people's lives and livelihoods keeps growing. According to a recent report by the World Meteorological Organisation, the past decade was the hottest on record. Yet, carbon emissions from fossil fuels and forest fires are 62 per cent higher than in 1990 and reached an all-time high in 2019, threatening all gains on climate change. Wildfires alone during the last one year in the US, Canada, Russia and the Arctic, for example, emitted more CO2 than India's total annual emissions — and India is the world's third largest emitter after China and the US. UN Secretary General António Guterres rightly labelled these trends as "code red for humanity".

Some critical areas are worth watching for signs of progress leading up to the climate summit in Glasgow:

National Climate Plans: Nationally Determined Contributions, or NDCs, are a barometer of countries' commitment to climate action. Carbon emissions from the world's 20 biggest economies are still rising. None of the G20 countries have presented plans that will put them on track to limit global warming to 1.5 degrees Celsius. Some estimates suggest that the frontloading of emissions reduction by them can help limit global temperature rise to 1.7°C.

Climate Finance Deficit: Addressing the climate finance gap is vital for COP26's success and for climate, particularly adaptation actions. The rich countries need to meet their overdue commitment made in Paris of $100 billion a year for developing nations. This amount is only a fraction of what the Global South actually needs to decarbonise and build resilience to climate impacts. Developed countries need to also commit an additional $500 billion for the 2020-2024 period, and to establish a more ambitious and transparent target to be agreed on prior to 2025.

Coal Moratoriums: China, South Korea and Japan have announced stopping international finance for coal. The G7 summit has already agreed to stop international finance for coal by the end of 2021 and to phase out fossil fuel subsidies by 2025. Altogether 44 countries have committed to no new coal, including Pakistan, but a complete exit and switch to renewables will require international financing.

Fossil Fuel Subsidies: Governments extend more than $500bn on subsidies for production and consumption to fossil fuels that contribute to climate high emissions, making renewables less competitive. For the decarbonisation goals of the Paris Agreement, subsidies need to be phased out, starting with G20, on a faster pace for the transition away from fossil fuels.

As the climate discourse in New York captures our imagination, there is an increasing pressure to act. Progress in four key areas is essential to reach an ambitious and just outcome at the COP26 climate summit: enhanced ambition, scaled-up climate fin¬a¬nce, enhanced tracking and support for adaptation, and support for loss and damage. This is a defining moment in history. It must not be wasted. ■

The writer is an expert on climate change and development.

1000 Trees to be planted in the city by NFEH and Hilal Foods

National Forum for Environment and Health, and Hilal Foods and Hilal Care join hands for plantation 1000 trees in the city.

First phase of the campaign started at Hill Park.

He disclosed that there was a need to plant 10 million more saplings in Karachi to keep the city green, for improvement of the weather, and protection against environmental pollution. He said the government, private sector, and NGOs were required to work together to achieve this noble cause.

The CEO of Hilal Foods and Hilal Care, Faisal Munshi, said that they would continue to make efforts to do tree plantation and improve environmental conditions in Karachi while realizing our corporate social responsibilities.

'Pakistan's first virtual LNG pipeline project to fully comply with local, international environmental laws'

The participants of a public hearing were given firm assurance that the operations of Pakistan's first virtual LNG pipeline would fully comply with the local and international environmental safety standards.

The Sindh Environmental Protection Agency (SEPA) organised the public hearing at a hotel to invite comments from the concerned stakeholders on the Environmental Impact Assessment Report of the proposed small scale LNG distribution network through a virtual pipeline. The LNG Easy (Pvt) Ltd is the proponent of the project that has been undertaking similar operations in many regional countries including export of LNG from Singapore to Malaysia.

Federal govt and WAPDA to take up all four water projects for Karachi

Sajid Aziz

Following the failure of provincial govt, Federal Government and WAPDA intend to execute all 3 proposed phases of K-IV project at once with 650 MGD water.

It is pertinent to note that the water scarcity in Karachi has gone out of proportion and the common man has almost lost his access to tap water.

The mega city is facing a wide deficit of water to the tune of 800 million gallons daily while almost half the city has left no source of water except water tankers as the tanker Mafia is running water business in billions of rupees. Accordingly WAPDA has engaged Consultants for design and supervision of 650 MGD system for Karachi.

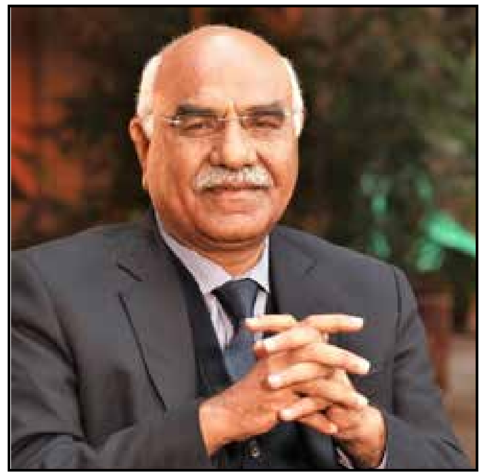
However , Sindh government is making hurdles in this 650 MGD project and insisting to work for only 260 MGD as they don't want to give the additional 1200 cusec water to Karachi. Political pressure is required by all Karachi representatives to force Sindh government to allocate this 1200 cusecs water for Karachi and support for the completion of 650 MGD K-IV project

Sindh water allocation under The Water Apportionment Accord 1991 is 48.76 MAF and Karachi current approved water 1200 cusecs totaling to 0.87 MAF is only 1.7% of this 48.76 MAF.

Pending approval of further 1200 cusecs is from 2005 when the request was sent to Sindh Government by City Government. With this approval Karachi Water allocation will become 3.4% of Sindh Water.

Government of Sindh has only given provisional approval of 260 MGD equal to 480 Cusecs as they are asking IRSA for this additional allocation for Karachi. However, it is not IRSA responsibility to give water to Karachi as it manage the distribution of Indus water between provinces. If Karachi is part of Sindh, obviously it is Sindh Government responsibility to give water to Karachi from their share in Indus Water.

Pakistan's breadwinner sorry ead it fast as the decision is to be taken either way soon. It is to mention here that IRSA has approved additional quota of 1200 cusecs water for Karachi long ago. ■



Dr Amjad Saqib

awarded Magssysay Award

EU Reports

Dr Amjad Saqib, a social development expert and founder of Akhuwat Foundation has been awarded the Ramon Magsaysay Award 2021 for his poverty alleviation work in Pakistan.

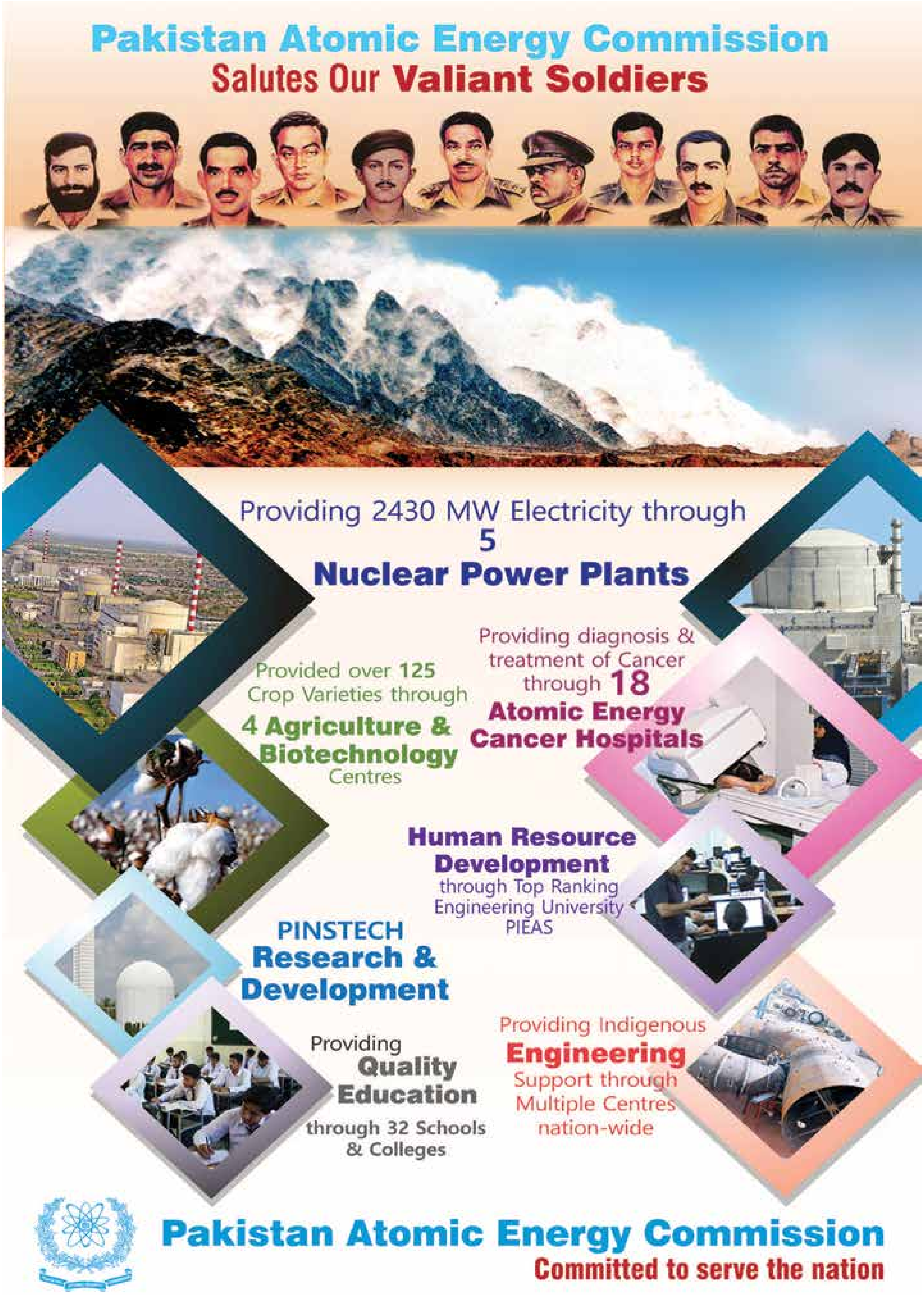
This award is given every year to individuals who have made extraordinary contributions to the eradication of poverty and the development of the society in Asia.

Ten distinguished Pakistanis have been among those presented this prestigious award said to be equal to the Nobel Award in Asia. Dr Amjad Saqib, was given recognition with the award for providing interest-free loans for poverty alleviation. Akhuwat Foundation has provided Rs 150 billion interest-free loans to the people belong to the lower strata of the society.

Pakistan's renowned social worker Abdul Sattar Edhi and Bilquis Edhi had won the Ramon Magsaysay Award for public service in 1986. Among other distinguished Pakistanis who won this award for their services to the society also included Dr. Akhtar Hameed Khan who was the first from the country to won Magsaysay award in 1963, human rights activist Asma Jahangir in 1995, Dr Adeeb Rizvi in 1998, Dr Ruth Pfau in 2002 and IA Rehman in year 2004.

President Ramon Magsaysay of the Philippines, was died in a plane crash in 1957. Ramon Magsaysay Award was established in his memory. He is considered to have brought the Philippines in a golden age with a climate of good democracy and zero corruption.

Several prominent world figures have received the award, which is 64 years old and is often referred to as the "Asia s version of the Nobel Prize," such as the Dalai Lama of Tibet in 1958 and Mother Teresa of India in 1962.


Pakistan Atomic Energy Commission
Salutes Our Valiant Soldiers
Providing 2430 MW Electricity through
5
Nuclear Power Plants
Provided over 125
Crop Varieties through
4 Agriculture &
Biotechnology
Centres
Providing diagnosis &
treatment of Cancer
through 18
Atomic Energy
Cancer Hospitals
Human Resource
Development
through Top Ranking
Engineering University
PIEAS
PINSTECH
Research &
Development
Providing
Quality
Education
through 32 Schools
& Colleges
Providing Indigenous
Engineering
Support through
Multiple Centres
nation-wide
Pakistan Atomic Energy Commission
Committed to serve the nation

PM seeks report on PSO oil transport

Zafar Bhutta

Prime Minister Imran Khan has sought an explanation from the Petroleum Division in the wake of complaints from ministers for railways and maritime affairs over failure of Pakistan State Oil (PSO) to utilise services of state units for oil transport.

During discussion in a cabinet meeting last week, the railways minister said that PSO had discontinued transport of POL products through Pakistan Railways.

The minister for maritime affairs pointed out that, despite repeated directives of the cabinet, the first right of refusal was not being sought from Pakistan National Shipping Corporation (PNSC) for transporting POL imports. He added that engaging foreign shipping companies resulted in the use of precious foreign exchange reserves.

While exhorting that the national entities must be given priority, the prime minister directed the Petroleum Division secretary to submit a report on reasons as to why services of Pakistan Railways and PNSC were not being utilised by PSO.

The Petroleum Division briefed the cabinet that PSO was a public sector limited company under the administrative control of the Ministry of Energy. It was governed by the Marketing of Petroleum Products (Federal Control) Act, 1974, which provided that the federal government may set up a board to control, manage and direct the affairs of the marketing company.

The current board of PSO was constituted on February 21, 2019, including the Power Division secretary as its ex-officio director. However, on January 25, 2021, the Power Division secretary tendered his resignation from the board, owing to his official commitments, with the request for reconstitution of the board by replacing his nomination with "representation of the Power Division not below BS-20".

PSO was importing LNG from Qatar, which was mainly supplied to power plants. The company was also the largest supplier of furnace oil to various power plants across Pakistan to meet their requirements.

In the event of shortage of alternative fuels and upon demand from the Power Division, PSO had to import furnace oil on an emergency basis to overcome power shortage in the country.

The demand and supply of these fuels as well as their prices directly impact the power sector.

PSO was also at the receiving end in the case of circular debt due to be paid by power sector companies, which at present stands at approximately Rs180 billion.

These issues could be addressed in a better way through close coordination and liaison between PSO and the Power Division.

In order to ensure representation of the Power Division on the PSO board, the Petroleum Division proposed that the nomination of Power Division secretary may be treated as "Power Division secretary/ representative not below BS-20".

Keeping this in view, the Petroleum Division sought approval of the cabinet. The cabinet considered the summary and approved the proposal.

The cabinet directed the Petroleum Division secretary to submit a report, explaining reasons as to why services of Pakistan Railways and PNSC were not being utilised.

PSO officials said that the company is already transporting petroleum products through Pakistan Railways at present as per the ongoing agreement signed in 2017 for the transportation of two million tons of product per year (subject to demand placed by the Ministry of Energy/ generation companies/

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Future of solar energy sector is very bright in Pakistan

Anwar Naveed
CEO, Fronus Energy

Mustafa Tahir

"The future of solar energy sector is very bright in Pakistan as there will be extensive work in this field in next seven to eight years, this was stated by CEO of Fronus Solar Energy, Anwar Naveed, during an exclusive interview session with the Energy Update. Following are the important excerpts from his interview for our readers:

Energy Update: How did you started your solar sector company?
Anwar Naveed: I started my company in 2017 when I realized that there was good scope of doing solar energy business in Pakistan and there was also enough demand that needs to be fulfilled in the energy sector of the country.

EU: What are the current and upcoming projects of your company?
Naveed: We have been doing a major project with the Pakhtunkhwa Energy Development Organization i.e. solarization of 8,000 mosques as we are responsible to install solar energy systems at 1060 mosques. We have also been doing five projects mini grid of 200 kV capacity in Khyber Pakhthunkhwa. We have also applied to the Punjab government as many renewable energy projects will be launched there. We are hopeful to do more projects of 10 to 12 Megawatts generation capacity in the current year.

EU: What challenges you are facing as being an importer of solar equipment?
Naveed: There are two main issues concerning the solar sector business: there is no stability in the Dollar exchange rate and shipment rates to import goods. Every importer has been facing these two issues. Earlier, shipment charges were $3500 of a 40-feet container last month as that has increased to $8600 in the present day. Our economy is not as much stable as has been the case in other countries as the only option we have, which could ensure that our goods remain saleable in the market is that we reduce our margin of profit so to let people buy these products. If the retail cost was determined on the basis of Dollar rate and shipment charges then it would be impossible for the people to buy these goods. Fronus is the only company in the solar sector of Pakistan, which didn't increase its rates in the entire year. Apart from Fronus, all the other companies increased their rates like every two to three months. You can verify this fact from the market. We will not increase our rates in the next one too if the Dollar exchange rate doesn't exceed Rs 170. We will be compelled to increase our rates if Dollar rate exceeds Rs 170.

EU: What is the future of solar sector in Pakistan?
Naveed: The future of solar energy sector is very bright in Pakistan. There will be extensive work in this field in next seven to eight years. In the case of cities like Lahore and Gujranwala if the electricity consumption exceeds 700 units then electricity rates becomes flat i.e. Rs 31 per unit. Every household, which has one or two ACs consumes up to 700 units. The underprivileged households consumes around 200 to 250 units of electricity as a flat rate of Rs 18 per unit is applied on them. This shows that electricity has become very much expensive in the country. This lso indicates that solar sector has very bright future in the country. This is like one-time investment, which is recoverable in three to three-and-half-years. Next 10 years will be very busy in this field.

EU: How you rate government policies to manage the solar sector?
Naveed: The government policies to manage the solar sector is very much suitable. It is among the very few items in the country whose import is duty-free. There is also no income tax and sales tax on this industry. The previous two government regimes in the country promoted much the solar sector as the present one has also been doing the same. There is only three per cent markup on financing of the solar projects.

EU: What is your viewpoint about indigenous production of solar equipment in the country?
Naveed: The import of solar products should remain duty-free till such time the local manufacturers are not able to meet the demand in the Pakistani market. Those who have been engaged in local manufacturing of solar panels, prices of their products are higher than the made-in-China equipment. Then the quality of local products is also inferior. So if price is higher and quality is lower then there is no advantage of such indigenous production. ■

Tree plantation drive some lessons

Dr Muhammad Khurshid

Pakistan pioneered the billion-tree plantation drive, which got underway in Khyber-Pakhtunkhwa (K-P), and successfully achieved the target well before the deadline.

The successful experience was later scaled up to 10 billion tree tsunami covering the entire Pakistan. This unique initiative has met the requirement of Bonn Challenge besides earning goodwill at the international level with support for the global and national environmental agenda.

The politically backed initiative is aimed at investing in the future depending on the tree species being planted, the types of forest and their rotation age.

The billion tree and now 10 billion tree plantation programmes have highlighted numerous local and national success stories. For instance, the relentless efforts of forestry professionals, some of whom even lost their lives while clearing encroachments in K-P. Community-level commitments and voluntary contribution by individuals and groups, students, religious scholars, women and peasants all count towards the achievements.

All of these sacrifices and achievements are home-grown that have led to such a big success and they are still important for the protection, post-plantation care and continuous care till the maturity of these plants to ensure environmental sustainability.

Pakistan has got a variety of forest types spread over various agro-ecological zones but most of the land area is arid and semi-arid receiving less than 500mm of annual rainfall. This is not suited for natural green vegetation due to low precipitation and this is the most critical challenge in the way of extending the forest cover.

Apart from the forest types, the forest categories and management systems also vary in various parts of the country such as extensive natural forests growing over large areas under state control or even privately managed forests, manmade forests like the irrigated forests in the plains of Punjab, ie Changa Manga, and other such areas.

Social forestry, community forestry and farm forestry are other types of private forestry, which are getting more attention due to increased awareness and support from public sector institutions dealing with such forestry practices.

Public sector forest estates comprise only 7% whereas 93% of forests are owned either by the community or are village forests or privately owned. Social and community forestry, in fact, has the major potential to expand the forest cover in Pakistan.

Reward and recognition

As the billion and 10 billion tree programmes have shown great success, forestry professionals, community actors, women and students are waiting for recognition and reward.

The billion tree plantations were celebrated at a grand ceremony at the Convention Centre Islamabad in 2018 where the then K-P chief minister Pervaiz Khattak announced the upgrade and promotion of forest guards and foresters to the next scale, which Prime Minister Imran Khan as the chief guest greatly appreciated and encouraged as the right step that the professional foresters deserved.

However, over three years have passed but this announcement has not been implemented.

At the community level, no hero has so far been recognised or rewarded. Women's involvement in forestry – a key to success – has never been recognised, although many advocates of the cause emerged during the mega plantation drive.

This is an indication of the lack of recognition of the key stakeholders and champions of the tree plantation campaigns.

Now come to the recognition of international actors, namely Miyawaki urban forest developers, though this forestry method is not suited for conditions in Pakistan.

PM Khan inaugurated the largest Miyawaki forest under the 10 billion tree plantation programme in Lahore last week.

Leaving aside the technical constraints in the Miyawaki method under the agro-ecological conditions in Pakistan, the basic argument is why national heroes have been ignored who sacrificed their lives, time and energies for the national cause.

This ignorance will demoralise the local and national heroes, who may become less enthusiastic in pushing the 10 billion tsunami drive.

The Japanese are wise enough who have rewarded their national heroes and encouraged them to better contribute to forestry in future as well.

Miyawaki may have done a marvelous job and service to forestry in Japan, which is suited to its specific ecological situation. Such a model of forestry may not be suitable for the ecological conditions and forest types in Pakistan, which should exercise great caution while replicating the model.

Pakistan must promote its own forest types and management systems suitable for its ecological conditions. Moreover, the country must promote its national forestry heroes, who have promoted social forestry, community forestry, farm forestry and even those forestry drives that have increased plantations on state land.

One such person is Robina Gul, who planted over 25,000 saplings of 13 different types in her small courtyard in her house in Najaf Pur, a village of around 8,000 people in the Haripur district of K-P.

