

## KE's extortion continues NEPRA hands in gloves with K-Electric

### Exclusive Interviews



Ahmed Najeeb  
CEO  
Al-Bario



Imran Shafiq  
Director Sales  
Vestas

Govt pays additional Rs250b  
for LNG deal

Hallmark of PML-N Govt  
Rs2.5 b project collapses on first trial



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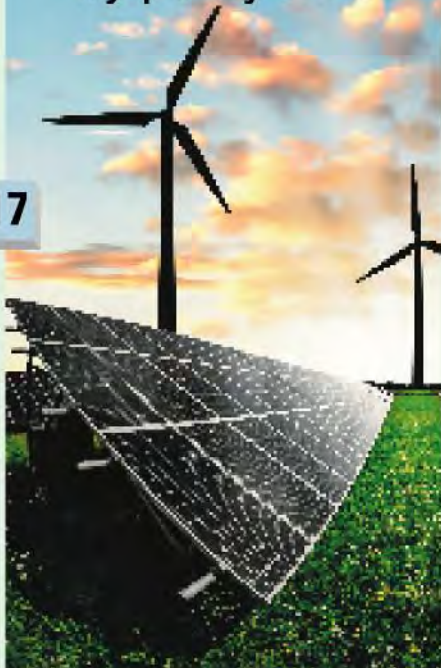
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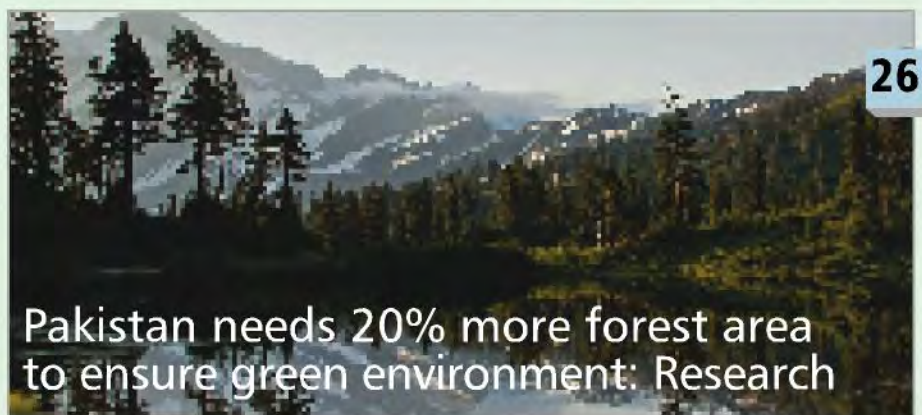
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## From the editor's desk...

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## Another hike in POL prices Mr Ishaq Dar, plz don't suck nation's blood

The PML-N government has decided to break the backbone of the people with dropping bomb of POL prices increase fortnightly instead of monthly basis. The finance minister himself has taken the charge of decision making of swift change on POL prices and has already increased the petroleum prices twice in the last one month. There might be another change when this edition goes to the press. The Finance Minister, Ishaq Dar, has once again slapped the nation with an increase in petroleum prices in order to meet his government's unjustified expenses.

The government while not feeling any need to justify its decision and at this particular time when no increase is seen in POL prices anywhere in the world recently, the PML-N government was so ruthless that it never considered to give this decision a second thought on the plea that poor consumers have already been over-burdened due to ever increasing utility and prices and exorbitant cost of living, hence without any increase to their limited income.

The Federal Minister, Ishaq Dar was so keen to give a slap on the nation's face that he himself announced the price increase in islamabad un-precedently. Following the move, petrol has seen an increase of Rs 2.25 per liter whereas high speed diesel (HSD) has been increased by Rs 2.26 per liter. Another unprecedented move was that he announced the decision for 15 days, from now the POL prices would be subject to change on fortnightly basis.

Petrol prices with the increase of Rs 2.25 liter has gone up to Rs 68.04 to Rs 70.29 per liter while prices of high speed diesel have gone up by Rs 2.26 per liter to 79.22 per liter.

Mr ishaq Dar, for god sake do not suck the blood of poor masses for the sake of government's luxuries. Despite all the allegations of corruption and loot and plunders of the public exchequer, the PML-N leaders have decided not to give a break to their luxuries as Shahbaz Sharif has recently decided to purchase a very luxurious aircraft at the cost of Rs3 billion for his own comfort.

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# K-Electric extorts Rs62 billion extra from the consumers

## NEPRA hands-in-gloves with K Electric?

**K Electric's high-handedness, harassment continues**

By Sajid Aziz

**Ministry of Water and Power has itself revealed that K-Electric has pocketed Rs62 billion from power consumers and has advised the NEPRA to make adjustment in the new tariff in order to pay the excessive amount back to the consumers, no action has so far been taken against the K Electric or even the Prime Minister has ordered the authorities to recover this amount.**

As K Electric extorts Rs62 billion extra from consumers, there are remote chances that National Electricity and Power Regulatory Authority (NEPRA) would be able to recover this amount from the 'extortionist utility agency' as the NEPRA seems just a dummy and good for nothing, retired and powerless officials of NEPRA are occupying the key posts of this so-called regulatory authority that is allowing to rip-off the helpless consumers.

Though Ministry of Water and Power has itself revealed that K-Electric has pocketed Rs62 billion from power consumers and has advised the NEPRA to make adjustment in the new tariff in order to pay the excessive amount back to the consumers, no action has so far been taken against the K Electric or even the Prime Minister has ordered the authorities to recover this amount.

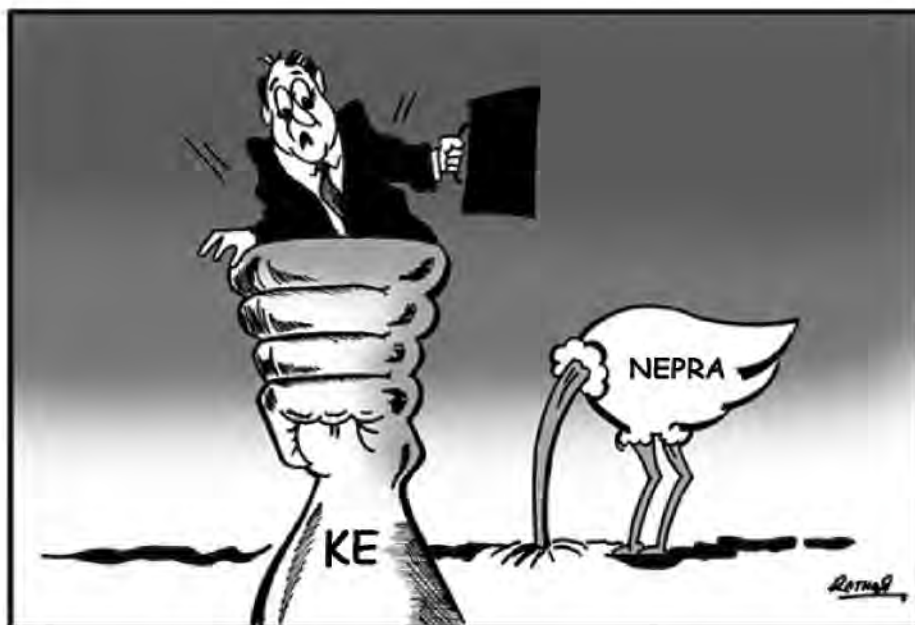
The ministry has also called for a strict accountability of those responsible for causing such a colossal loss to the Karachi consumers.

Through a letter sent to the NEPRA, Water and Power Secretary Younus Dagha said rough estimates suggested that with the help of excessive tariff determination, K-Electric consumers had been made to pay Rs62 billion in the past few years. He described the tariff determination practice adopted for K-Electric a violation of the general policy and guidelines related to the tariff determination.

He advised NEPRA to set a new tariff for K-Electric and not only address the anomalies but also transfer the excessive collection back to the consumers. Ideally, in the base tariff of say Rs100 per unit, if the cost component over a period has fallen by 5% and transmission and distribution losses have been targeted to decrease by 5%, the cumulative tariff reduction effect will roughly be around 10% and the new tariff will be Rs90 per unit. The multi-year tariff, which NEPRA sets for K-Electric, provides for a mechanism whereby the tariff is adjusted every quarter to reflect the revised fuel and energy purchase costs as well as targets for the







transmission and distribution losses. The calculation shows that K-Electric had been allowed higher transmission and distribution losses than the stated benchmark that were recovered from the consumers.

Dagha said it had become now evident that the consumers were denied the benefit in fuel price adjustments. The windfall allowed to K-Electric on that account had been in billions of rupees every year through the multi-year tariff and quarterly adjustments determined by Nepra, he said. The ministry further said the figures showed that the declared losses allowed to the company stood at 15% and the effective losses due to the tariff-setting mechanism allowed by such a calculation came to around 28.5% higher than even its actual losses at 23.7%. "This has roughly provided a windfall of Rs12.91 billion in a single financial year of 2015, which under the law was supposed to be passed on to the consumers."

The practice had been going on for the past several years and the estimated accumulative loss to the consumers stood at more than Rs62 billion, it said. Another flaw in the K-Electric tariff calculations is the cost of generation allowed to the company for its own generating units.

K-Electric's three-month profit surges to over Rs12 billion. While NEPRA had been very strict with state-owned power generation units which were many a time not allowed their actual generation cost, K-Electric had been allowed to recover very high prices whereas actual generation costs were much lower, the ministry said.

The cumulative efficiency of K-Electric plants is around 40% while the cost is calculated by NEPRA at an efficiency of around 37% allowing an estimated Rs2

billion last year. K-Electric spokesperson refused to comment on the story, saying the company had not received the letter.

Taking cognisance of the matter, NEPRA has constituted a committee to probe into alleged over-charging of Rs62 billion by the K-Electric (KE) from its consumers and advised the committee to complete the investigation within a week but even after passing many weeks, no result has come out yet nor any action has been taken by therelevant authorities against K Electric. Interestingly, power sector regulator NEPRA is in a fix. If it determines that overcharging was made by the K-Electric, then officials of NEPRA can face the music in the form of accountability and severe punishments. And, even if it (NEPRA) does not settle the matter then the government can file a reference in Federal Public Service Commission (FPSC) to get rid of the authority that is comprised a chairman and four members. Moreover, the government can also ask any investigating body to investigate the matter in future. The National Accountability Bureau (NAB) can take up the matter for examination.

But the story does not end up here as consumers have thousands of complaints against the K Electric for fraudulently over-charging by claiming that these consumers were involved in power theft and sent them additional bills running into thousands of rupees. For this purpose the K Electric has hired daily-wagers on commission and deputed them to temper with the consumers' power meters and then send them to the laboratory for examination that submits fake report of meter tempering by the consumer. This is only considered as day-time robbery on the law abiding people of Karachi. ■

## PSO launches its "Refuel" vending machines at PSO retail outlets

The country's largest oil marketing company Pakistan State Oil (PSO) has recently contracted to place vending machines at its retail outlet with the brand name "Refuel". The state of the art vending machines have been currently installed at PSO stations in Karachi; Ideal Service Station (Shahrah-e-Faisal), AB Ghazi Service Station, near Abdullah Shah Ghazi. Owing to the awesome response from customers, the company now plans to introduce 'Refuel' machines at its new vision retail outlets nationwide.

With the launch of "Refuel", customers will now be able to purchase snacks and beverages such as cold drinks, energy drinks, drinking water, chips, chocolates, cookies and much more of their choice conveniently while getting their fuel tanks filled. The machine accepts paper money including coins. This non fuel retail initiative reiterates PSO's commitment to bring about improvement in the lives of its customers that is not just limited to the realm of fuel.

With the placement of the easy to operate "Refuel" vending machines at PSO outlets, the company is striving to enhance the overall experience of its customers when they visit its retail outlet. The positive response from customers to this initiative affirms this. The company lays great emphasis on the needs of its customers in today's rapidly changing dynamic environment and such initiatives in the non-fuel retail segment enable it to go the extra mile for its customers.

PSO values its relationship with its customers and this non fuel retail initiative comes after the recently signed agreement between the company and Allied Bank to install ATMs at PSO stations nationwide. ■



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# Corruption goes beyond all proportions

EU Report

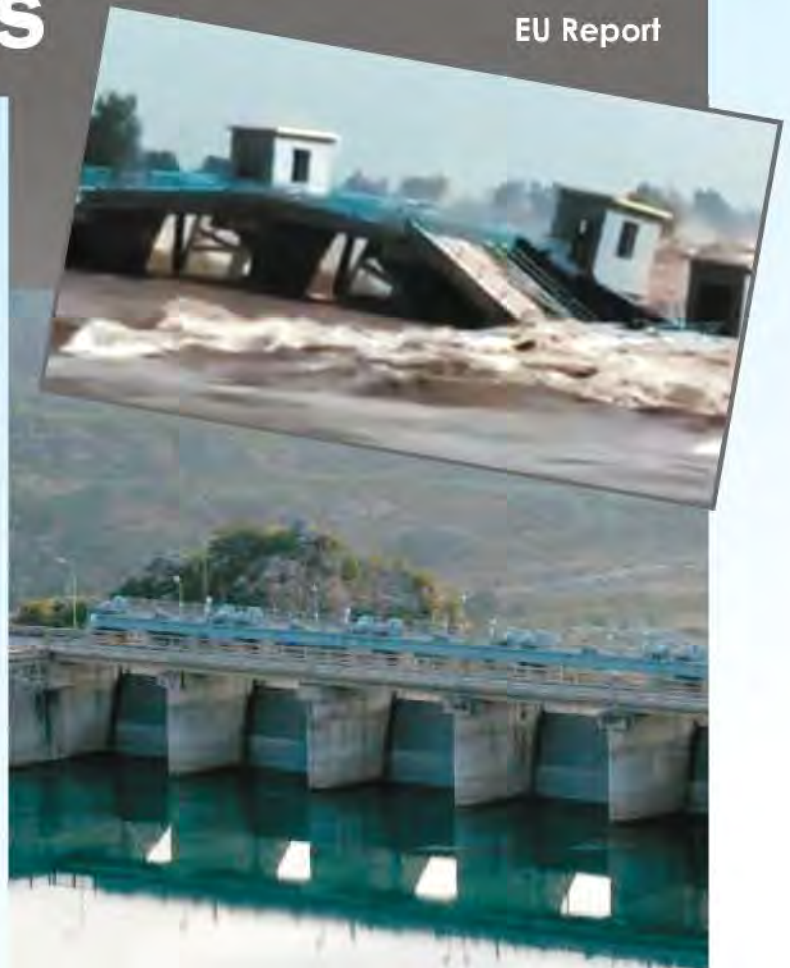
## Rs 2.25 billion hydel-power project collapses on first test

The Sharif Family already facing trial in the court for their alleged rampant corruption and money laundering, Panama Case, have proved that they can go beyond all limits and they have proved it in just one project of over two billion rupees (Rs2.25 billion) hydro power project built on Kahanpur canal that did not even bear a first flow of water and fell down in minutes.

Punjab Government's under construction hydro power project building up on Khanpur Canal, Sheikhpura collapsed in testing due to the poor quality of construction. The 90 percent finished project, costed Rs2.25 billion, failed during test as the bridge did not bear the pressure of flowing water and collapsed. The clip of the collapsing project has already become viral on the social media.

Deputy commissioner has launched the inquiry into the matter. The project had to be operational in December 2017.

It is another project of Punjab government which faced huge corruption, constructed substandard and did not even pass the preliminary test.



Eyewitnesses said that the power project's concrete structure has been completed at the cost of Rs2.25 billion opened for testing purposes last week and most of the project drowned in the canal in minutes. The project was allegedly awarded to a Chinese company without tendering process.

This is another classic example of worst ever corruption, apathy of the government and carelessness of the bureaucracy after Nandipur Fiasco. The much-hyped Nandipur Power Plant—inaugurated by Prime Minister Nawaz Sharif last year—generated electricity at the record cost of Rs42 per unit and was shut down after only five days of operation. The project had been stalled under the PPP government amid allegations of graft, declared an “unforgivable sin” by the prime minister as the plant and related machinery remained stranded at the Karachi port for more than five years. The project cost soared more than doubled to Rs57 billion (instead of Rs23 billion) during PML-N tenure and the nation suffered a loss of Rs165 billion. Punjab Chief Minister Shahbaz Sharif has spearheaded the project's revival.

Whether it is Nandipur or Khanpur, each and every project and procurement by the present government needs impartial inquiry by the NAB if it is still alive and can prove its legitimacy. The nation also calls for suo moto action by the higher courts to probe into the matter and bring the rulers into justice. ■





## Additional payment of Rs250bln for LNG purchase

By Sajid Aziz

# An open evidence of corruption?

## Rulers extremely lack sincere policy-making

Despite the fact an uproar has already been created in public over Panama Case pending before the court, the government is continuing to its corrupt policies as very recently the Ministry of Petroleum is intended to pay an additional amount of Rs 250 billion to Qatar on import of liquefied natural gas (LNG). Price for each cargo was agreed at 13.37 per cent of Brent whereas Italy's ENI had offered price of each cargo at 11.62 per cent of Brent thus resulting in huge difference of 2.16 per cent, revealed persons related to business of LNG.

The tax payers have to take the brunt of this day-time robbery as exchequer would bear said burden as price of LNG offered by Qatar is relatively higher when compared with price being offered by other international companies across the globe. Analysts believe that end of Iran's isolation would slash price of LNG by half as international community is lifting sanctions from Khamenei's state. Furthermore, Japan and South Korea are again operating nuclear power plants and this phenomenon is bringing LNG's price down in international market.

A representative of a foreign company

said that ministry of petroleum should have issued tenders of three to five years instead of fifteen years. Last year, Pakistan and Qatar had inked agreement in Doha according to which later would provide thirty-five million tons of LNG gas to earlier for the period of fifteen years.

Though, experts termed it as a consequence of log-term agreement up to 15 years but the fact prevails that it's all about commissions and kickbacks as a number of notorious negotiators are involved in the shady deal with Qatar. "Our most challenging dilemma is that will we be able to pay the tariffs being guaranteed on long term basis in US dollars given the status of recovery and who will subsidies", he commented adding that no doubt local coal based energy is best option to go but LNG priority with import guarantees on long term basis will kill local gas incentives to produce or to explore.

Another expert said that we should plan forward on indigenous sources and taper imports,

as they are connected and available but unfortunately by locking on long term basis on import based energy plants we won't be able to indigenize for next 30 years due to such import guarantees. He further said that Energy Smorgasbord has to be a mix of imported and indigenous fuel sources with gamishing of renewable sources. Crux lies in sincere policy making by our rulers who always eye on their own benefits instead of national interest. ■





# Carrying coal to Sahiwal

## Yet another PML-N project



Of all the projects initiated by the PML-N government, in terms of its long term effect, the 1200 MW coal fired power station at Sahiwal has to be the most egregious. This project does not make economic sense and will in the long term adversely damage the environment in one of the most fertile areas in the country. In addition it will unnecessarily burden the main railway line to transport all the coal from Karachi to Sahiwal, and will be sensitive to any depreciation of the rupee given that it is based on imported.

Coal power plants are among the largest emitters of anthropogenic (man-made) deleterious emissions in the world. In an hour a 1,200 MW coal power plant typically emits over 1,200 kg of Carbon-dioxide gas, 9 kg of Nitrous oxide, 5 kg of Sulphur Oxide, in addition to mercury and lead. Both of these metals enter water bodies and food chain with long term effects. Given that the Lower Bari Doab Canal is flowing right next to the power station, it is fair to assume the deposition from the emission will fall onto the canal and its effect will be felt as far as Khanewal district. Coal emissions and

fly ash are responsible for arsenic and lead permeating into groundwater seriously damaging the quality of aquifers which supply drinking and irrigation water.

Carbon dioxide is heavier than air. Thus the CO<sub>2</sub> tends to sink to the ground and stays there. This in turn impacts the leaves on the plants, according to Carnegie's Department of Global Ecology, "Plants take CO<sub>2</sub> out of the atmosphere but they also have other effects such as changing the amount of evaporation from land surface".

Plants act as giant air conditioners by giving off water through tiny pores called stomata while in daylight converting carbon dioxide to oxygen, a process called photosynthesis, the water is a byproduct and is released through evapotranspiration cooling the entire area around it. But when carbon dioxide levels are high, the leaf pores shrink, this causes less water to be released diminishing the plants health and its cooling power.

