

MONTHLY **Energy** UPDATE

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Exclusive Interview:
Thar Coal Project reaches into
practical phase: Younus Dagha

Hot-weather comes to haunt

Oil prices decline, no
relief to consumer



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for Greener Pakistan!



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Rising sea level becomes threat to Karachi's environment



#12

Hot-weather comes to haunt



#09

KP's hydropower policy



#19

Govt. relaxes LPG Import Policy



#22

Unconventional sources of oil change the world



#26

GMO crops threaten our food security

Unnatural seed causes environmental degradation



#40

Rise of the renewable



#33

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From the editor's desk...

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Another controversial power project by PML-N Govt.

Present government's another major power project is in doldrums due to the strong resistance by Sindh government on legal and constitutional grounds. The case of 1,180MW LNG based power plant proposed to be installed in Bhikki, Distt Shaikhupura is pending before the National Electric Power Regulatory Authority (Nepra).

The regulator was hearing comments of the stakeholders on a request filed by Quaid-e-Azam Thermal Power (Pvt) Limited for grant of generation licence for the project located in Bhikki, Shaikhupura. Sindh government is opposing the project of LNG-based power plants in Punjab on the plea that these should not be allowed without a formal approval of the Council of Common Interests (CCI), which was the constitutional forum to settle inter-provincial issues.

The Sindh government believed the natural gas, electricity and all related incidental or ancillary matters appeared at the entry number 2, 4 and 18 of the second part of the fourth schedule of the Constitution and fell in the provincial domain, and hence should be taken up for approval with the CCI. Sindh's Representative Tariq Shah said LNG power plants in Punjab should not be set up solely on the basis of decisions of the cabinet's Economic Coordination Committee (ECC) and its energy committee because they had no legal standing on the issue in the eyes of the Constitution. "This project should be presented before CCI for approval and should not be initiated unless cleared."

He said the regulator would have to consider Sindh government's viewpoint and Punjab should not be granted generation licence to operate the plant. Sindh has already submitted before Nepra in writing that the regasified LNG (RLNG) after import would be swapped with natural gas from Zamzama, Dadu, Kandawari and Sawan fields and Sindh's consent was necessary for such a swap. Quaid-e-Azam Thermal Power's CEO Ahad Khan Cheema informed Nepra that a gas sales-purchase agreement (SPA) with the Sui Northern Gas Pipeline Limited (SNGPL) would be signed on Wednesday (today). He said the project had been approved at the highest level and contract for its installation had also been awarded through competitive bidding.

He said the SNGPL and Sui Southern Gas Company (SSGC) were also expected to sign SPA for swapping RLNG with domestic gas near Sawan field, while better quality imported LNG would be made available for consumption in Sindh. He said the two gas companies were also working on projects for increasing their pipeline capacity by 800mmcf (million cubic feet per day) from 400mmcf to support LNG-based power stations in Punjab, where various consumers were facing extreme energy shortages. Responding to a question from Nepra's chairman, Mr Cheema said his company was not the first to contract new power plants of General Electric (GE). He said the GE had contracted 10 similar orders, latest being in France where these plants were running successfully.

Rejected viewpoint of the Sindh government, he said LNG-based power plants did not require approval of the CCI and these plants were being set up under the power policy of the government of Pakistan and all relevant approvals were in place. He said a number of issues raised by Nepra case officers were out of the regulator's jurisdiction. Sadozai commented that anyone could come to the regulator for generation licence which had to take into account views and concerns of all the stakeholders and also frame its own issues before granting a licence. He said it was important for the regulator to satisfy all questions and issues raised by any side.

The Nepra staff wondered if the project was justified given the fact that a number of imported and local coal-based projects were being set up in the south of the country while their generation was supposed to be consumed in the centre and north of the country. It also pointed out that currently there was no dedicated transmission line in the country to deliver RLNG into the project site, and LNG import agreements and arrangements were still not in place.

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Hot-weather comes to haunt

Nation has to bear another summer sans electricity?

As the summer 2016 is around the corner across the country, it seems that people of Pakistan will have to bear another hot-summer sans electricity. In spite of many tall claims, there is no major power plant is likely to be commissioned and ready for the generation in order to ease the lives of the consumers. Punjab and upcountry are the worst hit due to the load-shedding should once again prepare for another hot season without power for many hours. Nandipur was a hope, but proved to be a nightmare due to the rampant corruption by the two successive governments.

