

MONTHLY

ISSN 2309-6578

ENERGY UPDATE



**Pakistan's
Economy:**
A post covid
Forrest Gump

Corona, oil price crash & its
consequence on Energy Sector

**Power deficit crisis to
surplus crisis**

Petrol shortage: Perpetrators
are very much in the govt.

Exclusive Interviews of Energy
Gurus, Top Management
& Professionals

**Depleting forex, economy deep
in debt, default like situation**



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008

Pakistan's largest LNG terminal successfully received its 100th LNG cargo on June 6, 2020



Investment by consortium members
\$500 million



Regasification capacity
750mmscfd



Storage capacity
170,000 cubic meters



\$12 million
Approximate royalty to Port Qasim Authority for 100 cargoes

Commissioned **January 2018**



LNG unloaded
6.22 million metric tons



RLNG delivered to the national grid
287 billion cubic feet



Operating efficiency
98.3%



\$60 million
Port charges paid to Port Qasim Authority



Foreign exchange
savings from fuel substitution
\$1.5 billion



Mangroves planted
at Port Qasim
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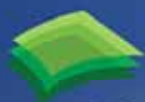
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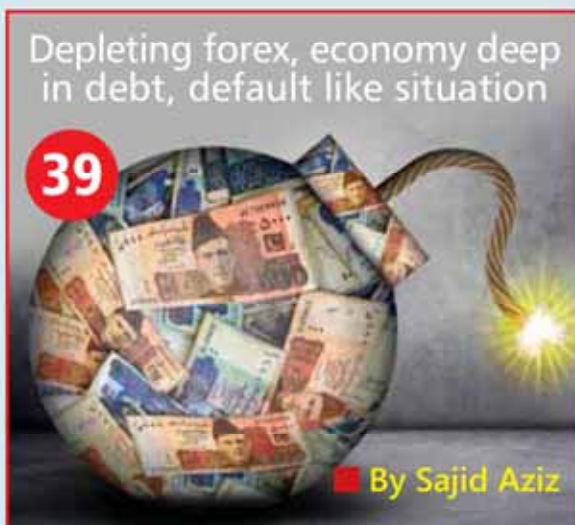
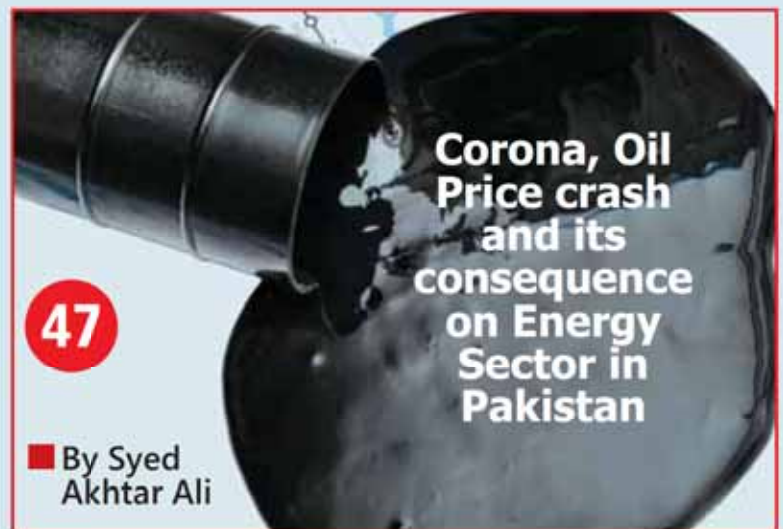
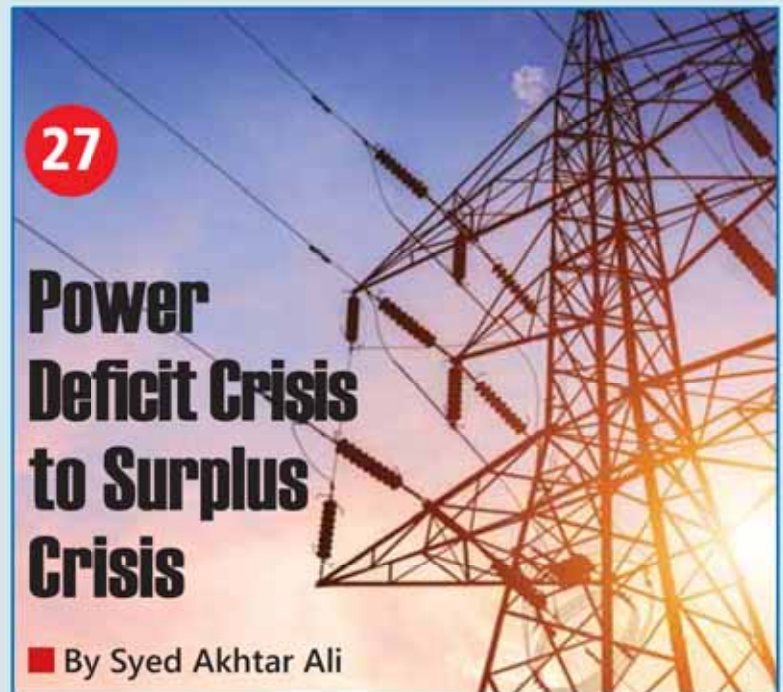
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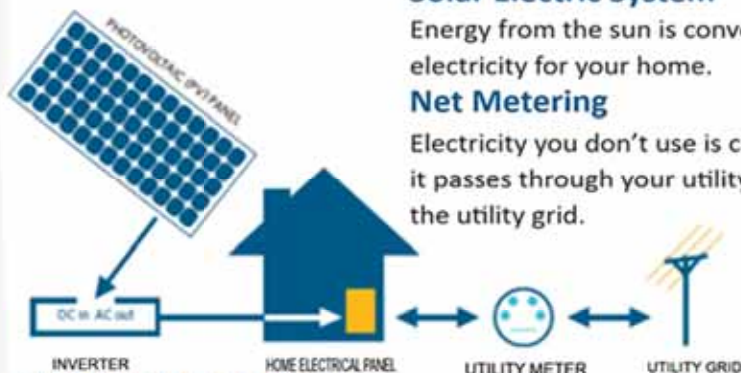
RAWALPINDI: President Chamber of Commerce and Industry Malik Shahid Saleem and Ambassador of Sweden Ingrid Jensen signing memorandums of understanding at office. Photo: Online by Raik Asim

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3 KW HYBRID SYSTEM

Tier 1 A Grade Panel
Hybrid Inverter
Lead Acid/ Dry Batteries
Galvanized Frame Structure

5 KW HYBRID & ONGRID SYSTEM WITH NETMETERING

Tier 1 A Grade Panel
On Grid/ Hybrid Inverter
Single/ Three Phase
Lead Acid/ Dry Batteries
Galvanized Frame Structure

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From the editor's desk...

Federal Budget 2020-21 Mafias are running our economy?

The present government, as usual, has nothing to offer to the masses or any particular sector of economy, has unveiled the unrealistic Budget for fiscal year 2020-21. The Rs7.3 trillion budget, prepared by the country's economic managers, finalized by the Advisor on Finance and presented by a minister has given an impression that the budget makers have nothing to do with the masses' woes or revenue earners like the industrial and export sector focused only on revenue collection.

The budget makers except a few major road and rail projects under the CPEC did not allocate any amount in the PSDP for any important scheme. There is no mention of any allocation for any of the much-discussed industrial zones, which were to be established under the CPEC for industrial and economic growth of the country.

Well-known economist Dr Kaiser Bengali has pointed out that Pakistan's economic policies are being made in Washington and the IMF has sent its people to sit in major institutions, which is why there is no mention of the CPEC in the budget 2020-21.

Due to the influence from the West the government had placed CPEC in cold storage. "Pakistan's economy is mainly relying on foreign loans, so the economic managers are trying to appease the IMF and other international lenders by not mentioning the CPEC," he said.

The budget 2020-21 is nothing but a traditional budget according to experts the government has shifted the blame on Covid-19 for all ills of the economy, but before the pandemic the economy was already on the ventilator," Bengali said.

He said that Pakistan's economy is being run on foreign as well as domestic loans and no measure has been provided to reduce the burden of loans. "All economic targets for the budget 2020-21 are fixed ambitiously as the government had miserably failed to achieve any major targets fixed during the current fiscal year 2019-20.

It is once again feared that the government would fail to achieve the export target and the Federal Board of Revenue lagging behind in its tax collection targets in the current fiscal as well.

According to Dr Bengali, Mafias are running the economy and industries in Pakistan. "For example, the sugar Mafia has been receiving subsidies for many years, which is made legal, flour mills are receiving wheat at discounted rates but they sell flour at exorbitant rates and paper manufacturing industries have a monopoly which is affecting the local publishing industry."

The truth about the debt is that it has to be repaid someday. Pakistan doesn't understand that. It keeps borrowing resources to feed its highly non-productive and negative externality posing defense sector and incompetent bureaucracy but not to accumulate productive human and physical capital. Pakistan's overall debt burden is highly unsustainable.



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MESSAGES & FELICITATIONS**Dr. Rana Abdul
Jabbar, CEO
AEDB**

The energy sector is a dynamic segment of a country's economy that is continuously progressing and evolving. The significance of energy sector for a developing country like Pakistan is undeniable as it plays a vital role in country's economic growth. Energy Update has been playing a vital role of disseminating the information and updates of the energy sector to the masses. The magazine has established itself as a major source of energy related updates and information highlighting the developments in the sector, providing analysis and promoting productive discussions on the key issues.

The world is witnessing a transition from the fossil based energy supplies to clean and green energy technologies. In cognizant with this fact and keeping in view the benefits of renewable energy technologies, the Government is fully motivated to harness all sources of Alternative and Renewable Energy (ARE) technologies and increase the share of ARE in the country's energy mix to ensure universal and affordable access to electricity in all regions of the country. The ARE technologies shall be playing a vital part in achieving the GoP's strategic objectives of energy security, affordability, environmental protection, sustainable development, social equity and mitigation of climate change.

While promoting the development of ARE technologies, it is imperative to keep track of the latest developments and technological advancements in the ARE sector. The creation of mass awareness about ARE technologies and the modes and mechanisms available for adopting these technologies is also of utmost importance. This is where Energy Update has been playing its role and hopefully will keep up its efforts.

I congratulate Energy Update on its successful 14 years and wish good luck for the years to come. I hope that Energy Update will play its role in promotion and development of ARE sector of Pakistan. ■

**Mian Asad Hayyaud Din,
Secretary Petroleum Division
(MOE)**

It gives me immense pleasure to contribute to this edition of Energy Update Magazine. Energy Update has remained a reliable source of information related to energy developments in Pakistan and the world. Moreover, I feel that the magazine has continued to be a trustworthy companion in projecting Pakistan's energy potential and updates in this sector to the world. The Petroleum Division has worked diligently in introducing reforms in the country's energy sector which are aimed at improving the ease of doing business in this sector.

The Government is keen to introduce policies that would lead to profitable investments in the country's LNG sector with a focus on LNG terminals. The Government of Pakistan has received encouraging responses to setting up new terminals. Leading energy conglomerates have come forward and expressed interest in this area.

I hope the readers of your magazine would find the progress made by us of interest and would help us with any practical suggestions that would assist us in developing inclusive and sustainable energy security paradigm for the development of the country. ■

**Sarosh Hashmat
Ullah Lodhi, VC NED**

It is heartening to note that this May the Monthly "Energy Update" is going to celebrate 14th anniversary of its inception. It is really a matter of pride and distinction that a monthly publication dedicated to cover Energy sector is completing 14 consecutive years of its publication. Such specialized publications have always been a reliable source of information and inspiration for the successive governments to serve the masses and resolve their issues in the best of manner.

There has been emphasis at global level to conserve the environment by exploring and utilizing such methods of energy generation, which could cause environmental degradation to the least possible extent.

The publications like Energy Update do provide a common platform for relevant experts from government, public, and private sectors to do exchange of ideas with each other so to find the best way forward to overcome power shortfall. I wish best of luck to the entire team of Energy Update and hope that in future this specialized publication will continue to grow and prosper by publishing most relevant, up-to-date, and matured content relevant to the arenas of energy and power production. My best wishes are with them. ■

MESSAGES & FELICITATIONS

Syed Abul Fazal Rizvi CEO, Sindh Engro Coal Mining Company



The Energy Update magazine is in a league of its own! Through its critical analysis and thoroughly researched news pieces it has helped shaped the overall narrative of the energy industry of Pakistan!

The energy industry is one of the largest and one of the most misunderstood industries of Pakistan so the Energy update magazine is filling the void to provide regular and consistent updates on the energy related issues and opportunities as well as playing a part in educating everyone on the latest trends and developments of the sector. I would like to extend my felicitations to the entire team at Energy Update on its 14-year anniversary and a job well done! ■

Ahsan Zafar Syed CEO, Engro Energy Ltd.



The Energy Update magazine has remained a pioneering trade magazine of energy and environment related topics in Pakistan and I would like to extend my heartiest congratulations to the entire team for completing 14 years of successful publications!

Since its inception Energy Update has focused on the trends and developments in the local and global energy sphere and their focus on Pakistan's energy and environment sector has helped create awareness on critical issues pertaining to the energy ecosystem of the country. Over the years through its consistent and standardized reporting it has truly lived up to be an important voice in the energy industry of Pakistan. ■

Irfan Ali CEO, Elba Engineering



Energy Update has always been profoundly enlightening when it comes to energy sector of Pakistan. I congratulate team Energy Update for successfully completing 14 years of immense success, whether it is magazine or any event or symposiums or partnerships. This platform has connected all the departments of energy in Pakistan very well. Wishing more successes to Energy Update and team and hope Energy Update continues to strive more in coming years. ■



Shahid Salim Khan, MD/CEO, OGDCL

Congratulations Energy Update Magazine on your 14 years of contribution through publications on energy sector of Pakistan as a medium to bring challenges and opportunities closer. This is a big achievement for

which I would like to felicitate your team for making this possible every month. Energy Update Magazine has proved to be an interesting read because of its current and insightful energy based information both locally and globally. In the current Pakistani scenario, although government at large and few private organizations are trying to cope up with energy deficiency of the country through alternate energy programs and energy conservation to avoid wastages and prevent shortages but there is a long way to go. Like every challenge is an opportunity, we hope for a better future. With sincerity and dedicated hard work we can bring together the best economical and applicable solutions to overcome the energy crisis in the country. In the end, I would once again like to extend my sincere congratulations and best wishes for success of the magazine and I hope they will continue to contribute to the development of energy sector in Pakistan and encourage those who are contributing to this sector. ■



Dr. Shamshad Akhtar Chairperson SSGC

On behalf of SSGC, it gives me great pleasure to felicitate Mr. Naeem Qureshi and his entire team of monthly 'Energy Update' on 14TH anniversary of the Magazine. In its journey of almost one and a half decade, Energy Update has carved out a reputation for offering global as well as Pakistan industry developments

and informative articles to its readers. It is encouraging to note that through your periodical, Pakistan Energy Sector enjoys a dedicated and well-round representation of perspectives and analysis. I am pleased to note that the magazine is being circulated amongst thousands of industry experts across the World. Once again, I warmly congratulate the editorial team of Energy Update for competing fourteen prolific years and wish that future brings even greater success for the magazine as it continues its journey to shape the readers' thoughts and opinions. ■

14th

ANNIVERSARY

MESSAGES & FELICITATIONS**Iqbal Z. Ahmed
Chairman, AG**

Energy Update, through its publications and national conferences, has become a vital forum bringing together cogent and competent voices from across the local and global energy worlds.

For over a decade, the publication has offered accessible expert analysis and opinion and reports, dispassionately and rationally, dispelling myths and misconceptions and ensuring a high quality of solution-oriented discourse.

On behalf of Associated Group (AG), which includes Pakistan GasPort Limited (PGPL), owner of the country's largest LNG import terminal, and Jamshoro Joint Venture Limited (JJVL), the country's largest private sector gas processor, I congratulate Energy Update and Editor-in-Chief Naeem Qureshi and his colleagues for 14 years of achievement.

Energy Update is an indispensable source of knowledge and guidance on the national economy, and we wish it even greater success. ■

**Sheikh Imran ul
Haque,**

"Energy Update, since 2006 is the only trade magazine on Energy and Environment with 40,000 readerships across three continents.

Moreover, in addition to circulation of 28,000 Energy Update has organized International Wind Summits, LNG conferences, PowerGen Conferences to provide unbiased policy advocacy, challenges to decision makers and developments in the global energy world.

Wishing to good stead in its journey into next decade culminating in its golden anniversary. ■

**Shah Jahan Mirza,
MD, PPIB**

It gives me immense pleasure to acknowledge that "Energy Update" is a leading energy magazine of the Country providing broad based and reliable update on energy outlook, development in energy sector, various on-going initiatives, policy and regulatory concerns in the energy sector for

last consecutive Fourteen (14) Years.

Upon this occasion of successful completion of long journey spread over 14 years of valued publications, I am delighted to felicitate the Team Energy Update for providing un-interrupted, impartial and highly professional views and stories on energy, power and related infrastructure to the audience. During the period, Energy update has organized number of successful events to discuss issues and challenges faced by energy sector and provided platform to the experts for opinion exchange, knowledge sharing and to recommend pragmatic solution on the grave issues being faced by this crucial sector.

As Managing Director PPIB which I am thankful to Energy Update for their coverage on our activities /projects towards achieving government commitment to overcome the energy crises for sustainable development of the Country.

I am confident that Energy Update will continue with its valuable publication with same zeal and zest. I wish all the best to the Energy Update team for future publications and upcoming events, conferences on energy and power generation. ■

**Engr. Bahadur Shah
Vice Chairman/ Member
(KP)
National Electric Power
Regulatory Authority**

I truly appreciate the hard work of ENERGY UPDATE Team for producing a magazine of international standard that is attracted to all stake holders of energy sector. It carries an essential

reading material for all formations including energy industry, corporate sector, policy and decision making in the government, bringing latest news and insight in an exciting and interactive format. It stands out uniquely when it comes to in depth analysis of key issues, real world success stories, market trends and latest technological development. Keep it up Energy Update!

Finally, I would like to congratulate the management of Energy Update for successfully publishing the 14th Annual Edition of Energy Update Magazine. ■

MESSAGES & FELICITATIONS**MNA Syma Nadeem,
Fed. Parliamentary
Secy, Ministry of
Information &
Parliamentary Affairs**

It is my honor and privilege to facilitate the Patrons, Editor and Team Members on publishing 14th edition of "Energy Update." The entire team deserves accolades for successfully taking out an exclusive journal on the subject of Energy & its related topics for more than a decade.

Over a period of time a lot of deliberations have been made to highlight the significance of the economic policy and the contributions made by the Energy Sector, more specifically in the aftermath of Covid-19, where the energy sector has taken a serious hit. In the present scenario, Renewable Energy is the most viable solution, to address our Energy Shortfall in the country. Our present Government fully endorses its potential and has planned to increase the share of Renewable Energy by 30% by the year 2030, this includes alternative sources such as, wind, solar, small hydro & bio mass. Whereas, large scale Hydro Power is estimated to increase more than 50 MW of Power Generation. Already 8 solar power generation plants have been installed, while 11 are in various stages of completion. Narian Khorian village is one such example with 100 solar panels already installed and Karak village is another example in Baluchistan having 200 panels.

The targets set by the Present Government under the New Renewable Energy Policy 2019 are very much in line with International commitments made for the Climate Change. ■

**Rehan Hamid, CEO, STDC**

Sindh Transmission & Dispatch Company (Pvt.) Limited (STDC) is a first ever Provincial Grid Company in Pakistan and actively engaged in Transmission Line business to resolve and facilitate the evacuation of Power issues from

all types of electricity generation resources.

For the last few decades Pakistan is facing severe energy crisis and is in dire need of constant and determined approach to meet supply and demand. As the system is growing, one centralized system poses a risk from operational point of view in case of failure. Whereas to handle such a situation, the establishment of Provincial Transmission Line Companies could be a substantial solution. Following the footsteps of STDC, Punjab and KPK has established their own Provincial Transmission Line Companies, whereas Baluchistan province is in process to establish. Government of Sindh has taken the Lead amongst all the provinces, envisioning the need of the hour to support the stable power supply system for Pakistan and to play its role for infrastructure development in Transmission Line sector. To be conservative, as a rule of Thumb 1:1 investment is required for Generation and Transmission sector in Electric Power Industry. According to NTDC IGCEP Plan 2047, Sindh will be a major source of energy in local Coal and renewable energy which may supply bulk amount of energy to the country and STDC will play its most vital role for the evacuation of the power.

According to NTDC, the total power generation of Pakistan is 134,381GWh with existing Transmission lines of 51,484 Km, where Sindh has a share of 9,047 km which is just the 17% of the existing transmission lines. To maintain the unwavering supply and in public interest, future seems to be in the growth of transmission lines with minimum transmission line losses in all four provinces to enhance power transfer capacity at government level to prevent from the economic crisis of the country. ■

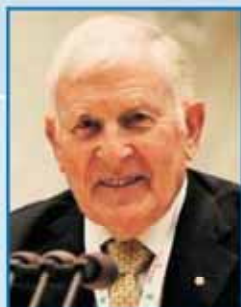
**M. Faisal Sharif, Senior Manager, PPIB**

It is indeed a big occasion for Management and Team Energy Update whose tireless efforts has made it an inspiring success story spreading over long consecutive Fourteen (14) Years of uninterrupted and valuable publications covering Country's energy outlook, investment perspectives, related policies, initiatives and reforms etc. It has been providing a reliable platform to energy sector professionals for information and knowledge sharing contributing in sustainable development of the Sector and Country. I congratulate Team Energy Update for their long untiring contributions towards transformation of Energy Sector through their publications and event management. No doubt Energy Update has built-up strong reputation by organizing number of national and international conferences bringing together policy makers and energy experts from key stakeholders including government entities, multilateral development

institutes, private sector, investors, financial institutions, entrepreneurs, academies and renowned domestic and international consultants to exchange opinion and discuss multifaceted challenges leading towards rational & innovation solutions, way forward and recommendations for the development of Energy Sector. ■

14th
ANNIVERSARY**MESSAGES & FELICITATIONS****Hon. Peter Rae,
President WWEA**

Congratulations on celebrating the 14th anniversary of ENERGY UPDATE. Once a journal reaches a lifetime in double figures it is well established and obviously serving a very important function. The provision of reliable information which increases the public understanding of renewable energy and its costs and benefits is an extremely important part of the role of the media. Please continue to be a major part of Pakistan's educative roll in relation to the energy system. I trust that your journal will continue to provide valuable benefits to the people of Pakistan and wish you well personally and for your journal. Best Wishes Halima and team Energy Update ■

**Kamal Mian,
Fast Cables**

Congratulations to the "Energy Update" Team on the Magazine's 14th Publication Anniversary. Completion of 14 consecutive years of publication on the Energy sector is a great accomplishment as such specialized magazines are a reliable source of information and inspiration for government officials and the private sector working towards the resolution of issues and bringing improvements in energy related matters in Pakistan. Publications like Energy Update provide a common platform for relevant experts from government, public and private sectors to exchange ideas and information with each other regarding the latest developments and trends in the energy sector.