This is a unique contribution by a woman towards promoting forestry culture that the country needs to encourage such plantations on a wider scale.

It is still not too late that we make a list of all those forestry champions and heroes who contributed to the programmes. Such recognition will go a long way in motivating others to join the post-plantation care and even create jobs in the forestry-related industry. ■

LNG crisis brewing?

EU Reports

As feared earlier, getting hold of LNG this winter could become more challenging than the last one. As gas prices across Europe and Americas reach new highs, the LNG trading heats up, as big players China and Japan have shown signs of strong demand. Korea and others are reportedly rushing to arrange cargoes in advance for what could be another year of extreme cold weather in Far East.

The LNG spot rates are hovering around \$16/mmbtu. The Pakistan LNG Limited (PLL) has received bids for October and November deliveries at an average of \$19.92/mmbtu and \$19.39/mmbtu, respectively. For context, the average LNG spot price for PLL cargoes in October and November last year was \$5.38/mmbtu.

The PLL is yet to issue final evaluation report for the tenders floated for September 2021. It Is not clear whether PLL has received even one single bid for the five delivery windows for September at all. Recall that PLL had advertised for 5 cargoes for September back in June, with July closing. PSO is also reportedly waiting for the Board approval for the spot bids received for September. PSO has already reduced the spot cargoes to half, while maximizing long-term cargoes from 60 to 70, which is a telltale sign how the spot market is heating up.

The PSO's existing long-term deal with Qatar at 13.37 percent of Brent slope is likely to yield delivered ex-ship LNG price of \$9.8-10/mmbtu for September. Should oil prices stay around current rate, October LNG price would be around similar range. Now compare it with the bids that the PLL has received for October and November, and you know why it would be difficult finding buyers at that rate.

Should there be shortage of LNG, which cannot be ruled out, expect more power load shedding in September. October and November cargo bids received by PLL are priced higher than furnace oil and even high-speed diesel, purely in heating value terms. Furnace oil at PSO's August rate of Rs97,747 per ton equals \$15.36/mmbtu, whereas HSD is around \$19//mmbtu.

The implications for power sector are not as straightforward. Assuming Pakistan decides to go ahead with LNG at the bids received for October and November – the weighted average price would land around \$15/mmbtu. This would make furnace oil and LNG at par in terms of heating value. A number of furnace oil based IPPs would sit higher on merit order over some of the smaller LNG plants. Either way, the coming three months could see some of the highest monthly fuel charges for power generation.

And in case of no spot cargoes arranged for September, the LNG shortage would most certainly lead to power load shedding. Not all plants would be easily switched to furnace oil, in case of LNG shortage. There will be higher capacity charges too, when LNG plants run under capacity. Whichever way you look at it, brace yourselves for significantly higher power fuel charges or load shedding, or a combination of both. This is no one's fault though, if you are looking to place the blame. That is just how crazy international gas prices are this season. ■

No other energy source could compete with solar power

Muneeb Arshad

CEO, **Green Age**

Naeem Qureshi

No other energy source could compete with solar power in terms of cost of electricity production, this was stated by CEO of Green Age, Muneeb Arshad, during an exclusive interview session with the Energy Update in which he told about his solar sector business and his future plans to grow his company. Following are the important excerpts from his interview:

Energy Update: What was the motivation behind your decision to get into solar energy business?
Muneeb Arshad: Once I completed my studies, I thought about possible business opportunities, I could avail on my own. I always thought that I, myself, should do something apart from our family business to feel the sense of achievement. At that time, the solar energy was one of the newer options in Pakistan. I went through the research data of this industry and got to know that the solar power would have much widened scope in the country. No other energy source could compete with solar power in terms of cost of electricity production. In that sense, I thought it was a very good idea to join the solar industry so I got into it and my experience has been good so far.

EU: What challenges you faced while entering the solar industry?
Arshad: A new entrant is discouraged from joining any industry witnessing the situation of competition as that was also one of the challenges I faced when I entered the solar industry. I started my business in February 2019 and later on I had the biggest share in the import market in the entire year 2020. Challenges are there in the solar industry much like the challenges one has to face in any other business but we do possess the ability to overcome them.

EU: What are your projects in the field of solar energy?
Arshad: We have so far been doing wholesaling and distribution of the solar equipment. We import solar equipment and sell them to EPC contractors, distributors, and bidders. Our business model is B2B as so far we are not dealing in B2C. But we have the plan to do it soon as well. Afterwards, we will also do government-funded renewable energy projects.

But our main focus is commercial and industrial consumers of electricity.

EU: What is the future of solar power in Pakistan?
Arshad: Solar power has very bright future because of two reasons: this is energy sources, which is capable of producing electricity at the minimal cost and secondly it is also an environment friendly source of energy. I don't think that there could be any better energy resource than solar power.

EU: What is your opinion about the government's policies regarding the solar energy sector?
Arshad: The government policies and initiatives in the solar energy sector are very good. The government's financing scheme is also appreciable as solar power-based IPPs are being established in the country. The government's target to produce 60 per cent of the national energy mix on the basis of renewable energy resources till 2030 is also very encouraging. The loans and financing schemes will encourage setting up of more renewable energy projects to help meet the government's target in this regard.

EU: Tell us about the latest MoU you have signed?
Arshad: We have signed the latest MoU with the LONGi Solar of 150 MWs power generation capacity as we are hopeful to meet this target in one-and-half-years.

EU: What are your future plans?
Arshad: Every human being needs energy and electricity. There is constant increase in demand of electricity. Everyone who has some spare money is thinking about the option of installing solar panels at his home and workplace. The cost of installing the solar power system could be quickly recovered in just two to three years. The solar energy resource does its marketing on its own owing to this special feature. Definitely, we will also use our own marketing strategy to make people aware of these advantages of availing the solar energy option.

EU: To what extent support of family business is important in your success?
Arshad: The organisational experience I have gained on the basis of my family business has been played an important role in helping me to run my own business. I always get support from my parents and family business in this regard. ■

Sindh expresses reservations on approval of 'one-sided' IGCEP by CCI

Sindh government has expressed reservations on approval of "one sided" Indicative Generation Capacity Expansion Plan (IGCEP) by the Council of Common Interests (CCI), maintaining that giving preference to hydel projects over wind and coal projects will increase total basket with stimulated potential impact of billions of dollars over the life cycle of the project.

These apprehensions were conveyed by Minister for Energy Imtiaz Shaikh in letters to Minister for Energy Hammad Azhar and NEPRA Chairman Tauseef H Farooqi.

On September 6, 2021, the CCI had approved the IGCEP on the basis of need (demand-supply projections) and least cost basis (open competitive bidding).

However, on September 12, 2021, Sindh Minister for Energy raised questions on the IGCEP, which Minister for Energy stated that it has been approved.

Imtiaz Shaikh stated that in the 47th meeting of the CCI held on June 21, 2021 it was observed that the provinces were not consulted by MoE (Power Division), CCoE while finalising the Input Assumptions of IGCEP. Accordingly, it was decided that the CCI shall approve Input Assumptions, to be prepared based on consultation with provinces. In compliance with the CCI decision, the MoE (Power Division) conducted various consultative sessions with provinces and finalized the IGCEP Input Assumptions. Those Input Assumptions were approved by CCoE in its meeting on August 25, 2021.

Subsequently, a summary was forwarded for the 48th CCI meeting presenting CCoE recommended Input Assumptions for approval.

The letter states that the fact is MoE (Power Division) had not taken into account the comments and concerns of the Sindh province. For instance, the local coal and renewable projects initiated by Government of Sindh (GoS), which actually complies with competitive and least-cost principle, are not considered for the revised IGCEP. Instead, relatively higher cost projects have been picked as Committed Projects.

In this regard, an analysis has been performed which shows the potential financial impact for not choosing the cheap projects on least cost principle: (i) 10 hydroelectric power projects having cumulative capacity of around 5,247MW have been added in the committed category of the IGCEP of 2021, when compared with IGCEP iteration of 2020. In those 10 projects, five are large hydro projects (ranging from 48MW to 4500MW) having cumulative capacity of 5093MW. As per the latest determination of NEPRA, the lowest levelized tariff of large hydro projects is around US Cents 7/kWh ;(ii) Five wind IPPs had been awarded tariff by NEPRA before the formal notification of ARE Policy 2019 with a cumulative capacity of 275 MW; these projects had been awarded the average levelized tariff of around US Cents 3.40/kWh.

These projects have not been considered in the IGCEP on the pretext that they were placed in Category III of the CCoE decision. Leaving aside these least-cost wind projects and prioritizing the hydro projects, there would be an increase in the generation cost of total basket with stipulated potential impact of approximately $35 million per year and approximately $875 million over the life cycle of the projects;(iii) IGCEP assumptions affirms the criteria that the projects, whose PC-Is are approved and funding secured (as of March 2021), shall be taken as committed projects. However, a World Bank-funded project of Sindh titled "Sindh Solar Energy Project" (consisting of a component of 400MW solar power projects) whose PC-I is approved by ECNEC is not completely included in IGCEP, i.e. only 50MW is reportedly being considered and remaining 350MW has been ignored, despite GoS submission of data information to NTDCL on December 17, 2019. Not including these solar projects (US Cents 3.5/kWh) over hydro projects, there would be an increase of the generation cost of total basket, with stipulated potential impact of approximately $21 million per year and approximately $525 million over the life cycle of projects and; (iv) the sponsors of M/s Oracle which is a Thar coal project at block-VI undertakes to develop its 7.8 MPTA mine at a coal tariff of $36/ton for the first 15-years followed by $27/ton in the next 15 years. With this coal price, Block-VI will generate electricity by establishing 1320MW power plant at a proposed levelized tariff of US Cents 5.45/kWh - calculations and financial modelling are proposed in writing by the sponsors and submitted to GoS, MoE (Power Division). ■

Govt should play its role as monitor, facilitator in energy sector

Fiza Farhan

Member Board of Advisory,
Diamer-Bhashah Dam Project

Mustafa Tahir

Fiza Farhan is a seasoned expert in the field of climate change, renewable energy and gender mainstreaming bringing in inclusion and innovation through her advisory services to PFAN and other development agencies in Pakistan and globally. Previously Fiza was the CEO of social enterprises operating in the realm of renewable energy, women economic empowerment and the nexus between the two leading to triple bottom line impact. With her diverse background, Fiza brings a wide range of expertise to the table from her previous practitioner experience, to high level roles of advocacy and the current portfolio of advisory engagements across diverse sectors impacting various development agendas.

"The government's job in the power sector should be that of regulation, monitoring, and facilitation as the private sector should be assigned the responsibility of implementation considering their bandwidth of resources and technical knowledge." demanded by Fiza Farhan, who is a development expert and advisor to multiple government and donor institutions, related to the Pakistani energy sector, during an exclusive interview session with the Energy Update in which she talked at length about problems of the national energy issues and their possible solutions. Following are the important excerpts from her interview:

Energy Update: What is your perspective of the Pakistani energy sector?

Fiza Farhan: Our main problem in the energy sector is not related to power generation. The main issue is that of the electricity transmission and distribution system. The major problems in the power sector are the nature of electricity theft and circular debt, which does not allow the excess generation to reach potential customers. We are not facing any deficit in electricity generation. But a number of power plants, despite being available at their full capacity, have been lying idle in the country due to the decades old issue of circular debt. This is because of the failure of the government to make due payments to them discouraging further private sector investments in the area. This is a big loss for not only the investors and sponsors of the power plants but the entire country.

New power plants are still being built in the country but at the same time our entire transmission and distribution infrastructure is outdated. It needs to be upgraded or altogether replaced which is a task so magnanimous in size that no donor or government wants to tickle this sleeping giant. Major infrastructural adjustments need to be made in the country.

The technical capacity of our national power sector institutions doesn't match with regulations being introduced in the country. For instance, we now have regulations for net-metering, wheeling, and open electricity buying but we need to build the capacity of the power sector institutions to implement these policies. A system based on public private partnerships needs to be evolved in the country for the purpose to connect the regulatory ecosystem with actual implementation followed by concrete and sustainable results.

EU: To what extent renewable energy resources are available in Pakistan?

Miss. Farhan: We do have several natural resources for energy generation. We have an abundance of solar power to generate renewable electricity with a national capacity of 140,000 MW of energy production only with solar energy. Similarly, the renewable resources of wind power and waste-to-energy are also abundantly available to generate electricity. Our biggest success would be the best utilization of these energy resources for clean and sustainable electricity production in the country reducing the air pollution as well which is another upcoming environmental hazard for Pakistan, especially with the increasing smog levels in Punjab.

No doubt, the future of Pakistan lies in the abundantly available renewable energy resources as this area has the potential to resolve many of our national-level problems. A lot of work has been done in this area since the time the private sector has the realization that renewable energy is an absolutely profitable and commercially sustainable and viable business model. So we are going into a good direction especially with the private sector actively implementing MW's of captive solar energy projects and investing largely in biomass and waste-to-energy production.

EU: What could be the best possible way to ensure the problem-free working of Pakistan's energy sector?

Miss. Farhan: There is a need to privatize as many goals and objectives of power sector institutions as much as you can and hand them over to the very competent people in the private sector. Allow these people to work with full freedom under the framework of the government laws, regulations and controls. The government's job is to govern and devise the framework only to let the private sector do its work with tangible targets.

The public-private partnership model should be adopted to implement these goals within the available framework. The government's job is just to monitor and regulate this implementation rather than holding responsibility for the implementation itself. The problem arises whenever people associated with the government sector are tasked with the implementation. The government's job is just to regulate, monitor, and facilitate the power sector.

EU: Do you think the government will be able to overcome the prevailing crisis in the energy sector?

Miss. Farhan: The situation is definitely going in a good direction. For instance, in the present day, solar power is regarded as a very affordable, reasonable, reliable and very obvious solution to any energy sector problem in the country. This improvement has taken place in the country over the period of last decade. Obviously, there has been improvement on the part of the government like the regulation was adopted to introduce the concept of net-metering as now the power consumers have been taking advantage of this system.

We need to sort out two major issues for the long-term and sustainable improvement of Pakistan's energy sector i.e. circular debt and our transmission and distribution systems. There is a need to overcome these two monstrous problems of the energy sector for long term sustainability of the power sector and once & for all elimination of the long-standing energy crisis. A lot of complications are involved in sorting out these two issues and I do admit that I myself have yet to find a solution to this problem. The distribution grids of the DISCOs in the country have not been repaired for the last 20 years.

They do not have the capacity to bear the required energy load. The government should join hands with the concerned development partners and private sector to implement a focused strategy to sort out these two issues with a long-term vision. Apart from these two big issues, both the government and private sector have achieved much progress in the energy sector. Our government has been doing a fantastic job, as compared to other similar regions, as far as the areas of policy and regulations are concerned.

Where it is lacking today is the aspect of implementation of the regulatory framework developed. The government, private sector, and concerned donors should collaborate with each other to adopt a long-term plan to do a step-by-step resolution of these two issues. The government could constitute a focused 'Task Force on Circular Debt' by involving the relevant bureaucrats, technocrats, and energy sector experts. A similar task force could also be established by the government to get the best available expertise and advice to resolve the problem of transmission and distribution systems in the country.

EU: What are your present engagements?

Miss. Farhan: I am now working as an independent global adviser and have also launched my own development advisory firm which is a partner of EY Ford Rhodes and Dalberg International for bringing regional and global expertise to Pakistan. I work on multiple development agendas including climate change, energy and power but also encompassing women empowerment, sustainable economic growth, youth, education and other development areas critical to Pakistan and the region.

Within the same, I advise various stakeholders and often find myself 'connecting the dots' between them as well for multi-stakeholder partnerships, these include federal and provincial governments, the UN agencies, private sector, civil society and development organizations. In addition to my critical advisory work, I spend a lot of time of advocacy and awareness of essential development subjects that I feel passionate about and within the same hold important positions for advocacy including being appointed by the Prime Minister recently as the only woman on the board of Diamer Basha Dam Project in addition to sitting on multiple boards in Pakistan and globally. ■

18th ANNUAL ENVIRONMENT EXCELLENCE AWARD 2021

18th AEEA and Conference held in Karachi

The National Forum for Environment and Health (NFEH) once again gathered at one place the people from different backgrounds and professions who have been striving hard to improve environmental conditions in the country.

The occasion was 18th Annual Environment Conference and Excellence Awards-2021 (AECEA). The airy beachside lawn of the Beach Luxury Hotel was chosen for the first time to host the conference and award ceremony that was fully compliant with the anti-coronavirus restrictions in place.

The speakers of the conference extensively shared their ideas as what collective efforts have to be made and improvement in law and regulations should be ensured to protect the environment in our surroundings.

They said that not just the government and its different agencies, but individuals and organisations in the society had to act in the most responsible manner to reaffirm their solemn commitment to the cause of environment.

The audience of the conference were informed that Pakistan's position on the world ranking of countries having most mangrove trees in their coastal zones would further improve in the coming months owing to the aggressive plantation campaign by the Sindh government's Forest Department.

"Pakistan at present stands at the seventh position on the world ranking of mangrove forests as in the next two to three months our standing will further improve to the fourth or fifth position," said Sindh Local Government Minister, Syed Nasir Hussain Shah, who in the recent past also held the portfolio of the Sindh Forest Department. The Sindh Local Government Minister was the chief guest of the conference and award ceremony.

He said the Sindh Forest Department's aggressive campaign to grow mangrove forests on the coastline of the province was like a revolution as earlier it had even clinched the world record by planting most number of mangrove plants in a single day.

He said that urban forestry campaign was also being conducted in Karachi in the areas of Lyari Expressway, Clifton and Shah Faisal Colony.

Shah said the provincial Local Government Department had been undertaking a number of projects related to sewage and industrial effluent treatment plants to improve environmental conditions in Sindh.

Speaking as the guest of honour of the event, Sindh Environment and Climate Change Minister, Ismail Rahoo, said the provincial government surely required

the help of the concerned non-governmental organisations and private sector to overcome the challenging issue of environmental degradation.

He said that Sindh had its own law to protect the environment and also had its separate environmental protection agency but there was a need to effectively implement the law.

He said that awareness campaigns would be conducted to let people realize the gravity of the situation due to constant degradation of the environment.

18th ANNUAL ENVIRONMENT EXCELLENCE AWARD 2021

Rahoo, who earlier served as Sindh Agriculture minister, said that water conservation methods and latest irrigation techniques had to be adopted to overcome the serious water crisis in the agricultural sector of the province. President of Karachi Chamber of Commerce & Industry, Shariq Vohra, said that most of the industrial units in Karachi had to secure compliance with the international and local environmental laws and regulations to ensure exports of industrial goods from Pakistan.

He praised the role of Sindh Environmental Protection Agency to help Karachi-based industries to adopt compliance with the environmental laws and regulations. He said that unchecked vehicular emissions and absence of a viable public transport system had a massive adverse impact on the environment of Karachi. He urged the government to install combined effluent treatment plants in Karachi so to treat industrial waste before its disposal into the sea.

Former chairman of Association of Builders and Developers Pakistan, Mohsin Sheikhani, said the upcoming real estate projects in Karachi should include the component of greenery as an essential part to protect the environment. Principal Secretary to Sindh Governor, Dr Syed Saifur Rehman, shared with the audience the success story of planting 1,50,000 trees in Kidney Hill Park to transform the highest point of Karachi into an oxygen tank for the city.

Dr Rehman, earlier in his capacity as the KMC's municipal commissioner, supervised the plantation project in the Kidney Hill Park that had been earlier filled with municipal and industrial waste.

He said the KMC had spent its own resources to do the plantation work as no extra grant was taken from the government to complete the project. He said that mostly indigenous fruit trees had been planted on the hill. Dr Faiyaz Alam, General Secretary of Dua Foundation, informed the audience about the work of his non-profit to help the destitute people of Tharparkar to do cultivation to permanently resolve the issue of food shortages during the period of drought.

He said the agriculture-based initiatives launched by his non-profit meant to support the impoverished people of Thar to enable them to earn money and also become self-sufficient in their own food requirements.

He said the cultivation and plantation experiments done by the Dua Foundation were open to all so that other interested people and organisations could replicate such projects elsewhere in the country for the economic benefit of the poor masses.

Famous TV anchorperson, Aniq Ahmed, said that doing tree plantation and other damage control activities to protect the environment went a long way in development and progress of the society and uplifting the conduct of the human beings.

Syed Nadeem Arif, EMC Pakistan CEO, said that everyone had to bring change in his or her conduct and attitude to improve environmental conditions in the country.

Shakil Khan, moderator of the conference, said the NGOs and individuals striving hard to plant trees in a city like Karachi were doing an excellent service for the countrymen as they should always be encouraged.

NFEH President, Naeem Qureshi, said that his NGO had partnered with the office of Karachi's Commissioner and Sindh Forest Department to plant 3,50,000 tree saplings to increase green cover in the city.

As many as 75 companies were given environment excellence awards on the occasion for showing distinction in the last year to improve environmental conditions. Seven other entities also received awards for doing tree plantation in the city. The Sindh Local Government Minister conferred the awards.

Ruqiya Naeem Project Head AEEA 2021, Engineer Nadeem Ashraf and Khalid Iqbal of NFEH also spoke on the occasion.