The reality bites as the power generation capacity against demand is far more than what we need actually. An official of the Ministry of Water and Power argues that power plants are stretched to the maximum, but technical failure or faults lead to a temporary increase in load-shedding as has happened in the case of Uch power plant. The outages were also the result of refusal of the Indus River System Authority (Irsa) to increase water supply to hydro-electric power plants. The country's hydro-electric power generation capacity stands at 7,100 megawatts, but production remains as low as 2,400MW. Overall, power generation peaks at around 12,800MW to 14,500MW as against installed capacity of 23,000MW while demand comes up to 16,700MW, a gap of 3,900MW. This gap could easily be overcome through good management but bad governance rather corruption is another that hampering the solution of the problem.

In the past, governments had been following such policies that could keep power generation at lower levels in an attempt to avoid a big subsidy bill. But the recent plunge in oil prices in the international market is a blessing in disguise for the government that can run power plants at maximum capacity and also compell the IPPs to run their units to fullest. Though the plants are still being operated at a low capacity, Water and Power Minister Khawaja Asif has promised to run them at the optimum level in summer months in order to generate 16,500MW. However, according to officials, consumer demand will rise past

In the past, govts had been following such policies that could keep power generation at lower levels in an attempt to avoid a big subsidy bill. But the recent plunge in oil prices in the international market is a blessing in disguise for the government that can run power plants at maximum capacity and also compell the IPPs to run their units to fullest.

19,000MW, leaving a gap of 2,500MW between production and consumption. Domestic consumers, particularly the dwellers of rural areas, are feared to bear the brunt of power shortfall as the government would love to continue uninterrupted supply to the industry.

Liquefied natural gas (LNG) could be another blessing for the government this summer. The country has already received first cargo of LNG, which was provided to the power plants, especially those that were either running on diesel or were shut down. The government has planned to provide LNG to these plants including Rosch, Halmore, Saif, Orient and Nandipur in order to increase power production and ease shortages. However, Sui Northern Gas Pipelines Limited (SNGPL) and the Ministry of Petroleum are engaged in a tussle over LNG distribution. The gas utility has monopoly over the distribution process that has upset the private sector. The issue needs to be resolved in order to push the private sector to go for gas import. On the





other hand, LNG is not proving to be cheaper as the government has allowed Sui Southern Gas Company (SSGC), Pakistan State Oil (PSO) and SNGPL to collect margins and service charges that has taken LNG price to more than \$13 per mmbtu. Some experts suggest that LNG price in Pakistan has even exceeded the diesel rate and they ask why power producers will use imported gas when diesel is available at a lower price. These are the issues that the government has failed to address and these could create hurdles in the way of a smooth supply of electricity.

Even if power production rises, the country's distribution system is not in a position to bear the load of more than 16,500MW. To boost its capacity, the government has already framed a policy for inviting the private sector to lay transmission lines. But there are no signs that the private sector has started working on it. Keeping in view all these issues, people can only hope that the summer could be a little bit better this year because of the slump in oil market and LNG imports. Otherwise, there would be only promises and no relief for the consumers.

Winter 2015 have been worse in terms of load shedding. There have been massive load shedding, despite the fact that winters have off-peak demand for electricity. And despite all those pre-election claims of PML-N (Pakistan Muslim League Nawaz) about ending the load shedding, the situation just gone worse in winters. We witnessed load shedding of 8 to 14 hours and sometime worse.

Now we are on verge of summer 2016, when the demand of electricity is on its peak. April has just began, the weather have just started to get hot and load shedding is already increased to 10 to 16 hours in normal routine. Which is as same as about last year, there seems to be no progress at all. Pakistan's peak requirement

of electricity normally in summers is no more than 18000 MW.

So, there are other factors which government have not been able to manage in almost three years of its tenure, which include the circular debt as well as provision of fuel to power generation plants. Circular debt keeps getting bigger when government does not ensure the recoveries against the electricity it provided to certain individuals or organizations. But the question is, why even after import of LNG is started, we have to face load shedding? Why is it not provided to all those plants to generate the electricity to meet our needs.