Lately there has been a lot of focus on the protection of the environment and conservation of natural resources at the global level. Magazines like Energy Update play an important role in helping disseminate relevant information in our national context. Hence, government and public sectors should facilitate and support continued publication of such magazines. I extend my best wishes to the entire team of Energy Update and hope that the publication continues to grow and prosper in the coming years. ■

**Sheikh Ibrahim Atif
CEO/Director, Albario Group
of Companies**

Its cheering to mark that this May the Energy update is going to celebrate 14th anniversary of its origination. It's really a moment of honor and significance that a monthly publication enthusiastically covered successive 14 years in serving the Energy Sector. Energy update is always our 1st choice regarding the trustworthiness of power sector news. This is the only trade magazine on Energy and Environment in our country, such skilled publications are a well-grounded source of information and innovation to serve multitudes and sort out issues in the best way possible. One of the greatest challenge's humanity must face in the upcoming years is to produce sufficient sustainable energy to support the economic growth and to help lifting millions of people out of poverty. Operating excellence and technology innovation are the key factors for winning this challenge.

I wish the entire group of Energy Update every success and a good fortune to grow and flourish and come up with the most up to date content of energy and power production. A very best of luck to them. ■

**Zafar Sobani
Board Member of Privatization
Commission of Pakistan**

I would like to congratulate Mr Naeem Qureshi on the fourteen anniversary of Energy Update . The life moves so fast that I never realized that fourteen years have passed since this Magazine was launched by brother Naeem. Energy Update Magazine over this period has highlighted this aspect and related issues on regular basis by publishing the views of Energy experts but policy makers have their own agendas unfortunately . I will also like to congratulate editor Mr Naeem Qureshi that the Energy Update Magazine to cover the developments in this sector especially as regards to Renewables and LNG regime gaining larger foot print in Pakistan. I wish Energy Update great success in years to come . ■

**Wasim Qazi,
Ex-CEO, Descon Engineering**

I would like to praise Energy Update Magazine on completing successful 14 years. It has been the only credible magazine that has served Pakistan's energy sector by keeping the energy track up to date with local developments and international trends in Power, Oil & Gas. My heartiest congratulations to Energy Update team for pulling up these 14 years of success. ■

MESSAGES & FELICITATIONS**Razi Raziuddin,
Ex-CEO OGDCL**

As a subscriber to Energy Update Magazine I am privileged to read very important and pertinent analysis of critical issues of the energy sector. The writers are all highly esteemed and experts in their fields. WhatsApp group discussion has its own subtleties but a magazine has details which is very important for proactive approach by the CEOs and policy makers. Mr Naeem and his team have done tremendous job in putting the magazine on high pedestal. WhatsApp Groups created by Mr Naeem has been highly productive.

I also recommend that Energy Update Mr Naeem create a WhatsApp Group for new energy start-ups where experienced persons can become patrons and another one like a triple Helix where investor/industry, government and academia work in synch to synergize the energy sector. I thank and wish Mr Naeem and team Energy Update Magazine and WhatsApp Groups a better and fruitful future. ■

**Sohail Butt, CEO
Energy Energetics**

It gives me a great pleasure to convey my greetings to Energy update team who are celebrating 14 years of unparalleled success achieved through hard work, commitment and missionary zeal and of course very ably led by their self-motivated leader Mr. Naeem Qureshi.

My best wishes and prayers for the Energy Update team in pursuing the principle objective of bringing people together for streamlining the energy sector of Pakistan and helping the country to attain its goal of energy self-sufficiency, leading to revival of economy and development of the country on a sustainable basis."

Best of luck. ■

**Shafiq Ur Rehman,
CEO, Bright Brothers Solutions
(Pvt.) Ltd.**

As now we are entering in new era where we did not expect that whole world will change after COVID-19. In last few months we saw lot of business have closed but on the other hand we learned that how new businesses and how the people have explored the opportunities. As a CEO of BRIGHT

BROTHERS, I want to convey our message to all community and businessmen that don't loose your hope. We need to revised our strategies how we can bring change in our business in current scenario for example from last few months we have focused on technology how to use latest tools to promote our business. Therefore, I would request all of you that please focus on your business and bring with new ideas so your business could be flourished even in pandemic situation. Hope for the best and never lose hope and keep striving for excellence. ■

**Amjad Ali Awan,
Former CEO, AEDB**

My Warm Congratulation to Mr. Naeem Qureshi and his team of professionals for celebrating the 14th successful year of ENERGY UPDATE, which tells the story of unflinching dedication, consistency and sublime sense of purpose.

Beyond any iota of doubt, the contributions of ENERGY UPDATE has been vividly realized by all the stakeholders concerning the energy and economy of Pakistan. I can sense that there are heaps of strenuous efforts behind this success story that perfected a chance of serious and informed readership in this country.

I look upon ENERGY UPDATE not just as a magazine, rather a platform that assimilates the variety of activities, developments and challenges falling in the realm of energy sector of Pakistan and simultaneously connects the largely disjointed stakeholders, which is great service. The uniqueness of ENNERGY UPDATE rests with its hanging sharp balance between the provision of credible information and its impartial analysis in such a way to maintain the interest and attentiveness of the common reader.

I wish Mr. Qureshi and his team to continue with the current successful streak of ENERGY UPDATE in the years to come, where I foresee its role will be much needed than before. ■

MONTHLY

ENERGY UPDATE

MESSAGES & FELICITATIONS

Owais Mir

EU is doing the great effort to play the role of Pakistan's energy sector voice for sustainable developments and corrective actions badly needed for our current energy sector issues and opportunities.

EU platform is offering the platform to energy sector professional to play its due role for right balancing of energy mix and also work out the mechanics of real integrated energy plan needed for making the our energy sector robust and self-sustainable. Keep up the good work and all the best for future endeavours. ■



Farhan Javed CEO, Etihad Power Generation Limited

On the occasion of 14th Anniversary of EU magazine, I would like to congratulate its whole team including its readers, to gain attention of stakeholders in this span. I have been seeing EU progress since its inception and this wasn't easy task to carry it on. I'm impressed to see dedication, passion and

working style of my dear friend Mr. Naeem Qureshi and his team to take EU up to National level. And there is no doubt that it will be matching International magazines.

I have been through a lot in the last few years and Energy Update magazine has been a cherished friend to me... writings like yours give hope and inspiration and therefore it gives strength and positivity to reader in order to understand energy sector, its issues, challenges and then upcoming events etc. And more importantly, this all helps to keep helping others and that's what it is all about.

Simply a wonderful publication, one of my favorites. I look forward to each issue, the best magazine! ■



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Asad Alam Khan Niazi Chief Executive Officer, Burshane Petroleum Private Limited.

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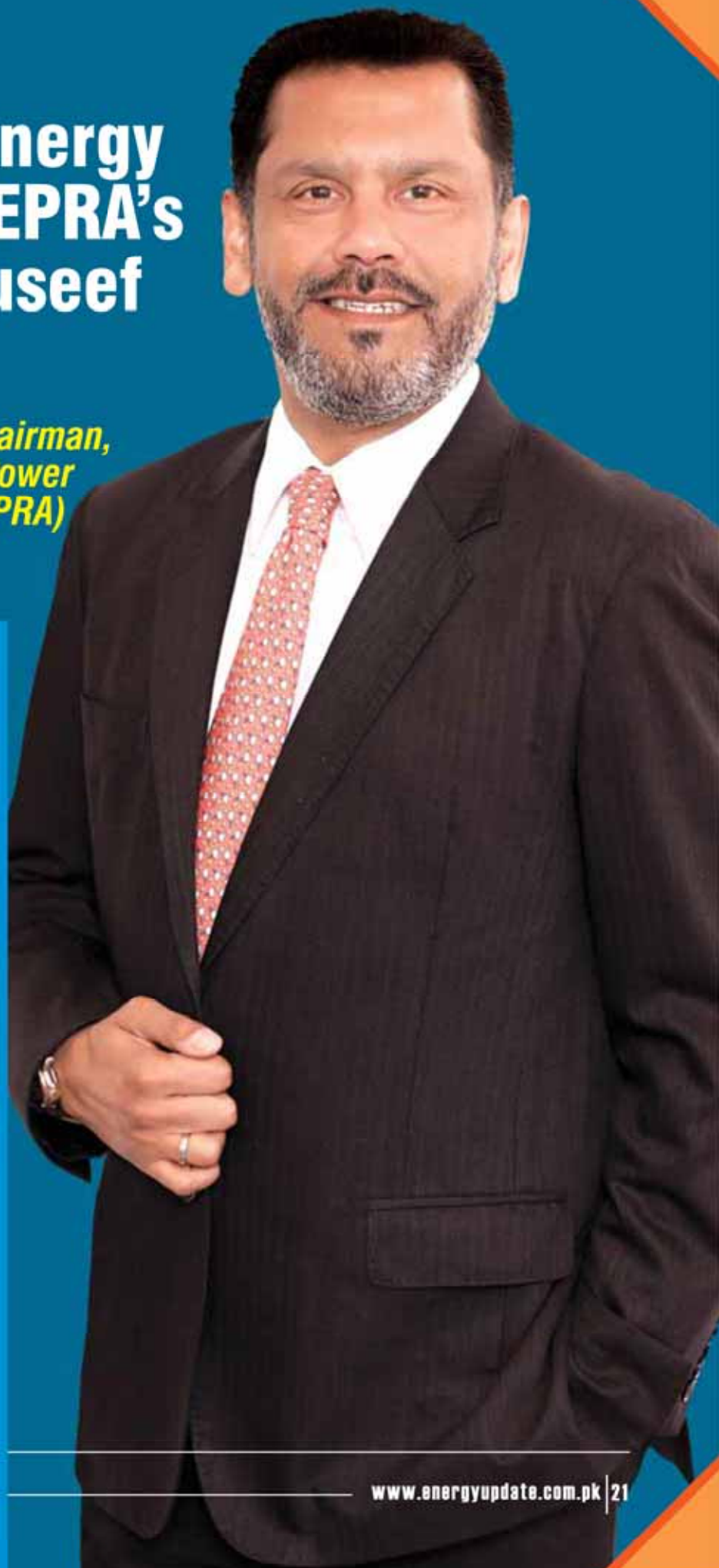
Renewable energy is on top of NEPRA's agenda – Tauseef H. Farooqi

Exclusive Interview of Chairman, National Electricity and Power Regulatory Authority (NEPRA)

■ By Halima Khan

Chairman National Electricity and Power Regulatory Authority (NEPRA), Mr Tauseef H. Farooqi is an electrical engineer from UET, MBA from LUMS, and a Columbia Business School Graduate in Executive Program in Leadership and Management with 28+ years' experience of Techno-Commercial-Financial, Strategic Management, and governance of utilities/IWPPs whilst working with world's topnotch Power & Water Developers.

Successfully administered over 6B USD of Commercial Settlement in terms of monthly invoicing, service agreements and insurances. Experienced in Power & Water Infrastructure Development and Asset Management under IWPP setup (Greenfield Projects) resulting from Government Privatization (Brownfield Projects) and Public Private Partnerships with special focus on Health,



Safety & Environment. Expert in administering the Long Term Agreements like Power & Water Purchase, Fuel Supply, O&M, Facility (Loan Note), Shareholders Agreements, EPC and Business Contracts etc. Highly skilled in developing budgets, business plans, and business processes to set aggressive business targets and monitoring Key Performance Indicators (KPIs) to enhance overall profitability. Expert in Strategizing, Developing, Operationalizing, Optimizing, and Maximizing Business Gains for the Shareholders in Mega Power & Water Projects in a highly Regulated Markets. A Regular Presenter & Panel Member in the top Power, Water, Energy Summits. Regulating Pakistan's entire power industry including generation, transmission, and distribution assets as well as taking other most modern initiatives. With the two most diverging responsibilities of protecting 1) Investors' Interests 2) Consumers' Interests whilst ensuring induction of the most affordable, reliable, and sustainable Conventional/ Renewable Energy in Pakistan. Very recently Energy Update has talked to him on various national issues, he says that.....

EU: What new improvements are being introduced by the NEPRA in its system to duly safeguard the interests of end-consumers?

Farooqi: NEPRA while determining consumer end tariff allows only the prudently incurred cost to distribution companies with specific benchmarks for T&D losses and recoveries. Any additional inefficiency by DISCOs over and above the allowed benchmark of NEPRA is not allowed to be passed onto the end consumers. NEPRA will continue making performance benchmarks more challenging to enable DISCOs to be more efficient in the days to come. Further, amendments to the NEPRA Act in 2018 included a newly introduced section which empowers NEPRA to administer complaints of theft and over billing whereby NEPRA can either itself impose a fine on the entity or file a direct criminal complaint against an individual involved in the theft. This was a major procedural change aimed at simplifying the handling of cases of theft and overbilling, in this regard NEPRA has already established 9 regional offices for redressed of consumer complaints. Relevant staff has been appointed in these offices and empowered to hear complaints up to 1 Lack beyond which NEPRA HQ staff handles the complaints. NEPRA Net Metering Regulations 2015 allows the consumers to reduce their

bills by netting off their consumption through rooftop solar by selling excess units they generate to the DISCOs.

EU: What methods are being used by the NEPRA to make its process of tariff determination maximally transparent, just, and judicious to the needs of the end-consumers of electricity in the country?

Farooqi: NEPRA determines the tariff of any licensee through a transparent process, whereby once the tariff petition is admitted the salient features are published in the leading newspaper inviting comments/intervention from various stakeholders including industry experts which are being uploaded on NEPRA website. A public hearing is conducted wherein, the participant is encouraged to provide their written or oral comments. Based on the submissions made by the petitioner and comment or intervention received from stakeholders, and through a sound due diligence process by analyzing comparative international and regional data, NEPRA determines the tariff. Further, in case the parties are not satisfied with the determination, they file a review petition before NEPRA that NEPRA considers very judiciously to ensure justice is served to both petitioners and the consumers

EU: What measures have been taken by the NEPRA to safeguard the interests of consumers of K-Electric and to save them against exploitation and excesses as the Karachi Electric is the only privatized power utility of the country?

Farooqi: Consumers of K-Electric are treated at par with all the other consumers of Pakistan, any complaints regarding excess billing, consumer exploitation are efficiently dealt within our Consumer Affairs Division (CAD). To facilitate KE consumers, NEPRA has already established its Regional Office in Karachi. Efforts have been made to ensure that there is an improved quality of electricity supply and service for consumers at KE. Work has been done on loss reduction initiatives, segmented load shedding policy, setting up of IBCs (Integrated Business Centers) to provide a one-stop solution to the consumers, process improvements and technology advancements including universal customer care center, Asaan Meter, KE live app, IBC on wheels, etc.

EU: What processes and mechanism are generally used to ensure reliability and sustainability of the electric supply systems in the country including that of national grid so that energy needs of the country are constantly met without any interruption?

Farooqi: Reliability and sustainability of electric supply is required to be provided by all generators supplying power, National Transmission and Dispatch Company and 10 major distribution companies (Discos). Generally, NEPRA carries out annual evaluation of these entities by scrutinizing their performance and future development plans. Their investment needs to fulfill their responsibilities are accordingly determined and allowed by NEPRA. NEPRA has set performance standards for generation, transmission and distribution companies which cover all quality related benchmarks like availability of facilities, voltage profile, power factor and frequency range. In addition, distribution companies are also required to follow standards on number of interruptions (SAIFI) and duration of interruptions (SAIDI). Similarly, restoration of electricity supply to end consumers is also monitored through specific standards prescribed by NEPRA. All generation, transmission and distribution companies are required to adhere to NEPRA prescribed standards and in case of failure, NEPRA initiates legal proceedings against them including fines etc.

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EU: What system is followed by the NEPRA to ensure due representation of all the provinces in the country in the electric supply affairs of the country especially in the context of the 18th Constitutional Amendment?

Farooqi: The NEPRA Authority as per the Act includes a Chairman to be appointed by the federal government and four members, one from each province, to be appointed by the federal government after considering the recommendations of the respective provincial governments. Resultantly, due representation of all provinces is ensured in the Authority.

EU: How you see and comments on the Power report by Muhammad Ali as it gives recommendations in three areas specifically generation review, circular debt and inefficiencies and road map ahead and we would like to have your holistic views?

Farooqi: NEPRA is in the process of evaluating every single accusation/claim made in MA's report. We consider them accusations because nothing has yet been proven. IPPs are very important business partners and whilst NEPRA would leave no stone unturned to evaluate every single point, we can't just consider them as criminal because as the report says so. NEPRA will take every action at any cost to ensure that due interests of consumers are not compromised.

EU: IPPs excess profits are much widely misread and misinterpreted at media, since the power sector is fully regulated business and we would like to listen your views and highlight to any major discrepancies if any?

Farooqi: NEPRA determines the tariff of any licensee through a transparent process, whereby once the tariff Petition is admitted; salient features are published in the leading newspaper inviting comments/intervention from stakeholders and also uploaded on the NEPRA website. A public hearing is conducted wherein; the participants are encouraged to provide their written or oral comments. Based on the submissions made by the petitioner, comments / interventions received from stakeholders NEPRA determines the tariff. Further, in case the parties are not satisfied with the determination, they can file a review before NEPRA.

The matter regarding excess profits by IPPs is already under consideration of the Authority and NEPRA has already initiated suo moto proceedings against IPPs, however, the matter is currently subjudice in Islamabad High Court.

EU: Power sector has been epicenter of the country economy and till today 3.3 trillion is paid in subsidies and 2 trillion circular debt is outstanding, what is road map and improvements suggested ahead for the sustainability and affordability of the power sector?

Farooqi: Circular debt primarily is the result of the inherent inefficiencies within the power sector due to governance and operational issues. Time and again NEPRA has issued several advisories to the federal government; responsible for managing public sector GENCOs, Transmission Company (NTDC) and DISCOs for addressing governance issues of these entities.

As Chairman NEPRA, I had presented detailed recommendations to the Prime Minister, Pakistan on the current status of the power industry. My recommendations contained some short to medium term recommendations for the immediate yet long lasting fix of power industry. Detail of my presentation to PM have already been published in all the leading newspapers and other mainstream media of the country, so really no use repeating them all here. However, power industry issues are so much ingrained that the usual solutions won't work. As they say "unusual circumstances require unusual solutions", so we need to be a bit bold in resolving them – conventional solutions simply won't work.

EU: What are the mechanisms to put structural safeguards in future deals?

Farooqi: NEPRA is introducing the concept of the Claw back/Sharing mechanism to minimize or eliminate the issues such as extraordinary profits. This will ensure that any excessive benefits in terms of efficiency gains are passed on to the consumers of electricity in Pakistan as the ultimate beneficiaries.

EU: Are there any demand-side management mechanisms being worked upon?

Farooqi: NEPRA, closely working with NEECA (National Energy Efficiency & Conservation Authority), is helping in devising strategies, implementing the demand side management standards and improving the efficiency of power usage in the country. By using the "Energy Efficiency Standard & Labeling (EES&L)" program, NEECA is bringing significant impacts in terms of availability of higher quality energy-efficient products in the market; leading to a subsequent reduction in energy consumption. The program has been promoted by all the Electricity Distribution Companies (DISCOs) through a promotional advertisement at the backside of the utility bills. This scheme has also helped in the development of accredited labs of LED lights and Refrigerators at PCSIR laboratories complex in Lahore.

EU: Talking about renewables, what are the set goals around and are we going to achieve them in near future?

Farooqi: As per the vision of Prime Minister, we are going to induct 20% of RE by the year 2025 and 30% of RE by the year 2030. A strong push and facilitation is being provided by NEPRA to achieve these targets within the set timelines. As a Power Regulator, NEPRA aims at addressing the Energy Trilemma by using the cheapest and indigenous electricity, and with the current tariff the RE sets itself right on the top of the priority list when it comes to supplying affordable, reliable, and sustainable electricity to the consumers. RE is also going to be playing a vital role in providing electricity closer to the load centers for the isolated/ remote areas in Balochistan and Rural Sindh, where the cost of laying down the electricity transmission infrastructure is not economically feasible.

EU: Are you planning to introduce competition in the power industry?

Farooqi: NEPRA is pushing for the following few initiatives to bring about a paradigm shift in the way power industry is operating to make it more competitive for the larger interest of reducing cost of doing business and bringing overall affordability for the consumers: NEPRA fully supports and awaits the New 2019 RE Policy to be approved by the CCI to foster Competitive Bidding based 'Auctions' to add new Renewable Energy Capacity in Pakistan. Until New RE Policy is approved, NEPRA will continue giving full support to Prime Minister's vision of adding new RE Capacity using our existing Cost Plus model. Already approved CTBCM (Competitive Trading Bilateral Contracts Market) B'basic design as submitted by CPPAG and now in the process of approving the detailed design. This will revolutionize the wholesale electricity market (stand at around 16% of the total power market with 2000 players above 1 MW). NEPRA took a monumental decision under my command and issued the very first, provincial grid license to Sindh thus allowing formation of Sindh Transmission & Dispatch Company, first of its kind thus bringing competition in the unconventional transmission business that was historically considered as the monopoly business.



EU: What is NEPRA's contribution in bringing down the cost of doing business?

Farooqi: Upon request of Board of Investment and whilst delivering on prime minister's vision for improving on ease of doing business in power sector of Pakistan, NEPRA worked with the distribution companies to immediately reduce the time period of getting new connections from earlier 73 to now 58 days through amended Consumer Service Manual. All distribution companies including K Electric have been directed to immediately implement the above directions.

EU: What message would you like to give to the international investors?