"The warming effects of carbon dioxide as a greenhouse gas have been known for a long time" says Ken Caldeira of Carnegie, but he and fellow scientists also warn about

the long term effect of elevated CO<sub>2</sub> levels on the plants' health, in addition by reducing the plants cooling power it would cause significant localised warming even of CO<sub>2</sub> was not a greenhouse gas.

The area of influence is still being studied but scientists estimate that a radius of as much as 20 km could be affected, so in case of Sahiwal power station it could affect an area from Okara Cantonment to Sahiwal city, over a period of time the plants in this entire area would be damaged. Other than being extremely fertile, this area is the most significant dairy production area in the whole country and hundreds of thousands, livelihood depends on this.

Economically also this plant does not make any sense either, a coal power plant typically burns almost 540 kg of coal/MWhr. Today the current price of coal in the international market is around \$110/tonne, add the cost of transporting this to Karachi and then up country to Sahiwal and you will end up with a cost of approximately \$140/tonne. So the fuel cost per MWhr of a coal based plant is approx. \$76/MWhr or approx. Rs 8/unit, with a total cost (including capital costs) of around Rs 10.5/unit. Compare this with the cost for a combined cycle furnace oil based unit such as the one in Kot Addu where fuel cost is around Rs 5.5/unit (Rs 8/unit in total), or even the expensive LNG gas fired units where the fuel cost is around Rs 5.6/unit (Rs 8.1/unit in total).

So the question is: why is this government, bent on laying waste to one of the most fertile areas in the country to produce power that is 40% more expensive than its imported thermal fuel alternatives?

In India the government intends to install 100,000 MW of solar based power plant, as a result the power tariffs for solar there have slumped and currently in the state of Rajasthan, the solar power tariffs (including capital cost) are being bid at 4 Indian Rupee or 7 Pakistan rupee/unit. Other tenders included Indian Rupee 4.63 or Pakistan Rupee 7.4/unit. Solar energy is environmentally friendly, can be priced in Rupees and for countries like Pakistan is the future.

I understand that the coal will be imported from Indonesia, so next time the Prime Minister gets into hot waters with the Supreme Court, don't be surprised if a defense supplication is received from Indonesia. ■

**The writer is an engineer and a cricket fan who works in the Middle East. He can be reached on Twitter at: @A3bbasHasan**



By Irfan Shaikh

# Wind-energy alone can eliminate energy crisis in Pakistan

**Inconsistent policies are the main hurdles in energy breakthrough - Imran Shafiq, Director Sales (South Asia), Vestas Asia Pacific & China**



**Imran Shafiq, the energy expert and Director Sales, Vestas Asia and Pacific is among those who are all out to change the scenario of energy crisis in Pakistan. He is striving hard to bring clean energy revolution in Pakistan, especially the wind energy. he is describing the difficulties in his way while talking to the Energy Update in an**

**EU: Please provide us your profile in detail including your educational background, professional experience and achievements?**

**Imran Shafiq:** Belonging to an army background, I received my early schooling from different areas in Pakistan. Soon after graduation, I enrolled into UET Lahore and graduated with Honours in Mechanical Engineering in 1992. Then, I travelled to the US and received my MBA degree from

the University of Wisconsin in 1996. This opened various avenues for me in Pakistan and provided me with the opportunity to work with many well-known MNCs and local companies in the oil and gas sector as well as the wind sector at very prominent positions. Overall, my professional experience of 20 years has been very successful, with my contribution of developing businesses for various companies worth \$1.8 billion during this period of time.

**EU: Tell us about your professional experience?**

**IS:** My professional life has been a thorough process of learning and evolving myself by observing and implementing the advice given by the best in the field, which has contributed to the successes I have achieved at a young age.

**EU: What is the scope of wind-energy in Pakistan? How much it will help to our power sector?**

**IS:** Pakistan is a country endowed with many natural resources, wind being one of them. Talking of wind-energy potential in Pakistan, only Jhampir and Gharo Corridor can generate enough electricity that can help stabilise the energy mix and increases energy security of the country. Our reliance on imported fuels is reduced; thus improving the overall issue of circular debt as well.

**EU: What are the challenges for the development of wind-energy in Pakistan?**

**IS:** Besides that, Pakistan offers a very strong PPA which in general, is a very investment-friendly policy. However, I still feel that there are a number of challenges such as the power shortages our country is facing and it is important to fully utilize the potential of wind to eradicate this crisis. It is my opinion, there are two hurdles that directly impact the overall development of this industry. Firstly, it is the unavailability of transmission lines and infrastructure for evacuation of electricity in wind corridors. Secondly, the short period for the availabil-

ity of the upfront tariff, that translates into inconsistent government policy. Usually, it takes two years for a project to reach a stage of financial closure. If, the tariff keeps changing or reducing after intervals of 6 months to 1 year, the investors' confidence plummets. Thus, this results in the diversion of the DFI's towards the countries which are less prone to instability and uncertainty.

**EU: What is your edge in wind energy sector?**

**IS:** Vestas is the world's largest wind turbine manufacturing company and is highly specialised in wind power generation. Over 30 years, Vestas has made numerous technological advancements that have resulted in low cost of energy. This attributes to its very strong R&D base. Now, Vestas has evolved wind turbines that are suitable for low to medium wind speed corridors.

Over the last 11 years, Vestas has developed wind and site hunt technology which is based on the supercomputer and state of the art satellite imagery to identify new wind corridors. In the future, this will eliminate the use of met masts that require 12 months of data to make the project bankable.

I am proud to state that Vestas has utilised the same technology in Punjab and has identified four corridors which have the potential to develop wind power projects. In addition to Sindh, I am sure that there must be potential of similar nature in Baluchistan and KPK where Vestas would like to further explore.

**EU: What is your suggestion to develop Pakistan's Wind Energy Sector?**

**IS:** I believe that the global installed wind capacity is rising steadily, with Asia now spearheading its growth. It is important to highlight that wind energy is the lowest carbon-emitter along its lifecycle, with the shortest energy payback time and is one of the most cost-effective ways of introducing renewable energy into the grid.

**continued on page # 47**



# Provincial Sales Tax on Services has added to the cost of doing business

## An exclusive interview with CEO, Albario Engineering (AEPL), Ahmed Najeeb

**In an exclusive interview with the Chief Operating Officer of Albario Engineering Pakistan Ltd, Mr Ahmed Najeeb says that the imposition of Provincial Sales Tax on Services has added to the cost of doing business of power and oil and gas companies working in Pakistan while falling oil prices has delayed many projects. He says that.....**

**EU: Kindly provide us your profile in detail including your education background, professional experience and achievement?**

**Ahmed Najeeb:** I have joined Albario Group in 1993, I am a Pakistani / Canadian and done my BSc (Hons.) Electrical Engineering. Currently on the Board of Directors and working in the capacity of CEO / Director handling Business Development and Operations related to energy sector.

Heading business development for the group including overseas business. Managing relationship with key customers and partners including General Electric, GENCO Holdings and Various IPPs. Managing relationship with Key Chinese EPC Contractors working for projects in Pakistan and the region. Developing and implementing strategies to open new markets in Africa and the Middle East Region. Interacting with developers of power projects for providing support in EPC and technology solutions. Heading operations and maintenance business of the group in combined cycle, thermal and renewable projects. Lifetime member of Pakistan Engineering Council. Associate Member of the Institute of Electrical & Electronics Engineers, Pakistan. I have obtained Six SIGMA Certification from GE Corporate Leadership Development, Europe and Facilitating High Performance Team Management Course from GE Power Systems, 3300 & 3500 Basic Operations & Maintenance Courses from Bently Nevada, the Creative Leadership workshop with Tony Buzan, various technical seminars and presentations on combined cycle power plants, operations and maintenance, gas turbine maintenance philosophies, Vibra-

tion Monitoring Systems and Asset Management Techniques and other leadership trainings. received Multiple Best Performance Award as GE Partner / Sales Channel in the Region, handled Sales of GE Gas Turbines for Major IPPs and Public Sector in Pakistan including CPGCL, NPGCL, Orient Power, Sapphire Power, Saif Power, Halmore, UCH Power, K-Electric, Bhikki, Balloki and Haveli, handled sales of various operations & maintenance agreements, contractual service agreements and rehabilitation projects for IPPs and public sector. Handled negotiations and sales of various EPC Projects in Pakistan from project identification to bidding and contract signature.

**EU: What is your company's core business, present focus and role in the business sector?**

**AN:** The Company provides Services in following areas: EPC and Electro-Mechanical installation and commissioning services in power, oil and gas and industrial sectors, operations and maintenance services in thermal and renewable sector, plant outage and turnaround services in power and oil and gas, condition monitoring, remote visual inspection and other inspection and testing services, workshop and fabrication services. Focus: The Company is focused to provide reliable and competitive electro-mechanical and specialist crew services for installation and maintenance to leading EPCs and equipment. The Company is involved in construction of all major power projects in Pakistan, including: 1180 MW Bhikki, 1223 MW Balloki, 1234 MW Haveli Bahadur Shah, 1320 MW Sahiwal Coal and 1320 MW Port Qasim Coal.

**EU: Please tell us about the power projects your company has completed, the projects in pipeline & future projects in Pakistan and abroad with their costs.**

**AN:** We have completed following Projects: 225 MW Balloki CCPP, 234 MW Sapphire CCPP, 747 MW Guddu CCPP, 250 MW Hilla CCPP, 250 MW Karbala CCPP, Ongoing Projects: 1200 MW Shat Al



Basra, 1180 MW Bhikki, 1223 MW Balloki, 1234 MW Haveli Bahadur Shah, 1320 MW Sahiwal Coal and 1320 MW Port Qasim Coal and various O&M Projects in Combined Cycle and Wind Technology.

**EU: What are the challenges you are facing in your business operations in the local and international market?**

**AN:** Regionally: Due to the fall in oil prices, various power projects have been delayed

Locally: The implementation of Provincial Sales Tax on Services has added to the cost of doing business and reduced margins.

**EU: Does your company offer services for alternate power projects, especially wind power?**

**AN:** The Company is involved in installation of solar projects and operations and maintenance of multiple wind projects including Sapphire, Master and Tenaga for General Electric.

**EU: Do you have policies and initiatives for Q&HSE and CSR?**

**AN:** The Company holds ISO 9001, 14001 & 18001 Certifications and has proper policies and procedures to ensure Quality and Environmental Health and Safety Considerations in all its projects. CSR: The Company has multiple long term CSR initiatives in health, clean drinking water and education sector. Recently the Company has won NFE's Corporate Social Responsibility Award 2017 for remarkable efforts in



# How Chinese money will transform Pakistan

The development of the China-Pakistan Economic Corridor (CPEC) has spurred debate in all quarters as some perceive it as a form of neo-colonialism criticising Pakistan's government for promoting unethical business practices at the cost of ordinary citizens' livelihood.

Others see the CPEC as an unprecedented opportunity for economic revival with potential for a number of positive spillover effects including stronger local institutions.

CPEC is a package of infrastructure projects worth \$46 billion. About two thirds of this funding, \$33 b, is committed towards establishing energy and power projects in Pakistan.

Ahmed Zulfiqar Siddiqui, a senior executive at China Power, says these projects will help alleviate the country's chronic energy crisis which cost the nation 7 per cent of its annual GDP last year. "The Chinese have invested in power generation from coal and LNG as well as hydel, wind and solar power. A new transmission line funded by them will carry electricity from new power generation units in Sindh to load centres in Punjab. Shanghai Electric, a sister company of China Power, has also expressed interest in acquiring a major stake in K-Electric, which is the main provider of electric power to over 20 million people in Karachi. The Chinese are therefore covering the entire power sector value chain – from fuel extraction (mining) to end-user distribution."

He also highlights the need to protect established local industries against price competition from China since local firms may not be able to compete with cheaper Chinese industries.

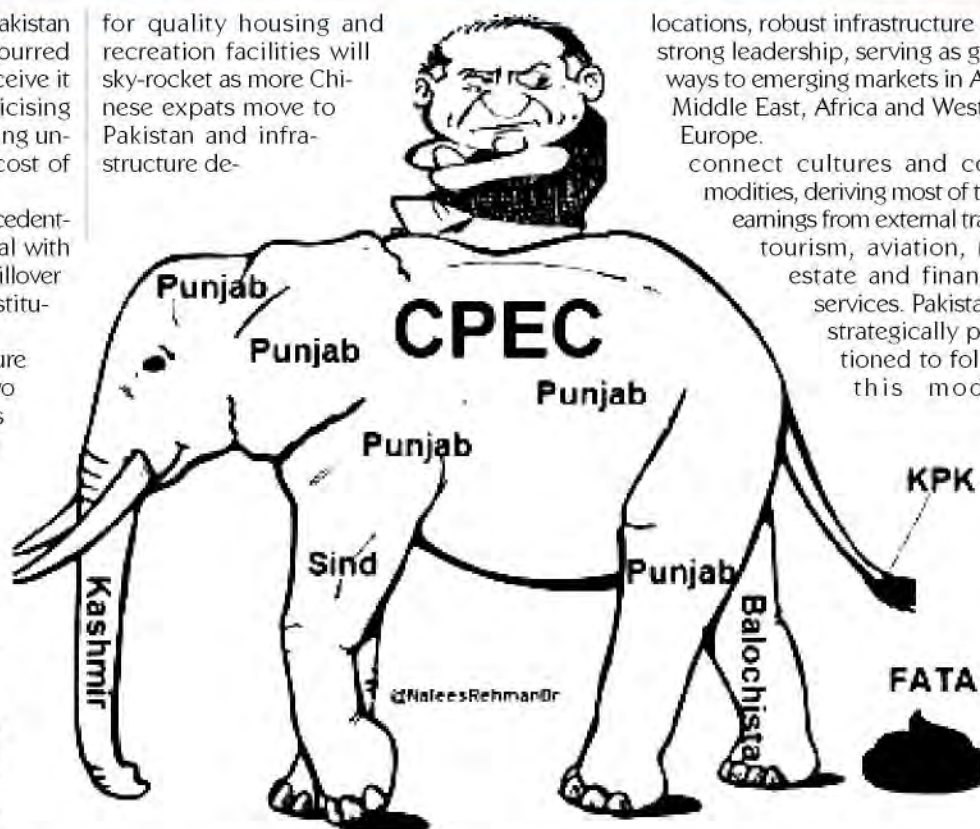
The CPEC project may also benefit the real-estate industry along the trade route. In Gawadar, property prices have more than doubled in recent months due to demand for housing.

Atif Alam, owner of RB Associates, a real estate agency which deals in property across the country, believes that demand

for quality housing and recreation facilities will sky-rocket as more Chinese expats move to Pakistan and infrastructure de-

velopments, robust infrastructure and strong leadership, serving as gateways to emerging markets in Asia, Middle East, Africa and Western Europe.

connect cultures and commodities, deriving most of their earnings from external trade, tourism, aviation, real estate and financial services. Pakistan is strategically positioned to follow this model.



**The CPEC Elephant: The way Ahsan Iqbal describes it.**

© Nafees Rehman Dr

velopment enables access to previously isolated areas of natural beauty or historic significance.

CPEC could catalyse Pakistan's gradual shift from an agrarian economy to a logistics hub for the transport of goods from China to emerging markets in the Middle East and Africa and vice versa.

With the development of emerging market economies, demand and supply have started to shift to the South. China has already surpassed the United States as Dubai's largest trading partner and imports more oil than any other nation in the world.

Singapore is another major bilateral trade partner for China. Dubai and Singapore have both evolved into major transport hubs for both passengers and cargo, due largely to their strategic geographic

locations, robust infrastructure and strong leadership, serving as gateways to emerging markets in Asia, Middle East, Africa and Western Europe.

## Unfinished projects, uneven outcomes

Sabrin Aziz Beg, Assistant Professor at the University of Delaware focussing Development Economics and Political Economy, views the CPEC as a "promising" arrangement that could mutually benefit both countries.

But she emphasises the need for more rigorous research and documentation in order to evaluate whether the economic benefits of large-scale infrastructure projects outweigh the social and environmental costs in the long term.

Beg cautions that "long-term invest-



ments in infrastructure projects in developing countries are subject to the whims of political leaders.

This means we risk having unfinished projects; resources are already expended, but the expected benefit is not realised leaving the host country mired in debt."

Based on research in Ghana, she says, "a third of development projects that begin are never completed."

Greater transparency and accountability is required to minimise risk of corruption and ensure that the sanctioned funds are used for the intended projects.

Juan Pablo Cardenal and Heriberto Araujo, co-authors of China's Silent Army: The Pioneers, Traders, Fixers and Workers Who Are Remaking the World in Beijing's Image, find that Chinese state-owned corporations employ many of the same exploitative business practices overseas as they do at home.

Forms of exploitation include illegal natural resource extraction, environmental pollution, human rights abuses and perpetuation of an (already damaged) status quo for economic gains.

While white-collar executives are well-compensated and enjoy improved living standards, the disenfranchised factory workers, labourers and low-skilled workers have to deal with minimal wages, abysmal living and working conditions with little hope of breaking out of the vicious cycle of poverty. Pakistani society already harbours vast disparity between wealthy and poor citizens, promulgated by a culture of feudalism.

A foreign investor not interested in increasing the well-being of the marginalised, is likely to further exploit their vulnerabilities without fear of reprisal.

There is no technology transfer or skill development focus by Chinese projects so far. CPEC is currently an investment & employment opportunity for the Chinese rather than Pakistan, and the "P" is largely missing from CPEC.

#### Environmental concerns

Compared to international best practices such as the IFC Performance Standards and the Equator Principles for sustainable development, developing countries' environmental and social standards are relatively lax.

Without third-party oversight to ensure that the project is environmentally and socially sustainable, and stricter monitoring and law enforcement, abuse of authority will be difficult to prevent.

The International Union for the Conservation of Nature has expressed concerns about the potential environmental impacts of CPEC projects but local authorities have yet to take concrete action.



Yawar Herekar, a sustainability expert with experience at the World Bank suggests inserting environmental and social clauses into the contracts to minimise the projects' negative impacts with independent agencies monitoring the projects at all stages to ensure compliance.

Currently there is no substantial collaboration in policy reform.

The CPEC's energy projects which include several coal fired power plants will also contribute to a significant increase in greenhouse gas emissions.

Ironically, under the CPEC agreements, China and Pakistan have also signed a MoU to address global threats such as climate change.

Earlier this year, Pakistan and China both experienced unprecedented rainfall which has been linked to climate change.

The resultant flooding killed over 150 people in China and caused economic losses worth \$3bn. While a collaborative approach to adaptation planning is certainly the correct way forward, policy makers from both countries appear to be going around in circles when it comes to addressing the root of the problem.

Agha Ali Akram, an environmental economist and Visiting Fellow at Yale University feels that, "Sacrificing Pakistan's welfare to mitigate climate change is not so simple an equation. Countries like Pakistan that are especially vulnerable to the impacts of climate change need to think about adaptation options rather than focusing on mitigation efforts."

In order to incorporate environmental and social costs into the decision-making process, Akram recommends conducting a complete cost-benefit analysis that accounts for environmental and social costs that might not necessarily be captured in market transactions.

For example, "When we build a highway

- we must account for not only direct pecuniary costs [such as building and maintenance] but also costs to the environment in the form of damages."

#### The way forward

Pakistan is standing on the cusp of economic revival. Strong leadership is required to steer the country through the path of sustainable development. It is the Pakistani authorities' responsibility to ensure that worker's rights are protected, environmental and social externalities accounted for and the affected parties duly compensated for damages.

First and foremost, the government should prioritise investment in its own people and empower them through access to education, employment and equal opportunities to become active participants in the economy.

Vocational training and Chinese language training will equip people with the basic skills required to establish businesses, participate in infrastructure development projects and use the CPEC to their own advantage. Government-mandated audits of infrastructure projects by third-party international environmental accreditation bodies such as the International Organization of Standardization (ISO) or ASTM International could help prevent human and environmental exploitation.

An overarching policy framework is urgently required to manage the progress of CPEC and ensure that the benefits of the CPEC trickle down to the masses and uplift the entire country as opposed to enriching a select few.