NFEH

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PROFILES OF AWARD WINNERS

SINDH ENGRO COAL MINING COMPANY LTD

ABBOTT LABORATORIES PAKISATN LIMITED

AIRLINK COMMUNICATION LIMITED

AL KARAM TEXTILE MILLS PVT LIMITED

ARCHROMA PAKISTAN LIMITED

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AVM CHEMICAL INDUSTRIES

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BYCO PETROLEUM PAKISTAN LIMITED

CENTURY PAPER BOARD MILLS LTD

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PROFILES OF AWARD WINNERS

CORONET FOODS (PVT) LIMITED

D.G. KHAN CEMENT COMPANY LIMITED

DR. SAIF UR RAHMAN

DUA FOUNDATION

ENGLISH BISCUIT MANUFACTURERS (PVT) LTD

EFU GENERAL INSURANCE LIMITED

ENGRO ELENGY TERMINAL LIMITED

ENGRO FERTILIZERS LTD SUPPLY CHAIN DIVISION

ENGRO FERTILIZER ZARKHEZ PLANT

ENGRO FERTILIZERS LIMITED

ENGRO POLYMER & CHEMICALS LIMITED

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PROFILES OF AWARD WINNERS

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EXIDE BATTERIES PAKISTAN

FAST CABLES LIMITED

FATIMA FERT LIMITED PLANT SITE SHAIKHUPURA

FATIMA FERT LIMITED PLANT SITE SHAIKHUPURA

FATIMA FERTILIZER COMPANY LIMITED

FAUJI FERTILIZER BIN QASIM LIMITED

FAUJI FERTILIZER COMPANY GOTH MACHHI

FRONUS SOLAR ENERGY

GSK CONSUMER HEALTH CARE

HABIB BANK LIMITED

HAMID ISMAIL FOUNDATION

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PROFILES OF AWARD WINNERS


HARBIN ELECTRIC INT'L COMPANY LTD


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HUANENG SHANDONG RUYI PAKISTAN ENERGY PVT LTD


INDUS MOTOR COMPANY LIMITED


INSPEC TEST (PRIVATE) LIMITED


K-ELECTRIC LIMITED


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KOT ADDU POWER COMPANY LTD (KAPCO


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PROFILES OF AWARD WINNERS


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NISHAT MILLS


OIL & GAS DEVELOPMENT COMPANY LIMITED


PAKISTAN OILFIELDS LIMITED


PAK-ARAB REFINERY LTD


PATEL HOSPITAL


PFIZER PAKISTAN LTD


PHARMATEC PAKISTAN (PVT) LIMITED


PHARMEVO (PVT) LIMITED


POLISH OIL GAS COMPANY PAKISTAN BRANCH

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PROFILES OF AWARD WINNERS

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QUALITY TESTING SERVICES (PVT.) LIMITED

SECURITY PAPERS LIMITED TREE

SHAHBAZ GARMENTS LIMITED

SINDH ENGRO COAL MINING COMPANY TREE

UCH POWER (PVT) LIMITED

SINO SINDH RESOURCES PVT LIMITED

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100+ Countries
Customers

70GW+
Module Shipment

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6 Production Bases

NFEH

National Forum for
Environment & Health
www.nfeh.org.pk

18th Annual Environment Excellence Award 2021

About NFEH:

National Forum for Environment & Health, commonly known as NFEH, is a purely Non-Governmental, Non-Profit Organization, established on June 5, 1999, with the aim to facilitate, promote and help create environmental, healthcare and educational awareness among the masses in general and youth and children in particular. NFEH is affiliated with the United nations Environmental Programme (UNEP) and supported by the Ministry of Environment, Govt. of Sindh. It is committed to serve and promote the causes of healthcare and protection of natural environment by creating awareness among all segments of society. NFEH has been successfully organizing various interactive events to meet these objectives. Annual Environment Excellence Awards were instituted fifteen year ago and have elicited a very enthusiastic response from the industry. These award have become the benchmark for the standards that need to be followed.

Aims & Objectives of NFEH's Annual Environment Excellence Awards

The Annual Environment Excellence Awards are designed to recognize and promote the organizations which make an outstanding contribution to sustainable development. They aim to highlight policies, practices, processes and products from all sectors of business in the country, which help achieve ;economic and social development without detriment to the environment and natural resources upon the quality of which continued human activity and further development depend.

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18th ANNUAL ENVIRONMENT EXCELLENCE AWARD 2021

PROFILES OF AWARD WINNERS

Abbott Laboratories (Pakistan) Limited

Abbott Laboratories (Pakistan) Limited (the Company) is a public limited Company incorporated in Pakistan on July 02, 1948, and its shares are quoted on Pakistan Stock Exchange. The address of its registered office is opposite Radio Pakistan Transmission Centre, Hyderabad Road, Landhi, Karachi. The Company is principally engaged in the manufacture, import and marketing of research based pharmaceutical, nutritional, diagnostic, diabetic care, hospital and consumer products.

AVM Chemical Industries

AVM represents Global quality products, reliability and warm technical services. AVM maintains inventories in strategic locations throughout the PAKISTAN allowing for immediate response to customers requirements. A group of Technical people from the populous; formed a partnership firm, "Pakistan Chemical Corporation (PCC)" in Karachi. The objective of founding the firm was to become a leading manufacturer and exporter of sodium silicate. PCC works till 1979 and the business shattered due to sad demise. Haji Abdul Ghaffar (Late) was one of the partners of Pakistan Chemical Corporation (PCC) with superb technical excels. Afterward, Haji Abdul Ghaffar (Late) established his own new business with his technical capabilities by the name of "AbooVali Mohammad" (AVM Enterprise). From the establishment, 1979, AVM Enterprise starts in the field of chemicals trading with major dealings in Sodium Silicate, Textile Auxiliaries, Dyes, and Chemicals. During the span of more than three decades the AVM Enterprise efforts credit & a good name in the Textile Industries & Chemicals Market. AVM Enterprise is the name of a group working with a panel of technical and capable persons for growing up and increasing the value of the business in textile industries & chemical market. The group is consist of knows market player in the industries of chemical products. After the great success and achieving the goals, AVM Enterprise converts their Enterprise into the industry for willing a quality business in textile industries & chemical market, which knows by "AVM CHEMICAL INDUSTRIES"

Al Karam Textile Mills (Pvt.) Ltd

The Al Karam Textile Mills was founded in March 1986 with a vision to be a provider of innovative textile solutions worldwide. Al Karam is a manufacturer and supplier of distinguished fabric for apparel and home furnishing markets with clients all over the world. With a constructed area of over three million square feet, Al Karam has the capacity to fulfill small, medium and large-scale orders and is one of the few vertically integrated operations in Pakistan. The company's global reach, breadth of product offerings, and multichannel distribution makes it a unique player in the textile industry, globally, and in Pakistan.

As a textile industry leader, Al Karam Textile Mills over the years has grown more conscious of its ecological impact. Our allegiance to rationalize sustainability, social responsibility and environmental conservation by investing inordinately on energy efficient power generation projects, water recycling and effluent treatment plants, chemical efficient processes and reduction of carbon emission from our factories as well as from supply chain is a testament to our commitment to environmental protection.

Airlink Communication Ltd

Airlink Communication Ltd (ALC) Pakistan's top tier mobiles assembly and distributing company believes in achieving customer satisfaction through delivering high level of Quality of its products and services.

Airlink Communication as an organization is committed to develop and implement management systems based on best practices and international standards related to Quality, Health, Safety and Environment. ALC Management ensures the health, safety and wellbeing of its employees by prevention of work-related injuries, ill health and risks

Our aim is provide the best consumer experience and with a legacy of forty five years – in the fields of import and distribution – we aim to make that goal a reality. Airlink is proud to be part of a global enterprise aimed at establishing a strong distribution network of telecommunication devices in Pakistan.

Archroma Pakistan Limited

Archroma Pakistan Limited (formerly: Clariant Pakistan Limited) represents Archroma in Pakistan. Archroma was formed in September 2013 from the textile, paper and emulsions businesses of Clariant. Clariant itself was formed in 1995 as a spin off from Sandoz, a chemical company which was established in Basel in 1886. In 1997, Clariant acquired the specialty chemicals business of Hoechst, a German chemical company. Through this direct lineage, Archroma has also acquired textile Chemicals Business of BASF In 2015. Archroma, represents on five continents and more than 35 group companies, employs around 3,000 people, headquartered in Reinach, Switzerland.
Archroma is global leader providing colors and specialty chemicals to sectors such as fibers and fabrics, paper and packaging, as well as adhesives, coatings and construction. A company with proven innovation power, strong core technologies and a global footprint, and a deep commitment to ecology and sustainability.
In Pakistan, Sandoz (Pakistan) Limited was formed in 1963 subsequently became Clariant Pakistan Limited and incorporated in 1996 and now Archroma Pakistan Limited is listed on the Pakistan Stock Exchange. It has manufacturing facilities at Jamshoro. Besides manufacturing, the Company also acts as Indenting agents for the parent company and affiliates.
Based on the Company's performance Archroma Pakistan (formerly: Clariant Pakistan) has been honored for the 19th consecutive year with prestigious Top 25 Companies Award by the Pakistan Stock Exchange.
In addition to this the Company has also been awarded:

- Environment Excellence Award 2005, 2008, 2009, 2010, 2011, 2012, 2013, 2014, 2015, 2016, 2017 & 2018, 2019 by the National Forum for Environment and Health on following best practices for Environment protection.
- Tree Planation Award 2019 & 2020 from NFEH.
- Fire & Safety Excellence Award 2011, 2012, 2013, 2016 & 2018, 2020"
- Occupational Safety, Health & Environment Trophy 2009, 2010,2015, 2016 & 2017, 2019 & 2020 from EFP & ILO.

Bestway Cement Limited

In line with its diversification strategy, the Group identified the cement sector in Pakistan as an opportunity and subsequently set up the group's first cement plant in Hattar, Pakistan with an annual production capacity of 1.1 million tonnes in 1995. Bestway has 4 plants namely Chakwal, Hatter, Farooquia and KallarKahar. With an initial investment of US$120 million, civil works on the group's first cement plant commenced in 1996 and the kiln was fired two years later. BCL Hattar was established in industry record breaking time of 24 months. This was a greenfield project and the plant was set up in an economically deprived area of Hattar, in the KP Province of Pakistan. Bestway's investment led to the creation of over 800 direct jobs and the economic development of the area.
In February 2004 anticipating a period of resurgent demand in the domestic market, it was decided to expand BCL's operations through setting up its second greenfield plant with an annual capacity of 1.8 million tonnes. The plant was set up in Chakwal in the Province of Punjab, Pakistan at a total investment of US$140 million in another record breaking period of 19 months. Bestway's investment in one of the most underdeveloped areas of Central Punjab led to the creation of 900 jobs for the local community.
In September 2005 the Group acquired its third cement plant, Mustehkam Cement as part of the Government's Privatisation Programme. This plant had remained non-operational since 1999 and recommenced commercial production within a period of three months post-acquisition. In the post acquisition period the Group has invested in excess of US$50 million. In 2009 plant capacity was enhanced to 1.1 million tonnes per annum. BCL's investment in Mustehkam led to the creation of 800 new jobs which had a direct positive effect on the local economy. In June 2008 Bestway set up its third greenfield plant, adjacent to the existing site in Chakwal, at a cost of US$180 million. This plant had an annual capacity of 1.8 million tonnes and created 500 jobs. BCL saw an opportunity in the Afghanistan market and in 2003 began exporting cement there. BCL is the largest exporter of cement to Afghanistan and has been winning the national export awards since 2004. In 2007 BCL started exporting cement to India and in just over two years became the largest exporter to India. BCL also exports cement to South Africa, Sri Lanka and the Middle East.

English Biscuit Manufacturers (Pvt.) Ltd.

EBM – Nourishing Lives, Hearts and Communities
For over 50 years, EBM is synonymous with quality nourishment that continues to delight both young and old alike with superior taste and wholesome nutrition. As the largest national FMCG company, we strive to touch people's lives in meaningful ways - through the brands we create and the sustainability initiatives that enable us to reach out to elevate the lives of people.
With a global presence in 30 countries, we have the largest production capacity in Pakistan today. We are a truly global organization with our products being exported to the United States, Canada, the UK, the Middle East, and Africa. All our products are in accordance with international standards of quality and hygiene, making sure that the highest quality of nourishment reaches our consumers wherever they are based. As an organization that runs on its principles of humanity and vitality, we stand by our mission to nourish lives, hearts and communities from one generation to the next.

BYCO Petroleum Pakistan Limited

Byco Petroleum Pakistan Limited is Pakistan's largest oil refining company, having the nation's highest refining capacity of 156,000 barrels per day. Byco was incorporated as Bosicor on 9 January 1995. Engaged in the business of oil refining, petroleum and lubricants marketing, Byco has become a leader in Pakistan's energy sector. It is the only vertically integrated company in the country's petroleum industry. Byco produces a wide range of refined petroleum products, including LPG, Motor Gasoline, Kerosene, Jet Fuels, High speed Diesel, and Furnace Oil. The company's vision is to achieve sustainable productivity and deliver shareholder return, while upholding high environmental, health and safety standards. Byco's Founder, Mr. Pervez Abbasi, established Bosicor (later renamed Byco) to help make Pakistan selfsufficient in energy production. His dream materialized two decades later in 2015 with the launch of ORC2, Byco's larger refining complex. It is Pakistan's single largest refinery with a design capacity of 120,000 barrels per day. Byco hopes to keep increasing its production, saving Pakistan's economy and national exchequer precious foreign exchange which would otherwise be spent on importing refined products. In 2007, Byco launched its first retail outlet in Sukkur. Since then Byco's oil marketing retail network has expanded rapidly. Today Byco has more than 400 retail outlets nationwide, and is growing by 35-40 outlets annually. One of Byco's major strategic advantages is its Single Point Mooring (SPM) facility. Made operational in 2012, Byco's SPM is the only floating liquid port in the country, allowing Byco to import and export crude oil and refined petroleum products directly. Byco's SPM is a strategic asset for Pakistan's economy and is considered a National Asset. The SPM imported its first shipment of crude oil in December 2012, and has been in continuous operation since then, including the severe monsoon season which was previously considered impossible for the area. Byco's SPM has handled around 16 million metric tons of crude oil since inception, and feeds the crude requirement of Byco's refining complex.

Century Paper & Board Mills Ltd

Century Paper & Board Mills (CPBM) started its commercial production in 1990 with Three Paper Machines (PMs) with an installed capacity of 30,000 TPY. Till 2008, Century gradually increased its production capacity to 240,000 TPY with Seven Machines (PMs) in operations. In 2003 Company also entered into manufacturing of quality Corrugated Cartons business line with current installed capacity of 40,000 TPY. Company has two Pulp Lines to process wheat straw and other agricultural residues to produce Bleached and Unbleached Virgin Indigenous Pulps. The chemicals required for pulp mills are produced mainly at mills site.

In view of the energy constraints, company developed a very comprehensive power generation back up apart from the load available from national grid to meet the Energy requirements of the plant with multiple options to use Natural Gas, Biomass, Coal, Furnace Oil or High-Speed Diesel, which is supporting most viable and continuous operations of the company to strengthen its position as the most reliable source of supply to its valued customers chain.

Having specialized in Coated Packaging Boards by installing state of the art plant and acquiring the most modern technology company stands as market leader in One Side Clay Coated Boards, produced on its two multilayer board machines with online multilayer coating facilities. Most of its Coated Boards are used for offset printing for eventual use as folding cartons by various FMCGCs, Pharmaceuticals, Confectionery and Tobacco industry etc.

Company is currently substituting imports of One Side Coated Boards from Fareast and Europe and successfully meeting the requirements of the quality of Off Set Printing Houses, equipped with the latest Hi-Speed / Hi-Tech machines from European origins mainly.

As per company policy since its inception all rules and regulations applicable on the industry and its business are strictly followed in letter and spirit. As a corporate citizen, company is fully aware of its responsibilities towards its employees, vendors, customers and society as a whole.

CPBM is fully committed with its environmental responsibilities. It operates state of the art Chemical and Biological Wastewater treatment plants that treats the wastewater before discharge to the level of national and international standards.

Engro Elengy Terminal (Pvt.) Limited (EETL)

Engro Elengy Terminal (Pvt.) Limited (EETL) is a 100% owned subsidiary of Engro Corporation Pakistan. EETL has developed a floating LNG terminal in the jurisdiction of Port Qasim which is a designated industrial zone. EETL consists of a Floating Storage and Regasification Unit (FSRU) and onshore reception facility. FSRU provides LNG reception, storage and regasification facilities. LNG is received in FSRU tanks by either of conventional or Q-Flex class carriers in FSRU tanks at around atmospheric pressure. It is regasified onboard, through trains of sea water operated vaporizers and then transferred to onshore reception facilities. Onshore reception facilities include Marine loading arm and associated instrumentation and ESD skids at jetty head. Fire and gas detection and suppressions systems are installed as per studies carried out before commissioning. Jetty equipment and switch rooms provide housing for fire and gas detections system panels & other critical control equipment and power backup arrangements as well.

Gas is finally transferred to SSGC after filtration, quality and quantity measurements and temperature stabilization. All mentioned activities are carried out at EETL custody transfer station, 7 miles away from EETL jetty head.

China Power Hub Generation Company (Pvt.) Limited (CPHGC)

CPHGC is a joint venture company registered by China Power International Holding Ltd (CPIH), a wholly owned subsidiary of State Power Investment Corporation Limited, and Hub Power Company Limited (HUBCO). The equity proportions of CPIH and HUBCO in CPHGC are 52.5% and 47.5%, respectively. CPHGC is the first true joint venture company in the CPEC, it is responsible for the development, construction, and operation of a 2×660MW Coal fired Power Plant in Hub, Balochistan with a total investment of approximately US$1.9 billion. CPHGC Project is 50 km to the west of Pakistan's largest city, Karachi, near the Arabian Sea. Construction began in February 2017 while the Commercial Operations Date (COD) was achieved at 0:00 hours on 17 August 2019. Up till now, CPHGC Project has generated more than 15 billion kilowatt hours of electricity, providing Pakistan with a stable power supply and greatly alleviating its energy shortage. It has obvious advantages in terms of unit performance, power generation cost, environmental protection indicators, etc. It has successfully replaced the old oil fired power station model which is responsible for high pollution and high energy consumption. Subsequently, it has helped not only increase Pakistan's total power generation but also helped to improve the overall quality of electricity generated in the process ensuring a reduction in power consumption Costs, improvement in the global competitiveness of export products and bring a wide range of social and economic benefits to Pakistan. In addition, up to now, the Project has generated more than 44.1 billion rupees (approximately US$0.3 billion) in taxes for Pakistan.

Colgate Palmolive Pakistan Ltd

Who We Are
We are Colgate, a caring, innovative growth company that is reimagining a healthier future for all people, their pets and our planet.

Our Commitment to Diversity, Equity & Inclusion
Colgate commits to be recognized as a leader in global diversity, equity and inclusion by Colgate people, customers, consumers, shareholders, industry peers, and the global communities in which we live and work.

Our Vision

Consumer Satisfaction:
We are committed to ensure that consumers can continue to use our products for the quality, reliability and superior performance.

Speedy Growth:
Key to driving growth and to achieve leadership position through quick development and launching new innovative products and getting these to consumers faster than ever.

Profitability:
We are taking full advantage of technology to further reduce overheads and increase profit. Cost saving activities in every business unit produces the added funding to invest in future growth and achieve greater profitability.

Best Place to Work
Becoming best place to work is fundamental. Colgate employees are motivated, trained and developed every day. Together as a team we are achieving our growth and profit goal.

Our Mission
To become a fast growing consumer goods industry by developing and delivering innovative new products to consumers and marketing them more efficiently.

Coronet Foods (Private) Limited

Coronet Foods (Private) Limited - CFL was incorporated in May 1995 as a 51% owned Subsidiary of English Biscuit Manufacturers (Private) Limited – EBM. The principal business activity of CFL is manufacturing and marketing of Biscuits of its own brand under the trade name EBM Brands as well as with the brand name PEEK FREANS under license from its parent company EBM. The purpose of establishing CFL was to set up a new state-of-the-art biscuit plant to provide more innovative tastes to consumers. Another main purpose was to contribute to the national economy by investing in under-developed area of Hattar providing employment to many.

CFL is located at Plot Nos.55, 57, 72 & 73, Phase III, Industrial Estate, Hattar, Haripur, KPK. The processes being carried out at CFL mainly include receiving of raw material and storage, mixing, cutting, baking, packaging and dispatch and same will be carried out at the extension plant.

Further, the auxiliary facilities include generators, solar plant, LPG storage area, workshop, office block, air-conditioning system, laboratory, washrooms, chemical store, maintenance and production and firefighting system.

The prime objective of acquiring consultancy services is to conduct environmental monitoring and sampling as performance indicators for environmental compliance. The CFL has carried out environmental monitoring of process emissions, stack exhaust emissions, vehicle emissions, drinking water, wastewater and ambient noise monitoring through third party EPA approved laboratory. This section describes major environmental monitoring analysis result and status of compliance w.r.t to NEQS permissible limits.

Engro Fertilizer Zarkhez Plant

ZARKHEZ PLANT is a part of ENGRO FERTILIZERS LIMITED (EFERT) Manufacturing Division. EFERT is a public limited company with its base business of Manufacturing & Marketing of Urea. Engro Zarkhez Plant started its operation in 2001 and produces various crop specific grades of Compound NPK (Nitrogen, Phosphorus, and Potassium) Fertilizers, marketed under the brand name of Engro Zarkhez & Engro NP. While the Head office is situated at Karachi, the Zarkhez Plant is situated at Port Qasim, Karachi with appropriate manufacturing facilities, which has a design production capacity of 100,000 Tons per annum of various crop specific NPK grades. Plant has demonstrated annual production figure of over 150,000 Tons per annum (Year 2005 production numbers) through a series of debottlenecking and continuous improvement in the last five years. At present, the Zarkhez plant facility is one of the major producers of crop specific NPK grades in Pakistan and holds 100% share in the local market.