Farooqi: The message is loud and clear. We welcome and appreciate the presence of international and local investors in our power industry as we provide them with an enabling environment to conduct business here. One thing that they need to be mindful with is that it is not going to be a rip-off; they'll only be able to earn profits within the margins determined by the Regulator. In the long run, "Trust" is the name of the game and if anyone is found breaching the rules of engagement, there will be consequences. ■

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Power Deficit Crisis to Surplus Crisis

■ By Syed Akhtar Ali

We are an interesting people and country. Only a few years back, there was a power deficit and now we have so much surplus that we cannot cope with it; and more is in the pipeline. Partly, the surplus has been exacerbated due to low demand in the wake of the current account deficit crisis, devaluation and now Corona. Even before these events, a surplus was being projected. Actually, we are a small economy with little space for making mistakes. GoP is ever in deficit with no money to subsidize and people are poor except for a tiny minority. Late, DR. Mahboobul-Haq wondered if a 1% surplus was better or a 1% deficit he chose. His argument was that supply comes in lumps (Step function, mathematically speaking) while demand grows in geometrical terms. Thus, there would be periods of deficit and surplus around a demand slope. The policy question is whether to be inside the demand curve or above it or be in between.

Secondly, it is not easy to predict demand, even long term demand. It is linked with economic growth and one can only speculate as to what rates of GDP growth would be in different periods ahead. Thirdly, reasonable demand elasticity factors with respect to influencing factors have not yet been established. Amateurs, specialized, in power planning only, have been running data on popular software without a deep insight and exposure into the art of econometric modeling. Abundant know-how is available in academia in this respect which should be utilized, instead of going alone on the part of our power planners. The combined result is the following discussion on the nature and scope of the problem and wondering as to how to deal with it.

Four major studies have been done including NTDC-IGCEP-2047 with respect to Demand estimations and Power Planning. IGCEP figuratively proves 1: 1 relationship between peak demand and GDP growth. JICA and ESP have assumed very high GDP growth rates resulting in very high demand projections; ESP projected 106517 MW for 2030; JICA projected 69874 MW for the same year. NTDC-IGCEP has made three projections based on low (4.5%), Normal (5.5%) and High (6.5%) growth rate in GDP. Keeping in view the devaluation-corona issues, it may be appropriate to assume low growth rates option for the decade 2020-2030. According to this low growth assumption, peak demand in 2030 would be 39111 MW.

We would restrict ourselves to the period 2020-2030 as technological change rate is very high and economic conditions may also vary. A classical example is the results of ESP (Energy Security Plan), which proposed 83,760 MW of Gas (NGCC) power plant capacity, almost 50% of the total proposed capacity of 162,950 MW. Perhaps, Shale was assumed to be the gas resource which did not come up as a viable technology except for the U.S. LNG came but could not have possibly supplied proportional to the projections or anywhere closer.

Hence, it may be appropriate to restrict to a shorter time horizon of up to 2030. Adding 11000 MW of plant retirement in this period and subtracting existing capacity of 36000 MW, net capacity to be installed would be 14111 MW. IGCEP has two sets of power plants; committed power plants (20,300 MW) and candidate or uncommitted power plants (30,685 MW). Thus, it appears that there would be no need to introduce candidate power plants. However, there are two complicating factors that may interfere in this approach. Bhasha Dam (4500 MW) and the role of cheaper solar and wind power.

IGCEP-47 did not include Bhasha dam in the light of political issues and that it has been on board now for a very long time and no progress was made. However, EPC contracts have been signed for Bhasha and the dam portion is to be completed in 5 years. In the next 5 years, 4500 MW of hydro turbines would be installed. In this perspective, Bhasha would push out other projects; which one is a difficult question.

A solar capacity of 12773 MW has been proposed, 90% of which is non-committed, meaning that no investors have yet prepared any proposals for this capacity or part of it. Similarly, 10279 MW for wind power has been allocated which almost 90% falls into the candidate category. Together, Solar and Wind power add up to 23000 MW. An important attraction of Solar and Wind power is its cheap generation cost of 2-4 US¢ which may further go down. Significant base-load capacity is there and more is proposed to be added. Solar and Wind can play a good role in bringing down the average tariff. It is renewable and does not require any fuel, imported or local.

Even before emergence of Bhasha as a real project, there was skepticism regarding demand and paying capacity both of the government and the people. Power demand is dismally low; it is 18000 MW now in the month of June which is peak summer. In winter, peak demand was just 8000 MW. The installed capacity is 36000 MW. It appears, in the coming few years, if the demand is assumed to grow at a rate of 7%, the demand would not reach a level beyond 25000 MW. It should be noted that peak demand in 2016 was A power deficit crisis has been converted to an excess power crisis. Capacity pay-

ments are to be paid irrespective of whether power plants are used or not. This is like renting or leasing a car. One has to pay the agreed rent or lease.

Despite decrease in fuel prices, demand is not increasing. LNG is cheaper now. Due to lower capacity utilization of LNG terminals, terminal tariffs have doubled, although LNG itself is cheaper. Net effect is still cheaper LNG. There are many centers of powers which push their favorite projects. The tariff is so good and high that despite economic problems in Pakistan and difficulties in payments, there is a long line of investors. Nobody wants to go away. In normal circumstances, companies risk departments may not allow such investments. But the Risk vs Profits equation is highly in favour of investments. Generation tariff reforms would not only bring down electricity cost, it would displace crowding.

Corona may take a long time to end and the business and economy dislocation effect may be lasting even more. It is not easy to rebuild bankrupt small businesses which are a backbone of our economy. A Corona scenario should also be worked out by NTDC as NEPRA has demanded so many options already. Such sensitivity analyses are desirable. There are two types of power projects; one, those which are under construction at various stages and nothing can be done about them, whether they lie idle or not. It is 7672 MW; there are 2 nuclear reactors of 2200 MW, one RLNG (Trimu) of 200 MW, several coal power plants of more than 2000 MW and 3 Hydros of 1600 MW. There are other power plants which may be committed and close to signing PPAs but have not yet started construction. Negotiations should be done with the promoters to move their timelines ahead i.e. delay start of the construction.

Privatization may not be a solution in such a situation. Who will buy when there is no demand, even though capacity payments may be assured? GoP has already defaulted in paying dues of the IPPs. Assuming that demand picks up, one could try promoting wheeling and freeing the market. There are many risks in that as well. It is a catch-22 situation. Delaying the project timelines, may be the only option? (The writer is former Member Energy, Planning Commission) ■

Coal-based power plants to increase poverty

A study, conducted by Centre for Research on Energy and Clean Air (CREA), says emissions from the clusters of coal mines and power plants in Thar might expose the region's population to serious health hazards. The study was launched by a NGO via a video conference the other day. The lead analyst of CREA said Pakistan already had one of the high levels of air pollution and the extraction of coal and its use for producing electricity would worsen the situation resulting in an increase in the incidence of life-threatening diseases and enhance the vulnerability of the region's inhabitants even to Covid-19.

The study claims that there are errors and deliberate omissions in the data used in the Environmental Impact Assessment reports for two coal power projects and violations of the Sindh Ambient Air Quality Standards and WHO guidelines. It accuses the government of fudging figures on a massive scale. The study expresses fears that over a 30-year operating period the emissions from the coal mines and power plants might further add to air pollution leading to deaths on a considerable scale. The increasing environmental pollution might expose the region's population to dangerous ailments ranging from lung diseases to birth of deformed babies. Experts warned that coal-based power plants would increase poverty in the region. ■

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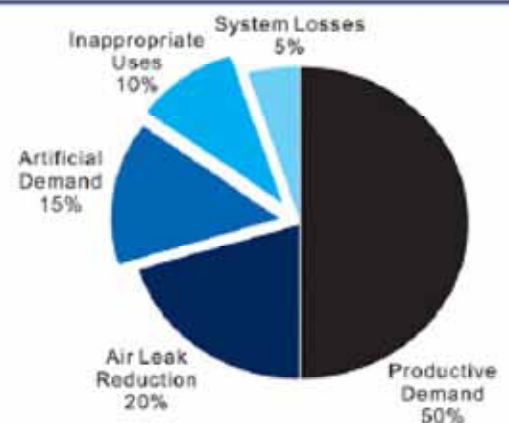


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PAEC to add another 2200 MW electricity to national grid: Muhammad Naeem

*Exclusive Interview of Chairman,
Pakistan Atomic Energy Commission (PAEC)*



■ By M. Naeem Qureshi

EU: Please share principal areas where PAEC does work??

Mr. Naeem: We are humbly contributing towards the socio-economic sectors in the country. Our principal activity in energy sector is the generation of electricity through nuclear power plants. As the nuclear science and technology has wide applications in the area of human need, PAEC also has worked extensively in the agriculture and health sectors. We started our first agriculture research centre NIA back in year 1961 at Tando Jam in Sindh. Now we have four PAEC agriculture research centres in the country. The others are, two in Faisalabad with the names Nuclear Institute of Agriculture and Biology (NIAB) and National Institute of Bio-technology and Genetic Engineering (NIBGE) and one in Peshawar namely Nuclear

Pakistan Atomic Energy Commission (PAEC) under its mission to expand capability of the country to generate electricity through safe, secure, and environment friendly process of utilizing nuclear energy will add another 2,200 Megawatts of power to the national grid in coming years.

After commissioning of Chashma-3 and Chashma-4 nuclear power plants, in 2016 and 2017, 680MW electricity has been added to the national grid. While K (KANUPP)-2 and K-3 nuclear power plants, near to completion in Karachi, would further add 2,200 MW electricity by the year 2021-22, said PAEC Chairman Mr. Muhammad Naeem.

Energy Update (EU) had the privilege of asking few questions from the Chairman of Pakistan Atomic Energy Commission Mr. Muhammad Naeem, HI (Crescent of Distinction), SI (Star of Distinction), so that our readers may be informed about the contributions towards the socio-economic development of the country by PAEC. These contributions include generation of electricity, use of nuclear science and technology in agriculture sector and in treating cancer patients.

Here are some important excerpts of the interview of Chairman PAEC who has been in service of the Commission since 1972 and after serving in various senior and important positions, he was elevated by the government to the highest position as Chairman of PAEC in April, 2015. And since then he is leading the organization in laudable manner.

Institute of Food and Agriculture (NIFA).

In the health sector, apart from general health care, we established nuclear medical centres for the diagnosis and treatment of cancer. The first one was established in Karachi, in 1961, at Jinnah Postgraduate Medical Centre with the name of Atomic Energy Medical Centre, now it is called Atomic Energy Cancer Hospital Karachi. Now, Alhamd-o-Lillah, we have 18 Atomic Energy Cancer Hospitals established throughout the country. These are well-equipped hospitals for the diagnoses and treatment of cancer. These hospitals are situated in all major cities and even in remote populous areas such as Swat, D.I. Khan, Larkana and Bannu. Another Atomic Energy Cancer Hospital is under construction and near to completion in Gilgit. In addition to these cancer hospitals, PAEC has established General Hospitals in Islamabad, Chashma and other cities where PAEC has major setups.

PAEC has developed human resource development centres to feed manpower in its work. We established Pakistan Institute of Engineering and Applied Sciences (PIEAS) at Nilore in Islamabad. PIEAS is a top ranking engineering university of the country. Recently, PIEAS has been declared IAEA Collaboration Center by IAEA to educate and train human resource of other IAEA Member States. In short, beside contribution towards ensuring and maintaining national security, which is well known to the nation, all tasks and targets assigned to PAEC were fully accomplished and achieved. Therefore, we can humbly say that PAEC is a success story in this country.

EU: What are the most important core values in your organization?

Mr. Naeem: PAEC core values are based on its commitment to promote Safety Culture and Quality Culture. We have impeccable safety record of running nuclear power plants as well as other setups. The hall mark of PAEC achievements is the strict adherence to its safety, quality and merit policies. We believe in merit right from recruitment to promotions of the personnel. We have a very strict merit-based system for taking decisions and which is second to none.

EU: Please share about services of PAEC in the area of medicine in treating cancer patients?

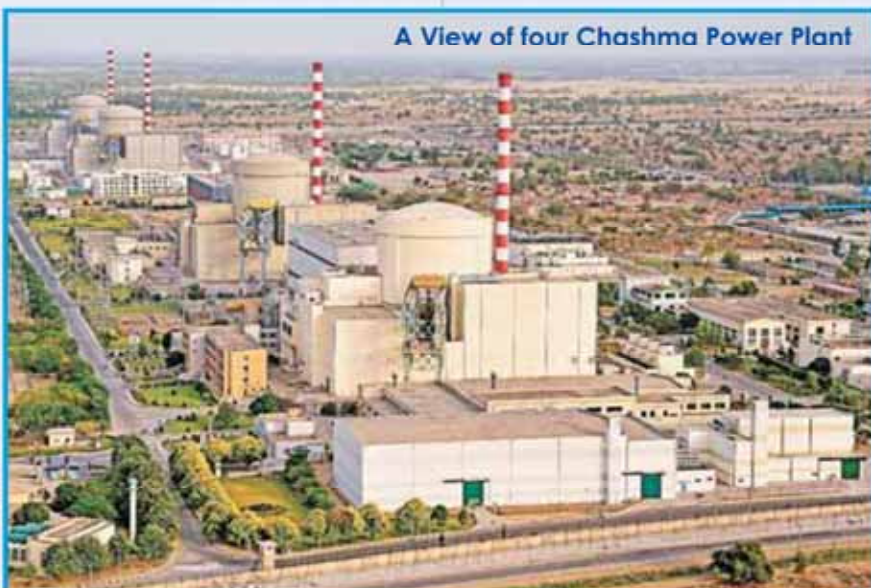
Mr. Naeem: I have already mentioned earlier that PAEC has established 18 Atomic Energy Cancer Hospitals. Just to inform you that we are catering more

than 80% of the total number of registered cancer patients in the country. In all the hospitals run by PAEC, some 1,000,000 (1 million) cancer patients come for treatment every year. More such hospitals are in planning stage. We are very grateful to the federal government as well as to all the provincial governments for their continued support, in this regard.

More importantly, we don't refuse treatment to any cancer patient coming to our hospitals neither on the account of financial status of the patient nor on the account of stage of specific cancer disease. Other hospitals in the country

radioisotopes are administered for the diagnostic and therapeutic treatment of cancer patients. We have a research reactor at our R&D institute PINSTECH (Pakistan Institute of Nuclear Science & Technology), where we develop these useful radioisotopes. Some of these radioisotopes are also used for agricultural work, as well.

We are very careful about quality of our products which is always considered important in the nuclear industry. Similar is the case of production of radioisotopes as we stringent control to maintain quality. Apart from our cancer hospitals, there are 38 other hospitals in the country



A View of four Chashma Power Plant

treating cancer could refuse a patient on the basis of his or her stage of the disease, while leaving the patient without treatment. This is, I think, a big contribution of PAEC in health care sector. Our hospitals are equipped with modern equipment of Sterilization of medical items. Diagnostic techniques are enhanced by employing applications of Computed Tomography (CT) and Magnetic Resonance Imaging (MRI) to aid the physician in diagnosis. Our scientists and engineers are actively engaged in collaboration with IAEA. We are also getting benefits from the cooperation of International Atomic Energy Agency (IAEA) in terms of equipment and other technical support through IAEA projects.

EU: What indigenous capability PAEC has achieved in treating cancer patients?

Mr. Naeem: Radioisotopes are applied in such kind of treatment. We develop radioisotopes indigenously. These

where cancer patients are being diagnosed and treated, using the radioisotopes produced at PINSTECH that we provide as per their need.

EU: Please brief about services of PAEC in the area of power production?

Mr. Naeem: In the area of energy production, we started to work in mid-sixties on our first nuclear power plant KANUPP near Karachi that was connected to the national grid in December, 1972. We have more than 47 years' experience of safely operating this nuclear power plant. All the nuclear power facilities of PAEC are being operated under safety guidelines of Pakistan Nuclear Regulatory Authority (PNRA) and IAEA.

When India conducted nuclear tests in 1974, all the pressure shifted on Pakistan. Suppliers stopped nuclear fuel being used for KANUPP. I think that was a turning point for us as it proved like a blessing in disguise. We started working to develop fuel for KANUPP, indigenously. Ever since we have successfully

fuelled KANUPP with our own resources, while maintaining zero failure rate. That is because PAEC believes in vigilant, dedicated team work, while being quality conscious for the end products.

In the year 2000, we got another nuclear power plant namely Chashma-1 of generation capacity, 325 MW. Then in the year 2011, we started our Chashma-2 nuclear power plant, of 325 MW followed by connection of Chashma-3 and Chashma-4 to the national grid in, 2016 and 2017. Hence 1330 MW is added to the national grid by all nuclear plants at Chashma.

EU: What is your opinion regarding reservations and concerns of certain circles regarding development of K-2 and K-3 plants near Karachi?

Mr. Naeem: K-2 and K-3 are third generation nuclear power plants being constructed in the country with enhanced safety features. These plants will have double containments to withstand any accident regardless of its severity. Regarding Tsunami and other natural calamities, a lot of work has already been done during our 47 years of operating experience of KANUPP. For all such risks, the soil and geological features of the plant sites have been thoroughly investigated. We have also performed studies to ascertain seismological type of the area. You must have come to know that firstly Canadians worked a lot on this site and then Chinese also extensively worked here. PAEC also has very strong teams dedicated for site selection. Site selection for such a project is never an easy job and requires a specialized and unique set of skills and expertise. We fully understand threats posed by the possibilities of a tsunami and other natural calamities but K-2 and K-3 are at a much higher elevation than the maximum height of waves that could be generated.

Considering the safety margins designed in these plants, we can claim with certainty that no safety consideration have been left unaddressed. All the reviews of international standards were carried out to assess the safety of K-2 and K-3. Furthermore, Chinese experts have gained a lot of experience in the construction of nuclear power plants and they have now achieved excellence in this field.

EU: Please inform, is Pakistan capable to run and maintain these power plants?

Mr. Naeem: Pakistanis are fully responsible for maintenance and operations of KANUPP and four nuclear power

plants at Chashma. Chinese will remain here until the installation of the new nuclear power plants. They will hand over the control of nuclear power plants to us upon completion. Our scientists, engineers and technicians are well qualified and skilled to operate and maintain NPPs.

EU: What is contribution of PAEC for promotion of agriculture sector?

Mr. Naeem: Agriculture is a very important area where we have performed exceptionally well. We have given to our farmers 115 varieties of various important crops including that of wheat, cotton, and oil seeds. We developed bio-control techniques in which friendly insects are used to eliminate harmful insects that destroy important crops. We observe a farmers' day every year where leading farmers representing different rural areas of every province are invited. The farmers who attend this event are always full of praise for the services PAEC has been rendering for them. Now 30 to 40 percent of the total cropped area of some crops utilise the seed varieties developed by PAEC centres. We have developed indigenously land levelling system using LASER technology, which is being used by our farmers for land levelling.

It is very encouraging to hear that people have confidence in us. PAEC has always been given preference, whenever there has been a need to analyse any pesticide or fertilizer in the country. We also have an institute for performing research in genetic engineering named NIBGE in Faisalabad. Then we have another institute NIAB also in Faisalabad for developing new varieties of crops. We need more land for multiplying our seed production and for increasing our contribution in agriculture sector. Take a look at varieties of cotton seed, NIAB-78 and NIAB-81 which have revolutionized production of cotton in the country with cumulative impact that would go into billions of rupees.

EU: Would you like to share contribution of PAEC in development of human resource in the field of nuclear and allied sciences?

Mr. Naeem: We have our own university PIEAS to develop human resource according to our need. PIEAS is a top ranking engineering university in the country. It is ranked 375th best university in the world in the discipline of engineering. It has also ranked in top 50 world universities that are less than 50 years of age. We have a commitment to train human resource utilizing highest research

and development standards. We have established training centres, namely KIN-POE and CHASCENT for training of personnel of nuclear power plants. In Pakistan Welding Institute (PWI), we train latest welding techniques to manpower from local as well as foreign industries on state of the art welding tools. We also organize International Nathiagali Summer College for last 45 years where renowned experts and academicians, including Nobel Laureates, are invited from all over the world to share their research with our people. We have MS degree programme in the fields of Oncology, Radiotherapy, and Nuclear Medicine for the doctors who join us in our 18 cancer hospitals.

EU: Please share the work done by PAEC for socio-economic uplift of the people hailing from less developed areas?

Mr. Naeem: The population living in the surrounding areas of any type of PAEC project is the primary beneficiary as they get jobs, education and health facilities. We open dispensaries and schools in remote areas. We also provide clean water to them, which is a great problem for residents of such low developed areas. Local people always get preference for jobs according to their qualification wherever our projects are being built. Only if people of the area do not qualify on merit for some of our jobs, we bring people from other parts of the country to fill these positions and that too on merit as we are a national organization.

EU: And lastly, we are these days facing challenges imposed by Covid-19 Corona virus pandemic. Could you share performance and activities by PAEC to control Covid-19 and treatment of patients?

Mr. Naeem: PAEC took initiative in utilizing all its means to fight against Covid-19 pandemic. Upon PAEC request, IAEA has agreed to provide machines, Kits and Level-3 Cabinets for the testing of Covid-19 virus. PAEC has established testing service at PAEC General Hospital, Islamabad. We are also engaged with authorities to establish Isolation Centres for Covid-19 patients. We are also producing hand sanitizers and disinfectants in bulk which is being provided to National Disaster Management Authority (NDMA). Moreover, all PAEC employees have contributed according to their seniority, one to three-days pay in Prime Minister's fund for Covid-19. ■

Crisis after crisis, now petrol shortage

Perpetrators are very much in the govt

■ By Sajid Aziz

Following wheat (Ata) crisis and sugar crisis now petrol crisis is prevailing in the country for the last two weeks, the present government along with all its incompetence is now becoming a regime of crises and the rulers assuming the world is going to be the end very soon and extend its cronies every possible opportunity to exploit and squeeze the public at the highest level.

The entire world is experiencing the sharpest fall of POL prices and most of the countries have left no more storage capacity to procure cheap oil while the oil traders world over have compelled to carry their cargo loaded on the vessels, poor Pakistani people are facing entirely different situation firstly they were not given any benefit of falling oil prices for initial two months and government kept enjoying the fullest benefit of huge price reduction and then another monster emerged as oil marketing companies have created a fake shortage of cheap fuel and the history's worst ever black marketing has started.

The insiders claim that this game is not new as the previous regimes too played the same game by creating artificial shortage of any commodity whether it is wheat, sugar or petrol in order to provide an outside chance to extort masses and mint money like anything. However, it was never happened in the past that so crises are being created so quickly that only the present regime can do this brutal act one after another.

the beneficiaries have so far extorted the consumers with billions of rupees while the cruel government has did nothing except imposition of a meager fine of Rs40 million only but the oil Mafia consisting of the petroleum ministry, OGRA, OIL



Who is Responsible

marketing companies, FIA, etc. left unpunished.