Ultimately, economic revival could reduce socio-economic inequities among ordinary citizens, create a more level playing field for all the provinces and stamp out extremism which feeds on poverty and unemployment. ■

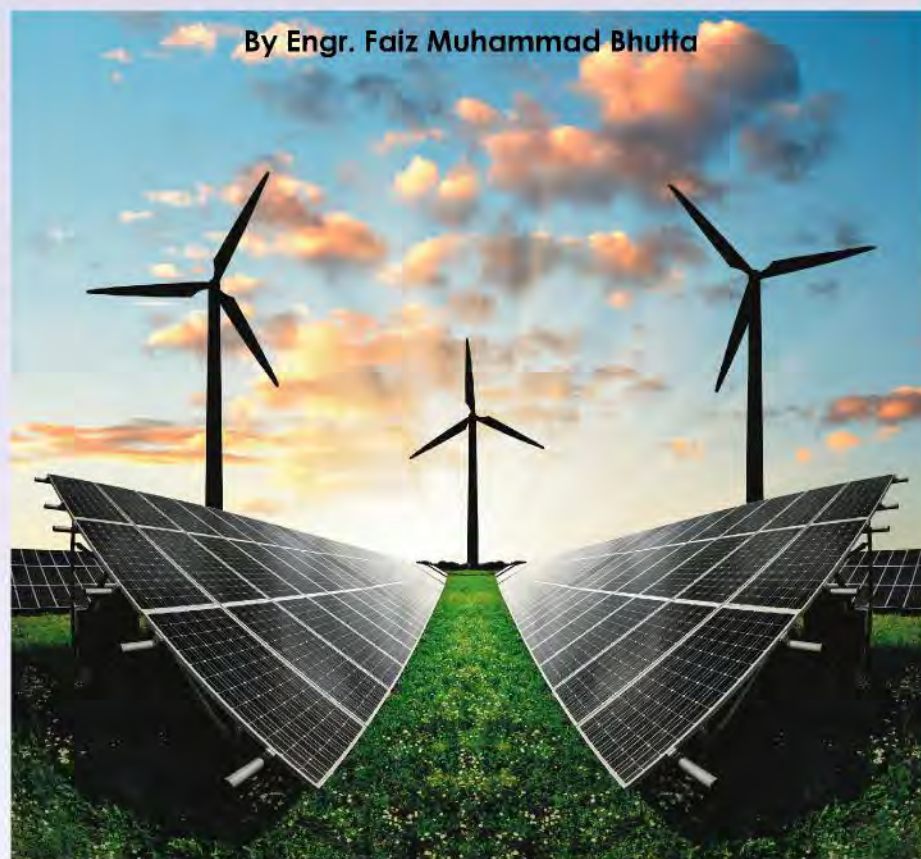


# Energy crisis can only be resolved by policy shift

## Conventional fuel based power generation to renewable energy is a need the hour

Renewable energy resources include solar energy, wind energy, hydro energy, bio-energy and Geo-thermal energy. Pakistan is blessed with an abundance of natural resources which can be utilized for power generation through renewable energy technologies. Towards the North, the high mountain ranges and glaciers provide hundreds of potential sites for run-of-the-river small hydropower. The plains and desert lands in the central part of the country receive ample sunshine and solar irradiation levels go as high as 7.5 kWh/m<sup>2</sup>. A wind corridor in the southern province of Sindh has already been identified whereas province of Baluchistan promises even more wind power generation potential. Being primarily an agricultural country, there is potentially tones of agricultural residue or 'biomass' which can be utilized for power generation.

We would like to analyze Renewable Readiness of Pakistan from the following five perspective: total installed base, policy and regulation, quality and standardizations, incentive, major issues and way forward, overall RE Sector. First Renewable Policy was released by GOP in 2006 and since 2006, the progress has been remained slow and it is only last five years that investors interest has gained momentum particularly in Wind and Hydro sectors and more recently in solar sector. 2006 RE policy was developed as short term policy with the view to developing a medium and long-



term policy as the market developed. However 2006 RE policy remained today the only policy that has been implemented and is currently applicable. There is need

to review this policy in view of challenges and barriers in RE sector. In June 2006, State Bank of Pakistan announced a revised financing scheme for renewable energy. Under the scheme, concessionary financing will be provided to large renewable projects as well as small scale solutions in solar, wind, hydro, bio-gas, bio-fuels, bagasse generation. The scheme provides financing for renewable energy projects with capacity ranging from more than 1MW up to 50MW, domestic, industrial and commercial consumers that want to install renewable energy sources for generation of electricity from 4 KW to 1000 KW for own use or for supply to distribution companies as per the rules set by NEPRA Distributed

### INSTALLED WIND CAPACITY

Project name	Installed Capacity (MW)	COD
Zorlu Energy Pakistan Ltd	56.4	July-13
FFC Energy Ltd	49.5	May-14
Foundation wind energy-I	50	Apr-15
Foundation Wind Energy-II	50	Dec-14
Three Gorges wind farm	49.5	Nov-14
Total installed capacity	255.4	



## PROJECTS UNDER CONSTRUCTION

Project name	Installed Capacity (MW)	COD
Saphire wind power	50	Dec-15
Metro Power Company Ltd	50	Aug-16
Yunas energy Ltd	50	June-16
Master Wind Energy Pvt Ltd	50	June-16
Tapal Wind Energy Pvt Ltd	50	June-16
United Energy Pakistan	50	June-16
Hydro China Dawood Power	50	June-16
Tenaga Generasi Limited	50	June-16
Gul Ahmed Wind Power Ltd	50	June-16
<b>TOTAL</b>	<b>479</b>	

generation and net metering regulation 2015. Overall growth of RE sector remained slow.

Being geographically located close to the equator, Pakistan receives good solar irradiation throughout the country. Global Horizontal Irradiance (GHI) shows highest values in southwest Pakistan, gradually decreasing to the north and northeast of the country with minimums in the Himalayan Mountains. Maximum values of just over 2300 kWh/m<sup>2</sup>/year are reached in the south-western region of Baluchistan. The estimated values only decrease gradually towards the northeast of the country and still in more than 90% of the land area values over 1500 kWh/m<sup>2</sup> are reached (WB ESMAP, 2014).

As per WB ESMAP 2014, The Direct Normal Irradiance (DNI) reaches highest values on dry plateaus or rock deserts when there is little or no dust advection from surrounding regions. Generally, high sums of DNI are available all over Pakistan, with the exception of Himalayan Mountains, estimated peak values exceeding 2700 Kwhr/m<sup>2</sup> can be found in north West Baluchistan while 83% of land area still exceeds the threshold of 2000 Kwhr/hr. 100MW solar PV plant has been recently installed at Quaid-e- Azam Solar Park Bahawalpur and another 900MW is in process through China-Economic Corridor Project and 1 MW solar Power Plant is operational at Federal Parliament House. According to estimates, 800MW solar PV has been installed considering all kinds of small, medium and large solar systems (off-grid rural, on-grid and hybrid solar systems for domestic, commercial, Industrial, IPP, PPA etc.). The import of solar panels expected in 2016-17 will be close to 1000MW. Investment in IPP based Solar power plants has slowed down because of continuous reduction of Tariff by NEPRA and power

evacuation problems.

From policy and regulation point of view, there is no duty on import of solar panels but there is duty on import of Solar batteries and Inverters and AEDB's lot of efforts are being used in exercise of com-mensuration ( in what ratio panels, inverters

in the field of net metering. From incentive perspective there is zero incentive from the government on deployment of solar systems at roof tops. On IPP and PPA front the speed is very slow because of tariff and land issues. Major issues are quality and standardization at import of solar equipment, accreditation of solar suppliers, Lack of solar skilled manpower, absence of certified installers, lack of low mark-up funding, lengthy government process for issuance of Power Generation licenses, Lack of fast implementation of net metering, lack of solar development plans, Lack of power evacuation and grid inter-connectivity etc. The way forward is to develop three years short term and ten years long term solar plans and its timely and efficient implementation. Solar thermal is yet untapped area.

Wind map of Pakistan developed by NREL USA has identified that wind with good to excellent speeds is available in many parts of the country establishing a total wind potential of 340000 MW. The ghara-wind corridor having approx. potential of 50,000 MW in the most attractive to



and batteries in a system) rather putting effort on quality and standardization of Solar Industry and they are trying their best to get rid of low quality solar panels are being imported and there is no regulation to keep check on quality rather the check is on what proportion the solar components being imported. There is a need for accreditation of solar companies so that quality can be ensured in solar sector. Net metering SRO 892 has been issued by NEPRA in 2015 but the process is very tedious and lengthy that the whole process from submission of application to issuance of license takes about three to four months. In one year only 100 net meters have been installed so far out of the target of one Million Consumers. IESCO and LESCO are moving bit fast but other DISCOS have poor performance

investors at this point due to good resource potential as its close proximity to major load centers and the national Grid ( AEDB 2013). The exact potential will be determined through ESMAP Wind Resource mapping project under which 12 wind masts of 80 meter height will be installed in whole of the Pakistan and this project has now completed and data monitoring has started and it is public now.

The major issues are Grid Infrastructure, Land issues, Power evacuation, continuous tripping and forced shut down of turbines, operational efficiency of government, policy and regulatory frame work and availability of finance. Way forward is to remove the hurdles and barriers improving the investor confidence.

Perhaps the cheapest and most prom-



Using renewable energy resource in Pakistan is hydropower. In addition to large hydro power potential, the provinces of KPK, Gilgit-Baltistan and AJK possess enormous run-of-river hydropower potential. The canals of Punjab also offer several sites where small hydropower plants can be set up. The total identified hydropower potential in Pakistan as published by PPIB is 60,000 MW. But this figure also includes large dams. The highest share of hydropower potential is in the KPK province, which is being developed through both public and private sector projects. Over 10,000 MW of run-of-river hydropower potential has been identified in Gilgit-Baltistan, which can be developed in a relatively short time-frame but due to lack of connectivity to the national grid, this potential remains largely untapped. 1000 MW MHP potential has been identified in KPK. KPK government has divided its MHP Program in to four phases. In first phase 385 MHP are being developed in 12 districts with estimated installed capacity of 34MW and Phase II shall comprise the installation of 1000 MHP and phase III and IV remaining 2000 MHPs till 2025. Punjab Energy Department has also embarked upon the completion of MHP plants and Solar off-grid systems under various programmers which includes solarization of 45000 schools, 3000 BHUs and some MHP Plants. Similarly Sindh and Baluchistan energy departments are under the process of completion of various solar and wind power programs in their provinces. Besides large hydro, there is significant potential for development of small/mini/micro hydro power. The geographic layout of the country with natural water flow systems and irrigation canals present ideal opportunities for hydropower development. The figures below identify total MHP potential of 3100 MW

in the country. KPK - 750MW, Punjab - 560 MW, Gilgit Baltistan - 1300 MW, Sindh - 120 MW, Azad Kashmir - 280 MW. Total - 3100 MW

Hydropower development in the northern part of the country is being done through numerous public and private sector projects. The large projects involving construction of dams is primarily being managed within the public sector, with the exception of two large run-of-river projects at Dasu and Bunji, of 4,300 MW and 7,100 MW respectively. Both projects are under development and will take about another 5-6 years to completion. Most other run-of-river projects are being developed in the private sector with the PPIB currently processing a cumulative capacity of about 15,000 MW.

Over 31% of population has no access to modern energy sources and about 63% still rely on traditional biomass for cooking (AEDB 2014). There are more than 40,000 villages which are so far from the grid and it becomes costly and uneconomic to extend the grid to these locations (UNDP 2013). Distribution companies are reluctant to expand grid into rural areas and revenues for tariffs cannot provide sufficient returns to recover the investment. Providing modern energy access to such villages through stand-alone off-grid solar systems or mini or micro-grids can provide them access to modern energy sources. ADB Clean Energy Access Investment Project (2017-2025) will bring substantial improvement in access of Renewable Energy in off-grid sector in Pakistan.

Energy crisis can only be resolved by policy shift from conventional fuel based power generation to Renewable Energy based power generation and giving incentives to this industry. This will not only generate power but will help in reduction of Green House Gases and it is the only way to improve energy security of the country. ■

## Biggest career mistakes of your life

- Assuming that you know everything
- Forgetting to network
- Not being prepared for meetings
- Ignoring the value of business cards
- Engaging in office drama
- Arriving to meetings late
- Not asking for more work when you're bored
- Being satisfied doing the minimum amount of work necessary
- Forgetting to make a LinkedIn page
- Over-sharing personal stories at work
- Burning bridges when leaving a job
- Dressing unprofessionally
- Not proof-reading your e-mails
- Believing that you're going to be a VP right out of college
- Not seeing the value in entry-level positions
- Not learning from your mistakes and failures
- Failing to seek out a mentor
- Thinking that once you choose a job field, you're stuck with it.
- Not having an updated resume available at all times
- Failing to join associations and groups pertaining to your industry
- Being a negative person
- Not taking initiative and turning down all new projects
- Not asking for help when you need it
- Failing to admit that you're overwhelmed with your workload
- Trying to convince yourself that you love job when you don't
- Turning down training courses
- Not keeping track of all your accomplishments
- Making career decisions for anyone other than yourself
- Not actively looking for a job when you're not happy with job
- Thinking that it's too late in life to change careers
- Making premature judgements of others
- Over-promising results, and then failing to deliver
- Not having a system for managing e-mails
- Failing to understand when and how you're most productive
- Assuming that everyone around you thinks the same way you do
- Failing to accept diversity as an asset to your team
- Not caring how your actions affect other people
- Having an emotional IQ of zero
- Making decisions that impact others without consulting
- Believing that you need to be an a-hole to be taken seriously
- Taking jobs just for the money
- Not sharing your knowledge with others
- Letting your ego guide your decisions
- Complaining about problems instead of offering solutions
- Failing to embrace change
- Being intimidated by new technology
- Not pushing yourself outside of your comfort zone
- Not giving yourself time to re-charge
- Not standing up for what you're worth ■





# CPEC: The light at the end of the tunnel?

Pakistan has been facing a major energy crisis for over two decades due to inconsistent and nasty policies by the successive governments whether they were so-called democratic or dictatorship regimes. Between the extensive periods of 2008 to present, Pakistan is considered to be in the most critical energy-starved condition than ever before. With other components, corruption and violence is a major compounding factor contributing to the energy crisis in this fragile country. What could be the medicine for these illnesses?

The problem lies in the demand-side management and this has been severely neglected. In the year 2013, Pakistan had an enormous long-enduring time of electricity shortages, which continued with the failure to provide reliable energy alternatives. The planners in Pakistan should make sure that the energy generating and coming in Pakistan should be from a clean and a cheaper source. The latest plan drafted, the Vision 2025, would hopefully aid us and bring about a fresh change. This is a huge step for setting up a broad and a clear picture of Pakistan's long term objectives. This will also help us in managing our goals and finishing our targets. With Pakistan's huge population and having a large number of youth workforce, a Vision is important because it helps us to see and manage our resources properly - also ensuring energy and food security.

Against this backdrop, does CPEC (China Pakistan Economic Corridor) become a divine gift for the people of Pakistan?

CPEC is an on-going project between China and Pakistan, where there is an investment of \$46 billion (including transport routes, energy and other infrastructure). This project aims to connect Pakistan's Gwadar port to China's autonomous Xinjiang region, which will stretch about 3000km, with 2020 being the date where the port would become fully operational. CPEC is viewed central to Sino-Pak relations and is the biggest investment of China outside of China. By many, CPEC is considered a "game-changer" - this would pave way a path for Pakistan which would be a richer and a stronger entity than ever before.

Moreover, CPEC will help to overcome energy crises -enlarging the power generation capacity and satisfying the electricity needs of the country, even to the drought-affected region of Tharpakar and the rest of interior Sindh. CPEC would dramatically reduce the price of energy as well.

This economic corridor will increase



## China agrees to invest additional \$8.5 billion in Pakistan's Energy & railways sector

Beijing is set to invest an additional \$8.5 billion in Pakistan's railways and energy infrastructure, Pakistan's Planning Minister Ahsan Iqbal said. The funds come in addition to the two countries' \$46 billion China-Pakistan Economic Corridor project, a deal aimed at building roads and energy infrastructure in Pakistan and connecting northwest China with Pakistan's deep-water Gwadar port in Balochistan.

Of the additional \$8.5 billion, \$4.5 billion will be dedicated to upgrading Karachi-Peshawar main railway tracks and signal mechanisms and increasing train speed from 60-80 kph to 160 kph, the planning minister said. The rest will be spent on a liquefied natural gas terminal and power transmission line, he added.

"This has now all been approved, so this is an additional \$8.5 billion to the \$46 billion we had already, so we are now close to \$55 billion," Iqbal said. The International Monetary Fund said in June that repayments and profit repatriation from large-scale investments such as CPEC could add to Pakistan's medium- and long-term risks, predicting that the country's gross external financing needs would rise to \$15.1 billion in 2018/2019 from \$11.4 billion in the current financial year. But Iqbal said those risks would be countered by the economic boost the investment would give to industries such as steel, construction and engineering, pushing future annual growth to above 6 percent. In July the IMF upped its forecast for growth in Pakistan to 5 percent from 4.7 percent in the fiscal year to June 2017, citing China's investment plans. "As the economy grows, our capacity to undertake the responsibilities of repayments also improves, what really matters is that all of that investment is going into productive sectors," Iqbal said. After completion of CPEC (expected to be fully operational by 2030) Pakistan will earn more than \$5 billion annually according to a conservative estimate, and China will earn \$20 million daily only through oil transportation; and the passage for oil import to China will reduce to 3000km from 12000 km. Also by 2025 the economy of Pakistan will reach approximately \$800 billion, some analysts say, as the CPEC connects the whole region and gives Pakistan focal importance for world trade, and will lead to it becoming a regional powerhouse. 42 countries of the world will benefit from it. Under the CPEC, several new free economic zones will be created to attract foreign investors seeking to do business in the region. Pakistan hopes that some industry will relocate from China, due to cheaper wages and production costs, Iqbal said. "Our preferred mode is joint ventures, because that will give a stake to both Pakistani and Chinese enterprises so now our government is actively promoting business-to-business (B2B) links," he said. ■



employment and investment manifold - probably making Pakistan's economy better than before. This mega-project would transform the country's image from a violence-afflicted country to an economic-activity hub and an investment-friendly region.. Most importantly, with help of CPEC, other foreign investors get the confidence to invest in Pakistan. CPEC will also aid in joining of the dots of different energy sectors. Along with this, the government has also announced that by 2018, Pakistan would be load shedding-free.

This massive investment plan will transform Pakistan into a regional economic hub and further boost Sino-Pak relations. CPEC is not just a bilateral project between China and Pakistan but will also serve as a fate changer, not only for this region but for other regions in the world including Middle-East, Europe, Central-Asia, Asia-minor and especially Pakistan's neighbors.

CPEC would also have a major impact on Pakistan's Foreign Policy -with hopefully a fresh and a positive change in its FP towards its neighboring countries. Due to the signing of this agreement there have been few eyebrows raised by our neighbors and by a few other countries. We must ensure and strongly state that CPEC would be a fate-changer in the region and that CPEC would lessen the violence which is being faced in the country - neighbors, especially our eastern one, need not to be worried as a stable Pakistan, is a stable South-Asia. ■

## CPEC: Some Questions

By Dr. Kaiser Bengali

Many claims and comments are being made about CPEC. Most, if not all, do not appear to be based on actual data or empirical analysis - on account of the fact that data or information regarding CPEC is not publicly available. Here are a set of questions, the answers to which will help form a basis of informed discussion.

1. Has Pakistan prepared an overall CPEC Feasibility?
2. Has Pakistan prepared a CPEC Environment Impact Assessment?
3. What is Pakistan's share in Gwadar port revenues, if any?
4. What is Balochistan's share in Gwadar port revenues, if any?
5. Is the Gwadar-Khunjab Highway a toll road? If yes, what are the shares of provinces through which the Highway passes?
6. What will be the (positive and adverse) impact of China Transit Trade on Pakistan's manufacturing sector?

## Pakistan, China decide to include new projects in CPEC

Joint Co-ordination Committee (JCC) has agreed, in principle, to include Ketī Bunder Sea Port Development project as well as Naukuridi-Mashkhel-Panjgur road project (which would connect with M-8 & N-85) in the China Pakistan Economic Corridor portfolio.