PMLN led government is saving on fuel, by not running or running less of power plants run by oil and gas. Its number one priority is not the power. They are more indulge on other stuff like roads and transportation. That is all good but in today's era, load-shedding of electricity must not simply exists in any part of world. From all over 200 countries of world there are only two to three countries which face this hardship. Pakistan have all the resources to keep running electrical appliances of people round the clock. If government is really serious in resolving the power issue,

Pakistan will not have an hour of electricity load shedding in year 2016. But if you ever witnessed in 2016 or later, please understand, we were being misled and no one put attention on resolving this humongous problem in Pakistan.

Installed Capacity:

Electricity - total installed capacity: 22,000 MW (2014)

Electricity - Sources (2014)

Fossil fuel - 14,635 MW - 64.2% of total (oil-35.2% + gas-29%)

Hydro - 6,611 MW - 29% of total

Nuclear - 1,322 MW - 5.8% of total

Average demand-17,000 MW

Shortfall-between 5,000 MW and 6,000 MW

There are four major power producers in country: WAPDA (Water & Power Development Authority), KESC (Karachi Electric Supply Company), IPPs (Independent Power Producers) and PAEC (Pakistan Atomic Energy Commission).

The break-up of the installed capacity of each of these power producers (as of Jan-2012) is as follows:

WAPDA Hydel: Tarbela 3578 MW, Mangla 1000 MW, Ghazi - Barotha 1450 MW, Warsak 243 MW, Chashma 184 MW, Dargai 20 MW, Rasul Headworks 22 MW, Shadiwaal 13.5 MW, Nandipur 14 MW, Kurram Garhi 4 MW, Renala 1 MW, Chitral 1 MW, Jagran (AK) 30 MW, Khankhwar 72 MW, AllaiKhwar 121 MW, Gomal Zam Dam 17 MW, Jabban 22 MW, Duber Khwar Dam 130 MW

Total Hydel 6,823 MW

WAPDA Thermal: Gas Turbine Power Station, Shahdra 59 MW, Steam Power Station, Faisalabad 132 MW, Gas Turbine Power Station, Faisalabad 244 MW, Gas Power Station, Multan 195 MW, Thermal Power Station, Muzaffargarh 1350 MW, Thermal Power Station, Guddu 1655 MW, Gas Turbine Power Station, Kotri 174 MW, Thermal Power Station, Jamshoro 850 MW, Thermal Power Station, Larkana 150 MW, Thermal Power Station, Quetta 35 MW, Gas Turbine Power Station, Panjgur



39 MW, Thermal Power Station, Pasni 17 MW

Total Thermal 4811 MW

WAPDA's total hydel and thermal capacity is 11,272 MW. Hydel electricity generated by WAPDA varies between two extremities, i.e., between minimum of 2,414 MW and maximum of 6,761 MW depending upon the river flow.

K Electric: Thermal Power Station, Korangi 316 MW, Gas Turbine Power Station, Korangi 80 MW, Gas Turbine Power Station, SITE 100 MW, Thermal Power Station, Bin Qasim 1260 MW. KE's total generation capacity is 1756 MW.

Independent Power Producers (IPPs): Hub Power Project 1292 MW, AES Lalpur Ltd, Mahmood Kot Muzaffargarh 362 MW, AES Pak Gen, Mahmood Kot Muzaffargarh 365 MW, Altern Energy Ltd, Attock 29 MW, Fauji, Kabirwala Power Company, Khanewal 157 MW, Gul Ahmad Energy Ltd, Korangi 136 MW, Habibullah Coastal Power Limited 140 MW, Japan Power Generation, Lahore 120 MW, Koh-i-Noor Energy Limited, Lahore 131 MW, Liberty Power Limited, Ghotki 232 MW, Roush Power, Khanewal 412 MW, Saba Power Company, Sheikhpura 114 MW, Southern Electric Power Company Limited, Raiwind 110 MW, Tapal Energy Limited, Karachi 126 MW, Uch Power Limited, Dera Murad Jamali, Nasirabad 586 MW, Attock Gen Limited, Morgah Rawal-

pindi 165 MW, Atlas Power, Sheikhpura 225 MW, Kot Addu Power Company Limited (Privatized) 1638 MW, Saif Power Plant Qadirabad, Sahiwal 225 MW, Sitara Energy 80 MW, Nishat Chunian Power 200 MW, Nishat Power Limited 200 MW.