Oil and Gas Regulatory Authority (OGRA) is, itself responsible for the crisis has been asked to take action against the responsible elements and OGRA has just done the eye-wash and instead of cancelling the license and imposing as much fine as they have earned because of the crisis has held responsible 6 major oil marketing companies for the ongoing crisis. OGRA had issued show-cause notices to Oscar petroleum, Byco petroleum and BE energy for violating rules and regulations and license terms. OGRA while imposing fine on the said companies tried to rescue them by saying that "the companies which were found violating the licenses terms had insufficient stock".

Similarly, the regulator imposed fine rupees one million each on Shell Pakistan and Total Parco Pakistan Limited (TPPL) and Rs5 lakh each on POMA energy, Gas and Oil Pakistan and Hascol petroleum that could be termed as mockery of the justice. To the further woes of the consumers, OGDC has given a very soft term of 30 days to pay the fine and it can seek review on OGRA orders within 30 days with payment of 50 percent fine.

The companies have been directed to improve supply to their outlets forthwith otherwise more fine can be levied in the event of persistent violations of rules and regulations. OGRA had issued show cause notices to the oil marketing companies in the wake of suspension in supply of petroleum products and sought reply from them within 24 hours. OGRA had issued show-cause notices to Shell Pakistan, Attock Petroleum limited and TOTAL PARCO. Later show cause notices were issued to three more oil manufacturing companies including Gas and Oil, POMA and HASCOL on the complaints regarding shortage of oil at retail outlets received at Prime Minister Citizen Portal.

No cartel or mafia or any vested interest can effectively function or survive anywhere in the world without the abetment and collusion of regulators or because of their incompetence or a combination of both. Pakistan is no exception.

The oil industry of Pakistan, comprising local and foreign Oil Marketing Companies (OMCs), refineries and oil storage facilities, prima facie, cannot be classified or described as 'mafia' or cartel but it has become a reality in Pakistan and everybody in the trade including OGRA officials are hands in gloves to exploit the nation.



The regulator - Ogra - fixes the consumer price with the approval of the cabinet while the DG Oil directs and monitors the procurements and oil inventories of the oil industry. The Ministry of Petroleum is the overall supervisory body for the oil industry. The OMCs and refineries have to maintain a robust oil inventory, which is always a subject of argument with the DG Oil. Moreover, OMCs have the freedom to only fix High Octane consumer price as per market dynamics. Despite so many regulators and watchdogs in the petroleum trade in Pakistan, the history's worst ever crisis of POL shortage is prevailing and even after two weeks the government has not taken any concrete step to overcome this crisis and punish the culprits.

The Cabinet, in its meeting held earlier this week, directed the Petroleum Ministry to form joint raiding teams comprising representatives of the Petroleum Division, the Ogra, the FIA, and the district administrations with instructions to physically inspect all petrol depots/storages with the authority to enter any site. It also directed that all those who are found involved in hoarding the commodity must face "full force of law", including arrests and forced releases from such stores.

This is an ill-advised step which may extract out some momentary benefits out of fear, but the long-term damage could be manifold. Such dramatic steps are largely aimed at regulating the real issue to the backburner, whereas non-issues are prompted by design and made to become the focus of media to move the public opinion in an irrelevant direction. Such moves are largely driven by vested interests to camouflage the core

issue.

One argument which is being widely cited as the core issue leading to the current oil crisis is the Oil Ministry's letter of 25 March 2020, directing the OMCs to suspend the pre-agreed import of oil at cheaper price. This aspect needs to be examined in detail and in all fairness as a lead point during the course of current investigation.

Caution must be exercised to protect and preserve the interest of local and foreign investors in the oil industry in Pakistan. Of the foreign OMCs, only Shell and Parco-Total JV are left out. The rest have already left the country. The way forward is the well-tested global model of the total deregulation of the oil industry where market dynamics, based on price and quality of service, have benefited the consumer, the nation and the industry. ■



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“ I didn't just become an engineer for the sake of it, I followed a different track, from hobbyist to amateur professional. ”

Waseem Ashraf Qureshi
DIRECTOR, WRL Technologies



FROM WATT TO WORLD

Pakistan should deploy micro-grids for affordable electricity – Waseem Qureshi

Interview of Chief Executive Officer, WRL Technologies

■ By M. Naeem Qureshi

In Pakistan I would recommend implementing a policy that encourages the deployment of micro-grids, through which we can significantly increase the availability of affordable electricity based primarily on renewable energy”, says the CEO of WRL Technologies Waseem Qureshi, in an interview with the Energy Update, he continues to say.....

EU: Would you like to share your education, experience and major areas of operation of your company?

Waseem Qureshi: My interest in science and innovation started when I was very young in primary school. I was a hobbyist inventor, but when I received the National Science Award at the age of 15 (the youngest recipient to receive this award), I decided to pursue a career in innovation. I focused on electronics and soon after receiving the Science Award I built the first locally developed UPS in Pakistan in 1986, which was adopted by the Pakistan Army. I graduated from UET Lahore with a degree in electronics and set up my first company soon after. Due to limited resources, I became adept at using existing parts and materials (usually 'off-the-shelf') and bringing efficiencies through innovative and creative software design because I always believed that there is a better and cheaper way of doing things.

I have invented, designed, and launched the first car tracking



system in Pakistan as well as several telecom applications and in 2006, I began to see growing signs of power shortages, breakdowns and failures caused by an aging electricity infrastructure, so I focused my research efforts on finding solutions using renewable energy, which was abundantly available everywhere. I established that the two most critical components of using renewable energy generated from PV solar panels and wind turbines would be effective energy storage and power control electronics. I developed two products around my vision – the Centauri Energy Server which is the first power electronics hardware and software platform for micro grids and Sirius Supercap Storage which is the first non-chemical storage in the world. My foresight has proven to be correct and I am proud to say that my innovations, the Sirius super cap storage and the patented Centauri energy server are playing an increasingly important role in growing the renewable energy, EV and non-chemical storage sectors globally. Our systems and solutions are being used in over 20 countries in North America, Europe, Africa, Middle East, Asia and Oceania and in multiple sectors such as micro-grids, solar + storage, telecom, UPS, data centers, material handling, industrial machinery, marine, EV and more.

Early in 2020, the US Patent Office granted me the patent for the Centauri Energy Server and I am hopeful that shortly I will be granted the patent for the Sirius super cap storage technology.

EU: What's your decision making process to run your business?

WQ: Inventions and innovations that

have been transformative have been achieved through teamwork. True, global and impactful change can only be brought about by bringing together bright, energetic, aspiring, motivated and passionate people, inspiring them with vision, providing them with the right tools, infrastructure and resources and harnessing their collective output. I am a firm believer in establishing robust processes, with the right mix of flexibility and discipline, to execute on our plans and my decision making process is always aggressive and forward looking. I believe in delegating and am not a micro-manager, allowing my team leaders to take responsibility and deliver on their plans.

EU: Would like to share with our readers regarding current and future projects? and what is the future of the industry?

WQ: We are working on projects in many sectors – meeting electricity demand with our Centauri + Sirius micro grids that supply affordable electricity where there is either a shortage or non-availability of the grid, electric vehicles, electric bikes and electric rickshaws in the EV space using our fast charging Sirius storage, telecom infrastructure with Sirius storage to provide resiliency and increased uptime, MV Sirius storage for commercial and industrial UPS applications in critical deployments like hospitals, data centers, airports, ports etc., Sirius marine models for boats and ships, and cranking models for cars, vans, trucks.

EU: What is your suggestion to improve energy sector of Pakistan? How we can convert all conventional means to clean energy?

WQ: The generation mix of the energy sector in Pakistan has adopted the technology prevalent at present therefore, as renewable generation becomes a major contributor; it is also doing so in Pakistan. The challenges, in my opinion, are in the transmission and distribution infrastructure, which has tended to lag growing demand from our healthy population growth and economic activity. However, now with the improvement in micro grid solutions, such as our Centauri + Sirius systems, it is possible to rapidly roll out location sited systems at significantly reduced capital outlay, thus meeting the growth in demand. The age of megawatts seems to be changing to the age of "t-housands of kilowatts" as countries like Australia, Malaysia, Philippines, and even parts of the US, are adopting micro-grids serving small, medium and large communities. At less investment, lowered operational cost and improved reliability of power. In Pakistan I would recommend implementing a policy that encourages the deployment of micro-grids, through which we can significantly increase the availability of affordable electricity based primarily on renewable energy. ■





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Depleting forex, economy deep in debt, default like situation

The rulers sitting on the helm of affairs for many decades have brought the national economy to the near collapse as foreign exchange reaching to the dangerous level; a default like situation is prevailing following the announcement of the Federal Budget 20-21.

IMF's planted Adviser on Finance has already declared that the government had inherited an economy deep in debt, with depleting foreign reserves, a default looking like a possibility.

The growth seen in the past government's tenure was being achieved by taking loans from abroad and then spending it in the country, he once again reiterated rhetoric that his government has left massive debts due to which country is facing such financial crisis.

Unveiling the Pakistan Economic Survey 2019-20, Sheikh revealed that the PTI-led government's projection of a

0.38% contraction is still not as grim as the 2.6% projected by the IMF and World Bank.

Commenting on the difference between these projections, the PM's adviser said the IMF and World Bank were making bleaker assumptions keeping in view the severity and duration of the coronavirus pandemic.

The provisional GDP growth rate for fiscal year 2020 estimated at negative 0.38 per cent is against a revised target of 2.4pc. The former IMF executive said that "the current account deficit that we inherited was around \$20 billion but we have reduced that to around \$3 billion".

According to the economic survey the significant reduction in the current account deficit "mainly reflected the impact of macroeconomic stabilization measures under- over the

past year, which have significantly curtailed the import demand of a wide range of non-energy and energy products".

The Advisor said that Deferred debt & markup, lower oil prices added some fiscal space in the budget. The fiscal deficit as a percentage of GDP has gone down but the government warned that by the end of the fiscal year on June 30, this deficit could more than double when the true impact of Covid-19 and government's expenditures on that front are taken into account. Though he never curtailed the non-development expenditure, accepted that the non productive expenditure should have to be curtailed.

However, despite efforts to turn around the economy, the threat of a recession looms large. Pandemic has delivered a brutal blow to an already bleak economy; he accepts the government's failure despite having abilities to



■ By Sajid Aziz

address a number of crises through better intention.

The Advisor while announcing the Budget 2020-21, emphasized on 'expansionary fiscal policy' despite high fiscal deficit, aimed at achieving balance between countering pandemic and turnaround sick economy. No pro-growth and reforms-oriented budget announced to bring back economy on track. Pakistan's GDP growth contracted to -0.38% in 2019-20 facing worst recessionary effects due to tight monetary and fiscal policies pursued for the last two years, which hit the private sector the hardest and paralyzed economy. The key high-

lights of the Federal Budget 2020-21 are as under; **KEY HIGHLIGHTS:** The total outlay of the Federal budget 2020-21 is Rs.7.3 trillion which is 11% lower than the size of the budget estimates 2019-20. The projected interest payment in the budget is estimated at Rs.2,946 billion, which is 9% higher than the revised figures of Rs. 2,709 billion in 2019-20. Current expenditure of the country is estimated at Rs. 6,345 billion vs. Rs.6,372 billion a year ago. The total federal expenditure is estimated at Rs.- 7,136 Billion. The current expenditure accounts 88.90% of the total estimated expenditures which is huge. Defense

budget is estimated at Rs. 1,289 billion which is 5% higher than the revised figures of Rs.1227 billion last year. Federal Government will phase-out subsidies by Rs. 140.50 billion from Rs.349.5 billion in 2019-20 to Rs. 209 billion in 2020-21 mainly in power sector, which will fuel inflation. Provincial share in NFC is estimated at Rs. 2,874 billion. The size of the PSDP is estimated at Rs. 1,324 billion, which includes Federal PSDP Rs.650 billion and provincial PSDP is estimated at Rs. 676 billion. Federal Government has projected 27% growth in the FBR's tax revenue vs. current year projected figures of Rs.3908 billion. ■

Govt bears the responsibility to provide services to the people

Review by Samad Dawood

The Covid 19 was the main thesis of the budget 20-21. But the impact was only limited to the slow down in economic activity. What missed was evidence that the crisis had resulted in a meaningful reflection on what is truly important and how to make choices based on that introspection: Our health and those of our loved ones, education, learning and skill development, having access to information and technology, access to finance and liquidity, clean air, water and sanitation and values such as compassion, integrity, perseverance and adaptability should seemed missing. If these are important for us as people, it should be important for us in our businesses and our economy. After all, an organisation is just a way for people to organise themselves to perform a particular activity. While the economy is the sum total of those organisations, all intricately interconnected, said Samad Dawood, Director Dawood Hercules in his comments.

"And it is this type of realisation that I find missing in the budget or the context within which it was presented. The government bears the responsibility to either provide these services directly (in case of market failure), or create an enabling environment for people to do it better themselves. This was a golden opportunity for the GOP (government of Pakistan), to finally prioritise healthcare and education by substantially increasing resource allocations in these areas. Even if these two topics are led



by provinces, the GOP can still make substantially higher allocations to magnify the efforts. The same is true for financing. How will this budget meaningfully change access to finance for people, especially at a time when they need it the most? I would like to see tax policy that incentivised the banks to lend to SMEs, mortgages and consumer debt, instead of parking everything in government debt. The only reason not to do so is an inherent conflict the GOP has with its own people for funding. Moreover, incentives should have been given to connect more Pakistanis to the digital world. This would not only have helped in documenting the economy but would also unleash the true potential of financing for millions and give them an opportunity to connect

to digital markets.

Similarly, the government should have a bigger allocation to protect the most vulnerable. This could be complemented by using these people to improve our environment. The recent news of utilising daily workers for tree plantation as part of the 10 billion tree tsunami is a good example. This not only makes Pakistan more resilient to climate change but also provides dignity to people by doing meaningful work. The pandemic is only accelerating the rapid global changes unleashed by information and biotechnology revolutions and the environmental crisis, which is having a profound impact on global societies. Whilst technology is likely to bring about tremendous productivity improvement the gains are only likely to exacerbate the difference between haves and have nots, between and within borders. The historical paths to prosperity are increasingly irrelevant. More than ever before this crisis should teach us that we must invest in our people now above all else. Not only will that help Pakistan emerge from this crisis stronger but prepare our people to thrive in an increasingly turbulent and uncertain world. It is my sincere hope that our leaders will be able to take time out to realise this and we will see Mr Hammad Azhar back in parliament with another budget which is of the same quality as his delivery. ■

(The writer is Director Dawood Hercules)



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KPT to establish an integrated energy complex - Rear Admiral, Jamil Akhtar

An exclusive interview of Chairman, Karachi Port Trust

■ By Engr. Nadeem Ashraf

The Karachi Port Trust (KPT) has planned to build its own coal handling terminal at its premises so that there is no negative environmental fallout from coal shipments being offloaded at the port unlike the past situation.

KPT Chairman Rear Admiral Jamil Akhtar stated this during an exclusive interview session with the Energy Update. Following are the important excerpts of his interview for our readers:

Energy Update: Do tell our readers about the impacts of Covid-19 pandemic on the shipping sector?

Rear Admiral Jamil Akhtar:

The present pandemic has certainly shaken the entire world. It is now certain that, economic cost of this pandemic is going to become unbearable. It is going to hit every sector including the ports, shipping, and maritime. This sector is like the service providers for economic activities all around the world. The survival of the shipping industry becomes difficult when the economic activities come to a halt. The current situation of POL is in front of you. Only the essential cargo shipments have been continuing in the current situation. The POL ships are not coming to our port, that are like

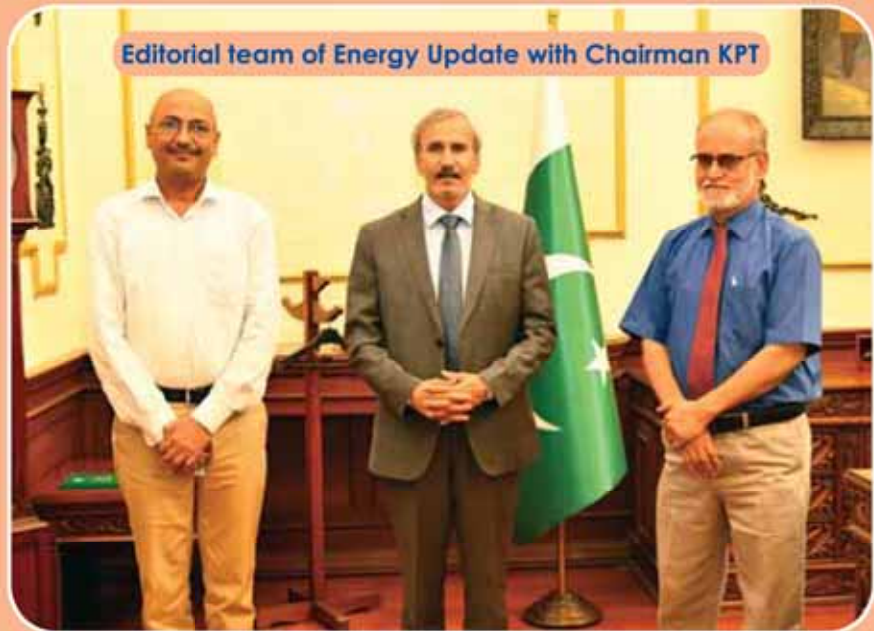
a lifeline for us. This is because the operations of public transport and aviation sectors have been suspended. The industrial activities have also not been taking place much. The refineries also stand closed as there is no consumption of their products. The cargo shipments have been impacted by over 40 per cent in just one month. But the recovery has to take place. There has to be a comeback anywhere between in next six months to two years. The Planning and Development Ministry has estimated that over 20 million people could lose jobs as the result of the pandemic. The KPT has committed that it is going to pay its daily wages till May end this year whether or not they have been working. But such trend could not continue on an endless basis. Maybe big national organizations like the KPT would be able to do it but certainly other entities don't have the capacity to pay salaries in such a manner.

EU: What is the current situation of the KPT in the context of the pandemic?

Rear Admiral Akhtar: The ports are definitely the indicators for your economic activities. The KPT is engaged in handling of cargo of every form. The present government after coming to power after the general elections 2018 discouraged imports. We came under the negative impact of this decision. In the year 2017-18 we dealt with 56 million tonnes of cargo while the same figure for the subsequent year 2018-19 was 46 m tonnes. It was planned that we will offset this impact by increasing our exports but that unfortunately couldn't happen due to various reasons. The port business, however, in the long term perspective has to grow due to acceleration in the national economic activity. What we are going to do in the present day is to make our facilities fully available to face any kind of situation.

EU: What is the nature of involvement of the KPT in the energy business?

Rear Admiral Akhtar: We are going to build our own cargo handling terminal so that there is no negative impact due to this shipment activity. The Supreme Court earlier rightly took cognizance of this activity as due precautions, which should have been observed were not taken at that time. We will prepare a proper plan for the purpose. Then we have 200 acres area where we plan to do an integrated energy project. We also aim to build an LNG terminal at the same place. The integrated energy complex we aim to construct will have an LNG



Editorial team of Energy Update with Chairman KPT

terminal, LNG-based power project, and a desalination plant. The LNG-based power plant we aim to build will comprise of three to four power plants for 2,000 Megawatts low-cost energy generation. The desalination plan will generate 150 million gallons water daily. We have also got a few letters of interest for the project. There are a few companies of international stature, which have shown interest to do the LNG project at the KPT. We aim to do the LNG shipment through trucks as being an international safe practice in the energy sector while our railway track will also be used for the purpose. We are shortly going to receive bids for the project.

EU: What is the progress of other upcoming projects of the KPT?

Rear Admiral Akhtar: We are going to build another bridge to facilitate the port-related traffic as this project will be used to connect the East Wharf and West Wharf. The connectivity project will ensure movement of the port-related traffic inside the KPT's premises instead of it creating congestion on the outside roads. The project will also provide an alternative connection to the Karachi Port aims to build its own coal handling terminal to mitigate environmental concerns. The NESPAK has been assigned this project that will be done from our own expenses.

EU: What are the details of C.S.R contribution by the KPT?

Rear Admiral Akhtar: The CSR contributions of the KPT have been more than that of any other organization. The KPT did a number of major road traffic

projects in Karachi from its own expense including KPT Interchange, KPT Underpass, ICI Bridge, Mai Kolachi Road, Jinnah Bridge, Keamari roads, to a name a few. We have also deposited Rs 100 million in the PM Dam Fund and also now donated Rs 130 million to the government's Covid Relief Fund. Then we also invested Rs800 million for building new jetties in Keamari for local fishermen and promotion of tourism in the area. We are like among top three to four state-run entities whose CSR contributions have been more than that of the other government-run agencies.

EU: What are the plans of KPT to tackle the serious issue of sea pollution?

Rear Admiral Akhtar: The KPT is definitely not responsible for the situation of untreated sewage and industrial effluents that are being constantly discharged into the sea. The Sindh government and Karachi's local government is surely responsible for this situation. We are instead victims of this sorry state of affairs as the resultant marine pollution has been constantly damaging our valuable assets and infrastructure. It is an utterly wrong perception that we are responsible for this criminal negligence. Even then we offered to renounce our claim to 150 acres land near Sultanabad. We offered to install our effluent treatment plants on our own expense. We made this offer before the judicial water commission. We are soon going to hold a meeting with Sindh Chief Secretary in this connection as per the direction of the apex judiciary. ■

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Countrywide LNG storage should be the way forward for a sustainable future - Capt. Zubair Janjua

*Exclusive Interview of Chief Operating Officer,
Fauji Oil Terminal Company Limited*

■ By Mustafa Tahir

EU: What is your educational background, professional experience and achievements?

Capt. Zubair Janjua: I am a professional engineer with specialization in Marine Engineering with experience spanning over 25 years of professional career. I am a Bachelors in Mechanical Engineering with Masters in Marine Engineering and War Studies. Having served in Pakistan Navy in Engineering core, I have been throughout involved in diversified engineering projects ranging upto multi-million dollars in value. One of my career achievements is having been involved in development of Pakistan's 1st indigenously built submarine in 2002. Currently, heading one of Fauji foundation's most important and successful companies i.e. Fauji Oil Terminal & Distribution Co. in the capacity of Chief Operating Officer.

EU: What is the nature and scope of FOTCO in Pakistan?

ZJ: FOTCO is the first and only private sector oil terminal in Pakistan located at Port Qasim established for handling the petroleum products being imported into Pakistan. The products handled at FOTCO include Furnace Oil, High Speed Diesel, Motor Gasoline and Condensate. The terminal has a capacity to handle 12 million tons of oil per annum. FOTCO's role is to provide berthing and offloading/ loading facility to oil marketing companies for their vessels calling at Port Qasim. FOTCO has a state of the art jetty unloading facility that is connected to each incoming vessel for offloading cargo which is then further connected to two 4km long pipelines connecting the offshore jetty to onshore termination point to which the storage terminals of various OMCs are connected.