- Engro's NPK blended Fertilizer project was conceived in 1999 as a manifestation of a vision to promote crop specific balanced fertilization ever in Pakistan.
- The project was kicked off in first quarter of new millennium and within 13 months, the plant was brought on stream in March 2001.
- Plant technology is based on International Fertilizer Development Center USA (IFDC) patent viz. Urea-based Steam Granulation Process.
- Basic Engineering Design by CWCEC China endorsed by IFDC USA
- Detailed Engineering and Construction was carried out by China National Chemical
- Engineering Corporation China (CNCEC)

Zarkhez is a brand name of compound fertilizers (NPKs) which are produced at Engro Zarkhez Plant. There are seven different grades of Zarkhez which are formulated as per Crop specific needs.

Engro Fertilizers Limited

Engro Fertilizers Limited is a subsidiary of Engro Corporation and, a trusted name for every farmer in Pakistan. It is traded on the stock market under the name 'EFERT'. Engro holds a vast, nationwide production and marketing infrastructure and produces leading fertilizer brands optimized for local cultivation needs and demand. Engro is also a leading importer and seller of Phosphatic fertilizer products. Engro Fertilizers is poised to become the leading urea manufacturer in the country following major upgradation of its manufacturing capabilities. ENVEN 1.3–a tremendous expansion in Engro's urea manufacturing facility went into production in November 2010 and looks set to end Pakistan's near-term urea imports, leading to benefits of an expanded local urea base and savings in national exchequer. Engro is a dynamic company driven by a vision to improve productivity and lifestyle for thousands of farmers across Pakistan. Engro Fertilizers Limited has earned itself a distinguished name by continually striving to uphold its tradition and trust of its loyal consumer base.

Engro Polymer & Chemicals Limited

Established in 1997, Engro Polymer & Chemicals Limited is involved in the manufacturing, marketing and distribution of PVC and allied products. Commercial production started in December 1999. Being the sole manufacturer of PVC in Pakistan, EPCL since the late 1990s has also been producing and marketing PVC resin, this is used in manufacturing a wide range of plastic products. Hundreds of direct and thousands of indirect jobs related to the chemical and PVC industry have been created by EPCL with a view to growing further. Developing the local salt industry, which is primarily located in the under-developed areas of Sindh's coastal belt, has been our main task.

Engro Polymer & Chemicals Ltd. is also a Chlor-Vinyl industry and the only fully Integrated Chemical Complex in Pakistan which is involved in the manufacturing, marketing and distribution of PVC and Chlor-Vinyl products from the provision of salt. We manufacture and market 295KT of PVC resin, 100KT of Caustic Soda from our state of the art Chlor- Alkali unit and 20KT of Sodium Hypochlorite on full capacity. EPCL also produce high quality Ethylene based Vinyl Chloride Monomer (VCM) of 245KT and Ethylene Dichloride (EDC) from our newly Integrated Chlor-Vinyl Complex, the very first and largest capacity of its kind in Pakistan, using state of the art technology and backed by Cryogenic Storage

Engro Powergen Thar Limited

Engro Powergen Thar Private Limited (EPTL) was formed in 2014 to set up a 2x330MW power project in Thar Block II, Sindh, Pakistan.

- The company is a joint venture between Engro Powergen Ltd (EPL) (with 50.1% ownership), China Machinery Engineering Corporation (CMEC), Habib Bank Ltd (HBL), and Liberty Mills Limited.
- The project successfully achieved commercial operations date on July 10, 2019.
- EPTL's power project is a pioneering project in generating electricity using indigenous lignite coal from the Tharparkar district.

1. It is the first Company to have demonstrated proof of concept and successfully produced up to 660MW of electricity linking it to the national grid via 500kV double circuit transmission line from Thar to Matiari on to Jamshoro/Moro.

- CMEC had done the EPC execution for the Power Project
- The O&M of the Power Plant is being done with CHDOC China.

Engro Vopak Terminal Ltd. (EVTL)

Engro Vopak Terminal Ltd. (EVTL) is a joint venture of Engro Chemicals Pakistan Ltd. and Royal Vopak of the Netherlands, world's largest service provider in the fields of logistics and distribution of chemical and oil products. It has a worldwide network of 67 terminals in 25 Countries with total storage capacity of more than 34 million cubic meters. EVTL was commissioned in 1998 to serve the chemical/petrochemical industry and traders with first class facilities to handle and store their bulk liquid chemical in a safe, efficient and environmental friendly manner. The company is ISO 9001, ISO 14001, and OHSAS 18001 certified.

Quality Storage & Handling Facilities

EVTL is the only state-of-the-art integrated bulk liquid chemical import/export jetty and storage terminal in Pakistan. The jetty, located in middle of the Port Qasim channel, is designed to handle ships up to 75,000 dwt and is linked to 102 acre tank farm via 1.1 km long trestle with service road and pipe rack.

Offloading of liquid chemicals products from ships is carried out through dedicated marine loading arms or hoses and then transferred via pipelines from the jetty to storage tanks on the mainland. Currently, there are twenty (21) storage tanks of stainless or carbon steel for various products. Nine loading facilities have been set up for customer's road tankers. Automated filling system and weigh bridge provide accurate product dispatch to customers. Ancillary facilities such as electrical power supply, firefighting system, nitrogen supply system, waste handling system are available at the terminal.

EVTL A Strong Commitment to Safety Health & Environment

The company aims to maintain a high international standards to ensure safety and reliability in its operations. EVTL's standard safety system include gas detection systems, automatic deluge system, fire water hydrant and monitors with foam injection unit, fire truck, and portable firefighting equipment. Training courses are conducted on a regular basis and staff is also provided with training and networking opportunities with Vopak's overseas terminals. Weekly firefighting and quarterly foam drills are conduced to ensure effective training of all operation staff at the terminal.

EFU General Isurance Limited

EFU General Insurance Limited is Pakistan's largest and oldest general insurance company, always ready to go the extra mile to serve better. Ever since the company's establishment in 1932, it has met the challenges of changing times. It has built a diversified customer base, covered more types of risks than any other, enhanced the expertise and delivered on the promises. In the year 2017 EFU General Insurance Ltd. including its Takaful (Islamic Insurance) operations have crossed the Premium/Contribution figure of Rs.20 billion. It is the first general insurance company in the history of Pakistan to achieve this milestone. EFU General provides wide range of insurance service to fulfill all needs of commercial or individual clients. It provides Fire, Engineering, Marine, Aviation, Motor, Miscellaneous services and Takaful (Islamic Insurance) covers. It has a diversified customer base and writes all classes of industrial, commercial risks and caters to retail business like travel insurance, vehicle insurance, etc.It is rated by national and international rating agencies. i.e., VIS, PACRA of Pakistan and AM Best of USA. VIS and PACRA have assigned rating of AA+ with stable outlook and AM Best have assigned rating of B+ with Outlook Positive. EFU is an ISO 9001:2015 certified company. Regarding the recognition of EFU General's services to the industry and the economy of Pakistan, it has also received various awards including Corporate Excellence Award of Management Association of Pakistan, Best Corporate Report Award of Institute of Chartered Accountant of Pakistan (ICAP) and Institute of Cost and Management Accountants of Pakistan (ICMAP), Achievement Award & Gold Medal of the Federation of Pakistan Chamber of Commerce and Industry (FPCCI), SAFA Best Presented Annual Report (Certificate of Merit) of South Asian Federation of Accountants (An apex body of SAARC), Brands of the year Award of Brands Foundation, Consumers Choice Award of Consumers Association of Pakistan, and Top 25 Companies Award of Karachi Stock Exchange, etc. EFU General is the most powerful trusted brand in the country and is the leading insurer of Chinese infrastructure projects (CPEC) in Pakistan. It has always played a pivotal role of institution, giving the Pakistan insurance industry the leadership, manpower and drive needed to grow and face challenges.

Fast Cables Ltd.

Since its inception in 1985, Fast Cables Limited has emerged as Pakistan's leading and most trusted electrical cable manufacturer. At Fast Cables quality is our first priority combined with superior customer service and affordability. Our emphasis on quality has made Fast Cables one of the most reliable brands in the Cable Industry of Pakistan and the choice of leading electrical consultants, engineers and architects in the country.

Our manufacturing plant in Lahore is equipped with state of the art technology along with an excellent quality assurance system.

In addition to our current product portfolio, we also manufacture electrical cables and conductors to cater to the specific needs of our valued customers. We have served the cables needs of our customers from diverse sectors including Building & Infrastructure, Oil & Gas, Telecommunication and many others.

EXIDE Batteries Pakistan

EXIDE Pakistan Limited, was incorporated in 1953 as a private limited company in association with Chloride Group Plc of United Kingdom.
Chloride had its associates in 35 countries of the world and was supported by chloride Technical.
EXIDE ultimately got listed on the Karachi Stock Exchange, now known as Pakistan Stock Exchange in 1982 and received the top 25 Companies Award 8 times till date. Sound professional management was also recognized by the Management Association of Pakistan who awarded Corporate Excellence Award three times.
The Company believes in customer satisfaction through continuous uniform quality and after sales services providing a wide range of products for various applications.

QUALITY POLICY

Exide believes that the essential mantra for customer satisfaction is immaculate after sales service. This is the only reason why the staff ensures that there is continuous uniformity in the quality of the products. The production processes are done with compliance of standards which are compatible with the international norms. exide_qc_02The company also gives credit to its vigilant and dedicated workforce which has made accomplishing such standards possible. The company prioritizes its workforce and provides security of employment along with good human relations so that all the quality objectives and goals can be accomplished.
The results and outcomes which are acquired during the transition of the making of end product can be accredited to the combination of skills, well maintained plant and machinery and the use of good raw materials processed through standard practices.

GSK Consumer Healthcare

GSK is the third largest multinational pharmaceutical company in Pakistan, GSK has three business divisions in Pakistan:

- Pharmaceuticals – innovative medicines including Oncology and Vaccines
- Sandoz – Generic medicines
- Over the counter – Vitamins, Pain, Cold and Flu

Our Manufacturing facility located at Jamshoro producing generic and OTC products. Novartis has already made and planned substantial investments in the capacity, quality and EHS systems at our Jamshoro manufacturing plant.
Number of Employees: 550
Total Number of People in Workplace (including contracting staff): 750
Premise Covered Area (sqft/yard): 23,161 m^2/ 249,309 ft^2

Fatima Fertilizer Company Limited

The fertilizer complex is a fully integrated facility, capable of producing intermediate and final products.
The Fatima Fertilizer Company Limited was incorporated on December 24, 2003, as a joint venture between two major business groups in Pakistan namely, Fatima Group and Arif Habib Group.
The fertilizer complex is a fully integrated production facility, capable of producing two intermediate products, i.e., Ammonia and Nitric Acid and four final products which are Urea, Calcium Ammonium Nitrate (CAN), Nitro Phosphate (NP) and Nitrogen Phosphorous Potassium (NPK) at Sadiqabad, Rahim Yar Khan.
The Complex has a 56MW captive power plant in addition to off-sites and utilities. The Complex has been allocated 110 MMCFD of gas from the dedicated Mari Gas fields.
Foundation stone was laid on April 26, 2006 by the then Prime Minister of Pakistan. The construction of the Complex commenced in March 2007 and is housed on 950 acres of land. The Complex, when completed, is designed to produce:

- 500,000 Metric Tons of Urea per Annum
- 420,000 Metric Tons of Calcium Ammonium Nitrate (CAN) per Annum
- 360,000 Metric Tons of Nitro Phosphate (NP) per Annum

The Complex, during its construction phase engaged over 4,000 engineers and technicians from Pakistan, China, USA, Japan and Europe.
The Complex provides modern housing for its employees with all necessary facilities. This includes a school for children of employees and the local community, a medical centre and sports facilities.

Vision and Mission

Our vision and mission reinforces our position as a driving force in the agricultural sector.

Vision:

To be a world class manufacturer of fertilizer and ancillary products, with a focus on safety, quality and positive contribution to national economic growth and development. We will care for the environment and the communities we work in while continuing to create shareholders' value.

Mission:

- To be the preferred fertilizer company for farmers, business associates and suppliers by providing quality products and services.
- To provide employees with an exciting, enabling and supportive environment to excel in, be innovative, entrepreneurial in an ethical and safe working place based on meritocracy and equal opportunity.
- To be a responsible corporate citizen with a concern for the environment and the communities we deal with.

Fatima Fert Limited Plant Site Sheikhpura

Fatima Fert Limited (Formerly DH Fertilizers Limited) is located at Sheikhupura, Punjab, Pakistan. It's a urea manufacturing complex with a current production capacity of 815 MTPD of ammonia and 1350 MTPD of urea. FFT produces Urea as its main Product & Liquified Ammonia as a By-Product. Ammonia Plant uses Natural gas as the basic raw material. Ammonia and its by-product Carbon dioxide are then used for the production of prilled Urea. For details please refer to FFT introduction attachment. FFT has 'Local Fabrication Cell' for in-house equipments fabrication & machine spares development. It also has full fledge 'Model Lab' equipped with all necessary gadgets, tools and simulation softwares for training, Research & Development purposes. FFT has fully functional Workshop having large Machines, testing rigs, contains Electrical, Instrument, Carpentry and Equipment shop. Central Quality Control Laboratory has Instrument for analytical chemistry and product Specification Conformance and Testing. Two Emergency Control centers (EECs) on site & rear site for management support in emergency handling. 24 Hours manned fully Functional Fire Station with Fire Tender to meet any emergency. FFT is self- sufficient in power generation for its production facility and residential colony (Township). We are committed to high standards of corporate governance and comply with requirements of all Listing and Prudential Regulations. Site has DuPont PSM, DuPont OHIH, DuPont EMS safety systems and ISO certifications, IFA Certifications & Green Office certifications.

Number of Employees:

Management: 175 (Including 132 - Manufacturing)

Non-Management: 200-

Contract: 500

MM Pakistan (Pvt) Ltd. (MMP)

MM Pakistan (Pvt.) Ltd.(MMP) is an independent and leading engineering consultancy firms in Pakistan involved in Water; (Water Resources, Water & Waste Water), Power;(Dams & Hydro, Thermal, Transmission & Distribution, Renewable), Urban & Infrastructure (Urban Master, Planning,, Architecture & Building Services) Transportation (Road / Highway, Rail /Metro, Aviation),Social Development (Services, Health & Education, Governance & Institution, Monitoring & Evaluation). The firm has a long history of working with donor agencies like World Bank, Asian Development Bank (ADB), Japan International Cooperation Agency (JICA), and USAID on various Transport Planning and Mass Transit projects, Power, Water etc.

Fauji Fertilizer Company Limited (FFC)

Fauji Fertilizer Company Limited (FFC) is Pakistan's leading enterprise with multiple businesses across the country. FFC is the largest urea manufacturer of Pakistan. Its product is marketed under the brand name of Sona Urea. Besides Urea production, the company is also involved in energy generation, food processing, banking and chemicals production. With a diversified profile, FFC is pursuing multiple growth opportunities both inside and outside Pakistan, providing value for its employees, stakeholders and customers.

The company pioneered wind power generation in Pakistan by establishing a 49.5 MW wind power plant which is in operation since May 2013. In food sector, FFC is operating the only IQF food preservation plant in Pakistan. FFC also holds equity stake in Fauji Fertilizer Bin Qasim (FFBL), Askari Bank, Fauji Cement, Thar Energy Ltd and Pakistan Maroc Phospore of Morocco.

Fauji Fertilizer Company is operating three urea plants, two of which are situated at Goth Machhi, Rahim Yar Khan. The plants at Goth Machhi have a total design capacity of 1.33 million tons of urea per annum. The company is ISO-9001, ISO-14001 & OHSAS-18001 certified. It is also associated with National Safety Council, USA and International Fertilizer Association, IFA. It is also certified under IFA's Protect & Sustain Stewardship Program.

FFC gives paramount importance to Occupational Health, Safety and Environmental Protection. FFC strives to follow voluntarily developed initiatives in the areas of environment, energy & water conservation, sustainable utilization of natural resources and Social Management. FFC continuously invest in environment friendly technologies and up-gradation of our plants to reduce our environmental footprint. The company boasts a comprehensive safety program undertaken to foster a safe and healthy work environment. The program focuses on both the permanent and contract employees of the company. Cognizant of its responsibilities, FFC has an unwavering commitment to Environment, Occupational Health & Safety of its employees.

Thal Engineering Limited

The Thermal Systems business started its operations in 1996 with the manufacturing of Auto Air Conditioners for Toyota and Suzuki vehicles manufactured and assembled in Pakistan. As the Thermal Business evolved in its capabilities through the market requirements for the automobile sector, Thal diversified its product portfolio by starting the mass production of heater blower and air-conditioner controls in 2001 and 2005, respectively. These diversifications were augmented through the addition of heat exchangers, such as heater core, condensers and most recently aluminum radiators. Thal Engineering is the only manufacturer of aluminum radiators in Pakistan. Ever since its establishment, Thal Engineering's progress has been positive. To deliver a product range of excellent quality, TE entered into a TAA (Technical Assistance Agreement) with Denso Japan in 1996, the second largest auto parts maker in the world, listed on the Fortune 500 and the largest in Japan. The strategic alliance has acquired and obtained world class assistance in manufacturing car air conditioners, heater blowers & now aluminum radiators, enabling TE to move to the next level.

Fauji Fertilizer Bin Qasim Limited (FFBL)

Fauji Fertilizer Bin Qasim Limited (FFBL) is mainly involved in manufacturing and distribution of chemical fertilizers for the farmers and agriculture sector of Pakistan. FFBL is the only manufacturer of DAP and Granular Urea in Pakistan. Its fertilizer manufacturing complex is located at Port Qasim Karachi, whereas its registered office (Head Office) is in DHA Phase-2 Islamabad. Company is listed on Pakistan Stock Exchange (PSX) since May 14, 1996 and the trade symbol of the Company is "FFBL". Major shareholders of the Company are Fauji Foundation (18.29%) a charitable trust incorporated under The Charitable Endowment Act 1890, and Fauji Fertilizer Company Limited (FFC) holds (49.88%) shares of the Company. This makes the Company part of The Fauji Group which is one of the largest conglomerates of Pakistan and has stakes in fertilizer, cement, power, oil & gas sectors of Pakistan. Fauji Group is also involved in foods, oil and grain terminal operations and financial services. A Board of Directors (BoD) nominated by FF Group manages the Company. BoD consists of four Independent Directors, seven Non-Executive Directors including Chairman of the Board and MD&CEO as Executive Director. The Company was incorporated in 1993 and commenced its commercial operations in year 2000. It had an installed capacity 1,670 MT/day of Urea and 1,350 MT/day of DAP. Through consistent in-house expansion and upgradation, the Company has successfully attained highest levels of 2,021 MT/day of Urea and 2,533 MT/day of DAP.

In 2005, Fauji Group started a Joint Venture with Office Cherifien des Phosphates Group (OCP) and formed a new entity with the name of Pakistan Maroc Phosphore S. A (PMP). FFBL has 25% equity holding in PMP and has ensured its continuous supply of Phosphoric Acid (P2O5) which is a raw material for production of DAP Fertilizer. Company as part of its diversification strategy acquired 21.57% of shares in Askari Bank and has 67.50% shares in Fauji Foods Limited (FFL). FFBL also has diversified in energy sector and has 35% stakes each in Foundation Wind Energy-I Limited & Foundation Wind Energy-II Limited (FWE-I & II). FFBL has majority stakes in its two unlisted subsidiaries, FFBL Power Company Limited (FPCL) and Fauji Meat Limited (FML), besides its 100% ownership in FFBL Foods Limited. Fauji Fertilizer Bin Qasim Limited (FFBL).

ICI Pakistan Limited

ICI Pakistan Limited is part of your life in ways you may not even be aware of. With over 75 years of successful operations, we supply essential products to almost every industry in the country through our five diverse businesses: Polyester, Soda Ash, Chemicals & Agri Sciences, Pharmaceuticals and Animal Health. The Company also has a management stake in the infant milk formula business under the name of NutriCo Private Limited.

Our businesses are major players within their respective industries, bringing together robust knowledge of customer needs with leading-edge technology.

ICI Pakistan Limited is part of Yunus Brothers Group (YBG), one of the fastest-growing and most progressive Pakistani conglomerates with a wide portfolio of businesses including, but not limited to: cement, textiles, power generation and commodity trading.

With over 75 years of successful operations across the country, ICI Pakistan Limited is a leading manufacturing concern supplying products to almost every industry in the country.

Our Businesses are major players within their respective industries, bringing together outstanding knowledge of customer needs with leading- edge technology platforms.

Employing over 1,700 people, the Company is headquartered in Karachi with operations spread across Pakistan.

We cater to practically every industry in the country through diverse businesses and enjoy a strong reputation for pioneering technologies, excellent customer service and an uncompromising culture of ethics, safety and people development

Pak-Arab Refinery Limited (PARCO)

Pak-Arab Refinery Limited (PARCO) is the largest fully integrated energy company in Pakistan's corporate section. PARCO, being a responsible organization, strongly believe that climate change is the biggest threat for the planet we line in. Climate change is a crisis multiplier that has profound implications for peace, food secuirty and stability. There is scientific consensus that the Earth's climate is changing due to global warming. Concentrations of carbon dioxide in the atmosphere is increasing alarmingly. Climate change caused primarily by the human use of coal, oil, and natural gas. The burning of these fossil fuels releases carbon dioxide into the atmosphere, which traps more heat from the sun. Global warming/climate change is accelerating as planetary temperatures reach record highs. Affirming that we are of this earth and that humankind has brought about global warming/climate change, PARCO, a member of United Nations Global Compact Association (UBGC), pledge to ground our missions in reverence for this earth and responsibility to it as we undertake these personal practices, congregational actions, and advocacy goals.