Total generation capacity of IPPs is 7070 MW.

Pakistan Atomic Energy Commission (PAEC): KANUPP 137 MW, CHASNUPP-1 325 MW, CHASNUPP-2 340 MW.

Total electricity generated from PAEC is 802 MW.

The total power generation capacity of Pakistan is 21,143 MW and the electricity demand (as of April 2010) is 14,500 MW and PEPCO is merely generating 10,000 MW.

Electricity production: Electricity - production: 88.42 TWh (2005)

Electricity - production: fossil fuel: 65% of total, hydro: 31% of total, nuclear: 4% of total

Electricity production Added Since 2008-2011

Chashma Nuclear Power Complex Chasnup-2 300 MW 2011, 2012, 2013, 2014, 2015

Solar Plant Quaid-e-Azam Solar Park 100m MW 2015 with increase to 1000 MW in 2016

Electricity consumption: Electricity - consumption: 74.62 TWh (2004) Electricity

- exports: 0%, Electricity - imports: 0%

Electricity Consumption per Capita = 430.183 kwh/capita (2006-15)

Effects of natural and man-made disasters:

During 2010 Pakistan floods and 2008 Kashmir earthquake power stations, power distribution and transmission and other energy infrastructures were damaged. During the floods and rainfalls the recently constructed Jinnah hydroelectric power plant was flooded in addition to severe damages to transmission and distribution network and installations while several power plants and refineries were threatened by rising waters and had to be shut down. Natural gas field output had to be reduced as the flood waters approached the wells. There has also been some concern by Pakistani nuclear activists over the effect of natural disasters on nuclear plants specially over the Chashma Nuclear Power Complex, since the plant lies over a geological fault. Due to over reliance of Pakistan on dams for electricity generation, [30] some environmental impacts of dams such as submergence of usable/ecological land and their negative impact on Pakistan's mangrove forests due to loss of river silt load, as well as increased risk of severe floods have become evident. ■

NEPRA imposes Rs10mn fine on K-Electric

National Electric Power Regulatory Authority (NEPRA) imposed a fine of Rs. 10 million on K-electric for failure to provide uninterrupted electric power services to its consumers and deliberately under utilizing its available generation capacity.

Earlier in June 2015, extended hours of load shedding, system failures and power supply breakdowns were noted in the service territory of K-Electric, resulting in serious complaints by the consumers of K-Electric, said a press release.

The Authority constituted a fact-finding committee to collect necessary information and submit a report of its findings. After considering the recommendations and information submitted by the Committee, the Authority issued a Show Cause notice to KE.

KE was given reasonable opportunity to respond and after hearing and considering the response and the comprehensive investment plan submitted by KE, the Authority passed following decision;

i. In respect of failure to provide uninterrupted electric power services and



restore the power of affected consumers within reasonable time, the Authority hereby impose a fine of Rs. 5 (Five) Million to be paid by KE within thirty days of issuance of this decision.

ii. In respect of underutilization of its available generation capacity, the Authority hereby impose a fine of Rs. 5 (Five) Million to be paid by KE within thirty days of issuance of this decision. If KE continues with the practice of reducing or underutilizing its generation capacity, strict punitive action will be taken against it in future.

iii. In respect of failure to provide electric power services to all consumers on non-discriminatory basis, the Authority directs KE to provide electric power ser-

vices to all consumers without any discrimination who meets the consumer eligibility criteria and are neither defaulters nor involved in theft of electricity. Regarding overloading, tripping and other distribution and transmission failures, the Authority took serious notice of failure of KE to properly maintain and upgrade its distribution and transmission system however considering the commitment of KE to improve its system and investment plan of around 400 million dollars decided to provide an opportunity to KE to increase its generation capacity and improve its transmission and distribution system strictly in accordance with the investment plans submitted by it. The Authority also directed KE to complete all indicated investment plans within the timelines and file quarterly reports to the Authority.