Sources said that according to the minutes of December 29, 2016 JCC meeting, Pakistan and China have decided to include new projects in the CPEC portfolio and instructions have been issued to the Joint Working Group (JWG) on transport to work out proposals on the implementation of these projects after further studies and consultations, a private TV channel reported on Saturday.

The JCC meeting co-chaired by Wang Xiaotao, Vice Chairman of National Development and Reform Commission (NDRC) China and Minister for Planning, Development & Reform Ahsan Iqbal welcomed the progress on consultations between the transport authorities of the two countries reflected in the Memorandum of Understanding (MoU) signed on Highway Engineering Co-operation.

On the agenda of disaster Prevention and Mitigation and Emergency Response, the two sides agreed in principle to include the Early Warning System Strengthening and Enhancement Project in the CPEC; and JCC reportedly noted that bilateral co-operation in

this area will respond to the challenges of climate change and safeguard infrastructure developed under the CPEC.

The meeting also noted that CPEC presents a unique opportunity to integrate with regional economies and become a hub for trade and manufacturing with the Gwadar Port developed as an international free port.

The way forward for matured projects - Karakoram Highway from Thakot to Raikot N-35 remaining portion (136 Km), Khuzdar to Basima Road N-30 (110km) and upgradation of Dera Ismail Khan to Zhob, N-50 Phase-I (210 km) - was discussed.

The JCC, sources further said, urged the Pakistani side pay close attention to proper maintenance of KKH Phase-I so as to ensure safe and smooth transport along CPEC. The JCC noted the completion of Gwadar-Sorab 650 KM section to operationalize western route, speedy progress on D.I. Khan- Hakla (285 Km) section by Pakistani side as well as successful shipment of Chinese cargo from Gwadar Port through western route.

Pakistan and China also agreed during the meeting to initiate preparatory work including joint technical and commercial feasibility study for expansion of existing multi-purpose terminal

including breakwater and capital dredging of Gwadar Port and East Bay Expressway-II.

The JCC agreed, in principle, to the proposal of Pakistani side for inclusion of Rail based Mass Transit Systems in provincial headquarters as a component of CPEC. The JCC instructed the transport JWG to, on the basis of further studies and consultations, work out proposals on the implementation of Karachi Circular Railway, greater Peshawar Region Mass Transit System and Quetta Mass Transit System.

The signing of preliminary agreement on Quetta Mass Transit System was welcomed by the JCC as well as preliminary work including a feasibility study done by the province of Sindh for Karachi Circular Railway project which provides a basis for preparatory work on the project.

The Pakistani side proposed the inclusion of rail-based mass transit projects under CPEC including Lahore Orange Line, Metro Mass Transit Project and agreed to grant exemption from imposition of federal taxes and duties on a uniform basis for mass transit projects. ■



# Pakistan needs 20% more forest area to ensure green environment: Research

Pakistan needs to raise its forest cover from 5% to 25% to meet its economic, employment and green environment needs says Preston Institute of Management Science and Technology's (PIMSAT) final year students of MBA Syeda Bushra Hasan, Mehwish Saqib and Dinsha Vania.

Forests are the source of economic support, employment, oxygen generation, livestock grazing, furniture products, boats, household oven fire, hotel fuel in cities and town, sports goods and construction industry, according to a new research.

Briefing on the research, Syeda Bushra Hasan said that trees play a vital role in economic support and green environment, hence the need to conduct mass tree plantation in villages, towns, cities. "There is also a need to plant trees at new avenues like along roads, highways, streets, houses and gardens. The environment had become a big sector of life and needed more attention and funds from government," Bushra Hasan said. Trees also provide clean oxygen for survival of human beings and animals, she noted in the research.

Mehwish Saqib said that the government needs to make mass tree plantation in Karachi for reducing air pollution and providing clean air to citizens for their good health.

"Those people who have the space should plant at least one or two trees as this would also provide them with fruit and clean air," she said, adding that according to the Ministry of Climate Change, Pakistan's current forest area was 5% of the total land

area, which is low and should be raised to a significant level.

While, Dinsha Vania said that Pakistan needed mass tree plantation at plain, hilly and other empty areas with the support of private organisations besides the government. Funds should be sought from corporate sector because government funds would not be enough, he advised in the research report.

According to the research, massive forest hacking is being continued in the country. Estimated 500,000 workers are employed in forestry, and its related business like logging, carpentry, and timber products manufacturing and tourism. The forests contribute only 0.3% to GNP due to low concentration. Forest products are exported abroad. Forest is also source of tourism. Massive corruption has plagued this vital sector.

The report said that 20% more land of forests are needed to ensure green environment in Pakistan because the international environmental standards states Pakistan needs 25% forest area for economic stability and environment protection. A healthy tree with length of five meters creates oxygen for four people daily.

Mangrove forests along coastal areas stop cyclones or divert them. 50% oxygen in the atmosphere is created by forests and trees, while other 50% is generated by oceans, according to a NASA report. The annual forest budget of each province should be doubled for reforestation, tree plantation and their maintenance. Federal government funds should also be provided to each province for this cause besides, funds from IUCN, WWF, World Bank, ADB, USAID and other agencies should also be

sought.

An action plan comprising of all stakeholders should be prepared. Seminars and conferences should be arranged for raising awareness about importance of forests and trees. Tube-wells should be installed for supply of water to forests. Separate forest police backed by rangers should be introduced at district level. District task force comprising three judges, two NAB officials and 20 local community people should also be formed with high salary package, health cover, insurance and security.

The government in collaboration with NGOs and local communities should execute joint work for reforestation and tree plantation. New forests should be planted at barren and hilly areas with water supply arrangements through tube-wells and canals.

Mangrove forest should be raised along coastal belt of the country. Mass tree plantation should be initiated in all villages, towns, and cities. Mango, guava and kino orchards should be planted at feasible places across the country with government subsidies.

Hacking of forest should be halted permanently with the help of police, task forces and rangers. Efforts should also be made to recover all encroached forest lands. All forests and planted trees should be protected. Agriculture inputs like water and cattle manure should be given to trees for their healthy growth. The number of planted trees should be recorded and documented and if trees are lost during growth period, the same number of trees should be replanted. Lessons should be learnt from whole process of reforestation and tree plantation. ■



By Abdul Khaliq

# Tharparkar, a new Pakistan in the making

We have constantly been hearing about the Tharparkar region in media for the last decade or so especially after the emergence of the electronic media. The news about the miseries of the Tharies used to appear in print earlier, especially in the Sindhi newspapers but its rhetoric was limited to the corridors and boundaries of Sindh only.

The miseries of the Thari children, their malnutrition, deaths in winter, RO's being installed and their nonfunctioning; the role of the NGO's going out there to help them has always been the headlines of the media; A fresh new breeze of hope has emerged in Islamkot Thar which despite facing opposition by some locals is the future of the one of most and backward areas of Pakistan.

My fellow editors and members of the CPNE were invited to visit the under construction coal plants being built by SECMC a company created by Engro. This project is a consortium of Pakistani Banks, Govt of Sindh Engro, and is mainly funded by CPEC.

My friends and I; Maqsood Yousfi, Dr Jabbar, Ijaul Haq, G N Chandia, A R Mangrio, Shaheen Qureshi, Bashir Memon and many other distinguished editors, mostly from the Sindhi media went on an informative tour of the region to personally see and observe the developments arising in the region; the reservations of the general public living around the mining and the plant area.

The Sindh government in the 80's had managed a survey of the area in a bid to discover drinkable water for the inhabitants of the region which has always been their main requirement. SAZDA, the organization searching for water discovered much more than its desires. To their surprise only 150 meters below the earth lay one of the biggest reserves of black gold which was later asserted to be 175 billion tons of coal.

Pakistan's biggest tragedy is that we have never benefited from the vast natural gifts been awarded to us. We have huge reserves of gold, copper and other minerals in Baluchistan but due to the past policies of our rulers specially the military dictators we cannot benefit from them.

To Pakistans and Tharparkars luck, Engro chose to benefit from the vast reserves of coal in the area. When the CEO of Engro, Shamusuddin Sheikh took 20 minutes of time from the Prime Minister for the presentation, it got him so interested that he took two hours to fully understand the whole phenomena and got it perused and



included in the CPEC.

In 2014, the Thar coal project was included in China Pakistan Economic corridor as one of the early harvest projects. Basically, there are two companies who are jointly working, with Engro. One is excavating coal and the other is building two power plants of 330 MW each estimated to start producing electricity much before June 2019, its proposed production time.

The current mining is being carried out on block no 11 of the huge reserves which have been divided into 12 blocks. The coal reserves in this block are spread around a hundred kilometers radius and are only 1 percent of the total reserves. The reserves in block 11 are enough to produce 5000 MV for the next 50 years, just image the kind of energy output we have been given within and we have been running around after IPP's to produce Electric by furnace oil and other measures. The current international price of coal is around 4.3 USD/MMBTU. At the starting of the project the price of coal would be around 6.3 which will accordingly reduce to 3.2 by Dec 2021 and will further go down to 2.7 by Dec 2029 making us a viable exporter of the commodity at that time. The more we expedite it the cheaper it would become and would have the same impact on the price of electricity.

SECMC would be producing its elec-

tricity at 11.6 cents/ kwh in June of 2019 and it would substantially be reduced to 9 cents by 2021 and ultimately to 5.6 cents by 2030, which is very close to the production price of hydel electric.

The biggest concern of the visiting editors and the environmentalists is the impact that the project will create on nature. It was explained to us that the main ingredient, ash which is the basic factor creating environmental disasters would be reinstated into the same area from where the coal would be evacuated. We were explained about this through different reports and charts prepared by the international organizations that our coal is probably not the best but is much superior to the coal being used by many countries of the region. The ash and sulfur in our coal is much less to the one being used in India but is a little better in quality being evacuated in Germany. We were explained that Japan and Germany have a clean environment even though they both have 21 and 17, coal based power plants producing electricity currently. These results can be achieved by using the best kind of equipment for the purposes and Engro has also imported the boiler of the plant from Europe despite the fact that the other parts of the plant are Chinese made.

The greatest achievement about this project is that the Tharies are the biggest



beneficiaries of the whole venture. Out of the total work force of 1,698 at the mining site 63% are Tharies. A vocational training center has been created outside the plant to train the local population in order for them to be bifacial to the project. The schools being run in the area have been taken over the company and have been handed over to a Karachi based NGO so that proper education is being given to locals, in addition to that, TCF has also been invited and been provided with land and resources by the company to come in and open three additional schools in the area the first would be operational by April 2017. A hundred bed hospital has also been planned for the area which has to be built and run by the Indus Foundation a reputable name in the field.

Health, education, employment and living facilities are the four basic requirements for a healthy community. The villages of Senhri Das and Thario Halepoto are being relocated for mining purposes. They are being provided with new villages with marvelous homes being constructed on a 1100 sq yard plot each. The proposed houses were so attractive that many of the members of the delegation wished if they could also be accommodated in the village with has all those facilities.

Some of the villagers which are around 40 kilometers away from the project had concerns regarding a dam being built in their area. The dam is being built to store water which will be evacuated out of the mine. The water will only be stored in the dams for a short period because later all the water being taken out would be reutilized in the power plant itself. The villagers believe that the water coming out would seriously damage their fodder area essential for their herds which is their bread and butter. The delegation visited Islamkot Press Club and met the people sitting there in protest for their demands. Their concerns were later presented to the administration which is trying its level best to find out the solution of the issue which is more politicized then genuine in nature. What the delegation concluded in general was that the dam issue is not that great a concern and would probably not damage the environment or the habitants.

Many international companies are eyeing the region after seeing the huge benefits the pioneer power plants would achieve.

The two vibrant officers Shamusddin Sheikh and Brig (r) Tariq Lakheer are the back bones of the project and the basic reason for their success is not only their attitude and commitment but being Sindhis as well. They have a terrific working relationship with the people of the area. ■

## IRENA to engage key actors in Renewable Energy Policy



Lawmakers from around the world are meeting today in Abu Dhabi to discuss the policies needed to support the transformation of the global energy system. Held the day before the opening of the seventh Assembly of the International Renewable Energy Agency (IRENA), the 2017 Legislators Forum, "Renewable Energy - the Role of Legislators in Catalyzing Action", is the second meeting of its kind hosted by the Agency. The Forum facilitates dialogue between lawmakers on the deployment of renewables and critical challenges facing the energy transformation underway in countries around the world, covering areas of policy, legislation, and tools to support legislators.

"Lawmakers have a rich history of creating the policy and legal frameworks that can drive renewable energy deployment. Their role is even more critical as governments look to transform their energy infrastructure and markets," said IRENA Director-General Adnan Z. Amin. "By bringing together lawmakers from around the world concerned about energy issues, IRENA can better support their efforts to accelerate the energy transition."

"The next step for renewables is accelerating its deployment and that's going to require an environment that policies can help foster," said HE Dr. Thani Al Zeyoudi, Minister of Climate Change & Environment. "Legislators have the unique responsibility in bringing about that renewable friendly environment and it's only fitting that IRENA plays a guiding role in this effort through gatherings like the Legislators Forum."

The meeting will allow participants to exchange best practices and learn from each other's experiences in creating effective renewable energy policy. It will focus on policy and legislative tools as well as financing mechanisms available to raise the level of ambition towards an accelerated energy transition, using available databases, analytical reports, and direct legislative assistance. Participants of the Legislators Forum were invited by the UAE's Federal National Council to visit the country's parliament and meet with a group of its members. ■



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# Dialogue on CSR & Corporate Sector

**Azad Kashmir proves to be ideal destination for investment by Karachi's business community: AJK President Masood Khan**



Group Photo of Participants with President AJK Masood Khan at Dialogue on CSR For Community Development organized by National Forum for Environment & Health. M. Naeem Qureshi President NFEH, Shamsuddin Sheikh CEO SECMC, Mirza Ishtiaq Baig, Farhan Hanif, Mirza Ikhtiar Baig, Dr. Farhan Essa, Anis Yunus, Engr. Nadeem Ashraf, Ruqiyah Naeem and others also seen in the picture.



The Government of Azad, Jammu & Kashmir has been giving special attention to build projects of roads and energy so to make Azad Kashmir an ideal place for businessmen and industrialists of Karachi to invest and launch businesses there, said AJK President Sardar Masood Khan.

Azad Kashmir president stated this while speaking at an interactive dialogue with a select gathering of Karachi-based businessmen, industrialists, senior officials of banking and energy sector companies. The National Forum for Environment & Health (NFEH) organized the dialogue on the Corporate Social Responsibility.

"The industrial zone in Bhimber, which will be constructed as part of CPEC would be the one place, which will attract investment to Azad Kashmir from China and from within and outside the country," said AJK president.

Shamsuddin Sheikh CEO Sindh Engro Coal Mining Company, Ovais Asad Khan EVP NBP, M. Naeem Qureshi President NFEH, Farhan Hanif Chairman Crown Group, Anis Yunus President CSR Club Karachi, Dr. Farhan Essa, Brig Tariqi Lakhair, Ahsan Mehnti (Arif Habib Group), Mirza Ishtiaq Baig, Zafar Sobani, Yogi Wajahat, Engr.

Nadeem Ashraf also spoke on this occasion.

Masood Khan said that eight industrial zones would be constructed in the entire country as part of China Pakistan Economic Corridor as one of them would be built in Azad Kashmir.

He said that recent connectivity of Azad Kashmir with CPEC further improved suitability of AJK to attract investment from Pakistani and foreign businessmen for promoting industrial activities there.

"A motorway is being constructed, which will go from Mansehra to Muzaffarabad and from there to Mirpur as this will be the road, which will connect us to CPEC," said Mr. Khan.

generate 1124 Megawatts electricity and Karot Dam of 520 MWs power generation capacity both, would be built in Azad Kashmir as part of CPEC.

He said it was one of the aims of AJK government that Azad Kashmir should secure self reliance in fulfilling its energy requirements, which from the present day need of 400 MWs would go up to 1000-1500 MWs keeping in view expanding industrial and commercial activities there.

He said that AJK govt would do a number of projects to build







President Azaad Kashmir planting a tree. Team NFEH and CSR Club also seen in the picture

new roads and repair existing ones across Azad Kashmir.

He urged the prospective businessmen and industrialists of Karachi to come to AJK and hold a dialogue with Azad Kashmir Chamber of Commerce and Industry in order to know real strength and prospects Kashmir offered for doing business there.

He said that present AJK government



Dr. Farhan Essa CEO Dr. ESSA Laboratory and Farhan Hanif CEO crown group during the discussion

had been trying its best to ensure good governance so to do development and progress of Azad Kashmir in best of the manner.

The AJK president also invited people of Karachi to come to Azad Kashmir in coming summer to see and enjoy a number of holiday resorts there, which were ideal destinations for tourists.

He said that AJK govt had been serious to promote tourism industry there so to provide best of accommodation and other hospitality services to people visiting Azad Kashmir every summer so to explore the State as an ideal destination for summer

holidaying.

Mr. Khan said that so far private sector had the initiative to cater to needs of tourists coming to Azad Kashmir.

He said that AJK would build five new hospitals in as many districts of Azad Kashmir. While district headquarter hospitals in 10 districts of AJK would be upgraded in such a manner that they would provide best of treatment facilities to general public for communicable and non-communicable diseases, he said.

He said that construction of CPEC and general stability of political situation would attract massive investment to Pakistan in coming months and years in sectors of energy, telecommunication, services, trade, and industry.

Expressing his point of view on CSR, AJK president, who had earlier led a dis-

tinguished career in Pakistan's Foreign Service; said that it would be an impracticable option for the government to completely do away with the system of non-governmental organizations.

He said that concerned govt authorities could impose systems to regulate and restrict working of the NGOs but it would not be feasible to altogether ban NGOs in view of valuable social services provided by them in a number of important sectors. One noble social service by NGOs was provision of legal assistance to poor people in matter related to policing and judiciary, said Mr. Khan.

He said that public and private sector corporations in order to meet their CSR obligations should launch welfare projects in such social sectors where the government had been lacking especially areas related to public health and education services.

Earlier, President NFEH Naeem Qureshi announced formal formation of the CSR Club along with announcement of its first ever governing body in order to give a platform for combining services of different corporate entities for doing philanthropy and public welfare projects.

The AJK president welcomed formation of the CSR Club and suggested to form a sub-committee of the club on Azad Kashmir as it would be one of relevant forums to get Karachi and Azad Kashmir linked with each other for promotion of business and philanthropic ties between concerned business communities of both the regions.

Dr. Kaiser Waheed, Dr. Mirza Ikhtiar Baig, Shahbaz Islam, Shamsul Haq Memon, Engr. Gulzar Memon, Salman Siddiqui, Dr. Sobia Akhtar, Shazia Abu Talib, M. Ghazal and others also participated in this seminar. ■





# 9th Int'l CSR Summit & 6th CSR Awards 2017

## 55 companies conferred Annual CSR Award

### CPEC enabled govt to save country from civil war-like situation: Prof Ahsan Iqbal



**Group Photo of Award winners of 6th CSR Awards 2017 with chief guest Federal Minister for Planning and Development Prof Ahsan Iqbal and Guest of Honor Governor KPK Iqbal Zafar Jhagra. President NFEH M. Naeem Qureshi, Eng. Nadeem Ashraf, Ruqiya Naeem & others also seen in the picture.**

This is probably the only platform in the country where notables from the government, public, private, business, and social sectors gather every year to appreciate excellence shown by corporate world in doing philanthropy and to discuss new avenues to further this cause.

The National Forum for Environment and Health (NFEH) and its numerous strategic partners are credited with organizing this event every year without any break for last nine years. It was 9th

International CSR Summit and Awards-2017 that is the brainchild of NFEH and its partner organization.

The annual CSR summit and awards have become the most noteworthy occasion featuring on every calendar of salient corporate events being organized in the country all around the year.

The hard work done by team of NFEH and its associates every year has started showing results as the event this year was



**Chief Guest Federal Minister Prof. Ahsan Iqbal, Guest of Honour Governor KPK Iqbal Zafar Jhagra, President NFEH M. Naeem Qureshi, Gen. Secretary NFEH Engr. Nadeem Ashraf, Secretary Climate Change Syed Abu Akif, VP FPCCI Mian Shoukat Masud and other distinguish guest and speakers sharing their views on CSR at 9th CSR Summit & Awards 2017**





**Picture of Governor KPK Iqbal Zafar Jhagra and Federal Minister for Planning and Development Prof Ahsan Iqbal with President NFEH M. Naeem Qureshi and Sec. General Engr. Nadeem Ashraf**

attended by most important and eminent persons of various walks of life.