Habib Bank Limited

HBL, Pakistan's largest bank, was the first commercial bank to be established in Pakistan in 1947. Over the years, HBL has grown its branch network and maintained its position as the largest private sector bank in Pakistan with over 1,650+ branches and 2,100+ ATMs globally, serving 23 million+ customers worldwide.

HBL is shaping the future through a paradigm shift as a 'Technology Company with a Banking License'

The Bank's multiple digital channels are helping it get closer to its customers through innovative and frictionless ways

The Government of Pakistan (GoP) privatized HBL in 2004 through which Aga Khan Fund for Economic Development (AKFED) acquired 51% of the Bank's shareholding and the management control. The remaining 41.5% shareholding by the GoP was divested in April 2015. AKFED continues to retain 51% shareholding in HBL while the remaining shareholding is held by individuals, local and foreign institutions and funds including CDC Group Plc which holds 5% and International Finance Corporation which holds 3%.

The Bank is a leading full-service commercial bank. The key areas of operation are Branch Banking, Corporate & Investment Banking, Treasury, SME & Rural Banking, Financial Institutions & Global Trade Services, Transaction Banking and Islamic Banking. The Branch Banking business is the mainstay of the Bank, positioning HBL as the largest retail bank in Pakistan catering to all market segments. HBL Corporate & Investment Banking Group is a leading provider of financial services to multinational and local corporate clients across the country. The Bank also has the largest Treasury operations in Pakistan and plays a key role in Pakistan's domestic markets.

HBL enjoys a significant international footprint and is the largest domestic multinational. The Bank's international footprint is important as it provides opportunities to effectively serve its core customers across its network. China remains the lynchpin of HBL's international strategy and the Bank is the largest executor of CPEC related financing in Pakistan. In November 2019, HBL created history when the HBL Urumqi Branch formally commenced the RMB business by becoming the first and only bank from Pakistan and one of the three banks from the South Asia and MENA region to offer end-to-end RMB intermediation. In December 2019, HBL became the first Pakistani bank to be awarded the much coveted branch license to offer financial services to clients in Beijing.

As the leading financial intuition of Pakistan, HBL is at the forefront of all development initiatives which includes growth of priority sectors and targeting the unbanked population in the country. As the leading financial institution of Pakistan, HBL remains committed to its objective of financial inclusion for all segments of society. The Bank is already playing a leading role in enhancing financial inclusion through initiatives such as the Ehsaas Kafalat Program and facilitating access of women to the financial sector.

Harbin Electric International Co., Ltd. (HEI O&M)

HEI O&M has positioned itself as a full life cycle O&M operation & maintenance services Provider company in the emerging power sector of Pakistan.

Our objective is to be a world class company through strong belief in people and desire to make a difference by providing professional, efficient, and economically competitive services and maintaining quality excellence. Harbin Electric International Co., Ltd. (HEI O&M), is an important member of HE Group, China's leading large-scale enterprise in power project contracting and export of power equipment. Established in 1983, HEI is primarily engaged in the supply of complete sets of equipment, the undertaking of EPC projects, and the construction of relative substation, transmission lines, and other utilities in the area of thermal power plants, hydropower station projects, combined-cycle power plants and wind power projects. HEI also provides comprehensive professional after-sale service for the power plant. Harbin Electric International is a reliable partner for efficient and innovative energy solutions. Our aim is to Operate and maintain the Plant to provide associated O&M Services, while ensuring world class standards in Quality, Health, Safety, Environment. Our Core Values. HSE Commitment; Client Focus; Excellence; Leadership; Teamwork; Loyalty & Integrity; Empowerment to heighten the quality of life of all stakeholders through emphasis on developing energy efficient power plants and ensuring balance between low environmental impact and low cost of ownership for the power plant owners, resulting in reliable power at reasonable costs to the consumers.

Our Projects in Pakistan

O&M Service Provider 1180 MW CCPP Quid E Azam Thermal Power Plant Bikkhi Shikho pora

O&M Service Provider 1230 MW CCPP Punjab Thermal Power Plant Havili Bhadur Shah

900 MW CCPP Bin QASIM III construction & Commissioning project Karachi.

Our Success is a attributed to our resourceful people, financial strength, market acumen and the groeing market segment of the PAKISTAN & specific countries.

Indus Motor Company Limited

Indus Motor Company Limited (IMC) is a joint venture between certain companies of House of Habib of Pakistan, Toyota Motor Corporation (TMC) and Toyota Tsusho Corporation (TTC) of Japan. Incorporated in 1989, the Company manufactures and markets Toyota brand vehicles in Pakistan. These include several variants of the flagship 'Corolla' and the newly launched "Yaris" in the passenger car segment, "Hilux" in the light commercial vehicle segment and "Fortuner" in Sports Utility Vehicle segment.

IMC's manufacturing facility and offices are located at a 107 acre site in Port Qasim, Karachi. The product is delivered to end customers nationwide through a strong network of 46 independent 3S Dealerships spread across the country. Over 30 years, since inception, IMC has sold more than 903,800 CBU/CKD vehicles. It has also demonstrated impressive growth in terms of volumetric increase. From a modest beginning of 20 vehicles per day production in 1993, daily production capacity of the Company has now increased to 268 (with overtime) units per day. This has been made possible through the development of human talent embracing the 'Toyota Way' of quality and lean manufacturing. IMC has made large scale investments in enhancing its own capacity and in meeting customer requirements for new products. Corolla is, today, the largest selling automotive brand model in Pakistan. This country is the highest Corolla-selling nation in the Asia-Pacific region and also has the distinction of being # 1 in Toyota's Asian market.

The Company has a workforce of 2,855 persons at year end. It invests heavily in training the team members and management employees and creating a culture of high performing and empowered teams who work seamlessly across the various processes in search of quality and continuous improvement.

IMC employees are encouraged to pursue high standards of business ethics and safety according to the core values of the Company; they communicate candidly by giving bad news first and extend respect to people.

InspecTest (Private) Limited

InspecTest (Private) Limited is a leading service provider in the areas of Testing, Inspection, Certification, Assurance, Supply Chain and Project Execution. Since its inception in 1998, InspecTest has been endeavouring to offer these services to the highest levels of professionalism and integrity, with the help of our skilled, qualified human capital as well as state of the art inspection equipment. At InspecTest, our top priority remains the safety and profitability of our customers' operations. With our offices and staff located in Lahore, Islamabad and Karachi, our speed of service delivery is unmatched.

As a socially responsible corporation, we always focus on environment friendly operations, ethical business practices and our responsibility towards local communities. The unrivalled expertise, experience and commitment of our people make them our greatest asset. At the heart of all our operations remain our team members, who have the spirit to push boundaries and foster a culture of accepting challenges.

We at InspecTest remain committed to demonstrate great vigour and renewed drive to grow and succeed.

Vision

Creating an environment that is safe, caring and reliable.

Mission

At InspectTest, we will never compromise people for growth. We will support and nurture our employees to become the company's greatest asset, adding value and ensuring sustainability for our customers and the communities we live in.

Lotte Chemical Pakistan Limited

Lotte Chemical Pakistan Ltd is a world-class supplier of purified terephthalic acid, an essential raw material used in the polyester industry. Lotte, the South Korean conglomerate, acquired the majority shareholdings in Lotte Chemical Pakistan Limited (LCPL) in September 2009. Subsequently, the name of the Company was changed to Lotte Chemical Pakistan Ltd. Lotte Chemical Pakistan Ltd is the single largest foreign direct investment to date (US$ 490 million) in Pakistan's petrochemical industry. The plant at Port Qasim, Karachi was built using ICI's state-of-the-art technology when it was commissioned in 1998. It produces Purified Terephthalic Acid (PTA), an essential raw material for Pakistan's textile and PET packaging industries and forms the backbone of the polyester chain, including Polyester Staple Fibre, Filament Yarn and PET (bottle grade) resin.

In addition to its own manufacturing facilities, the Company has helped create a large infrastructure network at the Port Qasim vicinity, which includes a chemical jetty, raw water pipeline and manufacture of industrial gases through third party contracts. It has therefore been a trendsetter in industrial investment in Pakistan.

The PTA plant was constructed in 1996/97 and started production in June 1998. Within a short time, PPTA's dedicated and highly motivated team of professional engineers proved that it could run this complex plant to world standards of safety, environmental care, product quality and process efficiency. Since 2002 the plant has operated above its nameplate capacity of 400,000 tons per annum and following minor de-bottlenecking and process improvements, is capable of ramping that up to 500,000 tons per annum. The plant remains one of the most advanced facilities in its class in the region.

The company maintains its competitive edge by virtue of being a local manufacturer and major supplier for the domestic Polyester and PET industries with short delivery times, consistent quality and excellent customer service.

K-Electric Limited

K-Electric (KE) has powered Karachi for over one hundred years. Through a network spanning across 6,500 square kilometres, KE supplies power to all residential, commercial, industrial and agricultural areas that fall under the city's ambit and beyond, serving over 2.5 million customers across Karachi, Dhabeji and Gharo in Sindh, and Uthal, Vinder and Bela in Balochistan. KE is the only vertically-integrated power utility in Pakistan, which means the organisation manages all three key areas – Generation, Transmission and Distribution – of producing and delivering energy to consumers.

Formerly known as Karachi Electric Supply Company Limited, the power utility is an integral part of one of the world's most populous cities. In 2009, KES Power Limited, the majority shareholder of KE, put into place a turnaround strategy which has seen investments of over USD 2.1 billion. These have resulted in 1,057 MW being added to the company's Generation capacity and Transmission & Distribution capacity has been increased by approximately 29% and 60% respectively, followed by a 15.5% point reduction in Transmission & Distribution losses. K-Electric's transformation is a globally recognised success story of business excellence. KE is proud to be one of the most dynamic institutions in the country and the organisation aspires to continuously serve Karachi with even greater vigour and purpose with the collective support of all its stakeholders.

Martin Dow Limited

Martin Dow is a leading multinational pharmaceutical group in Pakistan. The Group came into existence in 1995 when the Founding Chairman, M. Jawed Akhai, established Martin Dow as a pharmaceutical manufacturing & marketing company in Karachi, and later acquired a manufacturing facility in Lahore during the year 2000. Today Martin Dow is one of the fastest and most admired Healthcare Groups operating across two continents with six manufacturing facilities.

In 2013 Martin Dow was recognized as a Global Growth Company (GGC) of the World Economic Forum, joining over 370 companies globally in this community. At that time Martin Dow was not only the first pharmaceutical company but also the first from the entire healthcare sector of Pakistan to achieve this honour. At Martin Dow Group, philanthropic activities are intrinsic part of the Company's DNA with focus being towards development of the Health and Education sectors in Pakistan and support to the Environment, Arts & Culture. In the legacy of our Founding Chairman, Martin Dow Group continues to excel in its quality and passion in the Pharma sector and is positioned to be the industry leader in the next few years.

KSB Pumps Company Limited

KSB - Technology that makes its mark Two symbols, three letters: pumps, valves and KSB are all closely connected – thematically and visually.

Wherever there are uids to be transported, controlled or shut off, customers globally rely on our expertise and products. The KSB brand promises them competent advice, excellent quality and to preliability along with guaranteed after sales service that they can count on, world-wide.

In 1959, "The KSB Group" established its first Asian subsidiary in Lahore – Pakistan, while built its first factory in Hassanabdal in 1964. After becoming a Public Limited Company in 1979, KSB Pakistan received its first ISO Certification in 1997, and moved on to become the First Foundry based Engineering Company in Pakistan that was QHSE Certified for ISO 9001, ISO 14001 & ISO 18001 Certifications for complete Integrated Management System Certification by TUV, Germany. Continuing its commitment to

quality and excellence, KSB Pakistan has successfully completed its six decades of operations in Pakistan.

KSB Pumps Company Limited is a leading international supplier of pumps, valves and related systems for industrial applications, building services, process engineering, energy conversion, water treatment, water transport, solids transportation and other related applications. KSB combines innovative technology and excellent service to provide intelligent solutions. This approach means that KSB is close to its customers, providing them with pumps, valves and systems for almost all applications involving the transportation of liquids.

Over the years, KSB Pakistan has developed a diversified and motivated pool of human resource and today the Company employs more than 400 proficient people that operates through its sales offices in Lahore, Karachi, Rawalpindi and Multan. To enable easy access to its customers, KSB Pakistan has a nation wide operating network of Franchise & Dealers, also known as KSB Exclusive Partners and KSB Authorized Dealers respectively. In addition to these, the Company also has an efficient Customer Service Department comprising of qualified and experienced personnel: KSB's comprehensive service includes bespoke solutions for all customer applications which ensures the running of pumps & systems efficiently.

GASCO
GASCO Engineering (Pvt) Limited
INNOVATIVE ENERGY SOLUTIONS

About us

Incorporated in 1993. A Frontline EPCC Company working in Pakistan Oil & Gas, Power, Petrochemical and Mining sector for the last 2 decades

OUR SERVICES

- EPCC
- Facility on BOO Basis
- MEICP / ATA
- Equipment Supplies
- O&M
- Venture Capitalist

OUR PRESENCE

Karachi

- Karachi Shipyard & Engineering Works
- Engro (EPCL, EVTL)
- Indus Motor Company

Sindh

- Eni (Bhit, Badhra, Kadanwari)
- OMV (Rehmat, Latif, Miano, Sawan)
- PGNiG (Rehman, Rizq)
- SECMC (Tharparkar)
- Fatima Group (Mukhtargarh)
- OGDCL (Sinjhoro, Bobi, Qadirpur)
- PPL (Kandhkot)
- UEP (Latif, Miano, Mehar, Sawan, Badin)
- BHP Billiton (Zamzama)
- Petronas Carigalli (Rehmat)
- Hub Power (Tharparkar)

Punjab

- NPGCL (Nandipur)
- PPL (Adhi, Dhok Sultan)

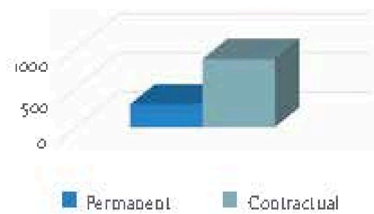
Balochistan

- MPCL (Bolan, Zarghun)
- BME (Khuzdar)
- PPL (Sui)

Khyber Pakhtunkhwa

- MOL Group (Tal Block)
- OGDCL (Mela, Chanda, Nashpa)
- MPCL (Kalabagh)

OUR STRENGTH



IN-HAND PROJECTS

- 5000 BPD Oil Treatment & Handling Facility on BOT Basis at Dhok Sultan, PPL
- 300 MMCFD Centrifugal Compression Facility at Qadirpur, OGDCL
- 2 x 37 km 24"Dia utility pipeline at Thar, Hub Power Company
- 2500 Tons per hour Automated Truck Loading SILO at Tharparkar, SECMC
- 10 MW Coal Fired Power Plant at Tharparkar, SECMC

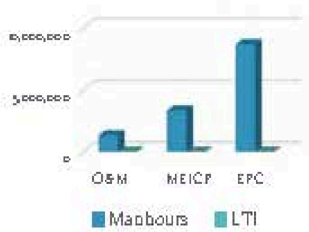
EPC PROJECTS

- 40 MMSCFD Amine Gas Sweetening Unit at Rehman Facility, PGNiG Pakistan in 2020
- Gas Conversion of 425/525 MW Power Plant at Nandipur in 2019, NPGCL
- 40 MMSCFD Dehydration Facility at Rehman Facility, PGNiG Pakistan in 2019
- Central Front End Compression Facility at MOL Makori Gas Plant in 2019
- Tolanj Facility Relocation at MOL in 2018

PCC PROJECTS

- Facility Upgradation Project in 2020, Mela Gas Field, OGDCL
- Compression Facility at Adhi, PPL

TRIR VALUES



Lucky Textile Mills Limited

Lucky Textile Mills Limited was first established in 1983 and has since remained one of the leading textile manufacturers in the country to-date With an indelible commitment to employing the most modern technology and providing outstanding working conditions for all our staff. we have always believed in creating the best value for any entity that invests its time with us. For over 36 years, our continued focal point has remained on our esteemed customers and their satisfaction, which we always strive to guarantee. LTML having an advance machinery technology with its facility of weaving, dyeing/printing and stitching. We maintain that every aspect of our operations is inclined towards adding to a progressive future and firmly believe that by stringently pursuing our core values of Leadership, Understanding, Commitment, Knowledge and Yielding, we will undoubtedly grow to be one of the most successful industry leaders in the country.
Lucky Textile Mills Ltd (LTML) Pakistan 1st STeP (Sustainable textile production) certified company making its best effort day to day to conduct all of its processes in a way of;

- Eco-friendly product
- Resources conservation
- Reduction in cost
- Improvement in Social Life
- Protect Biodiversity
- Green Climate

Out company accredited with the international standards of ISO14001 EMS & 9001 QMS, BSCI, Eco-label, Global Recycle & Organic standards, Cradle 2 Cradle, WRAP and so many forth.
We are implementing the practices with negligible or no Significant impact on Environment by adopting with best standards / principles / certifications to maintain our quality with well again environment and social practices.

Lucky Cement Limited

Founded in 1993, Lucky Cement Limited stands as the flagship company of Yunus Brothers Group (YBG). Lucky Cement is the largest producer of Cement in Pakistan with production capacity of 12.15 MTPA and remains one of the country's leading exporters of quality cement. Lucky Cement is listed on the Pakistan Stock Exchange (PSX).
The Company has also issued Global Depository Receipts (GDRs), listed and traded on the Professional Securities Market of the London Stock Exchange and is the first Shariah Compliant Company of Pakistan certified by the SECP.
Over the years, the Company has grown substantially and is expanding its business operations with production facilities at strategic locations in Karachi to cater to the Southern regions and Pezu, Khyber Pakhtunkhwa to serve the Northern areas of the Country. Lucky Cement is Pakistan's first Company to export sizeable quantities of loose cement, being the only cement manufacturer to have its own loading and storage export terminal at Karachi Port. Lucky Cement strives to remain an efficient and low cost producer and is one of the pioneers to introduce and install Waste Heat Recovery, Refuse Derived Fuel (RDF) and Tyre Derived Fuel (TDF) Plants in Pakistan. It also has self sufficient Captive power generation facility of 180 MW and supplies additionally generated electricity to support the National grid. Lucky Cement owns a fleet of Bulkers and Trailers, which gives added advantage in terms of logistics and efficient deliveries to all types of customers spread across the length and breadth of the Country.
Lucky Cement remains focused on the responsible and rational use of natural resources, a strategy that allows it to reduce any adverse impact of its operations and increase its operational efficiency. The Company has embedded sustainability at the core of its operations. All the initiatives developed in relation to eco-efficiency are based on its commitment towards the United Nations Sustainable Development Goals 2030.

Oil and Gas Development Company Limited

OGDCL's under a forward-looking management foresees the organization as not only the leading E&P Company of the country, but also as a company known for its people, partnerships and performance in the region. The Company continued with its strategies of accelerating oil and gas exploration, adding to its reserves, early development of newly discovered fields and strengthening of its oil and gas production base in order to enhance indigenous production of the country and create value for its shareholders. It has grown into a technically feasible and commercially viable organization and developed a highly qualified pool of professionals who can undertake and supervise almost all phases of oil and gas exploration and production starting from preliminary geological surveys and culminating in the operation of oil and gas processing plants. In order to execute the exploratory and development programmes, OGDCL has also developed a sound equipment and operational base which includes drilling rigs, Workover rigs, Geological Field Party, Seismic parties, Engineering Field Parties, Gas Gathering and Pipeline Construction Party, Seismic Data Processing Centre, Geological Analysis Laboratory, Wireline Logging Unit, Cementing Units and Data Logging Unit. OGDCL with an aggressive business development strategy provides an enabling environment for foreign participation (either as a JV partner or on a stand-alone basis). The Company is also aiming at fast-track development of its current and future projects at an aggressive pace without compromising quality and transparency.

Naubahar Bottling Company Private Limited

Naubahar Bottling Company is one of the Largest manufacturer & distributor of Pepsi Cola Soft drinks in Pakistan.

We have capacity to produce diversified portfolio of

- PepsiCo CSD Products i.e. PET & RGB,
- Bottle Water i.e. Aquafina Bulk & Aquafina PET
- Juices i.e. RGB & Tetra Pak

Vision & Objective:

NBC vision & objective is based on slogan "Customer Satisfaction is our Success", for that we focused to deliver the Safe & Quality oriented Product to their Customers which should meet or exceed their perception.

NBC has adopted, Best Practices for the Conservation of Water & Energy, Utilization of Renewable Resources for the Betterment of Environment. NBC also has taken the measures for the Plantation of Trees in different areas.

For customer Satisfaction & improvement in process, Company always Focused on Local and National Regulatory & Legislation Obligations like PFA, PSQCA & EPA, International standards like ISO 9001, 22000, HACCP, GMP, Halal and AIB standard.

NBC always believes on Innovation in Technology, values & standard procedures, focused on improvement in productivity and investing on their Employees. We believe on individual's Skills development agenda like personal Training, KPIs, Empowerment, development programs, and workshops.

Nishat Mills

Nishat Mills Limited is a public limited Company incorporated in Pakistan under the Companies Act, 1913 (Now Companies Act, 2017) and listed on Pakistan Stock Exchange Limited. Its registered office is situated at 53-A, Lawrence Road, Lahore. The Company is engaged in the business of textile manufacturing and of spinning, combing, weaving, bleaching, dyeing, printing, stitching, apparel, buying, selling and otherwise dealing in yarn, linen, cloth and other goods and fabrics made from raw cotton, synthetic fibre and cloth and to generate, accumulate, distribute, supply and sell electricity.