The Authority further decided that in case of failure of KE to follow instructions/directions of the Authority and non-implementation of committed investment plans, the Authority will be constrained to take further punitive actions under section 28 of NEPRA Act. ■

By Farheen Amina Fareed

Rising sea level becomes threat to Karachi's environment

The rising sea level in Karachi is becoming a big threat to the ecological and environmental life in Karachi particularly along the coastline where 80 per cent of one million fishermen may lose their livelihood due to the situation. The Arabian Sea has already eaten up thousands of acres land in Ketty Bandar and adjacent areas so far.

Karachi's historical fishermen' village, Ibrahim Haideri is despite being in 2015, the centuries-old settlement is still without basic facilities such as water supply, gas and electricity. "We travel to a distance to find firewood for cooking, and fetch freshwater. Sometimes we cut the bushes and trees ourselves," Azeeza, a resident informs. "It takes us several hours to collect woodpile for a week's use." The dwellers buy one or two pitchers of water at the

rate of Rs10 a day, she adds. Seawater in coastal areas, during monsoon enters into the houses, causing difficulties for the residents, especially women. Azeeza says she, along with other residents, often takes shelter in nearby schools, whereas the male members of the family strive to earn livelihood. "Responsibility of the household comes on our shoulders," she says. "At times, even pregnant women are required to work, as the males do not get enough catch to feed their families for long." The village does not even have a hospital or a basic health unit to cater to the well being of the inhabitants. "Women have to travel to the city for labour and other health issues," reveals Azeeza. Chairman Pakistan Fisher Folk Forum Muhammad Ali Shah says around one million fishermen live in Karachi, and the rising sea has affected

about 80 per cent of them.

"Cutting of mangroves has also contributed to sea level rise," claims Shah. Director Indus Delta Project Agha Tahir Hussain Durrani says that melting of glaciers and increase in global temperatures has resulted in sea rise. Experts say on average, the sea is rising at an annual rate of 3.5 mm. Senior Manager, World Wildlife Fund for Nature, WWF-Pakistan, Shahzadi Tunio says Pakistan's coastal belt is badly affected by sea level rise. Due to this, huge displacement has been witnessed. "Most of the agricultural land in Thatta, Badin and Shujawal districts in coastal belt has turned barren due to sea intrusion. "Drinking water resources have also depleted, leaving many people in vulnerable condition," she says. "Reduced livelihood resources have compelled many people to migrate."■



Why Pakistan continues to suffer?



In the past decade, we have witnessed a series of floods that affected parts of Pakistan and Azad Jammu and Kashmir (AJK) periodically, causing catastrophic damages to infrastructure, property and hence, economy. Then, there were droughts for most of rural Sindh and a severe heat wave last year.

At present, floods, droughts and their management is costing the government around \$1 billion indirectly each year.

One may question, that despite adopting the so called 'sustainable practices' to minimise carbon footprint, why are these measures completely ineffective when it comes to changing climate patterns? The answer to this question is explained by the 'Gaian theory' i.e. these cataclysmic damages happen due to lack of nature conservation and consistent despoliation of countryside.

Today, the worldwide global warming has become a real and bigger threat compared to that of the nuclear world war.

For the first time in history, we now see ice-free water at the poles in summer due to accelerated melting of glaciers in Greenland. It is certain that the exact consequences of this global warming phenomenon shall be far worse than the scientific realistic predictions, which have been ignored by interfering bureaucrats for the sake of dirty politics.

To make matters worse, our model capital is no longer the green capital; a major chunk of 'greenfields' around Margalla Hills have been 'brown-ified.'

The Gaian organism has had self-regulated global temperature, atmospheric content, ocean salinity, and other factors in an "automatic" manner for millions of years but now the intervention from man has reached a point that this feedback system is on the verge of a breakage.

The element of vagueness dominates in the government's guidance, as found in our national climate / environment policy.

It is due to this abstraction of regulations that many projects pass the test of compliance by conducting a flawed survey related to biodiversity practices.

This also reflects government position that all conservation

areas are of least importance and the short term socio-economic activity is preferred over the long-term benefits of nature conservation.

According to our conservation policies, any development which results in the deterioration of greenbelts should be refused save in the most 'exceptional circumstances'.