The lavish settings of Hotel Serena in Islamabad this year again hosted the CSR Summit and Awards on 19 January, 2017. Federal Minister for Planning, Development and Reform Prof Ahsan Iqbal was the chief guest and Khyber Pakhtunkhwa Governor Iqbal Zafar Jhagra was guest of honour of the eve of award ceremony. The KPK governor especially reached the federal capital from Peshawar via helicopter to attend the event.

It was genuinely a rare occurrence that under one roof so many notables of different spheres of life gathered to appreciate and discuss at length praiseworthy models of corporate philanthropy being practiced in the country.

On the occasion, 55 leading companies and organizations of the country including multinational firms received the annual CSR awards on basis of their outstanding performance in the area of social sector devel-

opment mainly for underprivileged masses.

One salient feature of the award ceremony was special CSR award given to Shaukat Khanum Memorial Hospital and Cancer Research Centre received by its Chief Executive Officer Dr. Faisal Sultan to recognize services of the hospital in curing various cancerous diseases in the country over last many years. Another prominent feature of the ceremony was Lifetime Achievement Award given to famous humorous poet Anwar Masood.

In his keynote address in the concluding ceremony of the event, Federal Minister, Ahsan Iqbal said that owing to investment received through China Pakistan Economic Corridor (CPEC) project the present government was going to add record 11,000 megawatts electricity by 2018 to national grid. While industries in the country have been given uninterrupted power supply for one last year.

"We should remember the times in 2013 when the country had been facing 18

#### CSR Award Winners 2017

- ABBAS STEEL PVT LTD
- AGHA STEEL INDUSTRIES
- ALBARIO ENGINEERING PVT LTD
- ARCHROMA PAKISTAN LIMITED
- ARIF HABIB COMMODITIES
- Asian Food Industries Limited
- ATLAS HONDA LIMITED
- BERGER PAINTS PAKISTAN LTD
- BESTWAY CEMENT LTD
- BIN QUTAB
- CROWN GROUP
- Diamond Jumbolon- Symbol Industries ( Pvt Ltd
- DP World Karachi
- DR. ESSA LABORATORY & DIAGNOSTIC CENTRE
- ENGRO CORPORATION
- Fatima Fertilizer Company Ltd
- FAUJI FERTILIZER BIN QASIM LTD
- FERROZE1888 MILLS LTD
- GENERAL ELECTRIC SAPPHIRE ELECTRIC POWER PLANT
- GHANI ENGINEERING SYSTEM
- GULS STUDIO
- Hi Tech Lubricants Ltd
- JAVEDAN CORPORATION LTD
- K Electric
- KOHINOOR MAPLE LEAF GROUP
- KOT ADDU POWER COMPANY
- LUCKY CEMENT LTD
- MARI PETROLEUM COMPANY LTD
- MEHRIA GROUP
- MUGHAL IRON & STEEL INDUSTRIES LTD
- National Bank of Pakistan
- NESTLE' PAKISTAN LTD
- NOVAMED PHARMACEUTICALS (PVT.) LTD.
- OIL & GAS DEVELOPMENT COMPANY LIMITRD
- PACKAGES LTD
- Pak Arab Refinery Ltd
- PAKISTAN SECURITY PRINTING CORPORATION
- Pakistan Tobacco Company
- Patel Hospital
- PHARMEVO PVT LTD
- Philip Morris (Pakistan) Limited
- Raffan Maize Products Co Ltd
- ROOTS INTERNATIONAL SCHOOL
- Roots SCHOOL SYSTEM
- Save Earth Environment Foundation
- SEARLE PAKISTAN LTD
- SICPA INKS PAKISTAN PVT LTD
- SINDH ENGRO COAL MINING COMPANY
- SHAUKAT KHANUM MEMORIAL HOSPITAL & CANCER RESEARCH CENTRE
- SUI NORTHERN GAS PIPELINE LTD
- Sui Southern Gas Company Limited
- THE EVENT SOLUTION
- The Hub Power Company Limited
- Total PARCO Pakistan Ltd
- UNITED INSURANCE COMPANY OF PAKISTAN LIMITED
- Yunus Textile Mills
- PROF. ANWER MASOOD
- DR. MURTAZA MUGHAL



**Group Photo of Panelists with Secretary Climate Change Syed Abu Akif & President NFEH M. Naeem Qureshi**





Renowned poet Prof Anwar Masood sharing his poetry with the audience.

to 20 hours of power load shedding and labourers were protesting on streets creating a civil war-like situation due to near shutdown of the industries while now load shedding has been curtailed by four to six hours daily," said the federal minister.

He said that without energy projects being initiated under the CPEC, the power load shedding crisis in the country could have amplified to 24 hours.

He said that without CPEC being built in the country even the prosperous sections of the society could have become impoverished as CPEC related projects had reinvigorated economy of the country.

He said the reinvigoration of the economy had been possible through ample generation of electricity, which was vital for running of business and industries that in turn would give way to job creation, socio-economic uplift, and poverty alleviation in the society.

He said that it was a major achievement of the government that by 2018 it was going to add 11,000 MWs electricity to national grid while by the year 2013, the country in its existence of previous 66 years could only able to add just 17,000 MWs electricity.

He said the country had been facing up to 4,500 incidents of terrorism in a year till 2013, which had now decreased to mere 450 such terrorist activities.

level challenges and crises due to recurring natural calamities and man-made disasters.

He said that although the present government had the utmost resolve to uplift socio-economic conditions of masses especially in aspects of health, education and poverty alleviation causes but it did require support of private sector and civil society to effectively combat the challenges getting serious to increase in population and unemployment in society.

Earlier, speaking at the inaugural ceremony of the summit, Syed Abu Ahmad Akif, Federal Secretary for Ministry of Climate Change, quoted 19th century's renowned American businessman Andrew Carnegie considered as first billionaire of the world who had said that "To die rich is to die in disgrace".

He said as per the vision of the American billionaire industrialist, the history would not remember any one for being



Gen. Secretary NFEH presenting CSR Update to Prof. Ahsan Iqbal.

Khyber Pakhtunkhwa Governor Iqbal Zafar Jhagra, who was guest of honour on the occasion, said the country like every other year was facing multitude of national

rich but would surely do register a person who donated his wealth for charitable causes in his life time.

He said the concept of CSR had been enhanced globally as in present times it was called Corporate Social and Environmental Responsibility as corporate entities should also take care of the environment as it encompassed everything available in the society.

The Secretary Climate Change has mentioned the recently launched Rs4 billion Green Pakistan initiative of prime minister to promote and conserve forestry and wildlife resources in the country.

Mian Shaukat Masud, Vice-President of Federation of Pakistan Chambers of Commerce & Industry said the FPCCI had several standing committees to look after health, education, non-formal education, vocational training and several other aspects of socio-economic development of society.



Panelists during the summit with Shams ul Haq Memon Advisor NFEH & Tarique Lakhair





**NFEH Team with chief guest Federal Minister for Planning and Development Prof Ahsan Iqbal and Guest of Honor Governor KPK Iqbal Zafar Jhagra**

He said that many leading universities, colleges, research institutes in the country had been founded by industrialists and businessmen as part of their vision to do CSR related work even before creation of Pakistan. He said the D.J College, NED University, Adamjee College, and LUMS were some of the leading examples of magnificent educational institutions established by businessmen under their vision to do philanthropy in the society.

But he conceded the situation that a lot had to be done by a number of companies in the country in the field of corporate philanthropy as at least one per cent budget of any commercial entity could be reserved for doing philanthropic work.

The FPCCI Vice-President believed that every company in Pakistan could easily

adopt a school to entirely finance and run its affairs.

He said the FPCCI and similar such concerned NGOs would always be available to give all the required assistance to companies doing such philanthropic work in health and education sectors. Mr. Masud said that as part of his own resolve to do social work, he had been planting a tree sapling every year and taking care its entire growth needs. He said that in such a manner every citizen could easily plant around 40 trees in his entire life span.

Shahbaz Islam, a senior official of Sui Southern Gas Company, said that projects of infrastructure development being carried out under China Pakistan Economic Corridor should take care of environmental, ecological, and socio-economic aspects

of backward areas like Gwadar so that their dwellers could get opportunities of employment and vocational training.

Brig (retd) Tarique Lakhair, a general manager at Sindh Engro Coal Mining Company said that coal mining and related power generation projects in backward area of Thar had given way to a number of welfare initiatives to uplift standards of living of its residents.

He nullified the impression that Pakistan had started exploring the option of indigenously available coal for power generation when globally use of coal for energy production was being shunned due to environmental concerns.

He said that advanced countries like Germany and the United States were still heavily relying on coal for power generation while latest international conventions like Koyoto Protocol had only called for curtailing coal-based power generation by some of the nations being extensive consumers of coal by mere four to five per cent.

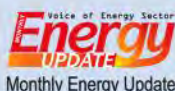
Imran Janjua, General Manager Corporate Communications at Pakistan Telecommunication Company Ltd, in his speech called upon the government to adopt on a firm footing a separate piece of legislation and policy framework for companies willing to do CSR related projects in the country.

He said that in certain instances companies could not be motivated to do philanthropic projects due to lack of required lawful regime and policy framework to support CSR activities by corporate sector. ■

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# Gas-fired plant at Nandipur was a bad idea

The power sector lies at the heart of the government's efforts to revive the economy. It is where the majority of all investments related to the China-Pakistan Economic Corridor (CPEC) is coming in. And the promise to eliminate loadshedding before 2018 is central to the Pakistan Muslim League-N's election strategy.

At the centre of the power sector sits the secretary of water and power, with a large say in all decisions. Younus Dagha was a newcomer to Islamabad when he took charge of the position in 2013. Today he can credibly claim to be one of the most important bureaucrats working in the capital. Dawn asked him for his take on a few questions that have been circulating in the public discourse surrounding his work.

**Q:** With growing investment in the power sector, how important is it for the regulator (Nepra) to be empowered and independent?

**A:** There can't be two opinions on this. We need to ensure that regulatory framework not only provides for an independent regulator but also supports a modern rather futuristic power sector. The concept of an excessively regulated power sector is to be replaced with a competitive power market and an appetite for risk taking rather than the current one-buyer model where the state takes the entire burden of risk with guaranteed return for investors.

The proposed amendments to the Nepra Act are aimed at strengthening the National Electric Power Regulatory Authority (Nepra) with the required investigation and enforcement powers. It also aims to adopt international best practices. For that purpose, consultations have been started not only with the local stakeholders but with international partners and experts as well.

**Q:** There are concerns that the new projects coming under the CPEC and other auspices will bring very expensive electricity into the system. Where do you see power prices going in the near future as more projects attain commercial operations?

**A:** The point to consider here is that Pakistan kept on offering the world's best tariffs and incentives since 2005, but no sizable investment could be attracted. Projects based on Thar coal could not be financed despite efforts by the government since 2005. They are now coming on ground after the Chinese government and banks took the risk of investing in Pakistan which

no other nation was ready to take.

We, on our part, are consistently reducing incentives and tariffs, as we found sufficient capacity coming in. The tariff on wind projects has gone down from 13.5 cents per unit in 2013 to 6.75 cents per unit. The upfront tariff on liquefied natural gas (LNG) has also come down from Rs9.36 to 6.65 per unit. The process of revising incentivised tariff on coal is with Nepra now. We have also capped investment on imported coal and LNG. Our initial target was to achieve availability and now we are moving towards achieving affordability and greater energy security.

**Q:** Nandipur power project has come under intense scrutiny and criticism for the large cost escalations it has seen, with the latest in the recent operation and maintenance (O&M) agreement with a Chinese party. Will these escalations not hike its tariff significantly?

**A:** A gas-fired power plant at Nandipur was a bad idea, from its very beginning in 2008, when Punjab was already facing severe gas shortages. Slow pace of execution hiked the overall costs (increase in interest during construction, dollar rate, project cost escalations) and by 2013, the project cost had jumped to Rs58 billion, out of which Rs31.840bn had already been spent with machines rusting at the port and contractor demobilised. With high loadshedding prevailing in the country the only option was to salvage the project. It was completed in July 2015 within the approved cost of 2013, and is running since then.

The only remaining issue is that Nandipur plant is operating on furnace oil with lower efficiency, while it was designed to run on gas with a higher efficiency. After LNG became available in the system, we have started working on supplying gas to the project site.

Even with all the price escalation and delays, the current generation on furnace oil at Nandipur is still cheaper than at least 10 operational independent power projects and GENCOs (government-owned generation plants) running on furnace oil.

When converted on LNG, Nandipur plant will be one of the six most efficient of the current gas plants, producing one

of the cheapest electricity for the consumers. As for its O&M tariff on gas operations (expected to be available from April when

the O&M contract will commence), Nepra has allowed Rs0.543 per unit whereas through competitive bidding the contract has been awarded at Rs0.4873, almost 11 per cent lower. Hence the tariff, in addition to being cheaper than those of many power plants in the country, will still not only cover the operational and fuel costs but will also pay back all its capital costs in 10 years.

**Q:** Why has privatisation

of the power sector been stalled?

**A:** Privatisation of a utility company has to be seen in its overall socio-economic context. It is not the same as privatising any other government-run business. A public sector utility monopoly can become more harmful for society if converted into a privately owned monopoly, if done solely in the hope of regulatory set-up to be effective. Therefore, privatisation of a utility company has to be supported with a well-designed framework that allows for the competition to take care of consumers' welfare, providing them with better services and prices. The power sector has shown marked improvement, with recoveries increasing from 88-89 per cent to 93pc from 2015 and 2016, the highest in the history of the sector, and transmission and distribution (T&D) losses coming down from 19pc in 2014 to 17.9pc in Dec 2016. These two accounts by themselves have provided a positive cash flow to the power sector totalling Rs116bn in the past two years. GENCOs were incurring a loss of Rs 7.9bn in 2013-14. They not only overcame their losses but reported a profit of Rs 5.8bn in 2015-16. These two years (2014-15 and 2015-16) were the only fiscal years in the past more than a decade when no losses of the power sector were paid out of the federal budget, which used to be on the average of Rs 200bn annually.

Hence, one of the intended benefits of the privatisation plan that it would relieve the federal budget from the power sector's annual losses of Rs 200bn, has already been met by better performance in the past two years. Now the objective should be to provide better and competitive service to the consumers through involvement of the private sector, learning from international experience. ■

Courtesy: Daily Dawn





# Rationalisation of energy pricing

From a recent Rs180bn package of lower duty and sales tax rates for exporters, the government may soon review the prevailing energy pricing to cut production costs and enhance international competitiveness of local products.

In this regard, two major proposals from Punjab-based businesses supported by the Shahbaz Sharif government are being examined. In a nutshell, various tariff equalisation surcharges on electricity rates worth Rs3.63 per unit may be removed altogether or rationalised for Punjab-based industry.

Secondly, imported liquefied natural gas (LNG) may be merged with locally produced natural gas to reach a weighted average cost of gas (WACOG) to provide uniform pricing to industries across the country.

These two segments are interconnected and are being considered for rebalancing; but to what extent and how, will become clear over the next few weeks. What the final shape of this energy price rationalisation will be will depend on political challenges and the ability of the PML-N government to spare more resources and muster enough support from the provinces.

This stems from two major challenges facing the industry, most of which is based in Punjab. The first is the inter-provincial disparity in energy prices and its impact on the overall cost of production in different provinces.

The second is an elaborate incentive package introduced recently by the Chinese government - for its less developed areas of Xinjiang, bordering Pakistan - in the shape of rent-free factories at industrial parks, interest-free loans, cheap electricity, transportation subsidies, etc.

As part of recent consultations on the textile package - that is targeted to earn \$2.5-3bn by 2018 - policymakers have been convinced by the industry that the primary reason for competitive disadvantage and dismal performance of the export sector is the much higher energy prices for Pakistani exporters; especially Punjab where 70pc of capacity is located.

The textile industry argues that energy cost forms 30pc of the conversion cost in spinning, weaving and finishing. Nearly doubling this energy cost to 70pc of installed capacity renders it uncompetitive and unviable and has led to large scale closures, increased unemployment and resulted in precipitous drop in exports.

According to them, more than 70 textile factories have been shut down and if the momentum continues more closures could be feared in the summer, with some even



relocating to other provinces.

The argument is that electricity tariffs determined by the power regulator for Punjab-based industrial consumers are much lower because of lower line losses, lower incidence of theft, non-payment, etc; but electricity consumers in Sindh and KP are cross-subsidised through tariff rationalisation (equalisation) and the debt servicing surcharge.

Therefore, either a similar mechanism should be adopted for natural gas and LNG prices for if this skewed gas tariff should remain there was no reason why Punjab industrial consumers of electricity should keep paying the tariff rationalisation surcharge. Keeping in view the political sensitivity of gas prices for domestic consumption, the overwhelming recommendation is to pool natural gas and LNG prices for industrial and commercial consumers only.

"Rationalisation for the gas price in this manner would be systemic and resolve the issue for gas-based textile exporters in an equitable manner", explains a presentation. (The current price of gas applicable in Punjab due to LNG is about Rs1,037 per MMBTU compared with Rs600 in Sindh and KP) The quantity and ratio of natural gas versus LNG will change with the availability of more system gas and LNG and this mechanism will allow the same to be accommodated seamlessly.

This is expected to increase the international competitiveness of the textile industry as the power generation from this rationalised price will be at around Rs8 per unit (instead of existing Rs11-12 per unit), which is more or less in line with regional electricity prices.

It has been argued that the proposed

gas price equalisation solution does not attract the ambit of Article 158 of the constitution which "protects only the first right to use of gas in a province, but does not limit or state how this price should be determined".

"The province in which a well-head of natural gas is situated shall have precedence over other parts of Pakistan in meeting requirements from that well-head, subject to the commitments and obligations as on the commencing day".

Also, the LNG Policy 2011 introduced by the PPP government, which has never been rescinded or superseded, required the RLNG to form a supply cost for WACOG calculations. Clause 6.3 Gas Pricing required that "For RLNG supply to SSGC and SNGPL, the RLNG price will be an input for determining the weighted average cost of gas in Pakistan, determined by Ogra, for GoP specified consumers and industry".

Without a policy change, however, the present government directed LNG to specific consumers through ring-fenced pricing to avoid a political crisis emanating from domestic consumers and huge system losses in the gas distribution system.

Under the policy the gas supply WACOG as notified by OGRA, presently at Rs467 per MMBTU, would increase to Rs499 per MMBTU, an increase of 4.6pc, according to initial estimates. If, however, (using the same figures) 600 MMCFD (maximum possible at present) is added to the WACOG then the weighted average increases to Rs538 per MMBTU, an increase of 13pc.

The government could then fix consumer prices for various categories to recover the revenue keeping in mind social, economic, and industrial objectives.

A single price then can be applied for all industrial consumers. This would need an increase of 21pc price from the existing Rs600 to Rs726 per MMBTU.

At present about 400 MMCFD gas from the SSGC and SNGPL systems is supplied to the power sector where there is already a weighted average system and the same tariff is applicable across the country.

It is also proposed that all the gas supplied to the power sector be charged the price of RLNG that would raise the cost of power generation by 48 paisa and could be adjusted through monthly fuel price adjustment. ■

Courtesy: Daily Dawn



By KHALEEQ KIANI

## Ogra, OCAC in talks to reach deal over fee issue

The Oil and Gas Regulatory Authority (Ogra) and the oil industry are negotiating an out-of-court settlement on the new fee structure that has been in dispute for more than a year, sources said.

A senior official familiar with these talks said the two sides were also paying millions of rupees raised from consumers to lawyers while mutually negotiating a deal.

Interestingly, the oil industry - led by the Oil and Companies Advisory Committee (OCAC) - has now come up with a demand that all deregulated businesses of the oil industry should be exempt from fee and duties and instead a fixed fee should be charged to all refineries and marketing companies irrespective of their size and sales.

Sources said two delegations of the oil industry had two separate meetings with the Ogra leadership last week - one seeking an immediate end to the imbroglio and the other discussing specific proposals on fee structure with an annual target of about Rs150 million.