FOTCO ensures efficient and safe vessel discharging to the storage tanks located within the Port Qasim area. FOTCO is also connected to PAPCO's white oil pipeline through which High Speed Diesel is transported to up-country.

EU: In our country, we are facing shortage of gas, what you suggest to overcome this?

ZJ: Presently, there is a significant demand and supply gap in the gas sector. There are various steps that can be taken in the short, medium and long term to overcome the shortage and keep up with the ever increasing demand. In the short term, there is a need to enhance the capacity of existing LNG terminals to facilitate additional imports. Currently, the terminals are capable to deliver combined throughput of 1.2 bcf/d of gas,



however, both the terminals have capability to further enhance their capacities upto additional 150 mmscfd each. In the medium run, we would need to establish one or two additional LNG terminals to bring in greater volume of imported LNG, since our existing resources are declining continuously. In the long term, we need to invest more in the exploration sector to discover additional gas reserves to reduce dependence on imported LNG, additionally, more investments in cross country pipelines and development of LNG storages countrywide should be the way forward for a sustainable future.

EU: Do you have any expansion and investment plan of FOTCO in future?

ZJ: FOTCO, in the last 4 years, has heavily invested in the LNG sector as well as oil sector. In 2017 we have laid 14km RLNG pipeline for PGPC LNG terminal for transmission of gas from PGPC LNG Terminal to SSGC delivery point. Secondly, we have just completed our oil storage terminal for storage and handling of petroleum products unloaded from vessels at

FOTCO.

In future, we further plan to invest in expansion of oil storage terminal and for any other upcoming LNG terminals. Additionally, we are also carrying out various feasibilities for potential investment in future in LPG, second oil jetty etc.

EU: What is the procedure of environment friendly oil handling at FOTCO? What are the safety precautions?

ZJ: FOTCO has implemented ISO certified safety procedures across all operations being carried out. The safety precautions include strict and extensive compliance of mechanical, electrical and instrumentation checklist prior every ship unloading/ loading, modern inspection procedures for pipelines and implementation of Preventive Maintenance Inspection. Additionally, we have installed oil spill boom to contain any oil spill from the vessels in case of emergency. Also, we have Emergency Response Plan in place to ensure safety of the plant, personnel and customer.

EU: Please brief us your CSR activities for Communities?

ZJ: FOTCO has been actively involved in CSR activities throughout the years

and undertakes variety of activities every year such as donation of Rs5.1 million for Diamer Bhasha Dam in 2018, donation for Pakistan Rangers, yearly donations to Foundation University building of school, plantation of 25,000 mangroves at RLNG pipeline site, plantation within FOTCO premises, provision of school uniforms and stationery items, environment protection initiatives.

EU: What reforms should urgently be introduced in the energy sector of Pakistan for its sustainability and to minimize financial losses of the sector?

ZJ: There is a dire need to introduce immediate reform measures in the energy sector of Pakistan as it is facing huge losses. The main deficiencies are: deterioration in Energy Mix, inefficiencies and high cost in generation, mounting circular debt, heavy reliance on subsidies. Immediate measures that can be taken in the energy sector are: Properly regulate the energy products. Balanced energy consumption mix. Bring existing capacities online, stoppage of pilferages, tariff rationalization, measure to contain losses and measures to procure LNG at competitive rates.

EU: What is your own personal point of view about the energy sector of Pakistan vis-à-vis its growth, sustainability, and up-grading?

ZJ: Energy sector is the lifeline of Pakistan's economy and the demand of energy is on a continuous rise. Energy crisis in Pakistan is mainly a management and not a capacity issue. Integrated planning of overall energy mix of Pakistan is the need to the hour. Development of indigenous resources to reduce dependence on imported fuels is the way forward to resolve the energy crisis and associate financial losses.

The energy sector of Pakistan is highly dependent on imported fuels which results in price uncertainty and exposure to currency devaluation impacts. The foremost focus of our country in the energy sector is to reduce its dependency on imported fuel and put more focus on the modern and renewable energies through indigenous resources such as hydel, coal, nuclear etc. there is a need to increase the share of clean energy in the overall energy mix. Furthermore, structural reforms should be undertaken to promote investment opportunities in the oil and gas industry. ■

Bureaucracy blamed for petrol shortage

Oil companies and refineries have blamed the bureaucracy for current petrol shortage in the country, saying the indecision regarding import as well as enhancing local petrol production led to the current situation.

The Oil Companies Advisory Council (OCAC) on Sunday said that a "disinformation campaign and maligning of refineries and oil marketing companies (OMCs)" was a matter of serious concern.

"It is regretful that a lot of misinformation and blame game directed towards the Downstream Petroleum Sector has been observed particularly in the past two weeks which is unnecessary and counterproductive," it said.

The OCAC said there was an urgent need to review and analyse the inherent reasons for present shortages of petrol in the country which include import embargo in March, directives by the energy ministry to lift the same embargo in April and delayed approvals for imports.

It claimed the ministry failed to determine the rise in demand as the Covid-19 lockdowns were being eased

from May and there was tendency among consumers to move and drive around with exceptionally low oil prices, etc.

"We would like to highlight that a typical supply chain of petroleum products ranges 45-60 days whereas an increase of 82 per cent in June sales compared to April sales is significant, especially when there is heavy reliance on petrol imports which is associated with its various supply complexities such as securing appropriate quantities through International Suppliers/Traders, availability of bulk product carriers (ships) in marine freight market, port constraints, etc.," the OCAC said.

It claimed that the Downstream Petroleum Sector continued to be a responsible corporate citizen of the country and needed to be treated with respect in view of its huge contribution to maintaining energy security in Pakistan. "An estimated figure of current replacement cost that is loss for June is around Rs17 per litre which translates to around Rs18 billion for refineries and OMCs," the OCAC added. ■



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Corona, Oil Price crash and its consequence on Energy Sector in Pakistan

By S. Akhtar Ali

Corona virus has taken its toll. International oil prices (Brent crude) have come down to 36.79 USD / bbl (Monday 9th March). Brent crude even gone down further later on. Highest peak in last days of February, Brent Crude was \$56. It is a 35% drop in international oil prices in less than a month. Highest peak within the current year was 70.25 USD/bbl. From that reference, it is almost 50% drop today. It is a God-send opportunity and concession for GoP and the people of Pakistan. In 2016-17, oil prices came down to this level which greatly consumer benefitted PML (N) government. GoP has reduced petrol and diesel prices by Rs.5 per Liter each. People are not happy, as they argue full

benefit has not been passed on to the people.

Further reduction would be due next month or could be even earlier. It is estimated that on the basis of today's price, new Petroleum product prices can go down by as much as Rs.22 and ex-

pected end prices of Petrol would be Rs.89 per Liter and Diesel Rs.94 per liter. This assumes that GoP will maintain its taxes at current level of Rs.36 per Liter. This would be almost 100% taxation on landed or ex-refinery prices.

GoP would be well advised to make due downwards adjustment in petroleum prices to save its political capital and boost economic growth and output through its taxation policies. GoP would have more reasons to be happy and relaxed on other counts as well. High interest rates and heavy currency devaluation have already taken its toll. However, international interest rates have gone down as well. LIBOR has come down to 1.5 % from recent rate of more than 2.5%. Most IPP agreements were based on LIBOR + 4.5% at a reference LIBOR of 0.5 %. With increase in LIBOR rates in earlier months, effective interest rates had exceeded 7% as opposed to a reference rate of about 5%. This had increased interest cost by 30%. LNG costs, even of the expensive Qatar contract, would be reduced by more than 50%. Thus Electricity cost and tariff should also come down. And accordingly, Circular debt should stabilize if not reduced. Hopefully, KIBOR will have to be adjusted down



as well under this trend. Stock markets in Pakistan shouldn't have gone down as much as it did.

It should be noted that petroleum prices and taxation are still lower in Pakistan than in the region. In India (New Delhi, where the prices are cheapest in India), Petrol prices are Rs154.38 (on 1st March) as opposed to prices in Pakistan of Rs111.59 per Liter. Similarly, Diesel (HSD) prices in New Delhi are Rs138.42 as opposed to Pakistan prices of Rs.122.26 per liter. Over the comparable period, India has reduced prices by 1 IRs per Liter (Rs.2.0) as opposed to Rs.5.0 per Liter reduction in Pakistan. In other areas in India, prices can be higher than, as high as 10 percent.

Under the current Petroleum prices as announced on March 1, GoP would earn Rs.35.96 per Liter out of petrol sales resulting in annual revenue earning of Rs358.83 billion, provided prices and taxation remain the same for one year, a big if. Similarly, on diesel, GoP taxation earning is Pk.Rs.42.81/Liter, resulting in projected one year revenue of Rs461 billion. Together, Petrol and Diesel enable the GoP earn a revenue of Rs820 billion. More realistic would be to put it in monthly terms which work out to be Rs68 billion. Quite some help by the poor consumer to GoP. However, in a country where elite and businessman do not like to pay their due tax liabilities, there are few other options left.

There is a case for taxing energy consumption, as it has externalities, harming other sectors in terms of health, pollution and climate change. There used to be excise duty in early days to cover these aspects, which continues to be the case in India. In Pakistan, it is called Petroleum Development Levy (PDL), originally meant for development projects of petroleum sector. A decade earlier, courts made quite some hue and cry on it, similar to the protestation that is going on

today on GIDC. It is time, perhaps, to change the nomenclature. An appropriate name would be Carbon Tax which is being pushed increasingly by climate change circles. PDL may be divided into two parts, one Carbon tax which may remain as fixed component and the other variable to be called Petroleum Levy.

Petroleum has been traditionally considered a luxury deserving heavy taxation. It is no more a luxury but is a necessity, especially, Diesel which is used by public transport sector. 40-50% of gasoline in Pakistan is used by poor motorcyclists and Loaders (Suzuki and others) also consumer petrol, the latter being used for intra-city transport of goods and even as a public transport vehicle. Europe continues to tax petroleum heavily. In Norway, despite being a petrol producer and exporter, current Petrol prices are Rs.250 per Liter or more, almost double or more than double of Pakistan prices. Similar is the case in other European countries like France, Germany, Italy and the U.K. etc. The U.S., however, indulges in moderate taxation and its petroleum prices are used as a benchmark by many.

It has taken this scribe quite some time and effort to calculate taxation impact under the current price announcement. PMLN government stopped issuing price-build up data apparently for no good reason. The purported reason was, name-sake, competitive pricing at petrol pumps. The negative impact is that all kinds of inaccurate data circulate in the electronic and print media. It hurts government image amidst confusion. In our region in India, there is price competition as well, however, price-build-up transparency is maintained there. One would have more reliable Indian data available conveniently than one would have on Pakistan. One has to do backward calculations on the basis of widely dispersed data. Earlier, OGRA used to publish this data and continues to post historical price-build up data on its website. Serious consideration may be given by the GoP to eliminate this vestige of the past and announce its own well-considered policies.

However, if the downfall continues, its negative effects would also accrue to Pakistan in the form of reduced remittances due to loss of income in the Middle Eastern countries. Exports would also go down due to world-wide recession. ■

(The writer is former Member Energy, Planning Commission)

Nabil Habayeb named Senior VP of GE

Nabil Habayeb, GE's President and CEO for the Middle East, North Africa and Turkey, has been named Senior Vice President, GE, and President & CEO, Global Growth Organization (GGO) effective June 1, 2020. Habayeb succeeds Rachel Duan, Senior Vice President, GE, and President & CEO, GGO, who has decided to leave GE and embark on a new chapter of her career.



GE Chairman and CEO H. Lawrence Culp, Jr., said, "Our global organization provides GE with a competitive advantage by supporting our businesses for growth, local talent development and country risk management. Nabil has a proven track record in accelerating and delivering growth, navigating geopolitical complexity, and building global leaders. He's an excellent choice for this role, and I look forward to Nabil's partnership."

"Over the course of her 24-year career, Rachel has delivered strong growth for the company across businesses and regions. Under her strategic leadership, GE forged important customer and government partnerships, and deepened business localization initiatives across the value chain in China and emerging growth markets. I would like to thank Rachel for her many contributions and wish her the best of success in her future endeavor."

Nabil Habayeb said, "I am excited to partner with the businesses and regions to further GE's global growth agenda at this critical time for the company. Our people and technology have positively impacted the communities and countries in which we live and work for decades, and I am proud to support our customers' progress around the world. ■

History of Corona Virus

In the year 1894 there was a Russian scientist named povandolakagijur kintyaionshucyio.

Why did you skip the name
I am not going to tell Story anymore. I can't deal with lazy people its your fault

EU: Would you like to tell about yourself? (education, qualifications, experience)

James Rockall: I have 30 years of experience in the global energy sector. I began my career working for Shell International in positions in The Netherlands and Venezuela in project management and business development. Prior to joining the WLPGA in July 2003, I worked as a Director of the global energy group ALSTOM SA. In 2004 I became CEO of the WLPGA and in that time I have tripled the organisation in terms of membership and revenue. My educational background is in chemical engineering – I have a Master's degree with Honors from the University of Nottingham in the UK. I also have an MBA from the Institute of Management Development in Lausanne, Switzerland.

EU: What is the motive behind setting up of WLPGA?

JR: The WLPGA was created in 1987 in Dublin, Ireland in response to a growing need from the global industry to have a coordinated voice on issues relevant to the sector. Initially designed around an annual event – the World LPG Forum, the WLPGA has grown now to be a fully fledged trade association representing the LPG sector on a range of issues. Our activities are both outward focused – e.g. working with governments for suitable regulatory environments and also inward – e.g. promoting operational and commercial good practices. We have grown to now represent over 300 organisations operating in more than 125 countries in the world.

EU: What is most important in your company's core values and vision?

JR: WLPGA addresses an enormous range of challenges and opportunities. The most important aspects of our activities are defined in our current three-year strategic plan and are: To advocate LPG as part of the solution to future energy challenges; the support efficient and responsible LPG business and to encourage innovation & support business growth.

EU: What do you enjoy the most about working in your organisation?

JR: LPG fuels the lives of half the planet - no other fuel can claim this. Importantly, LPG is a clean, low carbon fuel, so not only do we fuel lives, we improve lives and we provide comfort and quality of life across all income segments. Knowing this and understanding that my efforts and that of the WLPGA team are contributing to this every day is the most rewarding aspect of my work.

EU: What's the biggest challenge facing by LPG industry today?

JR: The LPG industry fuels the daily lives of half the planet but still represents just 2% of primary energy. Our biggest challenge is lack of awareness. In mature markets, energy decarbonisation is being pursued by policy makers and fossil fuels are being phased out. As one of the lowest carbon fossil fuels LPG should be part of the solution to a low carbon world. In developing markets LPG can contribute to cleaner air, lower health burdens and increased economic productivity. In all cases we need to have our voice heard against a backdrop of renewable energy solutions which in many cases are not sufficiently mature or practical.

EU: Would you like to share structure, working and chapters of WLPGA around the world?

JR: WLPGA is based in Paris, France with a team of 10. Within the team we have a focus on communications; events



The Covid-19 crisis makes global trade a challenge: James Rockall

Exclusive interview of CEO of World LPG Association

■ By Mustafa Tahir



and strategy. Our membership is organised in working groups to address the strategic issues, organised under three principal goals:

Advocacy; Business Improvement; Innovation and Growth. From a governance perspective, we have a Board of Directors, consisting of 11 individuals representing the global membership. We also have an Industry Council of 40 leading organisations that steer our strategy and allocation of funding. While we number some 300 organisations as members, any staff from member companies can be involved in working groups or have access to WLPGA intelligence or support. This makes the real reach of our activities incredibly broad, impacting many tens of thousands in the global LPG industry.

EU: Share your views about LPG industry in Pakistan especially potential and challenges?

JR: Pakistan has a per capita consumption of LPG of around 5.5kg per year, putting it at the low end of countries

in the region. For example India is at 18kg/yr; China is at 40kg/yr and Sri Lanka is at 21 kg/yr. This would indicate an opportunity for growth, particularly since Pakistan does not have an abundance of natural gas.

Over the past three years Pakistan has shown an LPG consumption growth of c. 5.5% compared to an average regional growth (Asia-Pacific) 8.5%. With these figures in mind, and given the average purchasing power in Pakistan compared to its neighbours, it is not unreasonable to imagine a doubling of the Pakistani LPG consumption. What are the barriers to any increase? Often these barriers are policy related. We have seen in many countries that encourage the use of LPG, perhaps with mandates or grants or specific policy support that LPG consumption can grow given the right policy environment. WLPGA has a multitude of case studies and policy examples that can be shared with the industry in Pakistan to identify how to grow the market in a safe and sustainable way.

EU: Any future plans, upcoming events and developments of WLPGA?

JR: The current Covid-19 crisis in the world makes traditional business meetings and events a challenge. However WLPGA continues to plan for the biggest ever gathering of the LPG industry in Dubai from Oct 31st – Nov 5th in the form of LPG Week.

This event will bring together the full LPG Value Chain under one roof for one week to debate and do business. In addition to events, WLPGA continues the implementation of its three-year plan, focusing on growing markets for cooking, for transport, for power generation and many other segments.

Finally a large effort is being made to demonstrate the credibility of sourcing up to half of global LPG demand from renewable sources by 2050 – something that will position LPG as a low or near-zero carbon fuel for the future. ■



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The country will soon have network of EV charging stations - Khalid Riaz

An exclusive Interview of Chairman & CEO, Gas & Oil Pakistan Ltd (GO)

■ By M. Naeem Qureshi

EU: Please tell us about yourself, your qualification, experience for our readers?

KR: From a very early age, I got involved in the business with my father. I dropped out of school after completing

8th grade and since then have been in business. I started off as a petroleum retailer, got into oil transport and then started building a network of petrol stations. I formed Gas & Oil Pakistan Ltd (GO) and got the marketing license from Oil & Gas Regulatory Authority (OGRA) in 2015 to commence marketing operations. With the grace of God, the company has been expanding rapidly and last

year we turned over more than \$1 billion. I have been the Chairman of GO since then and took over additional responsibilities as CEO in 2018.

EU: What is most important in your organization; core values or



The oil sector will need to work with the Government to ensure that these are addressed to ensure energy supply security in the country. These are not things that require a huge investment, just better coordination and quick decision making to help ensure that we have a sustainable business for the sector.



vision?

KR: Having been in the business for almost 40 years, I have seen and experienced the problems that my dealers go through. Now sitting at the other end, it was important for me to ensure that I fix those problems that I always felt needed fixing. We have tried to work with this in mind. I think most companies have the ultimate customer in mind and they want to provide a great service to them while somewhat neglecting the problems of the dealer partners who must be supported in order to achieve this. I think we have tried to work with our suppliers closely that is resulting in better results for all.

EU: Could you tell us about Gas & Oil Company, operations, services and achievements of the company?

KR: Gas & Oil Pakistan Ltd (GO) is the fastest growing oil marketing company in Pakistan. We currently have approximately 10% of the market share and have built the largest storage infrastructure in the country in the private sector with about 196,000 MTs storage across Pakistan. We have more than 550 retail outlets and have introduced corporate cards, fleet cards, cash cards for our customers. Our focus on quality and quantity is relentless with one of the highest number of quality control checks and site inspections in the industry.

EU: Would you like to share your views on post Covid-19 impact on oil & gas sectors in Pakistan?

KR: The COVID-19 crisis has shaken

the whole world to its core and the oil and gas sector of Pakistan is no exception. The crisis has highlighted some deficiencies in different parts of the supply chain. The oil sector will need to work with the Government to ensure that these are addressed to ensure energy supply security in the country. These are not things that require a huge investment, just better coordination and quick decision making to help ensure that we have a sustainable business for the sector.

EU: GO as the first company that has set up charging station in Pakistan. Please share this achievement?

KR: We believe that with the rapid advancement in the field of sustainable, clean energy, the world is moving towards greener options for transport. The world over, governments and corporations are working to ensure that citizens breathe clean air and countries like ours spend less on their energy import bills. GO is proud to be the first OMC in the country to have installed EV chargers. The first of these chargers have been installed at one of our Company Owned and Company Operated (COCO) retail outlet in Lahore. In Sha Allah, we plan to install more chargers at key locations to serve our EV customers to help overcome range anxiety so the transition to this greener option is fast.

EU: What is your analytical view about future of electric vehicles in Pakistan?

KR: The electric vehicle market is changing the way the auto industry operates. In Pakistan, the business friendli-

ness of government policies will determine how fast the take up of this technology is going to be. I think it will be some time before we start to make a noticeable impact but GO is proud to have taken the first steps in this direction. We hope that the other OMCs will also follow suit and herald the beginning of a green revolution in the country.

EU: Would you like to share your future expansion and investment plans?

KR: Our network to help address the range anxiety of our customers. The more chargers we have at motorways and highways, the easier it will be for our customers to travel longer distances using their EVs. We are also working with a consortium in collaboration with Lahore University of Management Sciences (LUMS) to introduce EV charging facilities for small vehicles such as motorcycles, rickshaws, etc. In Sha Allah, we shall soon be starting a trial of these as well so we can optimally use our retail outlets for the benefit of our dealers and our customers.

EU: What are the challenges being faced by you in this business?

KR: Like any growing business, we need to make sure our investment decisions are sound on time and that we get support from our suppliers, partners and the government. The oil marketing sector has its unique set of problems and the current COVID-19 situation has disrupted global supply chains causing a ripple effect on our industry as well. I am hopeful that with my competent team, we will be able to face these challenges and In Sha Allah come out stronger. ■

Pakistan's Economy –

A Post Covid Forrest Gump

By Razi Raziuddin

Pakistan rose from the ashes of a dying empire. 73 years have passed with missed opportunity after missed opportunity. The (late) legend AGN Kazi once said Pakistan is a land of missed opportunities. Opportunities to change its destiny have come and gone, but this time we can actually become a Post Covid-19 "Forrest Gump". FG, a disabled, disadvantaged and handicapped character in the famous movie starring Tom Hanks won a number of Academy and Guild Awards in 1994, grossing just short of The Lion King. FG is stressed and cornered by neighborhood bullies; he can hardly run with braces on his feet, he is limping, he is in pain. Yet he has the will power. He tries to run, tries and tries, until the shackles attached to his feet, from hip to the toes, start breaking up, falling apart. FG now is running faster and faster without any braces attached to his feet. He runs faster than the neighborhood bullies, he is far ahead. (FG Forrest Gump and Federal Government FG are just a coincidence).