Nishat Power Limited

Nishat Power Limited is a public limited Company incorporated in Pakistan under the repealed Companies Ordinance, 1984 (Now Companies Act, 2017) and listed on Pakistan Stock Exchange Limited. The Company is a subsidiary of Nishat Mills Limited. The principal activity of the Company is to build, own, operate and maintain a fuel fired power station having gross capacity of 200 MW ISO in Jamber Kalan, Tehsil Pattoki, District Kasur, Punjab, Pakistan. Its Manufacturing units and offices Address For the year ended June 30, 2020 Notes to the Consolidated Financial Statements Nishat Mills Limited and its Subsidiaries 126 registered office is situated at 53-A, Lawrence Road, Lahore. Ownership interest held by non-controlling interests in Nishat Power Limited is 48.99% (2019: 48.99%).

Pakistan Oilfields Limited (POL)

LEGENDARY PAST

Pakistan oilfields Limited (POL) promoted by the Attock Oil Company Limited (AOC) was incorporated on November 25, 1950 as a Pakistani oil exploration & production company. The Attock Oil Company had been engaged in oil exploration & production since the early part of last century & has discovered oil at Khaur (1915), Dhulian (1936), Joyamair (1944) & Balkassar (1946) in the Pothohar region. POL discovered oil at Karsal (1960) & Meyal (1968) in the Pothohar Plateau. POL new Oil & Gas discovery include Pariwali – 1 (1994-95), Pindori (1995), Minwal (1996) & Turkwal (1997) in the Potwar Plateau of the upper Indus Basin.

Our Shining Present

POL operates in nine development & production leases over Balkassar, Dhulian, Joyamair, Khaur, Turkwal, Meyal, Minwal, Pariwali & Pindori fields. POL also owns & operates one deep well drilling rig. POL is actively engaged in oil & gas exploration in two exploration leases namely Ikhlas Block & Kirther South Block in the lower Indus Basin as an Operator.

The company had pioneered 3-D seismic acquisition & its interpretation on state of the art technology. POL has successfully drilled horizontal wells in Meyal, Turkwal & Pindori oil fields which are highly complex tectonic area of Potwar Plateau.

POL has exploration & production joint ventures with OGDCL, Orient petroleum International Inc, Tullow Pakistan (Development) Limited, MOL Pakistan Oil & Gas Company B.V & Pakistan Petroleum Ltd.

POL has gas processing plants at Meyal, Pariwali & Pindori fields. POL also operates an extensive pipeline network for transportation of crude oil from fields to Attock Refinery Limited at Rawalpindi.

Our Future Our Hope

In addition to exploration & production for hydrocarbons the company also produces & markets Liquefied Petroleum Gas (LPG), Sulphur & Solvent oil. POL holds marketing license for LPG & is selling bottled LPG under the brand name of POLGAS. POL has a subsidiary company namely CAPGAS (Private) Limited, engaged in the marketing & distribution of Liquefied Petroleum Gas (LPG). Pakistan oilfields Limited & its parent company (AOC) have from inception to-date produced more than 156 million barrels of oil & 590 billion cubic feet of gas from the Pothohar plateau region.

18th ANNUAL ENVIRONMENT EXCELLENCE AWARD 2021

PROFILES OF AWARD WINNERS

PepsiCo Pakistan

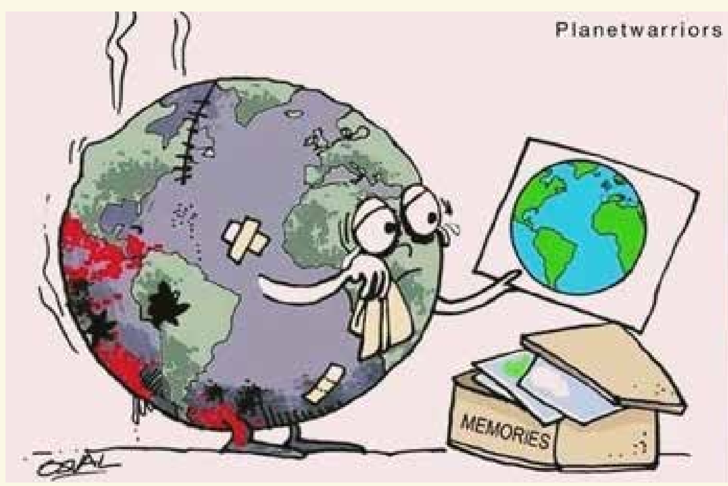
Since PepsiCo first entered Pakistan in 1968, our operations have reflected a strong commitment to Pakistan's people, communities and economy.
We have steadily expanded our portfolio of food and beverage brands as the country itself has continued to grow and prosper, supporting and investing in Pakistan and its bountiful resources through mutually beneficial relationships with all those who collaborate in PepsiCo's value chain.
Our business is guided by Performance with Purpose, our governing philosophy. This philosophy, first articulated in 2006, focuses on delivering sustained financial results while being responsive to the needs of the world around us. It specifically reflects three overarching priorities. First is making healthier products by reducing sodium, saturated fat and sugar content in our products, in some cases by more than 80 percent. Second is limiting our environmental impact by reducing water and energy consumption while increasing our recycling efforts. Third is upskilling our people while uplifting the communities we serve by sponsoring various drives and initiatives to reduce hunger and malnutrition while promoting health and wellness. The result today is a growing number of partnerships in Pakistan's business community, collectively working toward ongoing advancements in the country's economy, infrastructure, environment and society.
Many of our brands in Pakistan today are immediately recognizable household names which have reduced amounts of sugar, salt, saturated and trans-fats. We have leveraged PepsiCo's global best practices to establish comprehensive internal procedures that ensure food safety controls covering the entire supply chain from raw material, through production, and ultimately the retail shelf.

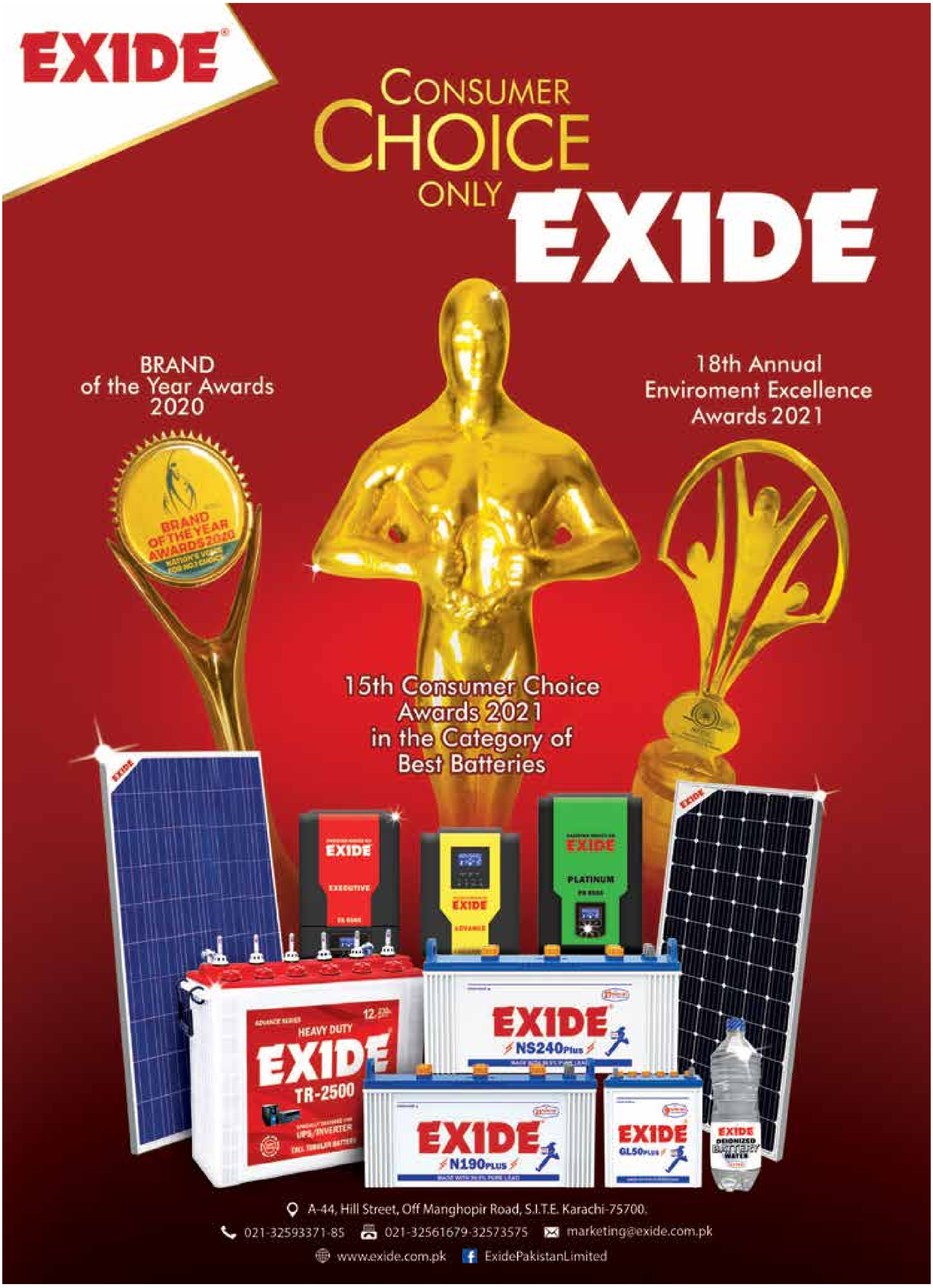
Mondelēz Pakistan Limited

Mondel□z International is an American multinational confectionery, food, and Beverage Company which consists of approximately 83,000 individuals around the world. It consists of the global snack and food brands of Kraft Foods Inc. The company operates in 165 counties around the world. Mondel□z international is the largest chocolatier, biscuit baker and candy maker and second largest maker of gum. Before the October 2012 it was operating as Kraft Foods. Mondel□z international portfolio includes several billion dollars brands such as Oreo, chips Ahoy, Belvita, Triscuit, LU, Nabisco, club social , Barni, and Milka , Terry's, Cote d'Or. Our most familiar products in Pakistan are Cadbury daily Milk in chocolate; éclair and softmint in candy and Tang for (powder beverages).

Pfizer Pakistan Limited

Pfizer is much concerned of the designing a comfortable office environment which is about more than aesthetics; careful attention to design can give a boost to employee happiness.
Temperature is the most common office complaint among workers, but there are a number of ways to get ahead of such issues. Our HVAC (heating, ventilation, air conditioning) system works at 26oC which gives more comfort to our colleagues working in 8 to 9 hours.
Our Pfizer office space doesn't have to adhere to the old standard of a ring of executive offices around the perimeter, a cluster of cubicle spaces in the middle and a staid lunch area occupied only at mid-day. These office configurations limit collaboration and have been shown to slow response times in bringing products to market or responding nimbly to client needs. Pfizer give thought to furniture design which ergonomically fits the needs of employees and their work habits
Pfizer has implemented the policy of open offices and open-door policy so every employee has a chance to reach out to any level of management whenever required Pfizer is associated with the plants, we have lavish green garden that credited reducing stress and helping to aid concentration. They generate good working relations by demonstrating that our company cares for its staff, good morale is good for our workers and productive happy workers are good for our bottom line.
Pfizer has also planned to establish joy corners in the facility, Pfizer EHS seeks continues improvement by providing better environment and effective monitoring i.e; Continually monitoring scientific and technical developments by remaining sensitive to EHS expectations and community needs, and taking prudent steps to manage risk
Implementing corporate guidelines for conducting operation in a healthy, safe and environmentally sounds manners with legal requirements as the starting points. Continually improve our environmental, health and safety performance by regularly establishing objectives and targets Measuring EHS performance through regular assessment of compliance with corporate EHS guidelines, internal procedures, local regulations and management reviews.

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PROFILES OF AWARD WINNERS

Pharmatec Pakistan (Pvt.) Ltd

Pharmatec Pakistan (Pvt.) Ltd. will make proper provision for the health, safety and welfare of its people, visitors and contractors and those in the community who may be affected by its activities. It will care for the environment through a commitment to good environmental practices. Continual improvement will be achieved by implementing the Company's Health, Safety & Environment {EHS) Management System and related standards, which will include the setting of objectives and targets.

As a minimum the Company will meet relevant legal industry and other requirements. The Company aims to reduce the health, safety and environmental impacts of its products and processes and prevent pollution by utilizing a structured risk managed line management approach, taking into account the needs of its customers and society at large. All new activities will be assessed for environmental impact and appropriate health and safety provision. Management is responsible for enacting this policy and giving EHS equal priority with all other business issues. Implementation will be through line managers who will involve employees in the achievement of the Company's objectives. Supported by dedicated EHS Team.

It is recognized that accidents, ill health and environmental incident may result from failings in management control and are not necessarily the fault of an individual employee. All employees, however, are expected to accept their responsibility to work safely, adhering to safety rules and work procedures using safety equipment provided, and generally to contribute to the maintenance of safe and healthy conditions. They also have a duty to be environmentally responsible and to have regard for environmental controls. The Company is committed to effective communication and constitution on EHS matters with all relevant parties and will report internally and publicly on its EHS performance on a regular basis. It will provide appropriate health, safety and environmental training to employees to enable them to meet the required standards of performance.

Polish Oil & Gas Company Pakistan Branch

PGNiG, also known as Polish Oil and Gas Company (POGC) operates in Pakistan as a branch office of PGNiG Group, which has a majority shareholding of the Polish Government. PGNiG began its operations in Pakistan in May 1997 and has been conducting petroleum exploration and production activities as an Operator since then. Before acquiring the current Kirthar Concession (Block No. 2667-7), PGNiG operated and carried out exploration activities in four other Concessions namely Khanpur West, Sabzal, Mekhtar and Sabzal South. PGNiG has also held a 40% Working Interest in an exploration block in Nawabshah, Sindh as a Non-Operating Partner. PGNiG acquired the Kirthar Block, located in District Dadu (Sindh), as the operator in 2005 and Pakistan Petroleum Limited (PPL) farmed-in the Block as a Joint Venture Partner in 2006. PGNiG made the discovery of Rehman-1 well in 2009 and started extended well test (EWT) production from it in 2013 hence, becoming the first "Tight Gas" producer in Pakistan. The appraisal phase for Rehman gas field was successfully concluded in August, 2015 whereby commerciality of the field was declared. The Government of Pakistan awarded a Development and Production Lease over Rehman field in 2017 for a period of 25 years.

In 2015, PGNiG made a second discovery by drilling Rizq-1 well in the Kirthar Block. This year also earmarks the commissioning of the Rehman Production Facility (RPF) which was constructed to process the produced gas from Rehman and Rizq fields.

Roots School System

Education for Tomorrow's World!

Developing profound knowledge, entrepreneurial skills and values through 3E's: Exposure, Expansion & Exploration to meet the challenges of 21st century!

Roots School System RSS is a leading 21st model private sector educational institution styled on the modern 21st century educational system of international standards, specially designed to meet the requirement of the students to meet the challenges by involving the three E's approach EXPOSURE - EXPANSION - EXPLORATION. Established since April 1988, Roots has innovated modern education standards, with universally acclaimed academic excellence and all round development of students. Roots School System has more than 100 Campuses nationwide with an incessant increase in student number to nearly 25,000 plus students today. Roots has achieved academic excellence and all round development of students for over 25 years.

MISSION STATEMENT

Roots aim is to bring out the best in a child mentally, intellectually, academically, physically and culturally by developing the attitudes, abilities and skills in the students, required to meet the Global Challenges through advancements in curriculum, teaching methodology, school culture and technology.

VISION

Over the next ten years Roots will develop its role as a leading Pakistan based international school / college, championing a socially inclusive approach to participation in higher education. We will deliver outstanding academic and training programmes on our campuses, enabling those who choose to study at Roots to transform their lives and shape their own futures.

18th ANNUAL ENVIRONMENT EXCELLENCE AWARD 2021

PROFILES OF AWARD WINNERS

Quality Testing Services (Pvt.) Ltd

Quality Testing Services (Pvt.) Limited ("QTS), formed in June 2012, from a parent organization M/s. EMC Pakistan Pvt. Limited, a market-leading firm of environmental and engineering consultants, operating in the environmental services sector in Pakistan since 1997. Quality Testing Services is mandated to engage in the high quality accredited analytical services for liquid, gases and solid for different projects and industries. Staffed and managed by a highly enterprising, qualified, technical and motivated team of professionals, QTS aspires to be the premier climate change and renewable testing laboratory in Pakistan by providing bespoke solutions to clients and understand their needs in terms of the technical and commercial demands they face.

Quality is important to our business because we value our customers. We strive to provide our customers with services which meet and even exceed their expectations. We are committed to continuous improvement and have established a Quality Management System which provides a framework for measuring and improving our performance. We have systems and procedures in place to support us in our aim of total customer satisfaction and continuous improvement in our services. Our recognition and acceptance of these responsibilities will be demonstrated by our commitment to: Complying with our regulatory, legislative, contractual or other obligations, and anticipating them whenever possible; Continually improve our quality management systems by reviewing objectives, conducting audits and management reviews under International standards; seeking to satisfy our customers fully by constantly adapting our services to their current needs and future requirements; guaranteeing that all employees and subcontractors are trained in accordance with their roles and the work they undertake.

Roots International Schools and Colleges Pakistan

Roots International Schools has been voted as the best education providing institution in Pakistan. RIS is Pakistan's third largest Education System and has a broad based Global Curriculum. Established in April 1988, Roots has innovated modern education standards, with universally acclaimed academic excellence and all-round development of students. Roots International Schools has more than 50 Campuses nationwide with over 10,000 students enrolled. RIS has achieved academic excellence and all round development of students of over 29 years. Formed with a vision of molding the intellectual based of the country. Roots serves as a catalyst for economic prosperity and social development of the youth. Its state-of-the-art teaching standards as well as high quality of the student body have earned ROOTS top ranking in the country. Thus, the efforts of RIS are to strengthen the foundations of tomorrow, by bridging the gap between the leaders of today with those who will lead the world tomorrow! Roots has helped students to break through the barriers that have them back and helped students to reach out and indelibly etch their place in history. Rootsians have secured 50 outstanding distinctions in the world on Cambridge, Edexcel, O Level, IGCSE, A Level and BSC Hons University of London International Programmes and ACCA. Out of which 7 have topped in the world, 25in Pakistan and 12 in the region. Such outstanding achievements are the hallmarks of Roots.

Security Papers Limited

Security Papers Limited (" SPL" or "the Company") is a national strategic industrial organization engaged in the business of manufacturing security paper for Banknotes and Other Security Paper products such as Prize Bonds, Defense Savings Certificates, Non-Judicial Stamp Papers, Passport Papers, Cheque Book, Certificate for Educational Boards and Degree for Universities. Due to its strategic nature of operations, the Company has been classified as Category 1A (KPID) Key Point Installation by the Government of Pakistan.

SPL was incorporated in 1965 as a Private Limited Company and became a Public Limited Company in 1967 with the vision to be a recognized and accepted Security Paper Producing Organization providing the highest quality paper with numerous security features to its customers. The Company started its commercial production in 1969. The new state-of-the-art Paper Machine (PM-2) started commercial production in 2003. The PM-2 is producing high-quality specialized Banknotes and Other Security Paper of international standard with custom made security features including 3-dimensional tonal variation watermarks and numerous other counterfeit deterrence capabilities. The production process primarily involves local input of cotton comber and water as raw materials. The Pakistan Security Printing Corporation (Pvt.) Limited (PSPC) is the main customer of SPL. Over the years, the Company has grown substantially and is expanding its production capacities to cater to the ever-growing requirements for security paper products. SPL strives to remain an efficient and low-cost producer of security paper for its customers. To meet current and future technological challenges, SPL has been regularly investing in upgrading its manufacturing facilities to ensure continuous supply of high-quality Banknotes and other security papers to its customers. Being self-reliant, the Company is also saving a substantial amount of foreign exchange, which would have been otherwise required for the import of such sensitive paper. SPL has been gradually enhancing the paper production capacity which has increased from 4,000 tons to 4,500 tons, extendable up to 5,000 tons per annum.

Quaid e Azam Thermal Power Private Limited

Quaid e Azam Thermal Power Pvt. Limited (QATPL) was established under Companies Ordinance 1984 by Government of Punjab in March 2015, with the mandate to set up Bhikki Power Plant. It is a government owned plant located along Q.B. Link Canal near Sheikhupura, District Punjab. Bhikki Power Plant is a combined cycle power plant with tested net efficiency of 61.60% and tested net capacity of 1163.123 MW. It employs the latest and state of the art H-Class gas turbines of General Electric (9HA.01). It is one of the most efficient power plants in Pakistan with one of lowest project costs. The Project configuration is 2 gas turbines, 2 heat recovery steam generators and 1 steam turbine (2+2+1). The primary fuel is imported Re-gasified Liquefied Natural Gas (RLNG) while High Speed Diesel is backup fuel. Power evacuation is done through Gatti-Lahore 500kV transmission line. RLNG is supplied by SNGPL through 18 km spur gas pipeline from Qila Sattar Shah. The project was completed in unprecedented timeline of 32 months and achieved commercial operations date on 20-May-2018. The plant has delivered approximately 16.6 billion units of cheap and clean energy to the national grid till date. The plant has complied with all national/ international/ world Bank /IFC environmental regulations since construction phase began and continues to do so.