The Ogra leadership is reported to have told industry representatives that it would be unfair to charge the same fee to all the players without differentiating if they earned a billion rupees or 100bn rupees.

Ogra wants a revenue generation of at least Rs150m per annum from the oil industry to meet its expenses.

The oil industry has, nevertheless, proposed that fee and duties should be imposed on the basis of two principles. First, a fixed fee of Rs2m be applicable to all companies including marketing companies, refineries and pipeline companies so that every company contributes equitably.

Second, a variable fee be imposed that should fluctuate on the basis of annual throughput i.e. actual production for refineries, actual pipeline throughput of fuel products for pipeline companies and actual sales of only fuel products for OMCs. At the same time, non-fuel products currently in the deregulated sector like asphalt, jet based oil, solvent oils, carbon oil, process oils, LPG, lubricants and greases should be exempted from inclusion in volumes for calculating fees.

On top of that, the industry has also demanded that any fuel product to be deregulated in future by the government would also move out of the ambit of determining annual fees.

An official said if the principle of deregulation was accepted, then the entire range of petroleum products stood deregulated under the law, except for kerosene oil whose price is notified by the petroleum ministry. Also, there would then be no source of revenue for the regulator when all products are deregulated, he



said and argued that all sales including that of deregulated products should be subject to annual fee.

The two sides are expected to sign an agreement once they sort out differences to cover all changes to the petroleum rules 2016 and fee structure and then submit a settlement agreement in the court. The oil industry has demanded that the regulator should give up its claim for fee during the period of dispute and start collections once fresh notifications are issued after clearance of the court. A six-member committee, three each from both sides has been in talks for more than eight months now. The Ogra team is led by chairperson Uzma Adil Khan while the OCAC team was led by its chairman Aftab Hussain.

Earlier, Ogra had requested the Islamabad High Court to vacate a stay order issued on a petition of OCAC challenging the legality of the new fee structure under the 'Pakistan Oil (Refining, Blending, Transportation, Storage and Marketing) Rules 2016'. The court did not entertain the request.

The two sides have been at loggerheads over the fees imposed on downstream oil sector by the regulator early last year. The rules notified in February last year required all oil refineries, marketing companies and oil pipeline companies to pay Rs2m non-refundable fee for grant renewal, modification, extension, assignment, review, transfer, amendment, relocation or re-issuance of a licence.

Likewise, oil blending or reclamation or grease plants are to pay Rs50,000 fee while lubricant marketing companies are required to pay Rs1m fee. Oil storage and testing facilities are required to pay Rs100,000 and Rs500,000 fee respectively.

Moreover, all these entities are also required to pay 50 per cent of licence fee for modification, extension, transfer or review of their licences. On top of that, every refinery, OMC, lubricant marketing company and pipeline is also required to pay 0.005pc of gross sales. This 0.005pc fee of the gross sales in particular was being viewed by the oil industry as a 'sales tax' which it argued could only be imposed by the government and was outside the purview of the regulator.

The new rules also entailed maximum validity of a licence for 30 years for a refinery and renewal for a maximum of 15 years. The OCAC, however, contended that companies once having obtained a licence and operating successfully, contributing to the national kitty and the economy should not have to reapply for a new licence as no reasons had arose for a fresh one. ■





# Rooftop solar power for residential housing societies

Residential housing societies in India have one more reason to ditch diesel generators (DGs) and adopt rooftop solar for power backup. A new policy paper titled *Solar Rooftop: Replacing Diesel Generators in Residential Societies* by the Centre for Science and Environment (CSE) analysed five housing societies in India and found that it is not just easy to replace polluting diesel generators with the solar power systems, but is a big cost saver as well. "In all the residential societies that CSE studied and analysed, the cost of power from solar rooftop with battery backup was found to be about half the cost of power generated by DG sets (if only the diesel cost and maintenance cost of DG sets are considered). This alone should make residential societies move away from the extremely polluting diesel generators and adopt solar rooftops to meet their power backup needs," said Chandra Bhushan, deputy director general, CSE.

According to the study, the cost of power generation from solar range from INR 6 (USD 0.09) to INR 9 (USD 0.13) per unit, which is almost half the cost of power from DGs, which works out to be INR 17 (USD 0.25) per unit. This is a conservative estimate where only diesel and basic maintenance costs of DGs are considered. If the capital cost of a DG (which is often included in the cost of building) is included, the cost of its power turns out to be between INR 27 to INR 33 per unit, which is almost three times more expensive than solar power.

## Economic considerations

The study examined the feasibility of solar rooftops in residential societies across Delhi, Haryana, Uttar Pradesh and Rajasthan. CSE's research was aimed at understanding the economic considerations including financing and generation cost; architectural and roof space preferences; building by-laws; and constraints experienced by various stakeholders including customers, government agencies and distribution companies (discoms).

Both the models of solar installation - CAPEX (capital expenditure) and RESCO (renewable energy service company) - were studied. In the CAPEX model, a consumer purchases a system as she would purchase any other electronics item, by making 100% of the payment upfront or financing the system through a bank. In the RESCO model, the consumer can install a solar power plant and not pay anything upfront. A power purchase agreement is signed between the installer and the consumer at a mutual price or tariff.

In both the models, solar turned out to be 50% cheaper. Under CAPEX, investment for installing solar rooftop is made by the societies who also own the system and are responsible for the its operation and maintenance. In RESCO, the installation is carried



out by the developer who then owns the entire system and the societies pay a pre-decided tariff to the developer under a long-term contract of 20-25 years.

## Key to reaching target

The study also found that 3 GW of solar rooftop can be installed on new residential societies over the next five-seven years. This can, therefore, be a key to reaching the government's ambitious target of 40 GW solar rooftop to be achieved by 2022.

In a country which has a large population that still doesn't have access to electricity and the rest that faces frequent power outages, DGs of total cumulative capacity of 90 GW have been installed as reliable power backup. But, the study found that in some large Indian cities, power supply has improved considerably with outages as low as 20 minutes per day on an average. Given this, most of the DGs in these cities have become redundant or little used. The CSE study found that as power outage from the grid reduces, in turn the cost of power generation from DGs increases and that from solar rooftops with battery storage becomes more financially attractive.

"DG backup has become increasingly redundant because of reducing power outages in cities," said Priyavrat Bhati, programme director, energy, CSE. "We must realise that full back-up was considered a basic need by upscale societies when the outages often lasted several hours a day."

The CSE paper concludes that for most societies, solar rooftop would be able to meet the basic load for individual flats (partial load in industry parlance, which covers lighting, fans and some communication and entertainment appliances) along with essential area loads.

## Challenges

However, there are several challenges in installing solar plants on residential rooftops, several developers pointed out. Ritu Lal, Vice President, Business Development, Amplus Solar, said it is not just challenging to convince people to sign on a long-term contract of 15-20 years, but there is lack of financial security for the developers. "Twenty years is a long time. What if an owner suddenly decides to stop paying, what do I do in that case? The plant is sitting on his site," Lal said.

The report also offers a set of recommendations to promote solar and make it more attractive for all the stakeholders such as making installation of solar rooftops mandatory for all new residential buildings, banning DGs in new multi-storied residential buildings, support discoms to encourage them to push solar rooftop, provide subsidy for hybrid solar rooftop systems and increase awareness among residential welfare societies. ■





# Climate change is a bigger threat to Pakistan than terrorism

Marked by smog in Punjab and fog in Sindh, winter this season was delayed for at least a month across the country, a phenomenon being observed along with other climate variations for the past few years. In the case of Karachi, the month of December for many seemed like an extended part of summer. And just when they were about to lose hope, they were pleasantly surprised when the weather suddenly turned cold and was later accompanied by rains.

Faiza Ilyas spoke to Dr Qamar-uz-Zaman Chaudhry, presently serving as International Climate Change Specialist at the Asian Development Bank, to ascertain if these weather patterns are a part of climate change, and if there is a national or provincial strategy in place to tackle the impact of climate change.

Dr Chaudhry is also the former special adviser to the secretary general of the UN World Meteorological Organisation for Asia and the lead author of Pakistan's National Climate Change Policy.

## **Q: Is the current season any different from the previous winters?**

A: It's not different from what we have been experiencing for the past five to six years, that is, delay in the start of winter season and then rains. But, the pattern is quite different from the long-term normal weather patterns.

Fog and smog both have a lot to do with prolonged dry weather. Extended dry periods normally make lower atmosphere stable that causes increased concentration of pollutants - local and trans-boundary - in the lower atmosphere. Low temperatures caused extended smog conditions in Punjab. These pollutants disperse only when rain cleans the atmosphere or at least a wind pattern reduces the concentration of pollutants.

## **Q: How is climate change affecting Pakistan, particularly Sindh?**

A: I am fully convinced that climate change is a bigger threat to Pakistan than terrorism, and Pakistan can experience severe impacts of extreme climate disasters, with water stress affecting food and energy security.

Severe drought and catastrophic floods in different parts of the country are becoming a norm. Additionally, the intensity and



frequency of these events has also increased over the last 10 to 15 years.

As far as Sindh's changing climate is concerned we can expect drier, hotter and erratic rainfall events in the future.

## **Q: Is there any recent study to assess the threat from melting glaciers?**

A: The recent analysis of ice samples by the Pakistan Meteorological Department suggests a significantly higher presence of local and trans-boundary black carbon deposits on glaciers.

These black carbon layers accelerate glacier melting by absorbing higher solar radiation. Further, the temperature record of the last 100 years indicates that warming trend in northern Pakistan is higher than the country's plain areas.

The Hindu Kush-Karakoram-Himalayan (HKH) glaciers are the main source of water in the Indus river system supplying above 70 per cent of available water. The present warming trend, which is part of global warming, is likely to accelerate the melting of our HKH glaciers.

This scenario suggests floods in the short term and water stress on a long-term basis threatening the country's water security, food security and energy security.

## **Q: Do we have any strategy in place to face climate change?**

A: The National Climate Change Policy 2012 of Pakistan recognises the climate change risks that include projected recession of the HKH glaciers due to global

warming and carbon soot deposits from trans-boundary pollution sources, threatening water inflows into the Indus River system.

It also speaks of the rising temperatures resulting in enhanced heat and water-stressed conditions, particularly in arid and semi-arid regions, leading to reduced agricultural productivity.

While Punjab and Khyber Pakhtunkhwa have developed drafts on their respective climate change policies, Sindh and Balochistan are trying to follow the federal climate change policy and are in the process of developing climate change action plans.

The federal ministry of climate change has recently developed the 'Framework for Implementing the Climate Change Policy (2015-2030).'

## **Q: Can you list a few areas for immediate intervention?**

A: We desperately need steps for water conservation, especially use of high-efficiency irrigation systems, energy efficiency and conservation, and increased use of power generation through renewable energy.

The establishment of a reliable natural disaster early warning system, creating awareness on climate change, and developing capacity of communities to deal with extreme climate events are equally critical. ■

Courtesy: Daily Dawn



## PPL receives corporate philanthropy award for 12th year



Pakistan Petroleum Limited (PPL) was declared the second largest corporate giver by volume of donations for 2015 at the Corporate Philanthropy Awards hosted by Pakistan Centre for Philanthropy in Islamabad on February 7. The company received the award for the 12th consecutive year in the same category.

Honourable President of Pakistan, Mamnoon Hussain presented the award to Managing Director and Chief Executive Officer PPL Syed Wamiq Bokhari. The event was attended by leading businessmen, government and civil society representatives as well as donor community.

As a national company, PPL takes pride in being a responsible corporate entity with a long-term stake in the country's development. The company believes in sharing the benefits of development with under-

privileged communities. Notably, even though PPL has earmarked an annual budget of 1.5 percent pre-tax profit for Corporate Social Responsibility (CSR) activities, actual spending exceeds this with the company spending over Rs. 990 million during 2015-16. With a viable CSR portfolio, spanning over six decades, the company has been delivering quality healthcare, education, livelihood generation, infrastructure development and disaster relief and rehabilitation to stakeholder communities, especially around operational areas. More recently, PPL has further strengthened its CSR efforts to support creditable development organizations working on improving the quality of life for disadvantaged populations living in urban areas.

PPL continues to maximize long-term impact of its development initiatives through a participatory process of needs identification, consultation with stakeholders followed by close monitoring and inspection to extract lessons learned for further improvement in implementation and delivery. ■

## Agility partners with TCF to hold seminars

Agility Pakistan team has organized a series of academic workshops for TCF students. The workshops covered a variety of reading and literature based workshops, as well as art and design competitions for the students. In addition to academic workshops, the partnership has given Agility employees the opportunity to extend its own annual Earth Day celebrations to TCF students. Past activities have included tree plantings and cleaning activities on school grounds in addition to classroom based sessions to raise awareness about the environment. This year team Agility conducted an awareness session on 'Safety at Home' for TCF students in the 1st Quarter, the 2nd Quarter activity was a fun filled 'Book Reading' session with students to promote the joys of leisurely reading and in the 3rd Quarter, Agility volunteers organized an 'Essay Writing Competition' on the topic of My Aim in Life. Following the theme of the 3rd Quarter activity, volunteers took part in a one on one 'Career Counseling' activity for the students of TCF during the 4th Quarter. Humna Masaud, National HR Manager of Agility Pakistan, shared her experience volunteering for TCF. ■



## NGOs role vital for social sector - Governor Sindh

Governor Sindh has said that the role of non-governmental organizations (NGOs) working in social sector was very pivotal as they extend valuable services which help the masses to get basic amenities without hassle. This he said while talking with Ms. Tara Uzra Dawood, President Dawood Global Foundation (DGF) at Governor House.

Mr. Zubair Highlighted the contributions of NGOs specially in health and education sectors from which residents of far flung areas have benefited to a great extent. He hoped that DGF would continue its untiring efforts in social sector for the benefit of masses. Tara Uzra Dawood, informed Governor Sindh about various ongoing initiatives of DGF specially imparting quality education to girls. She also deliberated on the future plans of the foundation. ■



## Hissar launches recommendations for Pakistan's National Water Policy Framework



Hissar Foundation launched the recommendations of Pakistan's National Water Policy Framework for the consideration of the government at Islamabad Serena Hotel. This is a culmination of two years of consultations which included discussion sessions with various water stakeholders across the spectrum as well as two international water conferences that focused on water cooperation and water security. The recommendations are part of the first report of the Think Tank on Rational Use of Water. The recommendations focus on five main areas for further action. These include improving water access for the poor and landless, financing the urban and rural water value chain, safeguarding the Indus Basin and its infrastructure, improving water institutions and their management and governance and finally building a base for science, technology and social as-

pects of water.

The policy framework was presented by Simi Kamal, Convener, Think Tank on Rational Use of Water. The panel was moderated by the effervescent Dr. Daanish Mustafa from King's College, London and the panelists included notable personalities such as, Dr. Salman Shah, former Finance Minister who spoke of the importance of the water economy and inaction of the government in developing a water policy, Qazi Azmat Isa, CEO Pakistan Poverty Alleviation Fund who

reiterated the urgency of the water crisis and highlighted the importance of investing in the people and not just infrastructure. Mr. Jamal Ansari, CEO Akbar Associates Group stated that water is a most undervalued resource and emphasized the lack of focus on groundwater management and quality. Ms. Seema Taher Khan CEO News One and TV One presented the way forward and outlined the plan of action and implementation at all levels. The Chief Guest, Ms. Maryam Aurangzeb, Minister of State for Information and Broadcasting highlighted the importance of awareness of ownership at all levels and invited Hissar Foundation to the Standing Committee on SDG's to present the policy framework to the government. Mr. Istvan Kovacs, Commercial Counsellor also addressed the audience and highlighted the importance of water cooperation with countries like Australia and Hungary.

The goals of the recommendations for Pakistan's national water policy framework call for extending irrigation system to arid districts of Pakistan. It also calls for creating new storages and enhancing existing storages at different levels. The policy framework calls for improvement in water efficiency by 10 percent. It also calls for increasing productivity in agriculture.

The policy framework recommends preserving, repairing and maintaining the existing water infrastructure. It also calls for a reversal in abiyana to realize the true value of water. The policy framework calls for control in groundwater withdrawals as well as generation of additional indigenous hydropower. ■

### Interview: Imran Shafiq, , Vestas Asia Pacific & China

continued from page # 13

As, technology and sector competence increases in strength, along with the surging appetite for non-fossil energy, the cost will decrease, resulting in the world-wide growth of the industry.

Over the last 10 years, wind energy has made substantial progress toward grid parity. The way I see it is that, we still need to work hard to bring stability into this sector in Pakistan. I suggest that we need to put more effort in the following four areas: Predictable Regulatory environment, availability of infrastructure to develop projects and evacuate the electricity, bankable tariff that attracts FDI's and Improvement of law and order in the country.

#### EU: What are the future plans of your organization?

IS: Being the wind market leader, Vestas is now fully incorporated in Pakistan with SECP. This shows, its strong commitment towards the development of this sector. Not only this, we have introduced the latest wind technologies in the country but are also planning to offer our O&M services (including for multi-brands) for the life-cycle of the projects. Vestas intends to hire locally, highly qualified engineers and technicians for its operations in Pakistan. Thus aiming to contribute directly in the development of this country. ■

Have u ever noticed that most unpleasant words and names start with the letter "D"?

Delete, Destroy, Divorce, Disappoint, Death, Disaster, Disease, Debts, Disrupt, Depression, Demise, Demons, Devil, Dubious, Diarrhoea, Demolish, Doubt, Donald Trump. :o

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## GE & HEI fire HA gas turbine at Bhikki Power Plant

GE (NYSE: GE) and Harbin Electric International Company Limited (HEI) have achieved a major milestone with the first fire of an advanced GE 9HA gas turbine installed at the Bhikki Power Plant - less than 17 months after the turnkey project was first announced. The turbine can generate up to 385 MW of reliable power that is expected to be distributed for residential and commercial use through the national grid within a few days after first fire.

"First fire of gas turbine 1 is a significant milestone towards the completion of the Bhikki Project, a key initiative undertaken by the Government of Punjab to provide reliable, uninterrupted power to citizens," stated the Chief Minister of Punjab that "GE's HA gas turbines have set industry benchmarks in the cost-effective conversion of fuel to electricity, and we are delighted to adopt this leading technology in Pakistan. First fire is a critical test where the gas turbine is switched on and run on fuel at the site. It follows several months of installation and commissioning works. With Pakistan facing an estimated 5 gigawatt (GW) energy shortfall, the Government is moving forward quickly with projects to help meet this power deficit. Set to be one of the most efficient



power plants in the country, upon completion the 1,180 MW Bhikki facility is expected to generate the equivalent power needed to supply approximately 2.5 million Pakistani homes. It will play a critical role in meeting the Government's goals under Vision 2025 to expand access to electricity to over 90 percent of the population.

"GE has invested almost \$2 billion in the development of our HA technology, and our turbine provides a powerful combination of the highest efficiency and superior operational flexibility, leading the industry in total life cycle value," said

Mohammad Ali, President & CEO of GE's Gas Power Systems - Projects, in the Middle East, North Africa, Pakistan and India. "We are proud to bring this technology to Pakistan, and with this important milestone - achieved in less than 17 months - we are one step closer to ensuring the everyday needs of people and industry are met." The HA is GE's largest and most efficient gas turbine. In June 2016, GE set a world record for powering the world's most efficient combined-cycle power plant with its HA technology. Today, the technology is being adopted by customers around the world, including those in the UK, USA, Japan, Korea, Germany, France and other countries. "This is the first GE 9HA unit to be operational not only in Pakistan but also in the Middle East, North Africa, Turkey and South Asia region," added Sarim Sheikh, President & CEO of GE Pakistan, Iran and Afghanistan. "We are especially proud to help Pakistan be the first country in the region to utilize this record-setting technology and remain committed to powering Pakistan and fueling progress by working across various fuel sources, including gas, coal, hydro, wind and others."

GE entered an agreement to provide two high-efficiency 9HA.01 gas turbines and associated equipment to HEI for the Bhikki Combined Cycle Power Plant in September 2015. HEI is providing engineering, procurement and construction services for the facility. GE has been a committed partner in Pakistan's development for more than 50 years, providing innovative solutions for energy, transportation and healthcare. Today, more than 25 per cent of the country's electricity is generated by GE-built technologies, and the company's operations create employment opportunities for more than 450 people across Pakistan. ■

## Marketing licences only after storage construction: OGRA

Oil and Gas Regulatory Authority (OGRA) has clarified regarding issuance of 21 licenses to establish Oil Marketing Companies (OMC) in last six months that it has issued only construction licenses strictly as per the applicable rules and policy of Federal Government, in accordance with its objective to increase private investment. The country is currently in dire need of new oil storages due to drastic increase in demand of petrol and diesel since last few years. Further, only those companies will be allowed to market the product, which have completed the required storage, meeting all technical & other requirements as per rules.