Pakistan has all the fundamentals to rise from the lowest floors of GDP to a respectable welfare state. The businessman, the governments and professionals need to sync and work as a team to evolve a very robust strategy, as soon as possible. Post Covid-19, all over the world the public sector definitely will play a major role, as it has done after every recession and depression but we should not forget the private sector which will eventually bring the big changes needed. Pakistan has the correct fundamentals of a resilient nation: a young population, educated youth, out of the box thinkers, surplus power capacity, a large oil and gas rich sedimentary basin, natural oil and gas springs (seepages), great agricultural land, steep gradient for 40,000 MW hydro power plants, unlimited solar power, deep water ports, textile innovators having no global match; OBOR, CPEC, ex-RCD and so on. Now it depends how we put all these ingredients to go from a low ranked 40th in GDP run to

top 15; the \$ Trillion Club. There are more than 150 countries with higher per capita income, including India, SL and BD. How do we move from four digits \$ per capita to five digits club (above \$10,000).

I hope that this time, we will not lose the opportunity by utilizing our great strengths. Needless to say, everybody has to tighten their belts, especially the FG/PGs/LGs. The governments need to reduce their needless expenditures and increase their productive expenditures, especially dams, transmission lines and pipelines, distributions systems, motorways, roads, railways, airports and alike. The Planning Commission needs to set the stage and develop priorities for public funds spending. PSDP+ is a great concept and ingenuity only slayed by draconian Public Private Partnership



(PPP) Acts of the FG & PGs.

It is very important and need of the hour that we reduce the cost of business; like all the countries are doing Post-Covid. The cost of electricity and gas wins the race to exterminate projects and are road to bankruptcies. The FG Cabinet needs to take quick decisions. The international Markets will not wait for ministerial summaries, comments, agendas. The world is moving faster in Post Covid than it was in Pre-Covid. Zoom has taken over F2F meetings. The Electricity and Gas tariffs (prescribed price) to the industrial sector, especially export oriented, IT and those creating 500+ jobs need to be halved (50%) in FY 2020-21 (compared from FY 2019-20). The port fee, railway tariff, NHA toll fee, regulators fee and alike needs to be reduced by 25% across the board through a FG Cabinet decision. Efficiency of ports, railway, NHA and regulators need to be increased by their Boards. GST on Diesel used for the industrial sector needs to be waived off. At the same times, the national associations of industries need to vow to SECP/FG that their members will not pay more than

the dividends paid in FY 2019-20 for the next 3 years. The industries will re-invest the retained earnings into more jobs and more FEX earnings. International competition has gone from bad to worse. Exporters in each and every country has faced cancellations after cancellations in April and May. June has been different. There is a rush to grab lost markets. The Governments of our competing countries have already taken steps to reduce the cost of supplies and services, thus enabling exporters to sign mega-deals. We are slow. We have not responded well to international happenings. We did not capitalize in low prices of crude oil, petrol, diesel and LNG. We missed the boat, while other countries were stocking their oil and gas reserves, we were lost in disarray.

All policy makers and regulators need to amend policy and rules to ease Start-Ups by educated youngsters. The top brass of SECP, SBP, FBR, NEPRA, OGRA, PTA, PEMRA, Banks, NBFCs and alike need to engage with students in the final year and with incubation centers of colleges and universities to develop projects. HEC authored establishment

of centers in universities to serve as a pivotal point, encompassing all the research activities - from development of research proposals to the commercialization of research products - under a single umbrella; called "Offices of Research, Innovation and Commercialization (ORICs)". Result is F. Registering a company to opening accounts or getting STN are all impossible for new starters. Regulators may ease the restrictions. AML has taken over the nerves of SBP and banks. Let's not go overboard. Let's rationalize. Revival of Sarmaya Pakistan Ltd. can play a major role in reviving the sick industries. The FG/PGs need to get one insect out of their minds and that is why businessmen make money. If they do so, they will become facilitators and not the obstacles. Only then we will see flourishing of our industrial sector and per capita in 5 figures. One thing the government needs to do is reduce UFG (unaccounted for gas) to 3% and electricity losses (transmission and distribution) to a sane value of 2% and 9%. Also, why do we need Petrol of 92 Octane in our motorcycles; when 82 RON runs better. ■

WAPDA signs consultancy agreement for Murunj Dam

In a major development for harnessing scarce water resources in Southern Punjab, the Pakistan Water and Power Development Authority (WAPDA) awarded the consultancy contract worth Rs156.226 million to a joint venture headed by NESPAK for feasibility study, detailed engineering design, preparation of tender documents and PC-I of Murunj Dam Project.

WAPDA General Manager (Hydro Planning) Muhammad Amin and NESPAK General Manager (Water and Agriculture) Javed Munir signed the agreement on behalf of WAPDA and the joint venture respectively in a ceremony held at WAPDA House.

Murunj Dam Project will be constructed across Kaha Nullah about 15 Kilometer (Km) from Mari village and 116 Km west of Rajanpur, Punjab. Kaha Nullah is one of the largest hill torrents of the Koh-e-Sulaiman Range located in the vicinity of Rajanpur with average annual inflows of 183,000 acre feet. The available water resources are very scarce in Rajanpur and adjoining areas facing acute shortage of fresh water for drinking and agriculture.

Murunj Dam Project has three main objectives namely storage of water for irrigated agriculture and drinking purpose, flood mitigation and power generation. The project will have gross water storage of 800,000 acre feet. Annual monsoon rains give rise to flashy hill torrents causing inundation of thousands of acres of land in the adjoining foothills and rendering damages to public property and cultivated land each year. The project will generate 12 megawatt (MW) cheap and environmental-friendly electricity. The project is unique in nature for Southern Punjab and will help alleviate poverty from the remote and backward region. It will change existing economic indicators and uplift the living standard of the people. The project will have tangible benefits and bring about 120,000 acre barren land into irrigable, ground water recharging, and fisheries development. Implementation of project will have significant positive impact and uplift of local economy. ■





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Present govt's performance needs improvement - Mohammed A Rajpar

*Exclusive Interview of Managing Director,
General Shipping Agencies*

■ By Mustafa Tahir

The present government should launch some signature projects for the port sector as it is to yet to launch any major development project in this arena", this was stated by Mohammad A Rajpar, Managing Director of General Shipping Agencies in a recent interview with the Energy Update. Following are the important excerpts of his exclusive interview for our readers.

EU: What are your achievements, qualification and experience in shipping sector?

Rajpar: I hold a Bachelor of Science in Business Administration degree from Bucknell University, U.S.A. and M. Phil (Economics) degree from Cambridge University, U.K.; I am the Managing Director of a family-owned shipping company called General Shipping Agencies (Pvt) Ltd since 1992 which is based in Karachi, Pakistan and was established by my father in 1974. I am proud to state the company is recognised and trusted as one of the leading shipping agencies in Pakistan.

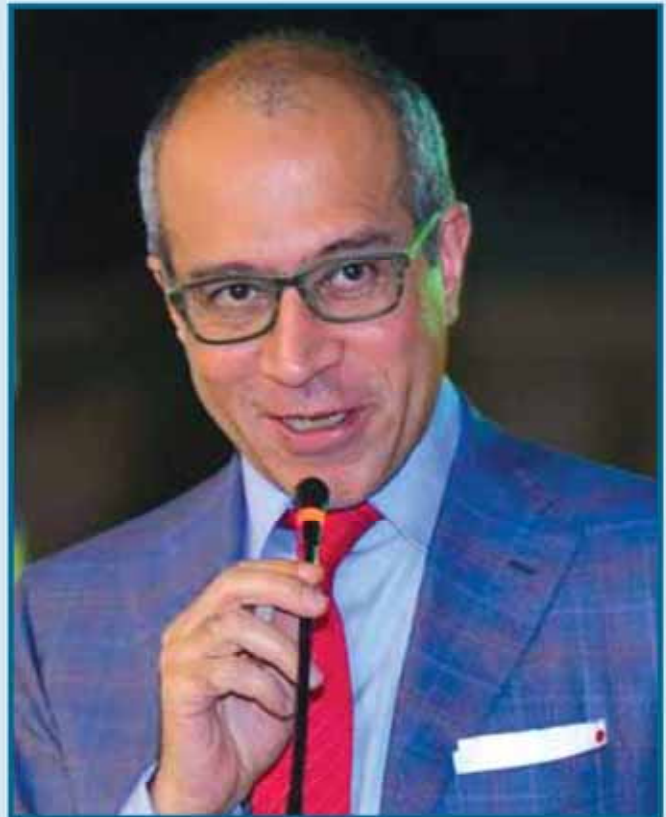
EU: What are the most important, core values and vision of your organization?

Rajpar: The most important core value for us is to conduct business in an ethical manner whilst our vision is to be amongst the highest quality performers to our principals.

EU: What is your decision making process to run your business?

Rajpar: After taking into consideration the prevailing business environment in terms of opportunities and challenges, I take input, advice from my senior management team and then decide what to do. Of course, when I am truly confused about any decision, I consult with my father. Lately, I have also enjoyed obtaining input from my son who is currently gaining work experience abroad but remains peripherally involved with our business.

EU: Would you like to share the challenges and any improvement in shipping sector in PTI regime?



Rajpar: The PTI government had announced its shipping policy on 18th September, 2019 which was notified on 15th November, 2019 extending various incentives in income tax, Customs duty and sales tax until 2030 instead of the previous 2020. One major development is that Pakistan's private shipping will get some additional benefit as compared to PNSC. The new shipping companies, known as Pakistan Resident Ship Owning Companies, will be operated as Pakistan's private shipping lines but will be considered as the national flag carrier of Pakistan.

These shipping companies will pay a lower tonnage tax of \$0.75 Per GRT (Gross Registered Tonnage) annually for the first five years for each individual vessel. After the relaxation period, the company will pay \$1 per GRT annually on the income of vessel operations. It is pertinent to mention here that to provide incentive to new private entrants, the government has set a tonnage tax of \$1 Per GRT annually for Pakistan National Shipping Corporation (PNSC).

Challenges in Shipping Sector

EU: What is the role of PSAA and how many organisations affiliated with the association?

Rajpar: Pakistan Ship's Agents Association (PSAA) was formed in 1976 and is the sole licensed trade association for shipping agents comprising 56 reputed members handling vessels calling at Pakistani Ports. PSAA is registered with the Ministry of Commerce under the Trade Organizations Act, 2013. The main objective of this Association is to resolve problems faced by its members and to make a positive contribution to the long term progress of the Ports and Shipping industry in Pakistan. PSAA enjoys a high reputation at all official levels including Ministry of Maritime Affairs (MOMA), Karachi Port Trust (KPT), Port Qasim Authority (PQA), Customs, etc. Its members are represented on several high profile committees formed by the Federal Government from time to time at MOMA, KPT, PQA, Karachi Dock Labour Board (KDLB), etc.

EU: Please brief about your CSR activities in Pakistan?

Rajpar: We have primarily been involved with two types of CSR activities; one is related to the general beautification of the city e.g. Eduljee Dinshaw Road Project in December, 2015, initiating the international public art festival in Karachi through painting of our office building in December, 2019 by an Italian artist depicting the birds and flowers of Pakistan and Italy and soon to be launched Nehar-e-Khayyam project. The other type of activity is related to education. Of course, recently we have been most involved in distributing ration packs to deserving families affected by COVID-19.

EU: What is your strategy during current pandemic?

Rajpar: The effects of this pandemic are going to last for two years. I fear that some of the industries and businesses will be completely wiped out like airlines, cinemas, theme parks and gymnasiums. It is going to be a real change. It might be possible that the present situation could bring some positive change like for instance we will be more careful about the environment in future with lessening of our carbon footprint.

EU: What would be the pandemic's repercussions on the shipping industry of Pakistan?

Rajpar: There has been difference between 30 to 40 per cent in volume of



the business depending upon the commodity you are dealing with and the geographical area of your operations. There has been a decrease in the imports of oil and LNG while textile exports have also been affected as many orders of this industry have been cancelled.

EU: What are your own expectations from the government in the current situation?

Rajpar: I don't expect the government will offer any bailout package to our industry owing to its own constraints. The private sector has to do the adjustments and cost cutting on its own. The options like mergers and acquisitions have to be exercised for survival and revival of the businesses. The government has offered concessions to other industrial sectors but we haven't yet officially asked the government to grant us any relief package. We have only verbally informed the government about our issues during our recent interaction with the federal maritime affairs minister. I don't have much expectation from the government as it is already too much overburdened.

EU: What is the general reaction of the people associated with the shipping industry in the current situation?

Rajpar: Obviously they are very worried. They see it as a survival issue. People associated with our industry have to think where to do the cost cutting in their businesses when the marine traffic has decreased considerably.

EU: How much is the effect of the current situation on the LNG trade?

Rajpar: There has been decrease in Qatari volume of the LNG being imported by 20 to 40 per cent while the non-Qatari volume has decreased by 80 per cent. The good thing is that the government hasn't declared force majeure on energy contract as otherwise it would have created far-reaching effects on trade of the country related to other important commodities as well as possibly impacting Pakistan's credit worthiness.

EU: What will be the benefit for us of the decrease in global LNG prices?

Rajpar: We will definitely get the benefit if in case the lower prices get sustained as I do believe it is going to happen. But you have to be patient for some time.

EU: How do you see the performance of the present government with regards to your own shipping industry?

Rajpar: Generally speaking I have not been satisfied with the working of the present government as they lack any cohesive strategy. It seems that all the ministries and agencies have been working in isolation. I have yet to see any extraordinary work of the present government. You haven't seen any major development project of the present government. This government should launch some signature projects for the port sector. At least one more terminal should be added to the present port infrastructure. The expansion of the Gwadar port should take place. The tug boats and pilot boats of Karachi Port Trust should be in very good condition as they are very old now. Whereas the same assets of the Port Qasim Authority have been in good shape as they were either hired or purchased lately. No doubt the present government has offered a new benefit to the private sector related to the shipping lines never earlier given by any previous government by offering them extra relief in income tax. There is no doubt about the intentions and honesty of the present government but its performance needs improvement.

EU: What is your own assessment of Keamari poisonous gas leakage incident?

Rajpar: I was out of the country when the tragedy occurred. I have yet to see any conclusive investigation report of the incident in the public domain and we are unlikely to see any such report. The incident will always remain a mystery. ■

WWEA is striving for 100% renewable energy option - Stefan Gsänger

Exclusive Interview of Secretary General, World Wind Energy Association

EU: Please tell us about yourself, your qualification, experience and association with WWEA and RE Sector?

Stefan Gsänger: I am a political scientist by education and grew up at a time when we became aware that many environmental problems were about to become existential threats to the future of mankind. Air pollution, dying forests and the first talks about climate change as well as the Chernobyl disaster made clear that neither fossil nor nuclear energy are appropriate solutions for our future. When I started to look into the potentials of renewable energy, I began to understand that a shift towards renewables would solve many of these problems. And I was lucky enough that after finishing university I had the opportunity to work for one of the leaders of the renewable energy movement, Dr. Hermann Scheer, German MP and winner of the Alternative Nobel Prize. Through that work, I got also closely connected to the wind sector and helped to create the World Wind Energy Association in the year 2001.

EU: What is most important in your association; core values or vision?

SG: The original motivation why to found WWEA was that pioneers and experts from around the world, in particular outside Europe and North America, didn't have a platform to meet, to exchange information and to represent their common interests to the outside. Most of the wind markets at that time were in a very early stage, and the wind "industry" in these parts of the world was not well organised and didn't have a proper representation. Equally, in particular those often community based pioneers in Europe saw themselves under pressure from the "traditional" energy sector and wanted to strengthen their position by creating a global alliance that would jointly work for the global shift towards renewable energy, in a more participatory and democratic manner. This explains the core values, basic principles and goals of WWEA: Being an inclusive organisation that gives a voice to the wind community from all parts of the world, with a special focus on the participation of smaller investors and communities, and striving for a goal which at the initial phase sounded utopic for many: a worldwide full renewable energy supply.

EU: Since you are wearing two important hats of big associations like GO100RE and WWEA, what strategies you follow globally and what are the major achievements of your associations till date?

SG: The structure of WWEA ensures that the international wind community is represented within our association on a democratic basis, e.g. by giving special attention to wind energy associations. Accordingly, two important pillars of our work are the focus on community power and other domestic, usually small and medium sized enterprises as well as the global 100% renewable energy goal. I dare to say that we have been able to come to substantial achievements by bringing our goals

■ By Halima Khan



onto the global agenda. Regarding concrete achievements let me just give you a few examples: We had a substantial impact on creating the Chinese wind industry as our WWEC2004 in Beijing kick-started the Chinese renewable energy legislation and industry. WWEA was one of the initiators of the International Renewable Energy Agency IRENA at a time when there was almost no support for creating such urgently needed agency – which plays today an important role in disseminating renewables. Bringing the topic of 100% renewables on the global agenda, we have managed that this topic is today discussed as a realistic option in the general public – certainly one precondition for the Paris Climate Accord. In this context, naturally the Global 100% Renewable Energy Platform played a crucial role after we had founded it as a very broad alliance of international civil society organisations. Of course we have worked closely also with governments on national renewable energy legislation, including in Pakistan, and have had an impact also on increasing national ambitions and improve implementation. ■

Cheaper LPG for the poor

New policy to eliminate oligopolies

By Syed Akhtar Ali

For a very long time, liquefied petroleum gas (LPG) business has been a symbol of power in this country.

There has been stranglehold of the powerful people who earned undeserved income due to constrained supply. LPG quotas have been used frequently to please powerful interests and individuals.

The LPG sector has sufficient number of buyers and sellers which are required for a competitive and transparent market. Both sincere and half-hearted attempts have been made in the past to make the LPG supply system competitive and transparent, but no meaningful impact has emerged.

Disguised oligopolies, if not outright mafias, have managed to have their stranglehold on the sector. The net situation was that only 20% of LPG marketing companies out of a total of 104-plus managed to receive supplies from producers and the remaining 80% were probably buying from the 20%, which added to the selling price. A new LPG regime has been introduced recently, which has gone unnoticed by the general public.

As per new rules, all LPG marketing companies having terminals would get equal access to LPG, eliminating oligopolies and uncompetitive business practices. This simple step will lead to many improvements in the sector.

Some more changes are required. LPG is many times more expensive than piped natural gas and is used mostly by the rural poor, among others. We will make a case for targeted LPG subsidies for poor consumers by waiving or reducing some taxes including the petroleum levy and GST or by introducing cross-subsidies. A variety of steps had been taken by earlier governments to introduce competition in the system but could not help control the development of oligopolies.

One probable solution was to enlist LPG in the commodity market exchange under a controlled/regulated retail price system. The other solution, which the government has adopted, is to completely regulate the LPG sector by controlling prices at all levels till the retail stage.

There are two major policy steps introduced by the Pakistan Tehreek-e-Insaf (PTI) government. One, both producer and consumer prices are regulated by the Oil and Gas Regulatory Authority (Ogra) and second, LPG is to be supplied equally to all marketing companies, accepting an old demand of the LPG association while solving one of the most intractable problems.

Consequently, there would be no need of LPG quotas and artificial measures like production bonuses for LPG producers, which unnecessarily jacked up prices and allegedly helped form oligopolies. Piped gas is available to only 20% of the people of Pakistan, living largely in urban areas

where gas network is available. Rural areas do not get any benefit of gas subsidies that are otherwise available to the piped gas consumers. Lifeline consumers get gas at very low rates which hardly cover distribution costs. In India, LPG is available to eligible poor consumers at highly subsidised rates. Some very interesting research has been done in India. Following are its two very important conclusions: Cooking fuel prices/expense should not be more than 4% of the monthly income of a poor household; and the social value of an LPG cylinder has been estimated to be varying between INR3,800 and INR18,000, which is equivalent to the health consequences of using biomass and other unclean fuels. Even if these figures may be overestimated, this indicates the scope of offering LPG subsidies to the poor households and could be applicable, more or less, to Pakistani conditions as well. Preventing deforestation is yet another benefit of LPG, which probably has not been included in the



aforementioned estimates.

It may be useful to have a review of the relevant policies in our neighbourhood. India has tried various LPG subsidy schemes. There was one free LPG cylinder scheme per month for deforestation-prone areas. One is not sure whether it continues to be there. Currently, there is a direct bank transfer of LPG subsidy into accounts of eligible registered LPG consumers. Earlier, cheaper LPG cylinders were available to the registered eligible consumers. In January 2020, the LPG cylinder price for targeted customers was INR530 as opposed to INR714 per cylinder of 14.2 kg. One cylinder per month is available under the subsidy scheme. Applying the formula of 4% limit on cooking fuel expense and assuming average income of PKR15,000 per month, and assuming that one LPG cylinder is

required per month by poor households, the LPG cylinder price in Pakistan should not exceed Rs600.

LPG is expensive, much more than the piped natural gas. In terms of per million British thermal units, it currently costs Rs2,819 as opposed to the natural gas tariff under various domestic slabs varying between Rs369 and Rs1,106 per unit. For March 2020, the price, announced to pass on some benefit of the plunge in international crude oil prices, for an LPG cylinder of 11.8 kg was Rs1,530, if available at controlled rates, which was highly improbable. This is 250% of the 4% formula. Currently, petroleum levy and sales tax are imposed on LPG, yielding a per-ton revenue of Rs23,511. In terms of monthly revenue, this amounts to Rs2.065 billion.

The least one would expect is the

withdrawal of petroleum levy and possibly 50% reduction in sales tax. The financial impact of this concession would not be more than Rs1.238 billion per month in lost revenue with the estimated revenue potential of Rs2.065 billion per month. An alternative is to pass on the benefit created by the tax waiver to eligible poor LPG consumers only. It can be done through a ration card scheme, as is being proposed for food subsidy. The ration card system functioned successfully in the 1960s, when there was no IT.

With IT, its feasibility should have increased many times more. The IMF encourages direct subsidies to the target group as compared to untargeted subsidies. This would mean that there would be savings of Rs333 per LPG cylinder per month sold to the targeted consumers under the proposed ration card scheme. Actual impact would be even higher as LPG is almost never available at controlled rates. In Islamabad, LPG was available at Rs1,700 per 11.8kg cylinder in March as compared to the controlled rate of Rs1,530. Thus, net savings would be Rs503 per cylinder (33% benefit). An estimated 3.7 million poor LPG consumer households would benefit. This is no cash subsidy but is a result of some waiver in taxation. Alternatively, cross-subsidies can be introduced without sacrificing the taxation revenue, while doing away with the wasteful programmes. ■

(The writer is former member energy of the Planning Commission).