Sindh Engro Coal Mining Company

Sindh Engro Coal Mining Company (SECMC) is Pakistan's leading coal producer operating Pakistan's first open-pit lignite mine in Block II of Tharparkar area in Sindh province of Pakistan with the vision to develop a technically and commercially viable Coal Mining Project in Thar Block – II and to bring energy security to Pakistan. SECMC's mining project is categorized amongst the 'early harvest' projects under CPEC to generate electricity utilizing Thar's untapped coal reserves. With a current annual mining capacity of 3.8 million tons we continue to provide lignite quality coal to power producers in Pakistan. While the total reserves of Block II are sufficient to support 5000MW of energy for 50 years; enough to pull the country out of the energy crisis. SECMC's commitment to sustainability is the common thread that runs through all of our actions. Our sustainability strategy is deeply centered on our long-standing core values of safety and environment stewardship having amassed key national and international awards of excellence. SECMC is dedicated to market-driven leader in the coal industry and to creating superior long-term integrated value.

Sui Northern Gas Pipelines Limited (SNGPL)

Sui Northern Gas Pipelines Limited (SNGPL) was incorporated as a private limited Company in 1963 and converted into a public limited company in January 1964 under the Companies Act 1913, now The Companies Act 2017, and is listed on the Pakistan Stock Exchange (PSX).

Sui Northern Gas Pipelines Limited (SNGPL) is the largest integrated gas company serving more than 6.8 million consumers in North Central Pakistan through an extensive network in Punjab, Khyber Pakhtunkhwa and Azad Jammu & Kashmir and is certified against ISO 14001:2015 & OHSAS 18001:2007 Standards. SNGPL's 11 sites have been registered under the "SMART2" Program by Pakistan Environmental Protection Agency (PAK-EPA). The Company has over 50 years of experience in operation and maintenance of high-pressure gas transmission and distribution systems. It has also expanded its activities as Engineering, Procurement and Construction (EPC) Contractor to undertake the planning, designing and construction of pipelines, both for itself and other organizations.

SNGPL transmission system extends from Sui in Baluchistan to Peshawar in Khyber Pakhtunkhwa comprising over 9,143.75 KM of Transmission System (Main lines & Loop lines). The distribution activities covering 4,967 main towns along with adjoining villages in Punjab & Khyber Pakhtunkhwa are organized through 16 regional offices. Distribution system consists of 135,857 KM of pipeline. SNGPL has over 6.8 million consumers comprising Commercial, Domestic, General Industry, Fertilizer, Power and Cement Sectors. Annual gas sales to the consumers were 623,724 MMCF during Jul 2019 - Jun 2020.

Pharmevo (Pvt.) Limited

Our journey started in 1999, and our passion for relentless growth has led us to the forefront in the Pharmaceutical Industry in Pakistan. We are proud of each step of our transformational journey, and our mission to provide quality and innovative healthcare solutions has made us among the top 20 Pharmaceutical companies in Pakistan.

The PharmEvo family is committed to improving lives by developing, manufacturing and marketing high-quality products. Driven by our core values, we take great pride in being pioneers of Socially Responsible Marketing in Pakistan. Our ethical approach and cause-based marketing defines our business strategy, both within and outside Pakistan.

Total PARCO Pakistan Ltd. (TPPL)

Total PARCO Pakistan Ltd. (TPPL) is a joint venture between Total Marketing & Services and PAK ARAB REFINERY LTD (PARCO). It is one of the largest international oil marketing companies in Pakistan. Total PARCO is at the service of both retail and B2B customers in Pakistan. In 2015, Total PARCO acquired the Chevron retail network, making it the second largest OMC operating in Pakistan. Total PARCO Pakistan Limited is committed to human development, quality, reliability and operational safety for its employees, contractors and business partners.

Total is a broad energy Group, which produces and markets fuels, natural gas and electricity. Our 100,000 employees are committed to better energy that is safer, more affordable, cleaner and accessible to as many people as possible. Active in more than 130 countries, our ambition is to become the responsible energy major.

The Marketing & Services division of Total develops and markets products primarily derived from crude oil, along with all of the associated services. Its 32,000 employees are present in 107 countries and its products and services offers are sold in 150 countries. Every day, Total Marketing Services serves more than 8 million customers in its network of over 15,600 service stations in 71 countries. As the world's fourth largest distributor of lubricants and the leading distributor of petroleum products in Africa, Total Marketing Services has production sites all over the world, where it manufactures the lubricants, bitumen, additives, special fuels and fluids that sustain its growth.

Total PARCO has the 2nd largest network in the country with more than 800 retail outlets in Pakistan, targeting an addition of more than 20 service stations per year. TPPL is an employer of choice with more than 1000 highly trained Pakistani employees (450 direct and 600+ indirect). TPPL is also the 1st Asian non-export blending plant to launch the PURE project, which is essentially revamping and optimizing the packaging of Total PARCO's lubricant ranges. We are The 1st Oil Marketing Company (OMC) to introduce Euro 5 fuel in 92 RON Gasoline in Pakistan. Total Excellium HOBC (97 RON) was launched in 2018 and is now available in Euro 5 specifications.

The SEARLE Company Limited

Restoring suffering humanity to good health drives The Searle Company Limited (TSCL) relentlessly in the pursuit of excellence on a daily basis. This is reflected in Searle's appearance on Forbes list of Asia 200 best under a billion companies. Searle has established a state-of-the-art Research & Development Centre at ICCBS Technology Park, University of Karachi with the first of its kind technology incubator in Pakistan where much needed research in the field of medicine takes place. The great good fortune that the Creator has bestowed upon Searle has compelled it to work unconditionally and ceaselessly for the betterment of the less privileged amongst us with a focus on skill development, education, research, health, environment and philanthropy. The Citizens Foundation (TCF) is a major beneficiary of Searle's CSR outlay and, alongside other conscientious corporate and private citizens, TCF runs 1,567 schools at 100 locations educating 252,000 less privileged children and giving employment to 12,000 teachers. Searle also manages the Abdul Khaliq Abdul Razzaq (AKAR) Hospital providing free diagnosis, OPD clinics, surgeries and medicines for the less privileged. Searle supports "The Hunar Foundation (THF)", a non-profit organization that was established in 2008 with the commitment togenerating social change by creating a skilled Pakistan. Searle's commitment to the many communities it serves in Pakistan and across the world is without question, and it is our firm belief that the more we give back to society the more we are blessed with success. May Allah bless our Planet Earth with the choicest of health, wealth and happiness, Ameen

Tri-Pack Films Limited (Tri-Pack)

Tri-Pack Films Limited (Tri-Pack) – a joint venture between Mitsubishi Corporation of Japan and Packages Limited of Pakistan was incorporated as a Public Limited Company on April 29, 1993 to produce Biaxially Orientated Polypropylene (BOPP) Films in Pakistan. Its head office is based in Karachi and regional offices are located in Karachi, Lahore and Hattar where focus is to provide customers with dependable, economical and quality films backed by strong customer services. Tri-Pack is indeed proud of making distinctive contributions to the packaging industry in Pakistan. Since inception the Company has been on a growth trajectory and has come a long way from one BOPP Line of 5,400 tons to four BOPP Lines of 66,800 tons and two CPP Lines of over 17,000 tons.

At Tri-Pack, our passion to cater to the needs of our customers lies at the heart of every endeavour. We go a long mile to get results, operate responsibly, apply innovative technology, execute with excellence, and capture new opportunities to create a wonderful world today for generations to come.

We aim to create long-term value for shareholders by catering to growing demands in a safe and responsible way. We not only strive to be a world-class operator, but also a responsible corporate citizen and an employer of choice. Our people and our products are the hallmark of our success that give us the strength to endeavour to be amongst the front runners in delivering to our customers, shareholders and community.

PROFILES OF AWARD WINNERS

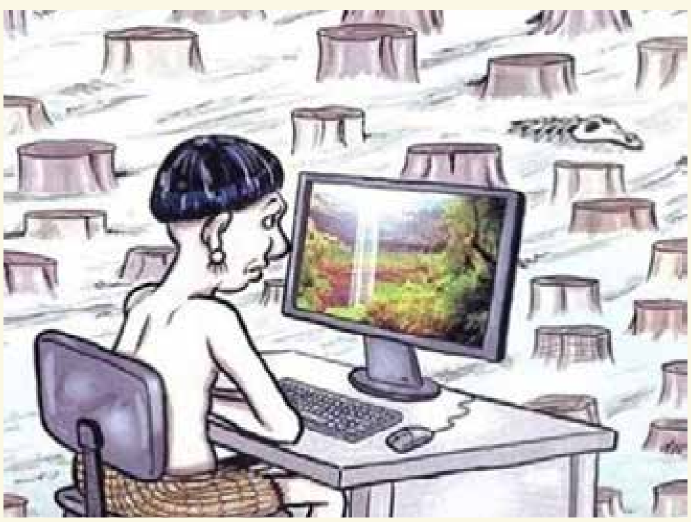
Shahbaz Garments Limited

For over 35 years, Midas Safety has been 'Protecting the Working Hands of the World'. Our product line has now expanded to the point where we have the most diverse portfolio in the Personal Protective Equipment Industry. We provide Head to Toe safety solutions. All production facilities across the globe are ISO 9001:2015 certified and all products are fully tested against all applicable CE Standards. Midas Safety sells in over 50 countries of the world through offices in Middle East, Asia Pacific, North America and Europe.

Customer driven research and development forms the core of our manufacturing philosophy. We are dedicated to product quality and services that exceed customer expectations. Our Innovation Center works diligently with customer's / end users and the regional manufacturing facilities to meet the ever changing and demanding needs of the PPE industry. Our brand is about optimism, future and most of all safety. To 'Progress and Thrive Safely', is what makes Midas Safety relevant to everyone! Our customers, our partners, our people and our communities. At Midas Safety, we value the lessons learnt from the past. We also celebrate the hard work, dedication and the smart decisions made by the Midas team, which have been instrumental in the company's success.

At Midas Safety, we recognize that the potential of human achievement is limitless. We know that given the right environment and enablers, the impossible becomes possible. At the same time, we acknowledge that life is vulnerable. Life must be nurtured, protected and cared for. It can never be taken for granted.

Midas Safety's strategic partnerships and global capabilities help discover valuable insights, so we can innovate and deliver the highest quality products and services. This dedicated approach has earned us the honor of being the Number 1, private label, safety glove manufacturer in the world. Midas Safety is big enough to matter but small enough to care.



UCH Power (Private) Limited

UCH Power station is located about 120km from Sukkur city near Dera Murad Jamali in district Naseerabad Baluchistan on N65 National Highway leading to Quetta.

The Power station is located about 8km from Dera Murad Jamali city.

UCH Power Station is a part of internationally renowned Energy concern “Engie” The company maintains highest International standards of Environment Health & Safety. Uch Power (Private) Limited (UPL) is an IMS certified company with certifications of IOS 14001, ISO 18001 and ISO 9001.

The company (UPL) wants to engage a professional and licensed contractor for its solid waste management & disposal for its site in Dera Murad Jamali.

OBJECTIVE

UPL requires the contractor to develop and implement a waste management system to ensure that all the waste is managed responsibly and in environmentally safe manner and provide services for handling at site including pickup, segregation, stabilization and temporary storage at site and transportation and ultimate disposal. The waste management will be carried out in accordance with all applicable national regulations, and possible best practices in the country's scenario.

Hilal Foods Pvt Ltd

Hilal Foods is one of the Pakistan's leading FMCG company in value-added food segment with state-of-the-art manufacturing facilities, and quality brands nurtured through innovation and excellence. The company successfully exports to more than 20 countries around the world. Since its inception in 1957, Hilal Foods is manufacturing high quality products with prime focus on continuous improvement and Research and Development.

Hilal Group is guided by a set of core values, we believe in, and stand for; which guide our actions, decisions and are the core drivers of our corporate belief system.

People – We are a team with a winning & entrepreneurial mindset

Integrity – We have zero tolerance on breach of integrity as this is the human quality most necessary for business success

Excellence through Innovation – This is our passion, built in our DNA & one of our key success factors

Collaboration – Key driver to promote teamwork, trust, respect, honesty and an open culture

Customer & Consumer – Our ultimate goal

Chottani Industries

Established in 1989, Chottani Industries has grown to be one of the leading apparel solution providers in Pakistan. Through a wide Product Portfolio ranging from Denim Jeans to Knit Jogg-jeans and Jackets to OverAlls, the company has earned it's goodwill from reputed brands across the globe. Chottani's success is rooted in it's investments in human capital and state-of- the-art manufacturing facilities. It possesses the skills, expertise, infrastructure and financial strength necessary to attain customer satisfaction through excellence in product quality, flexibility and cost competitiness. The company is always exploring new markets across the globe and is currently exporting Garments to: Canada, France, Germany, Spain, Sweden, UK and U.S.A.

Our Corporate Social Responsibility

Our Corporate Social Responsibility has been acknowledged by some of the prominenet retailers of Knits and Woven Garments in Europe and USA. We are a BSCI and SEDEX certified company besides being approved by a number of customers's internal social audit departments. Regarded in the industry as a preferred employer, Chottani Industries is devoted to employee development and training , which has given us ne of finest team of dedicated professionals in th textile industry. We have also adopted a school with the strength of more than 300 Under-Privileged students through The Citizens Foundation.

Dua Foundation

DUA Foundation has established NICU in Tharparkar, Umerkot, and Karachi. DUA Foundation initiated the distribution of PPEs to the frontline doctors and other medical staff in the very first days as COVID-19 appeared, to more than 50 public sector hospitals in Sindh and KPK. COVID-19 telemedicine helpline established and healthcare apparatus provided to patients quarantined at homes. DF has completed more than 1700 water projects which are benefitting more than 7 lacs people in around 150 localities of Sindh. 52 Agro farms developed in Tharparkar. Indigenous and domestic crops, vegetables, and fruits, and expensive varieties of date palms like Ajwa, Madjool, Noor deglate, Dhakki, Qalmi, Basra, and many other fruits like figs, mulberry, pomegranate, dragon fruit, anna apple, berries, and lotus were cultivated. DF brings about the concept of olive grafting to millions of wild olive trees in the forests of Sindh, Baluchistan, and KPK. DF is contributing to setting up an Urban Forest in Karachi University, has provided more than 13000 plants of various species. DF has signed MoU with Engro Coal Mining Company (SECMC) and National Forum for Environment and Health (NFEH) to plant 50,000 trees in Tharparkar in collaboration. DF is continuously running plantation campaigns with KMC and other Govt departments to preserves the local environment.

Kot Addu Power Company Limited

KAPCO is Pakistan's largest Independent Power Producer (IPP) having a name plate capacity of 1600 MW. Kot Addu Power Plant was built in five phases between 1985 and 1996 in Kot Addu, Punjab, Pakistan, by the Pakistan Water and Power Development Authority (WAPDA). Kot Addu Power Company Limited (KAPCO) was incorporated as a public limited company in April 1996, under the Companies Ordinance, 1984 with the objective of acquiring the Power Plant from WAPDA. The principal activities of KAPCO include the ownership, operation and maintenance of the Power Plant.

Following the successful completion of the Offer for Sale by the Privatization Commission (on behalf of WAPDA) in February 2005, 18% of KAPCO's shareholding is now held by the General Public.

On April 18, 2005 KAPCO was formally listed on all three Stock Exchanges of Pakistan.

The Power Plant comprises of 10 multi fuel fired gas turbines and 5 steam turbines. The Power Plant is divided into 3 energy Blocks. Its combined cycle technology enables KAPCO to use the waste heat from the gas turbine exhaust to produce steam in the Heat Recovery Steam Generator, which is then used to run the steam turbines, resulting in fuel cost efficiency and minimum wastage.

The Power Plant is a multi-fuel gas-turbine power plant with the capability of using 3 different fuels to generate electricity, i.e. Natural Gas, Low Sulphur Furnace Oil and High Speed Diesel. The Power Plant is also the only major plant in Pakistan with the ability to self start in case of a country wide blackout. \

KAPCO is the first company in Pakistan to be awarded three simultaneously accreditations under the title of the Integrated Management System. For its achievements in areas of quality, environment and safety, KAPCO was awarded the relevant certifications in July 2004. The current certifications held by KAPCO are ISO 9001 - 2008 Quality Management System; ISO 14001 - 2004, Environment Management; and OHSAS 18001 - 2007 Occupational Health & Safety Management.

Wilshire Laboratories (Pvt.) Limited.

Wilshire Labs is among top pharmaceutical companies operating in Pakistan. Wilshire Labs (Pvt) Ltd has come a long way. With over 35 years of WHO, cGMP and DRAP certified manufacturing experience; we proudly offer highest quality pharmaceutical, nutraceutical and natural products. Wilshire has established global footprint in more than 20 international markets, catering to the national and worldwide needs of humanity par excellence. Our recent initiative to expand our reach and services is a step towards fully achieving our vision and mission. We are committed to improving the vitality of human life, a cause worthy of our unwavering commitment and resolve.

18th ANNUAL ENVIRONMENT EXCELLENCE AWARD 2021

PROFILES OF AWARD WINNERS

Huaneng Shandong Ruyi Pakistan Energy Pvt Ltd

China Huaneng Group (CHNG) is a key state-owned company established with the approval of the State Council of the People's Republic of China, a state-authorized investment institution and a pilot state-holding company.
It is an integrated energy group, with its installed capacity ranking first in the world and its business involving electric power, coal, finance, technology and transportation industries.
CHNG is the first company to have reached the total installed capacity of 100GW in China and has a total wholly-owned installed capacity of 160GW domestically and overseas.
The installed capacity and power generation accounts for 12% in China.
The overseas units are located in Australia, Singapore, Myanmar, United Kingdom, Netherlands, Mexico and Philippines distributed in four continents.
The coal production capacity reaches 68.17 million tons/year, with total assets of 751.3 billion RMB yuan and more than 140,000 employees.
CHNG was the first Chinese power producer to join the ranks of Global Fortune 500 Companies, ranking 217th in 2016.
CHNG has achieved excellent operating results and made important contributions to the national energy security and the stable and rapid economic development, with its overall strength leading in the domestic power industry.
As of the end of 2015, The consolidated operating income reached more than 300 billion RMB Yuan, the controllable installed capacity exceeds 160GW, the low-carbon clean energy consumption accounts for more than 25%, the controllable coal production capacity exceeds 100 million tons/year with more than 25% for CHNG's power generation consumption, and the overseas holding capacity accounts for more than 5%.

Corporate Mission

- A red company fulfilling the need of loyalty and harmony
- A green company advocating Technological innovation and environmental protection
- A blue company advancing forward via continuous innovation and internationalization

Dr. Saif Ur Rehman

Dr Syed Saif ur Rehman, BPS 20, an officer of Pakistan Administrative Service (PAS) .
Posting Details
I. Govt of Sindh
1. Principal Secretary to Governor Sindh, Karachi - Till Date
2. Secretary, Services & General Administration & Coordination Dept, Sept 2020 - Dec 2021
2.Metropolitan Commissioner, Karachi Metropolitan Corporation (KMC) from April.2018 - Sept 2018
3. Director General, Karachi Development Authority (KDA) (2019 - 20)
II. Govt of Balochistan
1. Commissioner, Zhob Division, Balochistan 2017 - 18.
2. Provincial Coordinator Polio Eradication Initiative (PEI) & Expanded Program of Immunization (EPI)
3. Additional Secretarry (Development) Colleges, Higher & Technical Education Dept
III. Govt of Sindh
1. Deputy Commissioner, Karachi Central 2012 - 15
2. Deputy Commissioner, Karachi East, (Additional Charge) 2013
3. Administrator DMC Central 2013
4. Executive District Officer (EDO), Enterprises & Investment Promotion (E&IP), City District Givernment Karachi (CDGK) 2010 -11
5. Project Director Lines Area Redevelopment Project (LARP), City District Givernment Karachi (CDGK)

Achievements:

1. Transparent settlement of thousands of residents of Lines Area & created a new transport artery known as Preedy Street (New M.A. Jinnah Road) from Empress Market to Quaid-e-Azam Mazar.
2. On the orders of Supreme Court, peacefully removal of decades old illegal encroachments around Empress Market, Saddar, Khori Garden, Old City, Karachi Zoo & Aram Bagh areas
3. On the Supreme Court orders removal of illegal encroachments present for the past 60 years in Kidney Hill & developed a park/urban forest for the citizens of Karachi & planted more then 1,50,000 fruits / indigenous trees, this initiative brought a positive impact on the improvement of environment of the city.

Fronus Solar Energy

Solar energy refers to capturing the energy from the Sun and subsequently converting it into electricity. ... We can also use the term solar power with the same meaning. Ad. The Sun's energy is in the form of solar radiation. Solar radiation makes the production of solar electricity possible.

Vision

To be Pakistan leading renewable energy company providing the most innovative clean energy solutions to our clients. To execute and operate our projects effciently and maintain the highest standards of quality, safety and environmental sustain ability to foster a culture of trust, collaboration and performance to achieve our business goals and be an employer of choice.To adhere to the highest standards of corporate governance and operate ethically and fairly at all times while continually advancing stakeholder interests.

Sino Sindh Resources (Pvt.) Ltd

Sino Sindh Resources (Pvt.) Ltd, founded in 2011 in Pakistan specialized in mining operation service, is one of the overseas subsidiaries of Shanghai Electric Group Co., Ltd. Mr. Wang Xiaofan is currently the CEO and the general manager of the company. There are Admin & HR Department, Finance Department, Logistic Management Department, Business Management Department, Production Technical Department, Electrical & Mechanical Management Department, HSE Department and other departments with 27 Chinese employees and 26 Pakistani employees.

Coal-electricity integration project in Block 1 of Thar Coalfield, a "China-Pakistan Economic Corridor" priority implementation project, includes construction and operation of open-pit coal mine with an annual output of 7.8 million tons and 2X660MW supercritical lignite power station.