In 2006, the GOP policy/criteria for establishing new OMC entailed an upfront equity of Rs. 3 billion and investment of Rs. 6 billion in three years and the criteria remained in field till 2010. Due to meager investment in storage facilities and to encourage new investors for development of storage infrastructure in the country, GOP relaxed the policy in 2010 with Rs. 100 Million as equity and investment of Rs. 500 Million in three years. Since, July 2016 OGRA has granted 21 licenses for construction of oil storage infrastructure to the companies namely: Best Petroleum Private Limited, Oil Industries Pakistan Private Limited, Accel Petroleum Private Limited, Euro Oil Private Limited, Oleum Petroleum Private Limited, Al-Noor Petroleum Private Limited, Dammam Petroleum Private Limited, Max Fuels Private Limited, East Oil Private Limited, Hi-tech Lubricants Private Limited, Jinn Petroleum Private Limited, Vital Petroleum Private Limited, International Petrochemicals Private Limited, Allied Petroleum Private Limited, Only One Energy Private Limited, Pak Gasoline Services Private Limited, Shams Petroleum Private Limited, Berkeley Oil & Gas Development Private Limited, Taj Gasoline Private Limited My Petroleum Private Limited and Terminal One Limited. These licenses have been issued to new applicants to develop the storage infrastructure only and not for purpose of marketing of the product or development of petrol pumps. ■



## Pakistan to start civil work on TAPI by end of this year



A delegation comprising officials of the Dubai-based TAPI Ltd is set to reach Islamabad this month to sign various agreements and contracts for the Turkmenistan-Afghanistan-Pakistan-India Pipeline, Federal Minister for Petroleum and Natural Resources Shahid Khaqan Abbasi said on Saturday.

Talking to Dawn, he said the TAPI consortium, led by Turkmenengaz (the national gas company of Turkmenistan), is serious about the project deadline which is set for 2019.

The ongoing construction work on the portion falling in Turkmenistan shows their commitment, he added.

Mr Abbasi, however, was not optimistic about the execution of the Iran-Pakistan Gas Pipeline Project in near future, especially in view of fresh sanctions imposed by the United States.

"This project is already on hold for the last couple of years after the US imposed sanctions on Iran. What will be the impact of fresh sanctions on this project, we will come to know soon after studying the list of companies blacklisted by the US under latest sanctions," he explained.

He said Pakistan has signed the agreement on IP pipeline with the National Iranian Oil Company - a state run subsidiary of the Iranian government.

Hopefully the name of this company will not be in the list of companies blacklisted by the US, Mr Abbasi said. "If the name shows up in the black list, this project will be in further trouble," the minister added.

Pakistan is expected to initiate civil works on the 780km long portion of

TAPI which falls in its territory by the end of this year, a senior official of the Inter State Gas Systems (ISGS) said on Saturday.

The 1,800km long pipeline, which begins from the Galkynysh gas field in Turkmenistan, passes through Herat and Kandahar in Afghanistan, moves through Pakistan via Quetta and Multan and concludes at Fazilka in India.

Various activities, including signing of respective contracts and preparatory works including route survey are likely to begin by end of this month, the official said.

"We are well prepared to assist the TAPI consortium and respective firms for the accomplishment of various tasks. We are hopeful that the civil work on the pipeline's portion, which falls in our territory, will be launched by end of this year or by January, next year," said ISGS Managing Director Mobin Saulat.

Talking to Dawn, the chief of ISGS - a subsidiary of the Ministry of Petroleum and Natural Resources - said a German firm (ILF) has already been engaged as the project management consultant by the TAPI consortium. The team is likely to start various works related to route survey, designing, planning and feasibility studies within this month.

Turkmenistan, being a lead partner or leader of the TAPI consortium, has already started construction work on the portion falling in its territory last year. The consortium has also established a company based in Dubai to supervise and execute the project that is planned to be completed by December, 2019. ■

courtesy: Daily Dawn

## PSO witnesses upsurge in profitability in 1HFY17



Pakistan State Oil

The Board of Management of Pakistan State Oil Company Limited (PSOCL) convened to review the performance of the company for the first half of the financial year 2016-2017 (1HFY17). The board witnessed a significant upturn in the profitability of the company during the period. During 1HFY17, PSO improved its market leadership position with an overall market share (liquid fuels) of 56% (1HFY16: 55%). The market share of Black Oil rose to 73.4% from 69.5% Same Period Last Year (SPLY), whereas the market share in White Oil stood at 45.7% vs 46.9% SPLY. An increase of 14% in White oil sales and 26% in Black oil sales over SPLY was witnessed.

The company recorded highest ever sales in Mogas (11% over SPLY), HSD (17% over SPLY), JP-1 (24% over SPLY) and FO (26% over SPLY) during the period under review. LPG business showed a growth of 119%, Lubricants sales volume grew by 11%, whereas LNG business grew by 91% over SPLY.

PSO was the first Oil Marketing Company to introduce higher grade RON environment-friendly gasoline Altron Premium and Altron X High Performance in November 2016. In January 2017 PSO again took the lead and introduced the Action + - the superior quality and environment friendly Euro-II compliant diesel.

PSO's Profit After Tax (PAT) was Rs 10 billion: 49% higher than Rs 6.7 billion PAT for 1HFY16. The tremendous contributions and efforts of our employees, in improving company's performance, has resulted in an increase in PSO's market capitalization to Rs 132 billion as of February 03, 2017 vs Rs 91 billion on February 03, 2016.

The outstanding receivables as of December 31, 2016 stood at Rs 255 billion (June 30, 2016: Rs 233 billion) from the power sector, PIA and SNGPL against supplies of FO, Aviation Fuels and LNG. The Management is making continuous efforts for early realization of outstanding dues.

PSO expressed its heartfelt gratitude to all the stakeholders and shareholders for their unwavering support towards the company. The company also took the opportunity to thank the Government of Pakistan, especially the Ministry of Petroleum & Natural Resources, for the insightful guidance that helped the company overcome the challenges. PSO expressed its resolve to bring in further efficiencies to deliver improved results in the coming years. ■



By Zafar Bhutta

## Tajikistan's hydel power production - a model to follow

Pakistan is currently working on the Central Asia-South Asia (Casa) 1,000 electricity import project. Under this arrangement, Tajikistan and Kyrgyzstan will export 1,300 megawatts to Pakistan and Afghanistan.

This is a pilot project that will open the energy market of Pakistan to other countries like Russia, Turkmenistan and Kazakhstan.

Tajikistan, rich in hydroelectric power resources, has 4% of the world's and 53% of Central Asia's hydel energy resources. At present, the hydroelectric power potential of the country stands at 527 billion kilowatt-hours (kWh) annually, of which only 4-5% is used.

Tajikistan's energy sector has been recording sustainable growth for the last 15 years. Apart from big plants, 20 medium and 40 small hydroelectric power stations are running in remote mountainous areas, with capacity ranging from 5 kilowatts to 1,500 kilowatts.

Tajikistan recently announced that it would construct one of the biggest power plants called Rogun. Its construction will take time and when the dam is completed, it will become one of the main electricity suppliers not only in Tajikistan, but also to neighbouring Afghanistan and Pakistan.

Rogun will be the world's tallest dam of 335 metres with power production capacity of 3,600 megawatts and average annual production of 13.1 billion kWh.

In addition to the power projects, Tajikistan is working on sustainable development and integrated management of water.

The UN General Assembly adopted a resolution on December 21, 2016 entitled "International Decade for Action - Water for Sustainable Development 2018-28", sponsored by 177 member-states of the world body.

Tajikistan President Emomali Rahmon launched the initiative during the seventh World Water Forum in South Korea. This initiative focuses mainly on sustainable development and integrated management of water resources for achieving social, economic and environmental goals.

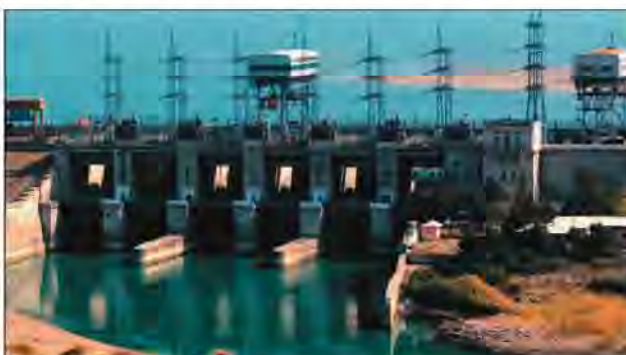
It further focuses on cooperation and partnership at all levels in order to achieve internationally agreed water-related goals and targets, including those contained in the 2030 Agenda for Sustainable Development.

This is how Tajikistan is moving ahead to use water for power generation in an attempt to bridge the energy deficit and achieve economic development. This water management will offer an opportunity to Tajikistan to build more dams to generate electricity.

Lessons to learn

There are lessons for other countries like Pakistan that has huge water resources, but adequate work has not been done to construct new dams. Pakistan has mainly banked on two major dams over the past decades, which are Tarbela and Mangla.

Though the country has vast water resources, successive governments have failed to attach importance to utilising them in an efficient manner. For the past few years, floods have caused



devastation across the country, still no heed has been paid to calls for building big and small water reservoirs.

This vital resource is not only used for drinking, but is also consumed for cheap hydroelectric power production and irrigating crops of agriculture commodities, which make a key contribution to the overall economic growth.

At present, total water storage capacity of Pakistan stands at 14 million acre feet (MAF) whereas its

annual requirement is 117 MAF.

Officials believe 12 to 15 MAF goes into the sea every year because of lack of storages. A loss of 1 MAF has an impact of \$1 billion on the economy, this way Pakistan has been suffering a loss of \$12 to \$15 billion annually.

Of the two major dams, Tarbela was built in 1977 and its storage capacity has dropped to 6.4 MAF against earlier 9.4 MAF. However, Mangla Dam's capacity has been enhanced by 3 MAF to 7.4 MAF following a structure raising project.

Keeping this in mind, the government should embark on a fast-track campaign of building storages on the Indus River in order to provide water to those areas that count on supplies from the river.

It should build big reservoirs instead of focusing on small structures as it will lead to a marked reduction in oil imports for power production and electricity costs for consumers.

The electricity produced with the help of water costs only Rs1.5 per unit compared to average cost of Rs4.5 and Rs22 per unit for gas and diesel respectively.

Of late, the government has kicked off work on some hydel power projects like Diamer-Bhasha, Dasu and others. Their completion by the deadline will significantly transform energy landscape in the country with significant improvement in power production and water storage.

Pakistan and Tajikistan have close relations and they are already working on the Casa power supply project. They have formed the Joint Commission on Energy Cooperation and Pakistan should ask Tajikistan to share its experiences in developing hydroelectric power resources that is need of the time.

Otherwise, thermal power plants will make the situation worse in the future when energy prices will go up. Moreover, Pakistan needs dams to save its agriculture sector, which has recorded negative growth recently. ■

**Eat those veggies or I'll change the wi-fi password.**



### Height Of Work Pressure

An Employee Opens His Tiffin Box On The Road Side To See, Whether He Is Going To office, Or Coming Back From office.



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# SkyElectric launches its operation in Pakistan

The SkyElectric has launched its smart energy system in Pakistan with a pledge to provide affordable and sustainable clean solar energy. An event held to mark the launch was attended by government officials, energy stakeholders, corporate executives, homeowners, academia, green architects and builders.

Talking to media, SkyElectric CEO Ashar Aziz, founder of US-based cybersecurity firm FireEye and who featured in Forbes' annual billionaires list in 2014, said the energy crisis in Pakistan would continue for long, but the public and private sectors should make joint efforts to resolve it.

He emphasised that the solar power system was environment-friendly and could resolve the energy crisis. "Despite having nuclear resources, Pakistan still faces energy shortages, (but) the new technology will make our life better, help save money and address environmental hazards," he said.

Among other factors, global warming is also caused by the release of carbon dioxide in the atmosphere through electricity production from fossil fuels, particularly coal.

He cited the example of Germany and France that had switched to clean wind and solar energy sources to tackle the crisis.

Pointing to the co-relation between economic prosperity, gross domestic product (GDP) growth and energy consumption, Aziz stressed that the expansion in national economy could not be achieved in the absence of improved per capita energy consumption. He was of the view that the current electricity infrastructure had 15-20% financial losses because of illegal access to electricity. Backup solutions include only the Uninterrupted Power Supply (UPS) system and generators, which "could not provide continuous power".

He said the life of the UPS was only one and a half year and it was an inefficient solution in which 40% of energy was wasted. The fuel for generators is also expensive.

Highlighting advantages of his company's smart energy solution, Aziz said it would not waste energy and the battery would have a 10-year life.

He said that the technology introduced by SkyElectric suited the developing countries, which would be affordable for domestic and industrial consumers.

He said a three kilowatt per hour (kWh) solar power system would cost Rs1 million whereas 5 kWh and 10 kWh systems would cost Rs1.4 million and Rs2.4 million, respectively. "These systems will also have backup support."

A mobile phone app has been introduced to operate these systems via a smartphone.

For small industrial units that have limited resources, the company has introduced cheaper solar energy systems of 20 and 30 kWh.

"It (SkyElectric's energy system) has a levelised cost of Rs9.2 per kWh against Rs10 to Rs14 for



wind energy," he said, calling it an affordable tariff.

Aziz gave a demonstration of the smart energy system, in which the audience was treated to a live interaction with the Smart Energy Console, the heart of the system.

The console is a touch screen interface, which gives insight into system operations. It has a built-in 3G chip and Wi-fi connectivity, which allows the software to relay system information to SkyElectric Cloud. ■



## Govt finally allocates Rs25b for Gwadar LNG pipeline

The government has earmarked Rs25 billion out of gas infrastructure development cess (GIDC) collection for implementing the \$2 billion Gwadar liquefied natural gas (LNG) pipeline project.

The disclosure was made in a meeting of the Economic Coordination Committee (ECC) held on February 13.

According to officials aware of the development, the government has received about Rs183 billion so far on account of GIDC meant for spending on different gas pipeline projects.

The Ministry of Finance has been reluctant to release the cess. However, it is a good sign for the Ministry of Petroleum and Natural Resources that the government has now set aside Rs25 billion out of the collected cess for the Gwadar-Nawabshah LNG pipeline and terminal.

According to the officials, other projects are being executed under the China-Pakistan Economic Corridor (CPEC) programme, but the petroleum ministry could not push the Gwadar LNG pipeline into the CPEC framework despite repeated attempts.

In the ECC meeting, the Ministry of Finance insisted that besides the allocated Rs25 billion, more funds would be earmarked from the GIDC for the LNG pipeline.

The Ministry of Petroleum recalled that while considering a summary on the revised implementation strategy for the Gwadar LNG pipeline and terminal, the ECC in its December 13 meeting had decided that since the Central Development Working Party (CDWP) and the Executive Committee of National Economic Council (Ecneec) approved PC-1 of the project, any amendment was also required to be placed before Ecneec.

Later, a meeting was held on January 2 under the chairmanship of Planning and Development Minister Ahsan Iqbal to seek guidelines and the way forward for the Gwadar LNG project and the North-South LNG pipeline scheme.

After Ecneec's approval, Inter State Gas Systems (ISGS), a company set up by the government for gas import projects, would be authorised to give



an engineering, procurement and construction (EPC) contract to China Petroleum Pipeline Bureau.

It was decided that the petroleum ministry would submit a proposal to seek ECC's approval for exemption from the Public Procurement Regulatory Authority (PPRA) rules in the award of EPC contract in a government-to-government arrangement. The Ministry of Finance would also be required to issue sovereign guarantees.

The Ministry of Petroleum suggested that ISGS should be authorised to award the contract to China Petroleum Pipeline Bureau without inviting competitive bids.

It also sought approval of government guarantees against a Chinese loan facility. The ECC directed the ministry to consult with the Law Division and PPRA in that regard.

Though more than one and a half year is gone, the Gwadar-Nawabshah LNG terminal and pipeline project has remained on paper, upsetting China that has been waiting to kick off work on the scheme.

The ECC has also not yet given the go-ahead to a commercial agreement, although the price negotiating committee finalised terms and conditions of it several months ago.

A framework agreement was signed between Pakistan and China on April 20, 2015 for developing the LNG terminal and pipeline project. Under the arrangement, China will provide 85% of financing whereas Pakistan will contribute 15% of equity.

Exim Bank of China will provide funds at London Interbank Offered Rate (Libor) plus 2%.

During initial negotiations, the tolling fee for the Gwadar LNG terminal was estimated at 30 to 32 cents per million British thermal units (mmbtu). ■

By Muhammad Azeem

## PSO's woes deepen as receivables rise to Rs277 b

The financial condition of Pakistan State Oil (PSO) - the market leader in oil sales - is worsening day by day and its receivables from different enterprises, particularly power companies, have swelled to Rs277



Pakistan State Oil

billion. A senior official of the Ministry of Petroleum and Natural Resources said PSO was facing the spectre of default on payments to domestic and international fuel suppliers. PSO to introduce better-quality diesel in January. Payables of power producers to state-owned PSO swelled Rs18.5 billion in the past one month that took their total unpaid bills for fuel supply to Rs246.7 billion. "Most of PSO's outstanding bills were the outcome of delay in payments by the public sector," the official said.

By February 8, 2017, power companies had to pay Rs186.5 billion as well as a late payment surcharge of Rs60.2 billion. Total payables stood at Rs246.7 billion. State-owned power generation companies owed PSO Rs142.5 billion, Hubco Rs71 billion, Kot Addu Power Company (Kapco) Rs24 billion, Pakistan International Airlines Rs15 billion and Wapda Power Privatisation Organisation (WPPO) Rs7.2 billion. The government also had to release Rs9.6 billion in price differential claims. Sui Northern Gas Pipelines Limited (SNGPL) was required to pay Rs6.6 billion for the supply of liquefied natural gas. The figures showed that both public and private power companies had to settle PSO's outstanding bills.

In a summary sent to the Cabinet Committee on Energy, the Ministry of Petroleum insisted that in an attempt to ensure uninterrupted power generation and minimise electricity load-shedding, PSO had been supplying fuel to the power sector on instructions of the government, but without consistent payments. PSO posts Rs3.5 billion profit, over expectations. Apart from this, Sui Southern Gas Company (SSGC), SNGPL, Oil and Gas Development Company (OGDC) and Pakistan Petroleum Limited (PPL) have been providing gas for the power producers and their receivables have also reached substantially high levels due to delayed payments.

Overall receivables of the oil and gas supplying companies from the power sector had accumulated to over Rs338 billion on December 31, 2016. PSO's management has repeatedly written to the ministries of water and power, petroleum and finance about its difficult financial position in recent weeks and sought their support.

"We are experiencing serious liquidity constraints because of massive receivables and need some solid and sustained intervention by the government for resolving the lingering issue," an official said.

The growing pile of power sector's circular debt, which currently stands at one of the highest levels, tends to weaken the financial health of PSO, which is responsible for buying and distributing petroleum, oil and lubricant (POL) products in the country. ■



By Zafar Bhutta

# SNGPL working on design of second LNG pipeline



Sui Northern Gas Pipelines Limited (SNGPL) has planned to award contract for a second gas pipeline from Karachi to Lahore, which will carry 1.2 billion cubic feet of liquefied natural gas (LNG) per day, in the next two months in an attempt to tackle the gas crisis in Punjab.

The gas pipeline will lead to an increase in assets of SNGPL and consequently its profit will go up further.

According to officials, the Ministry of Petroleum and Natural Resources has tasked SNGPL to lay another gas pipeline from Karachi to Lahore for the transmission of imported LNG.

"We are working on the design of second gas pipeline from Karachi to Lahore and hope that a contract for building the pipeline will be awarded in the next two months," SNGPL Managing Director Amjad Latif said while talking to The Express Tribune.