ECC should continue with the installation of LPG plants

The Economic Coordination Committee (ECC) on Cabinet's decision has been taken as surprise to shelve all the LPG air mix plants installation was meant to provide the nation a clean, cheap and safe resource of energy



besides uplifting of country's remote area in Balochistan.

LPG Air mix plants were planned to be installed in unprivileged areas in Baluchistan and Northern Pakistan, where no on-grid supply of natural gas is available. This socio economic consideration of Ministry of Petroleum and ECC in the name of Village Gasification project through LPG AirMix and CNG technology was duly planned and approved in July 2007 and December 2007 respectively.

"The socio economic project was based on supply of piped gas to remotely areas and under privilege areas of Baluchistan and Northern Pakistan, where there is no Sui Gas supply lines and poor people are forced to consume woods and other natural scarce resources for the heating and general energy needs", said Ex-Director, SSGC, Nawabzada Noshierwani. He further said that the task was assigned to two national gas companies i.e. SSGC and SNGPL, who unfortunately handled the project leniently which resultantly hiked the cost of the project to three fold as compared to standard cost of similar capacity projects.

The Chairman, Balochistan Economic Forum, Sardar Shaukat Popalzai while expressing his dismay over the decision said that the SSGC had successfully accomplished even larger projects in the past such as, Noshki, Sorab, Gawadar, Kot Ghulam Muhammad, Awaran and Bella, without any consultant and this project should also be completed and operational. He said that the ECC has made the decision to save some amount of subsidy to run the project but the fact has never been considered that the airmix project was meant to yield far bigger advantages against mere subsidy.

Shaukat has mentioned that the existing plants installed in Baluchistan and KGM are being underutilized and need to maximize its utilization to its maximum capacity by all means. Furthermore, as far as subsidy is concerned which is being provided to 700, 000 consumers already, then why should it should not be extended to poor and unprivileged people of Balochistan and Northern Pakistan. ■

Your Degree is just a Piece of Paper.



Your Education is seen in your Behavior.

We should go for local manufacturing of renewable energy equipment - Jalaluddin Sadiq

An exclusive interview of Chief Executive Officer of JD Aviation

■ By Mustafa Tahir



For Import of renewable energy equipment and solar panels, we need to have quality assurance system in place to discourage substandard solar panels availability in the market. It is good that Government of Pakistan has already regulated quality import of solar panels.

Now there is need for its flawless implementation", says CEO of JD Aviation while talking to Energy Update in an exclusive interview. He further says that

EU: Please brief us about yourself, your qualification, experience and attachment with renewable energy Sector?

Jalaluddin Sadiq: I am an Aeronautical Engineer by profession and I graduated in the 3rd Engineering Course of the PAF College of Aeronautical Engineering Korangi Creek-I graduated in June 1970 and was commissioned in the maintenance branch of the PAF. I served my country and PAF for 34 years and retired as a Group Captain in 1998. I handled various projects independently some major are: Resident Engineer HMC Taxila to execute drop tank manufacturing project (1975 – 1980). Project Officer Blue Flash IV: Established second line maintenance facilities in PAF Masroor for Mirages (1980 – 1981). Officer Commanding Engineering Wing PAF Base Minhas: Planned and established facilities for new Base (1984 – 1986). Director Weapon System Management (French) in Rear AHQ Peshawar (1986 – 1988). Director Quality Control Rear Air AHQ Peshawar (1988 – 1989). Chief Engineer (Facilities & Development) and Project Director K – 8 Co-project in AMF PAC Kamra (1989 – 1998). Contributed various papers / presentations related to establishment of Aviation Industry in Pakistan. (7th National Aeronautical Conference 26 – 27 March 1995).

Defense Industries Co-operation among Developing Countries in 2000 with special reference to the Aviation Industry held in Turkey. Presentation / Press Briefing on PAC Kamra & K – 8 programme in Air Shows at Singapore 1992, Thailand Air Show 1993 and Dubai Air Show 1995 & 1997. Honours & Awards; Awarded Tamgha-e-Imtiaz (Mil) for outstanding performance in establishing PAF Base Minhas (1986). Awarded Maintenance Efficiency Trophy for Excellent / Safe Maintenance of Weapon System at the Base (1985). Thrice Awarded Chief of the Air Staff Commendation Certificate for outstanding performance and devotion to duty.

Post retirement; In 1998 joined Kohinoor Textile Mills Rawalpindi as Manager Engineering Services. Proactive Machinery Maintenance Program established.

Water resource development project implemented to meet daily requirements of 50000 gallons per day. In 2006 joined IKAN Engineering Services as business partner. 2014 Started own company JD AVIATION SOURCING & ENGINEERING SERVICES. With focus on Renewable Energy especially Solar PV projects.

In order to remove its carbon footprint humanity is opting for renewable energy and among all renewable energy sources solar shows the most potential. The sun is producing unlimited amount of energy compared to our needs, but we are yet to

harness that energy with maximum efficiency. Concurrently the concept of solar thermal storage (TES) has shown great promise.

I am among those pioneering solar energy. Ever since my days as Flying Officer in the PAF Maintenance Branch, I have envisioned developing a PV module manufacturing facility but the state of solar energy at the time did not permit so. But now the times have changed, with entire world opting for renewable energy, I decided that Pakistan should do so as well. JD Aviation..., a company dedicated to establishing solar energy as the one of country's major source as well as raising awareness among the populous. And to further it's cause JD Aviation..., employs those having exposure in renewable energy like its employees having worked with BP Solar and World Bank project "White Pipeline" represented Pakistan in world solar Summit in Malaysia, 1997. With having worked in PV systems the company has now turned it's attention towards thermal energy especially solar thermal storage (TES). TES is still in its infancy phase and its prototype / lab module has been developed by Azelio; renowned Swedish company. We already signed MOU with them for developing and marketing their TES systems in Pakistan. We are expecting to have its first system in Gwadar in November this year.

As both PV and TES solar systems have their importance. We also have active plan for local production of solar modules in Pakistan. We are in search of potential JV partner, who has international PV manufacturing experience and willing in transfer of technology. We are already in negotiation with potential JV partners. Local production of solar panels in Pakistan is very import for Pakistan economy as well as development of renewable energy in Pakistan as it will help us to save our valuable foreign exchange, otherwise used on solar panel massive import. We are also actively working on creating awareness about use of renewable energy especially solar energy by contacting potential users to create market as well as establishing knowledge / industry linkage between academia and industry. In this regard we established "Center for Renewable Energies and Appropriate Technology (CREATE)" in Karakorum International University (KIU) Gilgit. Beside this we are helping engineering students in all major universities with their final year projects especially related to renewable energy. I also deliver lectures in Engineering Institutes as well as in Engineering Professional Associations. I also wrote technical paper on

thermal energy and presented paper in International Symposium on Renewable Energy organized by Air University Islamabad. We also have active internship program for engineering students to provide hands on renewable energy projects work exposure. Similarly we are actively involved in developing skilled manpower in renewable energy sector and work actively with Skill Sector Council for Renewable Energy (SSC-RE) to identify the skills set gap and opportunities to fill the gap.

We are blessed with natural resources including hydro, sun and wind. Need of the time is to optimize the use of these resources. It is important to use these resources appropriately either independently or jointly as hybrid systems depending upon their availability.

EU: What's your decision making process to run your business?

JS: Our decision making process is based on team consulting, brain storming within team preference is given to innovative ideas keeping in view national interests and move along with all stakeholders. Learn lesson from successful business models and adopt creative result oriented approach.

EU: What are the ongoing and future projects of JD Aviation?

JS: We are currently working on solar thermal storage TES projects with Azelio Swedish renowned renewable energy manufacturers of Concentrated Solar Power, solar thermal storage (CSP – TES). Similarly we are working on Solar PV residential as well as commercial projects. We are also AEDB approved vendor for Solar PV net metering. We also have active plan for solar panel local assembly / manufacturing facility in Pakistan.

EU: What reforms should urgently be introduced in the energy sector of Pakistan for its sustainability and to minimize financial losses of the sector?

JS: We are blessed with natural resources including hydro, sun and wind. Need of the time is to optimize the use of these resources. It is important to use these resources appropriately either independently or jointly as hybrid systems depending upon their availability. Like in Gilgit, Baltistan due to its location and resources 90% of its energy requirements are met by hydro. However, due to its severe weather in winter, the hydro potential drastically reduces and they need solar and wind (wherever feasible) to fill the gap. Therefore, Hydro-Solar-Wind hybrid systems are most appropriate for this region. Similarly decentralized off grid solar and wind systems have their importance for areas having uneven population density and areas far away from grid. Most import thing we need to focus on is total overhaul of our distribution and transmission lines to minimize the power losses and maximize the benefit from solar and wind farms. With reference to import of solar panels we need to have quality assurance system in place to discourage substandard solar panels availability in the market. It is good that Government of Pakistan has already regulated quality import of solar panels. Now there is need for its flawless implementation. Awareness about renewable energy use is very important. That is potential users know what is his / her actual requirement in term of load. Second basic know-how about renewable energy components / systems including how to check the rated power and other related parameters and quality, knowledge about pricing, warranties, designing, installation / commissioning norms. System maintenance (if any), module cleaning and also have knowledge of common system faults and its remedy. On vendor / installer side ensuring proper training / skill set of the manpower. We have to ultimately go for local assembly / manufacturing of solar panels as well as inverters and electronic control units economically without compromising quality. This will also help us to save valuable foreign exchange. Lastly there are a lot of uncoordinated activities going on in renewable energy sector especially on government level. We need coordination within renewable energy sector main objective to develop inventory of available resources in terms of equipment, facilities as well as skilled manpower. In second stage we will identify and consolidate duplicate resources for optimal use. ■





LPG emerges as best clean fuel option for Pakistan

The greater and safe consumption of Liquefied Petroleum Gas (LPG) in a country like Pakistan has emerged as the best fuel option related to the everyday life of people as the more LPG is consumed the more it will contribute towards resolution of the issues like environmental degradation, deforestation, and fast depletion of conventional energy resources. International speakers of a webinar workshop, organized by the World LPG Association (WLP-GA), expressed this consensus opinion. The webinar workshop on "Good business practices and an LPG roadmap for Pakistan" was attended by leading stakeholders of the LPG industry from around the world through video conferencing facility. In all 180 people attended the webinar from 27 countries. Speakers of the webinar workshop were of the consensus viewpoint that much had to be done by the regulator and authorities in Pakistan to promote usage of LPG as a safe and environmental friendly fuel option as for the purpose there should be continuity of the policy and regulatory framework in the country.














They emphasized on the occasion that the proper infrastructure and regulatory mechanism was still missing in Pakistan to ensure supply and consumption of LPG in the safest manner with no threat to the lives of its consumers. Until such a mechanism and facilities are missing, LPG could not acquire its due place in the national energy mix of Pakistan. Speaking on the occasion WLP-GA Director David Tyler said that his global organization saw a massive opportunity to work together with the players of LPG in Pakistan. He said that WLP-GA should have a vibrant presence in a country like Pakistan where the LPG industry had been growing fast. "There is clearly an interest in seeing Pakistan's LPG market develop in a safe and sustainable way and as an association, we want to support you all in doing that," said Mr. Tyler. He said the WLP-GA did strong advocacy to promote safe, responsible, and good practices concerning supply and consumption of the LPG around the world, as for the purpose it actively engages with relevant stakeholders in

different regions. Tyler said efforts were on so that renewable elements should be added to the LPG industry around the world. He said that LPG industry had an important role to play in the global efforts to promote a low-carbon economy. He said that his global organization had been advocating the greater usage of LPG as the cheaper and cleaner fuel option that played an important role in the sustainable development of any under-developed

country. He said that the project had contributed a lot towards the restoration of forests in the surroundings of refugee camps in Bangladesh. Chowdhury said that once LPG had been introduced as the safer cooking fuel the children of the refugee families were no more being sent for firewood collection as they now have plenty of spare time at their disposal that is being utilized to

SPEAKERS OF INT'L LPG WORKSHOP

 James Rockall CEO & MD WLP-GA	 David Tyler WLP-GA	 Filpa Rio WLP-GA	 Iqbal Z Ahmed Chairman- AG group	 Noreen Howat Sr. Manager Aggreko	 H. Naeem Qureshi Managing Editor Energy Update
 MICHAEL KELLY	 Owais Mir CEO - DEA	 Raziuddin DEA	 Abbas Bilgrami	 M. Imran Taj President FFAP	 Betal Jabbar CEO Neer LPG
					 Imran Ansari Sr Manager DEA

country.

James Rockall, CEO and MD of WLP-GA, said that LPG provided the best alternative to people across the globe to switch from the conventional means of energy generation like burning of bio-mass to clean and environment friendly form of energy. He said that introduction of carbon zero LPG was the long-term future of the industry. He said that from home heating systems to motor vehicles the LPG provided the safe and reliable fuel option as the latest trend was to introduce the hybrid fuel systems so to provide cleaner fuel option along with the LPG. David Apleton, an LPG industry expert, said that lockdown measures enforced around the world against the spread of the coronavirus had a massive effect on usage of LPG as the fuel for automobiles. He said that there was a need to do investment to build the infrastructure for extracting LPG as part of the gas production process.

Tanzeem Chowdhury from Bangladesh shared the experience of his country where LPG had been introduced in collaboration with UNHCR as a safe and cleaner fuel option for people in Rohingya refugee camps. He said that prior to the introduction of LPG as an environment-friendly fuel option the refugees in Rohingya had to rely on firewood for domes-

educate them.

Mohammad Raziuddin, former CEO of Khyber Pakhtunkhwa Oil and Gas Development Company, said that the LPG industry in Pakistan should start doing self-monitoring to ensure safe handling, supply, and consumption of its fuel product. He said that such safe automotive fuel systems for LPG should be introduced, which should minimize the chances of accidents and ensure the safety of passengers. He said the industry should change the trend that an LPG dispensing unit in the country was always found in shabby condition in comparison to a regular fuel station as that was one of the reasons people were not motivated much to consume LPG. Owais Mir, CEO of Dynamic Engineering & Automation, said that LPG carried the massive potential to secure a much significant position in the national energy mix of Pakistan.

Michael Kelly, Chief Advocacy Officer of WLP-GA, said that LPG industry around the world contributed towards achieving five Sustainable Development Goals either direct or in an indirect manner namely gender equality; good health and well-being; sustainable cities and communities; industry, innovation, and infrastructure; affordable clean energy; climate action; decent work and economic growth. ■

Green stimulus being used to revive Pakistan's economy

Adviser to Prime Minister on Climate Change, Malik Amin Aslam has said that the present government has introduced a green stimulus and green recovery process to revive the economy so as to ensure that economic activities in the post-Covid-19 scenario should not harm nature. The PM's Adviser on Climate Change stated this in his remarks as he joined through video-link a roundtable discussion hosted by the Federation of Pakistan Chambers of Commerce and Industry (FPCCI) here to mark the World Environment Day-2020. The Central Standing Committee on Environment of FPCCI organized the roundtable whose majority of the participants joined the discussion via video-link in view of the lockdown restrictions against the spread of the coronavirus. The PM's Adviser said on the occasion that the Green stimulus package had come into action during the lockdown enforced in the country against the spread of coronavirus.



He said that the 10 billion Tree Tsunami project had been utilized to employ 65,000 people as most of them were those who had lost their jobs in urban areas of the country and had come back to their native rural localities during the lockdown. He said that these jobs were mostly related to nurseries established to promote greenery and to check wildfires in forest areas during the peak summer. He said Pakistan had become the first nation in the world to repurpose World Bank funds available to it for revival of nature in the country in post-Covid-19 situation. He said that the World Bank had allowed repurposing of \$180 million of its funding for nature conservation in Pakistan while recognizing the green recovery process of the country during the pandemic. Amin Aslam said that the PM would soon launch an initiative to conserve protected natural areas and national parks across the country. He said that the Clean, Green Pakistan initiative of the present government being followed in 20 cities of Punjab and Khyber Pakhtunkhwa was also playing an important role to conserve nature. FPCCI President Mian Anjum Nisar said that environmental degradation had been responsible for slow economic progress and backwardness of the poor sections of the Pakistani population. He said that exponential increase in the population had been responsible for the destruction of forests and nature reserves in the country due to ever-expanding human settlements.

Dr Shahid Amjad, former director-general of National Institute of Oceanography (NIO), stressed the need to conserve mangrove forests for protection of the marine ecosystem of the country. He said that conservation of the coastal resources in the country should be made part of the national accounting system owing to their importance for a large section of Pakistani population. Farzana Altaf, Director General of Pakistan Environmental Protection Agency, said that the Pakistan Environmental Protection Act-1997 envisaged imprisonment up to two years for anyone causing harm to the environment but such harsh measures against environmental degradation were seldom used. She acknowledged the situation that there had been weak enforcement of the guidelines for proper disposal of the medical and clinical waste being generated by the hospitals and isolation facilities as the result of treating the Covid-19 patients. Naeem Mughal, Director General of Sindh Environmental Protection Agency, said that the SEPA had become the first environmental watchdog in the country, which initiated the process of penalizing the government-run civic and municipal agencies for causing harm to the environment. He acknowledged the situation that much had to be done to check discharge of the hazardous industrial effluents into the sea and other valuable water bodies in Sindh that were the primary source of drinking water for people. Environmentalist Saquib Ejaz Hussain said that infectious waste being generated by the hospitals, isolation, and quarantine facilities could become major sources of coronavirus spread in the country. He said that proper safety guidelines should be enforced in the country for safe and quick disposal of such hazardous clinical waste instead of handling it through conventional means of garbage collection. Dr Nuzhat Khan, NIO DG, said that lockdown measures enforced in the country had contributed a lot in the conservation of the coastal areas of the country as same positive impacts should be sustained through careful human activity on the coastline in the post-Covid-19 scenario.

Naeem Qureshi, Convener of the Central Standing Committee of FPCCI on Environment, said that his standing committee would continue to serve as a liaison between academia and industry in the country to do useful research for resolving pressing environmental problems in the country. Mian Zahid Hussain Sr. Vice Chairman Businessmen Panel, Dr. Moazzam Ali Khan, Shabina Faraz, Engr. MA Jabbar, Sheikh Sultan Rehman Vice President FPCCI, Saleem uz Zaman CEO JEMS, Ahmed Shabbir, Engr. Nadeem Ashraf, Hina Jamshed From UK, Meh-wish Zafar also joined the session. ■

Pakistan is ahead of India in fire protection - Muhammad Imran Taj

Exclusive Interview of Founder of Passive Fire Prevention in Pakistan



EU: Why you are called the founder of Passive Fire Prevention in Pakistan?

Imran Taj: Thought is the instrument of desire and desire bring us the vision. This is true I have the vision to bring fire prevention state of the art technology to Pakistan and Allah have given me the chance to brought full product range and trainings of Passive Fire Technology in Pakistan. There are many stories of the struggle and hard time to justify the success and fame today but, the word Founder in Pakistan, comes from England when they awarded the Shield in 2014 at Dover, Kent, UK for recognizing my struggle in this specialized field of Passive Fire Prevention.

Muhammad Imran Taj is well known name in Fire & Safety industry, not only as the representative of British Made Products of Envirograf UK but also the Trainer and Senior Consultant of NAFPI UK which makes the perfect combination fire protection Engineered Product and Management of its need and installation compliance. The long lasting journey of past decade for making building fire protected through fire stopping material was a real challenge but as for now, Engineers, Architects and consultant are adopting the fire stopping material. Following is the interview of Imran by Energy Update.

■ By Engr. Nadeem Ashraf

EU: Now what next for Pakistan in field of fire protection?

IT: Pakistan stands above in Fire Safety and Protection from India, Bangladesh, Sri Lanka etc. after adopting the NFPA, USA as our Fire Safety Provision which is a part of the Building Code of Pakistan FSP 2016, Which means protected Pakistan.

EU: Do our developers and engineers know the fire safety code and are they applying in practice?

IT: These codes are the part of Pakistan Engineering council, by law it has to practice a violation of code, meaning penalties and law suit, so engineers and architect are adopting, so as the developer, but only in new buildings, the challenge are the old buildings, as the code requires all old buildings to be upgraded and on compliance for which, risk assessment and fire safety audit is in practice by all safety and fire protection consultant and institutes.

EU: What is Passive fire prevention?

IT: The passive fire prevention is to use fire stopping materials and fire barriers in building to stop the route of fire which comes in the shape coatings, slabs, curtains, fire retardant spray etc. As it is fire that operates passive fire products, no man power or electrical power needed.

EU: What is the factor which measures the passive fire prevention needed?

IT: Hazard is the factor, building hazard identifies its need as the protected escape route is the code requirement, all the pathways to the exit must be isolated from other openings of electric or plumbing, so that all the penetration in escape route must be concealed by fire stopping material to protect the exit route from smoke and fire similar in high rise buildings, floors are built up with metals to reduce the weight on pillar as per compliance metal is the best conductor of heat it has to be fire proof, our most important and lifesaving object is fire door, which has to be fire rated, these are the few areas which identify the need.

EU: What is your vision in field of fire protection in Pakistan?

IT: My vision is very clear that only we can achieve fire safety by awareness and practice for that I am associated with Government and non-Government institutes and association for the past 10 years and educating what I have learn from UK and in NFPA Codes. Plus on the top fire safety and protection latest



equipment and technology and a perfect solution is fire stopping materials.

EU: COVID 19 in Pakistan is a challenge and pandemic emergency what code or standard help us to protect it?

IT: Thank you for taking my input on this as I have recently certified by WHO on one of the guidelines for protection as the source to follow is WHO as they are developing SOPs which are acceptable by all countries the major issues is to control the virus by spreading and one and only solution till now is quarantine and keep the social distance and its prove to be the best remedy. As now we are on the edge to reopen the businesses the SOPs must be follow to control the spread of virus. It's the responsibility of everyone to protect others lives as well.

EU: Message to our nation?

IT: The only rule which makes a nation great is the social responsibility, that's what our Islam teaches, that's what developed societies' practice, that is the key of safety. Be responsible and change unsafe environment into safe environment not for you but for others. ■

Rehan Shaikh appointed Standard Chartered Pakistan CEO



Rehan Shaikh has been appointed as the Director and Chief Executive Officer (CEO) of the Standard Chartered Bank Pakistan (SCBPL), according to a statement issued by the bank to the Pakistan Stock Exchange (PSX) on Monday.

Shaikh's appointment is subject to regulatory approval from the State Bank of Pakistan (SBP).

Shaikh is the current CEO of Islamic Banking at Standard Chartered, a position he has held since 2015, and is based in Dubai.