Sino Sindh is the solely operator of the 7 .8 Mtpa Open-pit Coal Mine project. The Block 1 open-pit coal field covers an area of 140km2, and the estimated total lignite resource reserve is about 3.8 billion tons, which is No. 1 in Asia and No. 7 in the world and also the largest open-pit coal mine under construction in Pakistan. Surface excavation and removal adopts the interval mining process with single-buck excavators and dump trucks and through continuous mining process the coal extraction will be done using single-buck excavators, dump trucks, semi-mobile crusher station and belt conveyor. Main equipment for both the surface excavation and coal extraction work includes hydraulic excavators and dump trucks and other auxiliary equipment. Based on the workload and exploitation depth of each phase there are different planned transportation system.

Located at the Tharparkar area of Mithi City, Sindh, the area is the most southeast area of Sindh and the poorest and underdeveloped area. Thar coal field is about 65 kilometers from the city center of Mithi in the southwest. lslamkot, about 25 kilometers west to the field, is the closest town to the Thar Coalfield.

The financial arrangement for the project had been closed at December, 2019 and various mining equipments are in position. The operating on the site has been on schedule.

D.G Khan Cement Company Limited

D.G. Khan Cement Company Limited, (DGKCC) is amongst largest the cement manufacturers of Pakistan with a production capacity of 22,400 tons per day (6.72 million tons/annum). DGKCC has four cement plants, two plants located at Dera Ghazi Khan, one at Khairpur Distt. Chakwal and one at Hub Lasbela District (Balochistan). All the plants are based on latest Dry Process Technology.

The Company operates through a countrywide distribution network managed by different Regional Sales offices. The Company's products are preferred on projects of national repute both locally and internationally due to the un-paralleled and consistent quality. The Company is listed on Pakistan Stock Exchanges.

D.G. Khan Cement Company Limited (DGKC/the Company) is a public limited company incorporated in Pakistan. It is listed on Pakistan Stock Exchange. It is blue chip stock.

The Company is created and governed by its statutory documents Memorandum and Articles of Association registered with country corporate authority.

The Company is primarily engaged in production and sale of Clinker, Ordinary Portland Cement and Sulphate Resistant Cement. The Company is progressive and its track record is witness to it. It has created, developed and improved stringent and efficient systems in all areas. Ethics are core to it. The Company is compliant to all applicable laws, regulations and standards.

Patel Hospital

Patel Hospital is one of the prominent not-for-profit tertiary healthcare hospitals

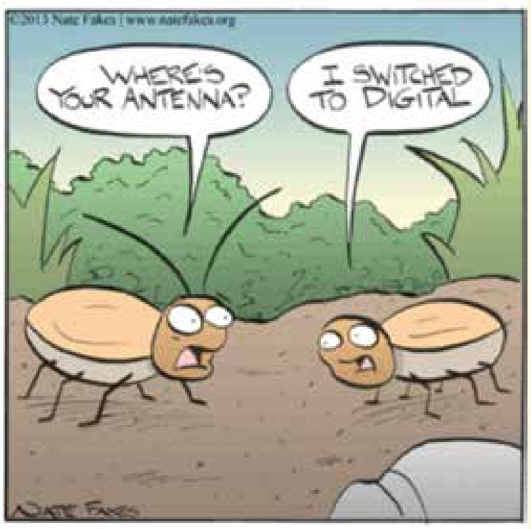
Comprising of more than 250 beds established to provide quality healthcare amenities to all at an affordable cost and Welfare Support to the under- privileged.

The hospital is located in densely populated area of Karachi which provides services to millions of patients arriving from not only in Karachi but also from Interior Sindh, Baluchistan and KPK.

Patel Hospital has been certified by the College of Physicians and Surgeons for post-graduate training and Pakistan Medical & Dental Council.

In addition to that, the hospital is certified with ISO 9001-2015, RIQAS, CAP and PCP and has effectively accomplished the status of a tertiary healthcare & teaching hospital.

At Patel Hospital we offer complete In-Patient and Out-Patient care through automated and advanced equipment, techniques, and a team of highly –skilled, qualified, and dedicated people who share its mission and values.



NFEH

18th ANNUAL ENVIRONMENT EXCELLENCE AWARD 2021

PROFILES OF AWARD WINNERS

TARA Group Pakistan

Story of TARA Group Pakistan revolves around relentless efforts, sheer dedication and a focused pursuit to making dreams come true. It is an entrepreneurial case study that how self-believe, faith and teamwork can do wonders. It is a living example of leadership manifestation through turmoil. It was October 2012 when TARA Group formally launched its business operations. The TEAM took responsibility to compete business giants empty handed and this was not a new thing. The Team had a proven track record to transform small scale businesses into multi-billion corporate giants under steadfast leadership of Dr. Khalid Hameed, the Chairman of TARA Group. Dr. Khalid Hameed is an uncontested industry icon. He is recognized and acknowledged as a man of crises who take right decisions in hard conditions.

Under his dynamic leadership, TARA Group became industry leader within no time. In 2017 – within 5 years of initiating business – TARA Group's yearly business revenue reached to Rs.6 billion and it is ascending rapidly. In this short period, TARA Group managed to launch six companies (detail given below) to cater different business needs of customers.

1. TARA Imperial Industries (Pvt) Limited
2. TARA Crop Sciences (Pvt) Limited
3. Imperial Crop Sciences (Pvt) Limited
4. Star Industries (Pvt) Limited
5. TARA Packages (Pvt) Limited
6. Star Agro Sciences (Pvt) Limited
7. TARA Crop Sciences Seeds (Pvt) Limited
8. Imperial Crop Sciences Seeds (Pvt) Limited

Formulation Plant of TARA Group – which was set up in 2013 – has become competitive advantage of TARA Group due to its unique formulation processes, state of the art equipment, strict standards of Quality Control, high caliber human resource, best quality raw material and uncompromising safety standards. The Plant has won various quality certifications and accreditations e.g. ISO / IEC 17025:2005. Laboratory is a back bone of any formulation plant and Plant of TARA Group has one of the best Pesticides and Fertilizer Laboratory of Agrochemical Industry. Our Laboratory standards have been endorsed by competent regulatory authorities.

TARA Group is providing direct employment opportunities to 1,000 individuals in various disciplines and aggressively investing on its Human Capital which is ONE BIG reason of this unparalleled success.

WINNERS OF 18TH AEEA 2021

1. Abbott laboratories pakisatn limited
2. Airlink communication limited
3. Al karam textile mills pvt limited
4. Archroma pakistan limited
5. Avm chemical industries
6. Bestway cement limited plant – kallarkahar
7. Bestway cement limited plant chakwal
8. Bestway cement limited farooqia
9. Bestway cement limited hattar
10. Byco petroleum pakistan limited
11. Century paper & board mills ltd
12. China power hub generation company.
13. Colgate palmolive pakistan ltd
14. Coronet foods (pvt) limited
15. D.g. Khan cement company limited
16. English biscuit manufacturers (pvt) ltd
17. Engro elengy terminal limited
18. Engro fertilizer zarkhez plant
19. Engro fertilizers limited
20. Engro fertilizers ltd supply chain division
21. Engro polymer & chemicals limited
22. Engro powergen thar limited
23. Engro vopak terminal limited
24. Efu general insurance limited
25. Exide batteries pakistan
26. Fast cables limited
27. Fatima fert limited plant site shaikhupura
28. Fatima fertilizer company limited
29. Fauji fertilizer bin qasim limited
30. Fauji fertilizer company goth machhi
31. Fronus solar energy
32. Gsk consumer health care
33. Habib bank limited
34. Harbin electric international company limited
35. Hilal foods pvt limited
36. Huaneng shandong ruyi pakistan energy pvt ltd
37. Ici pakistan ltd
38. Indus motor company limited
39. Inspec test (private) limited
40. K-electric limited,
41. Kot addu power company ltd (kapco
42. Ksb pumps company ltd
43. Lotte chemical pakistan limited
44. Lucky cement limited
45. Lucky textile mills limited
46. Martin dow limited
47. Mm pakistan (pvt) ltd
48. Mondelez pakistan limited
49. Naubahar bottling company pvt limited
50. Nishat mills
51. Oil & gas development company limited
52. Pak-arab refinery ltd
53. Pakistan oilfields limited
54. Pepsico pakistan
55. Pfizer pakistan ltd.
56. Pharmatec pakistan (pvt) limited
57. Pharmevo (pvt) limited
58. Polish oil & gas company pakistan branch
59. Quaid e azam thermal power (pvt.) Limited
60. Quality testing services (pvt.) Limited
61. Roots international schools & colleges pakistan
62. Roots school system
63. Security papers limited.
64. Shahbaz garments limited
65. Sino sindh resources pvt limited
66. Sindh engro coal mining company
67. Sui northern gas pipelines limited
68. Tara group
69. Total parco pakistan limited
70. Thal engineering limited
71. The searle company limited
72. Tri pack films limited
73. Uch power (pvt) limited
74. Wilshire laboratories (pvt) limited
75. Patel hospital

Tree plantation award names

1. Chottani industries
2. Fatima fert limited
3. Sindh engro coal mining company
4. Dua foundation
5. Dr. Saif ur rahman
6. Hamid ismail foundation
7. Archroma pakistan limited
8. Security Papers Limited

Continued from page 22

IPPs). PSO has been transporting petroleum products, mainly fuel oil, through railways for decades and is the only OMC utilising railways for POL transportation.

PSO used to transport over one million tons of fuel annually through railways. However, owing to the shift in the government's policy, fuel demand has reduced significantly, which has severely affected railways transportation business for this product.

To support Pakistan Railways, PSO increased high-speed diesel transportation through the said entity.

It is pertinent to mention here that Pakistan Railways' limited infrastructure poses a significant challenge as tank wagon loading facility is only available at Mehmood Kot and unloading facilities are only available at Chakpirana, Tarujaba and Sihala. Product movement at these locations represents around 12% of PSO's total diesel primary movement, however, the infrastructural constraints restrict the quantum of diesel movement.

PSO has gone one step ahead to give priority to the national flag bearer - Pakistan Railways, and enhance their transportation volumes by offering other OMCs the option of utilising PSO's infrastructure at Tarujaba for the movement of diesel.

A committee comprising OMC officials and railways was also formed in 2019, however, no OMC is using PSO's infrastructure for railways transportation.

Moreover, PSO, vide letter dated July 14, 2021 requested railways to initiate development and rehabilitation of their infrastructure at different locations for transportation of diesel through railways. Regarding PNSC, officials said that PSO explored shifting transportation to PNSC on FOB under the Contract of Affreightment (COA) from year 2012-18, however, they faced the following issues.

First, PNSC does not take in-transit quality responsibility of product as per the law of the land ie Ogra rules.

In Pakistan, refined petroleum import cargoes have to be tested and cleared by HDIP at Karachi ports before offloading as per Ogra rules. In case of cargo quality failure, there is no recourse available to PSO but to de-berth and return the cargo.

There was also an issue of past delays in vessel provision and lack of commitment. There were more than 70 cases of delays in provision of vessels (2012 to 2018) by PNSC including January 2015 dry-out of petrol. PNSC is not ready to assure timely provision of vessels and bear penalties and responsibility in case of delays for which PSO is fully covered under current cost and freight (C&F) imports.

The officials also said that as PNSC is acting as a middleman relying primarily on chartering. ■

PM Imran Khan performs groundbreaking of KCR

Prime Minister Imran Khan performed the groundbreaking of the Karachi Circular Railway project during a ceremony held at the Cantonment Railway Station in the metropolis.

The premier started his address by talking about the importance of Karachi, saying that the city, despite holding immense significance, had unfortunately faced a decline due to several problems in the past. As a result, the whole country was affected. The premier said that while big projects, like the KCR, often get stuck which incurs more cost.

"Since the KCR is a big project, the Sindh and the federal governments will have to push harder for its timely completion so that it could turn out to be a cost-effective project," the premier said.

Earlier in the day, Railways Minister Azam Khan Swati had issued a statement regarding the KCR and had said that the project will be completed in three years against a cost of Rs207 billion.

The KCR's 29-kilometre track will have 16 stations and 24 level crossings. Frontier Works Organisation (FWO) will lay the track for the KCR while automatic air-conditioned coaches will be run on the track, he said in the statement.

Each train will comprise a locomotive and four coaches and will facilitate 814 passengers at a time. Global tenders will be invited for procurement of the trains.

First batch of 40 Green Line buses arrives in Karachi

A batch of 40 buses, which will be part of the federal government's Green Line project in Karachi, arrived here from China. After a gap of 40 years when the tragic death of a girl in a road accident drastically changed its political situation, Karachi is for the first time getting a modern transport system, observed federal Minister for Planning, Development and Special Initiatives Asad Umar while addressing the ceremony held at the Karachi Port Trust about the delivery of the buses that arrived under the Rs27 billion project.

CPEC Project: ±660 kV HVDC Matiari - Lahore Transmission Line Achieves Commercial Operation

EU Reports

The flagship project under CPEC ±660 kV HVDC Matiari - Lahore Transmission Line has achieved its commercial operation date successfully on 01 Sep 2021 as per agreed timeline between National Transmission and Despatch Company Ltd (NTDC) and Pak Matiari-Lahore Transmission Line Company (PMLTC).

Prior to its COD, as many as 8 power tests on different voltage levels were performed successfully. The power test include Commissioning Tests (DC Station Tests) Lahore (A1:), Commissioning Tests (DC Station Tests) Matiari (A2:), Mono-pole Low Power System Tests (Upto 400 MW each pole) (A:3),Bi-pole Low Power System Tests (Upto 800 MW Bi-pole) (A4:), Mono-pole High Power Tests (2200 MW, each pole) (A5:),Bi-pole High Power Tests at Maximum Available Power (MAP) (A6:), Special Optional Tests (recommended by OE)(A7:). Whereas, the last test i.e Trial Operation (168 hrs) and Capability Demonstration Test (06 hrs) (A8:) has been successfully completed on 18.08.2021. In this regard, a ceremony was held at WAPDA House Lahore, attended by Managing Director NTDC Engr. Azaz Ahmad and Ms Zhang Lei, President and CEO of PMLTC and other reps from both companies were also present on the occasion.

Managing Director NTDC Engr. Azaz Ahmad appreciated Chinese company for completion of the project in time. He said that the first ±660 kV HVDC Matiari Lahore Transmission Line will bring stability in NTDC transmission network after having being crossed many bridges successfully.

Ms Zhang Lei, President & CEO PML TC handing over a certificate to Managing Director NTDC Engr. Azaz Ahmad during the COD ceremony of ±660kV HVDC Matiari-Lahore Transmission Line at WAPDA House Lahore

The 878 kilometers 4000 MW project has been completed by Pak-Matiari Lahore Transmission Company (Pvt) Limited, on Built-Own-Operate-Transfer (BOOT) basis for a term of 25 years. The project will evacuate power from the new generating units located in the south including Thar coal-based projects. The ECC on July 25, 2017 approved the Security Package Documents i.e. Implementation Agreement (IA) and Transmission Services Agreement (TSA) which were subsequently executed on May 14, 2018. The NTDC will be responsible for operation and maintenance of the transmission line.

HVDC technology is a maiden addition in the national grid of the country, though it's been widely used for a long time around the world, and the need of long-distance high-power transmission from generating stations in the far-flung areas towards densely located load centers.

The said project is a milestone for NTDC when it comes to diversifying the national grid and it will serve a great deal towards NTDC mission of a reliable, efficient and stable national grid.

Country likely to face another gas crisis

The popp country is on track to face another gas crisis from 13-16 September, 2021 due to re-deployment of Floating Storage and Regasification Unit (FSRU) Exquisite after dry dock.

A few day ago, the Board of Directors (BoD) of Sui Southern Gas Company Limited (SSGCL) rejected the offer of Engro of a bigger FSRU and asked the company to call its original unit, Exquisite, back to port.

Sui Northern Gas Pipeline Company Limited (SNGPL), General Manager, Business Development, Corporate, Wajiha Anwar, has noted that in order to manage the gas load during the period September 13-15, all the regions have been advised to suspend gas/RLNG supply to CNG, cement and general industry and its captive power plants (non-export) sector across the franchised area of SNGPL (including Punjab and KPK.)

Furthermore, 10 percent gas/RLNG allocation to process industry may be allowed during this period.

The Exquisite FSRU operated by Excelerate Energy of USA had been dry docked since June 29, 2021 in Singapore for repair and was replaced by a bigger FSRU Sequoia since then to ensure LNG supply.

The An official said he was not aware rahay Rs that there will be no issue in power generation during this period as demand has already reduced to 18,000-22000MW from 25,000MW. ■

NEWS ITEM

Metro installs the first ever electric vehicle charging station

In another first, METRO Pakistan reaffirms its commitment towards "Environment Sustainability" and being a responsible business by installing first ever Fast Charging Station for Electric Vehicles (EV) at any retail store in Pakistan. The Electric Charging Station was inaugurated by Mr. Marek Minkiewicz, Managing Director, METRO Pakistan Private Limited and Mr. Ahmad Najeeb, Chief Executive Officer, Albario Engineering Private Limited (AEPL) at METRO Thokar Niaz Beg Store in Lahore.

The ABB Terra 54 presents an opportunity for the people of Lahore and those visiting to charge their Electric Vehicles in a short period with a range of available charging ports to facilitate any type of EV vehicle.

This collaboration with AEPL and ABB is another step taken by METRO Pakistan to supports the Clean and Green Pakistan initiative of the Government. METRO plans to live up to its commitment to Environmental Stability and Sustainability by providing Renewable Charging Solutions to its visitors and looking forward to add more EV Charging Stations in the coming months.

If you do not change, you will be disqualified from the competition

During the press conference to announce NOKIA being acquired by Microsoft, the CEO of Nokia ended his speech by saying:

"We didn't do anything wrong, but somehow, we lost." With this said, the entire management team, including himself, cried. Nokia was a respectable company. She has done nothing wrong with her business but the world has changed very quickly. They missed out on learning, they missed out on change, and so they lost a valuable opportunity that was at hand to become a giant company. Not only did they miss an opportunity to earn big money, but they also lost their chance to survive!.

The message from this story:

If you do not change, you will be disqualified from the competition.

If you do not want to learn new things and your thoughts and mentality cannot catch up with time, you will end with time!

A person remains successful as long as he learns, and if he thinks he has learned, he has condemned himself to failure...

Murad suggests conversion from Thar coal to liquid gas

Sindh Chief Minister Syed Murad Ali Shah said that under CPEC the next level of engagement on Thar Coal should be considered for moving from mine-mouth power generation to coal transportation to potential sites.

"Great potential exists for connecting Thar coal with Keti Bandar and develop Keti Bandar Port for coal blending, power generation and the rail connectivity between Islamkot and Mirpurkhas would help in replacing power plants operating on imported coal with much cheaper Thar coal thus reducing the unnerving energy circular debt.

This he said while addressing a CPEC-related 10th Joint Cooperation Committee (JCC) meeting held in Islamabad through video link on Thursday. Minister of Energy Imtiaz Shaikh and Secretary energy Abu Bakar also attended the meeting.

The CM said that his government has been working closely with Chinese on Thar Coal-based power projects under CPEC and "we believe that it's about time to move to the next level by employing Thar coal for coal-to-gas and coal-to-liquid conversion, the CM said and added this conversion was crucial for reducing Energy sector circular debt, ensuring Pakistan's food security through fertilizer production, and ensuring energy needs of the country for economic growth.

Mr Shah said that he had discussed these aspects aspects in 9th JCC meeting, and it was high time to devise ways and means to implement and capitalize on these potentials, including Coal to Liquid Engineering Plant based on Thar coal at Thar Block-IV for Coal gasification to Fertilizer Projects.

ABB in Pakistan
Digital Products & Systems

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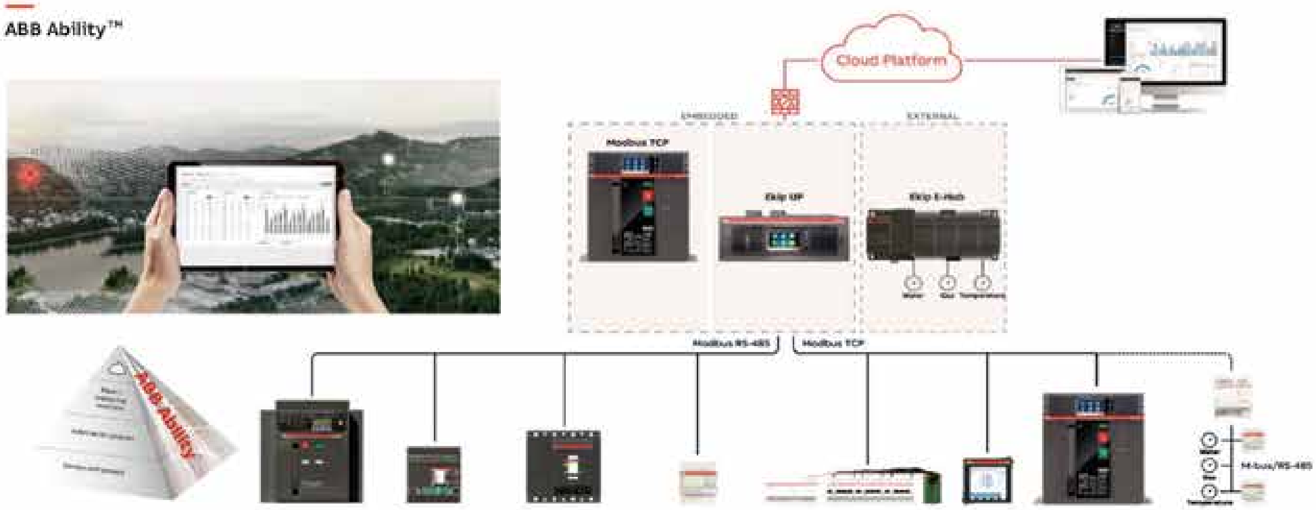
ABB Ability™



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