After the design is prepared, the Ministry of Petroleum will send a summary to the Economic Coordination Committee (ECC) to seek its approval for acquiring bank financing. SNGPL, which meets the requirement of Punjab and Khyber-Pakhtunkhwa, has already completed its first pipeline augmentation project for smoothly transmitting gas from Karachi to Lahore.

Punjab has a very thin share in gas production, which forces SNGPL to provide energy to domestic consumers only in the winter season, when demand goes up sharply.

Owing to the gas scarcity, industrial units in the province including textile mills and compressed natural gas (CNG) filling stations have been shifted to imported LNG.

With this, the Rs450 billion CNG industry, which remained closed most of the time in winter due to absence of natural gas supply, has resumed business.

Three LNG-based power plants with cumulative production capacity of 3,600

megawatts are also being set up in Punjab, which will need continuous gas supply. In a bid to receive and process LNG imports, first terminal started running in Karachi in March 2015 and work on the second terminal with handling capacity of 600 million cubic feet per day (mmcf/d) was under way.

It will start operations before June this year and provide imported LNG to the new power plants being set up in Punjab.

"LNG pipelines being laid by SNGPL will take imported gas to Punjab for the revival of its industries that have no domestic gas available due to shortage," an official commented.

Last year, SNGPL turned into a profit-making company after curbing its transmission and distribution losses. Its actual profit in 2015-16 stood at Rs2.5 billion, but the Oil and Gas Regulatory Authority (Ogra) - the regulator - made adjustments in arrears of the past three years, which brought down the earnings.

Major contributors to the turnaround

were lower losses and increased assets.

"Unaccounted-for-gas (UFG) loss was 10.98% in 2014-15, which came down to 9.21% in the following year. With the ongoing pipeline augmentation projects, the company's assets will further rise," the official said.

Now the UFG loss, caused by gas theft and leakage, has dropped to 8.3% and its impact will be reflected in the company's upcoming revenue requirement. A 1% reduction in the UFG level means an injection of Rs2 billion into its profit.

According to the official, Ogra allows the recovery of 4.5% UFG loss from gas consumers whereas the remaining is borne by the company. The fall in UFG loss will provide the company an opportunity to stave off a major hit to its balance sheet. ■

A driver was stuck in a traffic jam on the road outside Parliament, Islamabad Suddenly, a man knocks on the window.

The driver rolls down the window and asks, "What's going on?"

"Terrorists have kidnapped the entire Pakistani politicians, and they're asking for a \$100-million-dollar ransom.

Otherwise, they're going to douse them all in petrol and set them on fire. We're going from car to car, collecting donations".

"How much is everyone giving, on an average?" the driver asks... The man replies, "Roughly 2 litres."







Governor Sindh Muhammad Zubair and Minister for Sports Sindh Sardar Muhammad Bux Khan Mahar at award ceremony.



A group photograph of Australian High commissioner H.E. Ms. Margaret Adamson, Parvais Madras wala Chairmain Pakistan-Australia Business Forum, Afzal A. Siddiqui CEO and Muhamamd Ameen Director Skillston during the dinner reception hosted by PABF.



A group photograph of Canadian High commissioner Perry John Calderwood, Ajmal Farooqi, Tariq Ikram, Farooq Afzal and others during the seminar hosted by English Speaking Union Pakistan.



A Business men delegation from different Sectors of Associations met with the Chief Executive, TDAP in his office today



Picture during meeting with ITC Delegation at Governor House. Group photo with ITC Delegation at Governor House



Ms.Arancha Gonzalez Executive Director (ITC) appreciated the efforts made by the Mr. S.M Muneer CETDAP



## Hasnain Haider joined Three Gorges Corp

Syed Hasnain Haider one of the leading Energy Sector Professional and CEO Laraib Energy first Hydropower IPP of Pakistan has joined China Three Gorges Corp as CEO of \$1.6 billion Mahl Hydropower Company in AJK. It is well deserved move and he is guaranteed to make this project a reality as he has established track record of being one of pioneers of Pakistan's first IPP Hubco's 1,292MW and Hubco Laraib Energy's New Bong Hydro. He was senior Banker before joining HUBCO in 1993. ■



## Usama Qureshi appointed new MD & CEO Hamdard laboratories

The Chairperson of Hamdard Laboratories Mrs. Sadia Rashid has appointed Mr. Usama Qureshi as the new Managing Director & CEO of Hamdard Laboratories with effect from February 1, 2017. Usama Qureshi possess over 16 years of professional experience in general management, operations, finance, strategic planning and marketing. He served on various senior managerial roles and was part of the turnaround team in two leading energy sector organizations (K-Electric & Pakistan State Oil). Mr. Qureshi is the Co-Founder and Non-Executive Director of Oasis Energy, registered in DIFC, Dubai.

Mr. Qureshi is also an active member of FPCCI and served as Chairman Standing Committee on Energy, Vice Chairman of Pak-UAE Business Council, and Chairman of Pakistan-Bahrain Business Council. Mr. Qureshi has professional expertise and diversified portfolios with a degree of Masters in Business Administration. ■



## Upcoming Events

- **Platts 4th Annual Asian Refining Summit**  
March 9-10, 2017  
● Novotel Singapore Clarke Quay • Singapore
- **Platts 6th Annual Asian Petrochemicals Markets Conference**  
April 19-20, 2017  
● Shanghai, China
- **3rd Annual LNG & Natural Gas Markets Asia Conference**  
June 1-2, 2017  
● Novotel Singapore Clarke Quay • Singapore
- **BUNKERING & STORAGE ASIA CONFERENCE**  
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- **ASIA PACIFIC PETROLEUM CONFERENCE**  
September 25-27, 2017  
● Raffles City Convention Centre • Singapore
- **Asia Power Week Conference & Exhibition 2017**  
19-21 September 2017, BITEC, Bangkok, Thailand

## Sindh Governor assures full security for foreign delegations



Governor Sindh Mr. Muhammad Zubair has said that Sindh government realizes the importance of foreign delegations visiting Karachi, and as such full security would be provided to them.

This he said while talking with a delegation of Employers Federation of Pakistan (EFP) led by its president Mr. Majyd Aziz at Governor House, last evening.

The Governor House is determined to ensure that foreign guests not only attend their events but also take time out to see the beauty of Karachi, he added. Mr Muhammad Zubair, said that he would take up the issue of travel advisories with concerned diplomats and will assure them that he would provide all required facilities to their citizens.

The Governor was pleased to learn that South Asia Forum of Employers has unanimously agreed to hold the next meeting in Karachi and complimented EFP for taking this initiative. He also accepted the invitation to inaugurate the event and added that he would be meeting the Japanese Ambassador and Consul General and would impress upon them to convince HIDA Japan to hold the next conference in Karachi that would be hosted by EFP.

Mr. Muhammad Zubair advised the delegation that the industrialists should consider setting up enterprises in industrial estates other districts of Sindh so that the youth there are provided meaningful employment within the proximity of their residences. He also urged the industrialists to provide all relevant privileges to their workforce so that all stakeholders are on one page in the economic development of Sindh.

Majyd Aziz presented a Memorandum and proposed that the Governor should spearhead the idea of holding a Sindh Business Conclave and that he should jointly chair it with Sindh Chief Minister. He added that a comprehensive Sindh Industrial and Labor Policy is the need of the hour and therefore a conference attended by all Sindh Chambers and Trade Associations must be held to achieve the objectives. Moreover, he stated that the industrialists are perturbed over the harsh actions of Sindh Environmental Protection Agency who have ordered many factories to close down. The Governor assured that he would meet EFP delegation as well as representatives of KCCI and other industrial town associations to come up with an amicable solution.

Majyd Aziz further requested that EFP must be consulted before announcing private sector representatives on Boards of SESSI, EOBI, Workers' Welfare Fund and other labor welfare bodies. The Governor assured that he would convey this to the competent authorities. The Governor pledged to consider this proposal and would convey his decision soon.. ■



## Minister inaugurates 220KV grid station in Chishtian

Minister of State for Water and Power Chaudhry Abid Sher Ali and Member of National Assembly Chaudhry Tahir Bashir Cheema on Tuesday inaugurated the 220kV grid station at Chishtian near Bahawalnagar.

Speaking on the occasion, the minister said that the government is committed to eliminate load shedding from the country. Power projects of over 10,000MW capacity are being completed on fast track. 220 kV grid station Chishtian along with 88km transmission line has been constructed by National Transmission and Despatch Company Ltd. (NTDC) with the cost of Rs2633 million, he added. He appreciated the NTDC management, engineers and staff for timely completion of the project and said that the grid station will end forced load shedding, improve voltage level and minimise tripping, which was being faced due to overloading of the system. Resultantly, power supply for the people of Chishtian, Bahawalnagar, Hasilpur, Noor Sar, Haroonabad, Dhahranwala and Fortabbas will be improved in urban and rural areas, he added. He said the ministry and DISCOs have overcome 90 percent system constraints and maximum relief will be provided to



consumers during the holy month of Ramadan. He announced that there will be no load shedding across the country on the day of Pakistan Super League (PSL) final match being held at Lahore. He also assured the locals for creation of new subdivisions in MEPCO offices to ease their problems related to electricity.

While giving the details of NTDC projects, NTDC GSC General Manager Wajahat Saeed Rana said that 220kV grid station Chishtian will provide power to six 132kV grid stations of MEPCO for subsequent distribution to feeders. He said that NTDC is completing its projects on war

footing to connect 50 power plants with national grid. Presently, 37 projects of grid stations and transmission lines are under different stages of completion. NTDC has recently connected 1,320MW coal fired power plant and 1,230MW RLNG Bhikki Power Plant. Whereas, transmission line for 230MW Haveli Bahadur Shah will be connected soon since its transmission line has already been completed. 90 percent construction work of 500kV Neelum Jhelum Transmission Line has also been completed. To evacuate power from under construction power plants with 4,000MW capacity, the work on 660kV HVDC transmission line from Matari to Lahore will be started soon. He said in the jurisdiction of its projects, NTDC will help deserving and poor students for their education under its CSR initiatives.

The GSC GM further said that NTDC has been given task to construct huge infrastructure of the network and NTDC management, engineers and staff are fully committed to complete these project well before time so that the menace of load shedding can be eliminated in the line commitment made by the government. ■

## ENGRO & IUCN involve coastal communities in sustainable development

The International Union for Conservation of Nature (IUCN) has launched an awareness and training workshop for the local communities residing near Karachi's Port Qasim Area, to sensitize them to the importance of mangroves as an ecosystem critical to community livelihoods. The workshop was organized as part of a coastal project on mangroves conservation being jointly implemented by IUCN and Engro



IUCN's Senior Adviser on Coastal Ecosystems Mr. Tahir Qureshi, citing examples of previous projects, noted that IUCN's extensive work along the Sindh coast over the years has helped in preserving neglected ecosystems and native biodiversity, and enhancing coastal sustainability. "IUCN Pakistan has been working in the Port Qasim Area since 1987 focusing on the rehabilitation of degraded mangrove forests through the development of innovative planting and nursery techniques, and the organization has collaborated with a number of partners, notably the Sindh Forest Department, and some prominent NGOs and CBOs in the area."

Aman ul Haque, head of Engro Foundation added that Engro looks towards inclusive business, a cause which benefits low-income communities and expressed his pleasure over entering into a partnership to explore sustainable environmental solutions and address the need for community development and well-being. "Engro believes that sustainable business development is anchored in commitment to engage with key stakeholders in the community and society, and this program aims to promote the growth of the community." ■



A Memon who had no wife, no child, no money, no house and a blind Mother prayed fervently to God and God was moved by his prayers and told him to make **ONLY ONE** request which will be granted to him.

Then the Memon man prayed and said, "God, I want my Mother to see my wife putting diamond bangles on my daughter's hand inside my car parked in front of my mansion."

When God heard this prayer,

God said to himself, "I still have a lot to learn from these Memons I created."

Foundation, titled "Mangroves Conservation and Rehabilitation".

The two-year project aims to involve local communities in the conservation and sustainable management of Pakistan's precious mangrove forests by highlighting their direct link with fish yield. An area of 500 hectares of mangrove forest will be maintained and cared for by the coastal communities in the project area, while training sessions and the establishment of environmental clubs will aid in sensitizing the community to the importance of these forests, as will the development and dissemination of outreach material in local languages.



## MAP's 32nd Corporate Excellence Awards



Mr. Rasheed Razvi, President Supreme Court Bar Association of Pakistan who presided over the Management Association of Pakistan's 32nd Corporate Excellence Awards ceremony held in Karachi on 28th February 2017, has stated that dynamism



of environment, in the wake of CPEC will make Pakistan a welcoming Business Destination. He praised MAP for organizing the Corporate Excellence Awards consistently since 1982. He stressed that corporate excellence is the essence for a good performance of a company and that it is heartening to note that MAP has been encouraging such companies by holding corporate excellence awards event.

Earlier, Syed Masood Hashmi President MAP talked about the role that MAP has played in creating awareness about the best management practices amongst the companies. For this purpose MAP instituted its Corporate Excellence Award in 1982 which today is considered the ultimate accolade in the realms of corporate management. The Award seeks to recognize and reward the best managed companies in Pakistan. He stressed upon the need for keeping up with changing times in view of rapid technological changes forecasted over next five years. Achieving excellence

in such a technologically advanced world would need establishing new benchmarks of development, growth and competitiveness by the companies. He informed the gathering about MAP's interaction with international bodies like Asian Association of Management Organizations (AAMO) and locally with COMSATS Institute of Information & Technology.

The top trophy winner in the Amir S. Chinoy Industrial category was Lucky Cement while Jubilee General Insurance Co.Ltd was awarded the top trophy in the Financial category.

Sector wise awards in the Industrial sector were given to Pakistan Tobacco Co. Ltd, Mari Petroleum Co. Ltd, Indus Motors Co. Ltd, Thal Ltd, Pakistan International Container Terminal Ltd, Fauji Fertilizer Co. Ltd, Abbott Laboratories Pak Ltd, Archroma Pakistan Ltd, Security Papers Ltd, Colgate-Palmolive Pakistan Ltd and Shifa International Hospitals Ltd.

Sector wise awards in the Financial Sector were received by Allied Bank Ltd, Orix Leasing Pakistan Ltd, and UBL Stock Advantage Fund.

Certificates of Excellence in the Not for Profit Sector were presented to Shaukat Khanum Memorial Hospital, The Citizens Foundation, LRBT. ■

**Especially for English Language Lovers. Can anyone tell the difference between 'Completed' and 'Finished'? No dictionary has ever been able to define the difference between 'Complete' and 'Finished.' However, in a linguistic conference, held in London England, Sunny Osman a Pakistani American, was the clever winner. His final challenge was this. His response was: When you marry the right woman, you are 'Complete.' If you marry the wrong woman, you are 'Finished.' And, when the right woman catches you with the wrong woman, you are 'Completely Finished.' His answer received a five minute standing ovation.**



## Pak, Asia Foundation agree to collaborate on environmental issues



Federal Minister for Climate Change Zahid Hamid held a meeting with newly appointed country representatives of The Asia Foundation Ms. Sofia Shakil at Ministry of Climate Change.

"Pakistan is facing many disasters as a result of climate change in the form of floods, droughts, sea intrusion and glaciers melting. Pakistan is ranked 7th among countries most affected by the climate change" said by the Federal Minister for Climate Change.

He further said that our emission will go higher as a result of our future developmental process. The government of Pakistan is taking many initiatives to deal with climate change that includes ratification of Paris agreement, submission of Intended Nationally Determined Contributions, National Climate Change Policy, Framework to implement Climate Change Policy, Climate Change Act. The Climate Change Council will be established implement prepare projects while considering international standards. He further informed that National Assembly has approved Climate Change Act. It would be a functional law within next three months after getting approval from senate. The delegate of The Asia foundation were also informed about Launching of the Prime Minister's Green Pakistan Program.

The country representatives of The Asia Foundation Ms.Sofia Shakeel offered to help in strengthening the new body of Climate Change Council and small grant projects of climate change.

The Secretary Ministry of Climate Change Syed Ahmed Abu Akif also informed them that the text book containing chapters related to climate change has also been developed for early school children. The meeting was attended by Ms. Ameena Illahi Deputy Country Representative, Secretary Ministry of Climate Change Syed Ahmed Abu Akif, Joint Secretary Muhammad Farooq and Ms.Zile Huma Public Relations Officer. ■



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#### About NFEH

National Forum for Environment & Health (NFEH) is a purely non-governmental, non-profit organization, established on June 5, 1999. NFEH is affiliated with United Nations Environment Program (UNEP) & supported by the Ministry of Environment, Govt. of Pakistan.







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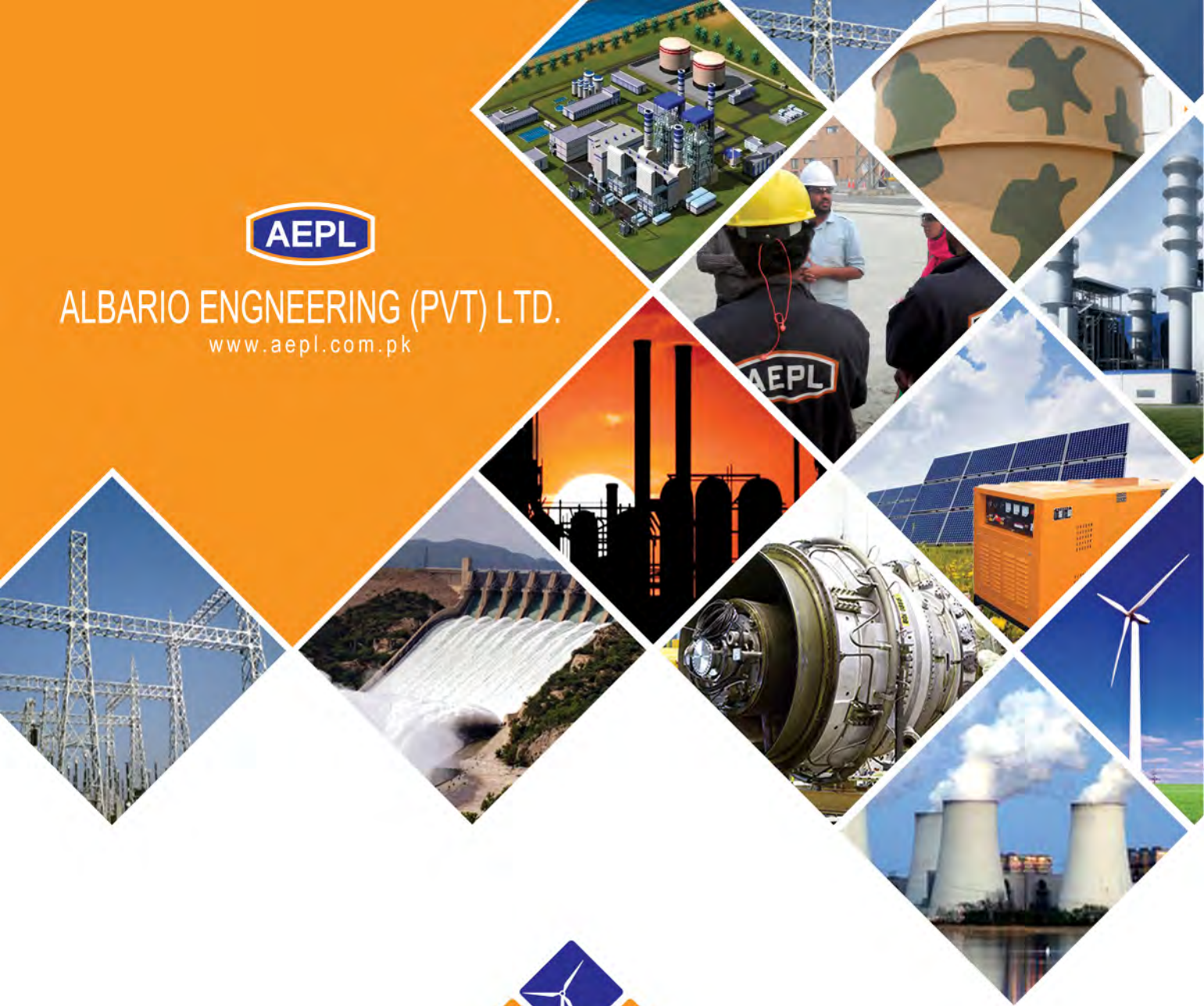


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