This is not the first time Shaikh will be working for Standard Chartered Pakistan; he was previously an employee at the bank's Pakistan offices between 1998 and 2007, in various roles managing corporate banking and client relationships. ■



Mubeen ur Rehman from Al-Bario Engineering receiving CSR 2020 Award from Federal Minister for Maritime Affairs Syed Ali Haider Zaidi.

Suki Kinari hydropower project to produce 874 MW electricity

By Sajid Aziz

It would be a blessing in disguise if the ongoing work on a project of Suki Kinari Hydropower project that meant to generate 874 mega watt electricity gets completed on its stipulated time as high cost energy being produced in Pakistan has made the consumers' lives a hell. The project is under completion on River Kunhaar in KPK province.

The development work of the project is in full swing. Special Assistant to Prime Minister on Information and Chairman, CPEC Authority, Lt Gen (rtd) Asim Saleem Bajwa said recently. This project is being constructed under the CPEC and Chinese experts working on it. According to the engineers about 19.5 percent work on the project has been completed as the work remained unaffected by Coronavirus (COVID-19) pandemic.

The hydropower projects are being built at Kumar River in the province of Khyber Pakhtunkhwa with an investment of \$1.963 billion under the umbrella of the China Pakistan Economic Corridor (CPEC). The



project has so far created 4,250 job opportunities and upon completion, it would help in reducing the cost of electricity. It's expected to produce electricity in a couple of years' time. "Bringing the cost of electricity in the country down is the top priority. The construction of the project was initiated in 2017, as it is being developed on the Build-Operate-Transfer (BOT) model which implies that the Chinese would operate it for 30 years after which it would be transferred to the KP government.

Once completed, the project would add 874 megawatts to the national grid and all four units would become fully operational by 2022.

The completion of this

hydropower plant will play an important role in promoting Pakistan's industrial development and economic recovery.

It's an irony that the construction of many power projects and dams across the country is either delayed or marred due to various controversies and malfunctioning rather massive corruption in the government's fold. The experts were of the view that previous regime has completed and commissioned a number of power projects despite massive corruption and malfunctioning and the consumers across the country got some sigh of relief by virtue of availability of electricity however the present government despite all corruption and nepotism has miserably failed to complete or initiate any such project to meet the power shortage or any possible energy crisis in near future. ■

Net metering will attract solar energy growth in private sector - Shaaf Mehboob

Exclusive Interview of CEO, Adaptive Technologies

■ By Mustafa Tahir

EU: Please inform about yourself, your qualification, experience and attachment with Renewable Energy Sector?

Shaaf Mehboob: My undergraduate degree was in economics followed by a brief stint in Investment Banking before proceeding to pursue an MBA at Imperial College, London. My final year project during my studies pertained to Quantum photovoltaics. I engaged heavily with the physics department of the college that had worked on the R&D of some proprietary technologies. My interest in renewable brought me back to Pakistan and I set up my own solar energy company (Adaptive Technologies (Pvt) Ltd). We did our first PV project in 2009 and it's been an uphill ride ever since.

EU: What's your decision making process to run your business?

SM: I use two decision making processes in business. For strategic business decisions requiring a holistic approach I mostly end up following Michael Porter's five forces that examine competitive rivalry, supplier power, buyer power, threat of substitution and threat of new entry. For routine and management business decisions I follow the five step decision making process that involves goal identification, weighing out options to fulfill that goal, weighing out the consequences of that decision, making the decision and finally evaluating it. I ensure that Managers across the company are able to follow the same guidelines both individually and in teams.

EU: Would you like to share your current and future projects? and what is the future of the green energy in Pakistan?

SM: Solar is still a potentially major energy source poised for growth in Pakistan offering one of the lowest LCOE's (levelized cost of electricity) both for private use and at a utility scale. From a private sector perspective, roof top and ground mounted installations will continue to gain traction due to net metering, cheap financing dedicatedly available for renewable energy projects and high electricity cost. Furthermore, many export oriented sectors have green energy requirements from their buyers which will continue to fuel growth for solar in this space. As for the utility scale projects, we have recently seen enertec quetta and zorlu receiving generation licenses for a 50 MW and 100 MW project at the beginning of the year and more recently Artistic group and Siddiqsons getting approvals for licenses for 50 MW solar power projects. The main issue with Solar is that of the base load but I think with the reduction in prices of storage along the way this can be improved both through single point or distributed generation.

EU: What is your suggestion to improve ENERGY SECTOR of Pakistan? How we can convert all



Government should force DISCO's to improve losses, induct cleaner and cheaper energy into their transmission networks and also lead to a smart grid setup going forward. As for the micro perspective it is imperative that in coming years cheap financing be made available to the masses in Pakistan, these views were given in an interview to the Energy Update by the CEO of Adaptive Technologies. He says that

conventional means to clean energy?

SM: Again if we split this into macro and micro perspectives then at a macro level we need to seriously look at privatization and de-centralization of the DISCO's and move towards an energy exchange mechanism. This will improve efficiency and competitiveness and force DISCO's to improve losses, induct cleaner and cheaper energy into their transmission networks and also lead to a Smart grid setup going forward. As for the micro perspective it is imperative that in coming years cheap financing be made available to the masses. Presently, with cheap financing in place, solar is a no brainer offering immediate ROI and savings offsetting the capex and markup repayments. At the end of a 5 -10 year tenor the plant is transferred to the owner who still has 10-15 more years left to reap the benefits of the electricity. ■

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CLEAN FUELS-BIOFUELS CONFERENCE-2020



Mr. Nadeem Babar, Special Assistant to Prime Minister on Petroleum was Honorable Chief Guest, in One-Day Conference entitled "Clean Fuels-Biofuels-2020" on February 3, 2020 at OGDCL Auditorium, addressed the conference participants and highlighted the challenges Pakistan is currently facing depleting forex reserves, increasing fuel costs, population growth, despite being an agrarian economy low yields & productivity, higher water losses & water scarcity, heavy reliance on imported/fossil fuels for electricity generation, food security, climate change/environmental regulations, and higher carbon foot print. He further emphasized that these factors need to be harnessed by all Stakeholders in a practical focused manner.

The Ministry of Energy (Petroleum Division)-MEPD in collaboration with Pak-Arab Refinery Limited-PARCO, Pakistan State Oil Company Limited-PSO, Oil & Gas Development Company Limited-OGDCL and Hydrocarbon Development Institute of Pakistan-HDIP, organized a One-Day Conference entitled "Clean Fuels-Biofuels-2020" on February 3, 2020 at OGDCL Auditorium, OGDCL House, Islamabad.

The objective of the Conference was to realistically assess Pakistan's current situation and true potential to combat the forthcoming threats in terms of growing energy needs, increasing fuel costs, growing population, food and water scarcity, environmental regulations, food and energy security in next decades and



to share the latest experience, knowledge, practices, research and development in the field of Clean Fuels-Bio Fuels in order to find a way forward for recommending a practical, viable and sustainable action plan for exploring and diversification of Pakistan's energy mix through alternative fuels i.e. Clean Fuel Energy and Bio Fuel.

In light of presentations, detailed deliberations of the expert panelist, industry, academia and audience, the following key Recommendations were proposed: Achieve a Cleaner – Greener Environment, To achieve a Cleaner Environment; Reduce Green House Gases (GHGs), Reduce reliance on Fossil Fuels, Produce sustainable Cleaner Fuels, Promote Bio Fuels usage due to lesser Car-



bon Footprint (~40% lesser than Fossil Fuels), Develop a Clean Fuel - Bio Fuel Policy, Policy makers need to formulate strategies in a manner that all the Stakeholders work in a collaborative and integrated manner to achieve desired goals, rather than working in silos. All Stakeholders i.e. Ministry of Energy, Ministry of Industries & Production, Ministry of Food Production, Ministry of Agriculture, Academia, Private sector companies, regulators and policy makers must be aligned. Re-launch the Bio-Diesel Program, which was approved by ECC in 2008, with some modification and ownership by the Government.

Government to come up with innovative Tax Reforms and incentive program to attract and encourage investment



in R&D activities and mass scale production of Clean Fuels-Bio Fuels on sustainable basis. Engagement of provincial/local governments for identifying and allocating lands/areas for the cultivation of plants which could be used for Bio fuels production. Realistic targets and timelines to be set for incorporating Biofuels in Country's energy mix. Utilization of Indigenous Resources; As an Agricultural-based Country, Pakistan to utilize its advantage, including beneficial uses of associated waste and by-products; Indigenous production of around 400,000 MT of Ethanol could be used for blending with fossil fuels i.e. E-10, in Transportation sector without any substantial investment; Potential non-edible seeds species with rich oil contents to be identified for the production of Bio fuels/Clean fuels. R&D and Future Energy Sources Improvements; R&D programs need to be commercialized and private sector to come up with investments in R&D programs and to identify appropriate and efficient technology to be used for Bio fuel production, R&D should be done for plant diversity for food, medicine and energy, Potential of Algae farming as a potential source for Bio Fuels production to be assessed. Potential of Hydrogen, as a commercial fuel in years to come, to be explored.

Moreover, Based on the Conference proceedings and ground realities, key elements of the go forward Implementation Plan were identified for action:

MEPD to move a Note Sheet to Federal Cabinet / CCOE to form a Steering Committee/Task Force/Working Group with full representation of all key Stakeholders, to prepare a draft "National Policy on Clean Fuels-Bio Fuels." Take all Stakeholders on board to set phase-wise specific Targets for Clean Fuels-Bio Fuels. "National Policy on Clean Fuel-Bio Fuels" to be formulated to provide guidelines in terms of: Pricing, Incentives / tax/duties exemption to attract investment in this sector, Clean-Bio Fuels specifications/standards, legislative framework, Policy applicability and effect of the policy guidelines and Specific targets and timeline be defined. After Policy is formalized, obtain approval from the Cabinet and relevant committees (ECC/CCOE) to be obtained for regularization and implementation. Government to encourage private sector and public-private partnerships for R&D to identify appropriate and efficient production of Clean Fuels/Bio Fuels in the Country in order to become part of energy mix. Technical Assistance from UNDP may be requested for policy formulation, prefeasibility studies for pilot projects and business model. Time to put words into action treating this as a National emergency in order to manage food and energy security and sustainability. Bio fuels and Clean fuels should be handled under one roof.

MEPD may need to take the lead to move forward in order to achieve this challenge in the shortest possible time. National Policy on Clean Fuels-Bio Fuels needs to be formally issued at earliest, Green Fuel to be declared as an Industry along with appropriate setup at Government level, All the Stakeholders must work in a collaborative and integrated manner to achieve desired goals, rather than working in silos, R&D program should be commercialized and specific local plant species with high Oil contents to be identified and utilized for Bio-Fuel production.

Honorable Secretary, Petroleum Division, Ministry of Energy, Mr. Mian Asad Hayaud Din, in his closing remarks stated that almost all the aspects were highlighted but unfortunately even after a decade "we are where we were, instead of where we wanted to be", therefore, we must work in a manner that "we should always be there, where we wanted to be". He further emphasized that; To have a realistic assessment of the Future needs/Goals based on our present; priority should be on saving foreign exchange, followed by sustainable socio economic development and saving time and environment in light of available resources. Set timelines to devise a sustainable action plan for exploring marketing and distribution environment for Biofuel and Clean energy. All Stakeholders must be committed to work in an integrated manner to build synergies to achieve our goals, Legislative frameworks required, Combustion engine vehicles are not going to become obsolete in Pakistan soon, Local governments/provincial bodies to be engaged, Bio fuels and Clean fuels should be handled under one roof. Commended the efforts of academia in R&D with their limited budgets and hoping that academia and private sector would also actively participate and made their contribution in the areas of Bio fuels and Clean fuels.

He further highlighted that despite sending Conference invitations to all relevant Stakeholders, some of the key Stakeholders, i.e. Automotive manufacturers, Ministry of Production & Industries, Ministry of Food & Agricultural etc., were not represented at the Conference.

Honorable Secretary, ended the session with the note of thanks for the Organizers, Sponsors, Speakers, Panelists, Professionals and all participants for their commendable efforts to arrange and attend this Conference. ■

for the idealist

History of Corona Virus

In the year 1894 there was a Russian scientist named

povandolakagijur kintyaionshueyio.

Why did you skip the name

I am not going to tell Story anymore. I can't deal with lazy people its your fault

Telenor contributes Rs50 million to COVID-19 Relief Fund

In continuation of efforts to provide relief to the Pakistanis during the Coronavirus pandemic, Telenor has made a donation of PKR 50 million to the Prime Minister's COVID 19 Relief Fund. Earlier today, Irfan Wahab Khan, CEO Telenor Pakistan and Chairman Telenor Microfinance Bank, called on Honourable Prime Minister Imran Khan, to present the cheque and pledge Telenor's support in helping the government combat the pandemic.

Telenor has been urging its customers to donate to the PM's COVID 19 Relief Fund and the organisation has come forward with this contribution in order to encourage its family of 46 million customers. During the meeting, Irfan Wahab Khan highlighted Telenor's commitment to the country and reiterated its support to the government and the people of Pakistan in these trying times.

"Telenor has a strong bond with the people of Pakistan, and we stand with our fellow citizens in their time of need. We are glad to do our part in this time of crisis and hope that this contribution will help some communities fight against the pandemic. This is the time for everyone to come together and unite for the greater good. We are confident that Pakistan will emerge a stronger and more resilient nation. Telenor remains committed, more than ever, to help Pakistan overcome this adversity," said Irfan Wahab Khan.

Honourable Prime Minister Imran Khan appreciated contribution of Telenor.



Thar Foundation distributes Ration Package to 2730 Needy Households

After establishing an Isolation Center to facilitate Corona Patients and a Free Corona Virus Testing Center in Tharparkar, Thar Foundation has completed its first phase of "COVID19 Community Relief Program" by delivering 2730 Ration Packages to deserving households in Taulka of Islamkot. The Ration Package consists of food items enough for 4-6 weeks for a family were delivered at the doorstep of 2730 eligible beneficiaries in 90 villages of Taulka of Islamkot under Standard Operating Procedures (SOPs) set by the Government of Sindh, said a news release issued here Friday.

In Taulka of Islamkot, 7 Union Councils, Seengharo, Sonal Bah, Islamkot Rural, Bapuhar, Giryanchio, Khario Ghulam Shah, Jeeando Dars were the worst hit due to lockdown situation amid Corona Virus Pandemic and daily wage earners were desperately looking for such relief package. It further said that the Thar Foundation selected 7 Union Councils of Taulka Islamkot where it identified 2730 eligible households after an extensive field survey followed by a consultative process and proper verification of lists by the village elders, local administration and local body elected representatives. Upon successful completion of the first phase of ration distribution, Chief Executive Officer (CEO) of Thar Foundation, Syed Abul Fazal Rizvi said, Corona Virus has severely impacted the world population after which Engro Corporation and its subsidiaries announced a Rs.one billion aid package to fight the pandemic.

"Under the announced Package we are helping federal and Sindh governments to establish Isolation Centers, 6 Corona Testing Centers in secondary cities of Sindh and cash grants," he said.

He said, Thar Foundation standby with our communities at this time of hardship due to an unavoidable lockdown, adding that it has executed a complex operation with the highest level of transparency and efficiency.

CET of China provides 10000 kg flour, 10000 kg rice for needy people

As the graph of COVID-19 continuing to rise at a fast pace, the state of uncertainty prevailing due to partial lock down and related future of daily wagers, the situation has never gone so unpredictable as is now in Pakistan. In these hard times, the project Management of China Electric Power Equipment & Technology Co., Ltd (CET) decided to support the much needed, poor and under-privileged persons and families of the local community around its two major installations of Balloki and Matari Converter Stations located in the Province of Punjab and Sindh respectively, under Corporate Social Responsibilities (CSR).

In this respect, the CET handed over 10000 kg of flour and 10000 kg of best quality rice (500 bags each of 20 kg) to Local District Administrations of District Nankana (Balloki) and Matari separately to be distributed among needy people of the area. The District Administration of both the districts, appreciated this gesture of CET and extended their sincere thanks and appreciation on receipt of much needed commodities donated for the poor and needy populace of their Districts.



1,400MW additional electricity for Karachi approved

The Cabinet Committee on Energy (CCOE) on Friday approved 1,400MW of additional power supply from the national grid to Karachi and directed submission of draft Alternative & Renewable Energy Policy (AREP) to the cabinet.

The meeting presided over by Minister for Planning, Development and Special Initiatives Asad Umar discussed the draft AREP and ordered its submission to the cabinet in whatever shape it was.

Informed sources said the Ministry of Energy had reported to the committee that most of concerns of the Sindh government over the draft AREP that had led to its delayed approval for almost six months had been addressed through a series of interactions continued until Thursday.

According to these sources, Umar observed that the policy should not be held up for such minor issues and should be taken to the federal cabinet for clearance at least on part of the centre and any pending matter could be settled at the level



of the Council of Common Interests (CCI).

The sources said the committee did not consider it worthwhile at this stage to include hydropower generation in the AREP as desired by the National Electric Power Regulatory Authority (Nepra) as it was also covered in the mainstream power policy.

An official statement said the CCOE had recommended the draft policy for submission to the cabinet. "The policy will subsequently be presented to the Council of Common Interests (CCI) for final approval", it said.

The AREP policy 2019 envisages protection of the environment by increasing the share of green energy in the overall energy mix, least cost on grid power generation, and also to develop AREP local manufacturing, skilled human resource and technology transfer. It will enable private sector investment and participation in on-grid and off-grid AREPs and innovative supply solutions.

national grid by 1400mw on urgent basis from upcoming nuclear power projects in the city and coal projects at Port Qasim. The CCOE directed that power purchase for additional power supply should be signed by Aug 15.

This would also require additional transmission facilities to be developed through three different locations, including Jhimpir, Karachi West and Port Qasim-Dhabeji. The federal government will also support the issuance of tariff notification for Datang Coal Power Limited (2x350mw) at Port Qasim. ■

Petrol Shortage: Report finds nine OMCs involved in crisis



An inquiry report into the country's petrol crisis has blamed nine Oil Marketing Companies (OMCs) for the ongoing crisis.

As per details, the report said that nine OMCs had deliberately created a petrol crisis. Despite the presence of petrol in storage, the supply of petrol was restricted from June 1. The report also stated that these nine OMCs had formed a nexus to create a petrol crisis, while private companies had built anti-regulatory infrastructure to store petrol. An accident can happen due to non-compliance with standards.

The inquiry committee has recommended stern action against the companies causing the petrol crisis. It was further learned that the report of the inquiry committee on the petrol crisis would be submitted to Prime Minister Imran Khan. Earlier, the Oil and Gas Regulatory Authority (OGRA) had fined six OMCs with Rs40 million over violation of the Pakistan Oil (Refining, blending, transportation, storage, and marketing) Rules 2016. Shell Pakistan and Total Parco were each fined Rs10 million, while Attock Petroleum, Puma, Gas, and Oil Pakistan and Hascol were imposed a penalty of Rs5 million each. Three show-cause notices were also issued to the OMCs, including Byco and BE Energy. ■



Govt moves law to pass circular debt to consumers

The government has moved to secure the powers required to impose surcharges on consumer electricity tariff and special wheeling charges on industrial sector consumers in a bid to contain the runaway circular debt which is now close to Rs1.8 trillion.

The Power Division has introduced a bill in the National Assembly for Amendments to the Nepra Act 1997 (Regulation of Generation, Transmission and Distribution of Electric Power Act 1997) for regaining the powers that are crucial to reviving the \$6 billion Extended Fund Facility (EFF) with the International Monetary Fund.

The surcharges so imposed will be used to finance the debt servicing cost of the power sector loans raised from time to time by the government to ensure payment of dues to the power and fuel suppliers. The exact size of the surcharge and on the consumer categories will be decided later this year in line with financial plan to be agreed with the fund.

Informed sources said the government tried to introduce these changes through the Finance Bill 2020-21 but was advised against it by the Law Division and office of the Attorney General of Pakistan since a Supreme Court decision prohibits the government from creating such powers via a finance bill.

Energy Minister Omar Ayub Khan briefed the National Assembly's Standing Committee on Power. The bill was deferred for further discussion in the next meeting. The NA body constituted a sub-committee on the bill as well as issues relating to power sector of Sindh province.

The committee expressed concern over rising power sector circular debt that is approaching Rs1.9tr and continued to haunt the economy. ■



Pakistan set to register 38 exporters with Amazon



The Ministry of Commerce has shared an initial list of 38 exporters for registration with the international e-commerce giant Amazon in a bid to boost the country's trade and exports.

As per reports published by local media houses, the initial list includes 38 exporters belonging to the sports and surgical goods and home textile sectors. According to the Adviser to Prime Minister on Commerce and Investment Abdul Razak Dawood, more exporters from other sectors are expected to be on-boarded once a successful trial is completed with the initial shortlisted companies.

With the spread of the Covid-19 pandemic, while several sectors have taken a hit, the e-commerce sector has been able to capitalise on new opportunities created by more people choosing to stay at home and using digital means to carry out their day to day activities. ■

CDA, MCI grilled for environment unfriendly practices in MHNP

Environmental experts, activists and civil society representatives during a webinar solicited the Supreme Court of Pakistan to extend its suo moto on Monal Restaurant to all the interventions being taken in the Margalla Hills National Park (MHNP).

They said that all the environment unfriendly practices are being taken under the nose of Capital Development Authority (CDA) and Islamabad Metropolitan Corporation (MCI) which are going unnoticed while the Islamabad Wildlife Management Board (IWMB) has no authority to stop the undue interventions and encroachments forcefully.

Being attached with the federal ministry of climate change, the experts urged the Advisor to Prime Minister on Climate Change and Federal Minister Malik Amin Aslam to take lead in policy reforms leading to amendments in the legal framework for the Margalla Hills National Park (MHNP). Development Communications Network (Devcom-Pakistan) organized the webinar titled 'Management of Margalla Hills National Park - the future scenario'.

Hosted by the Devcom-Pakistan and DTN Director Munir Ahmed, the speakers included Board Member of the Islamabad Wildlife Management Board (IWMB) Vaqar Zakria, Country



Programme Manager UN Habitat Jawed Ali Khan, former DG Pak EPA Asif Shuja Khan, Biodiversity Expert and Former Deputy Director General WWF Pakistan Dr Ejaz Ahmed, Environment Lawyer Ahmad Rafay Alam, Environmental Advocacy expert Mome Saleem, Dr Niofar Jamil and SDPI environmental expert Dr Imran Khallid. Some young environmentalists including Jamila Anam Rathore, Uzair Aftab, Sabah Iqbal, Aswa Waraich, Nadeem Aly also spoke on the occasion. ■



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