However we see consistent encroachments and clearing of Margalla greenbelts in Islamabad - not to mention other cities. Mature trees are associated with some of the field boundaries and a proportion of the trees around Margalla hills have been shown to support a valuable terrestrial invertebrate assemblage. However, as anticipated, the government has no regard for its own self-made policies and uses diplomatic ways to deviate from the rules such as quoting 'exceptional circumstances'. The establishment tends to manipulate the directives in these acts by using a 'fluffy language.'

This paints a really dark picture in the chapter of nature conservation.

Furthermore, the scheme contradicts or fails to support development plan environmental policy. If the encroachment and the development of Margalla greenbelts is given a green signal, then it will severely damage the balance of eco-systems in this region. It is also sad that such plans tend to weight the value of nature degradation in 'monetary terms' and use fancy terms such as balance sheets and Net Present Value (NPVs) to show that it does not really matter.

The present weather calamities and catastrophes are not happening by chance; neither is our present unsustainable and wasteful lifestyle. It has been created by a rapacious system of unfettered capitalism driven by greed, with the enthusiastic collusion of short sighted venal politicians. It was created with scant regard for the environmental ravages unleashed. George Monbiot once wrote that "if you talk about the problems of global warming, people call you a Saint, but if you talk about the solutions to global warming, people call you a communist."■

Watering the maritime desert

With its extreme heat and drought-like conditions, Karachi has begun to raise an alarm: this is what global warming looks like and it now knocks on our doorstep.

"Karachi has been recognised as a maritime desert," explains Rafiul Haq, an ecologist by profession and founder member of Coastal Restoration Alliance for Biodiversity (CARB). "It is located in a subtropical arid zone with an average rainfall of less than 220 mm/year. Such fragile climatic conditions are sensitive to any change."

Extreme weather conditions are linked to global climate change, which is a result of unnecessarily exhausting natural resources. In a city of about 20 million, the endless use of air conditioners, excessive travelling and even eating meat more than we need, is all adding up to a bigger carbon footprint.

"The settled residential areas are now surrounded by high-rise buildings, which contribute to municipal, social and ethical issues. Recent unplanned and uncontrolled development has greatly ignored the fragile nature of the city's climate," argues Haq.

Is there a way to reverse the process?

The consensus among environmentalists is to plant more trees, and then some more. It seems like an obvious and sensible thing to do, but not many heed the lesson.

"Trees play a vital role in moderating the micro climate," explains Haq. "Besides being good absorbents of radiant energy, producing oxygen and maintaining temperature through perspiration, they definitely contribute in increasing the chances of rain."

"Peepal, burr and banyan are the best trees as far as the ecology of Karachi is concerned. They are home to hundreds of birds who live among its branches and feed on its fruits," contends Walid Ansari, an advocate by profession, who also runs tree plantation drives across Pakistan through his NGO, Global Green.

"Banyan trees are one of the reasons for rainfall all over India. There used to be many such trees all over Karachi and even in Sindh and eastern Baluchistan, but sadly people replaced them with ornamental trees that were smaller and could easily fit into smaller homes," he explains.

Haq agrees with this viewpoint: "If you compare the current status of diversity with the recent past, you will notice that we



The settled residential areas are now surrounded by high-rise buildings, which contribute to municipal, social and ethical issues. Recent unplanned and uncontrolled development has greatly ignored the fragile nature of the city's climate

have lost a number of life forms from our surroundings. The disappearance of butterflies, many bees, wasps, etc. are clear indicators of diversity loss or compromise."

According to the veteran ecologists, the introduction of alien species like *Conocarpus* and earlier *Eucalyptus* has probably contributed significantly in lowering diversity since these species interfere with the local climate.

"Karachi falls under the Saharo Sindian region, with a low diversity index. But cities such as Karachi can overcome this harshness as it has access to the facilities required to enhance diversity," says Haq.

Besides beautifying the city and purifying the air for us, trees also absorb carbon. In the presence of water and sunlight, they produce oxygen and perspire excess water through their leaves to regulate the sur-

rounding.

Evaporation takes away some of the heat from the nearby environment. The larger the leaf, the more water it evaporates! This leads to the reduction in air temperature by several degrees. Were you to seek refuge in the colonnade of a neem tree, temperatures can be as low as 36°F as compared to an open area.

"Come to the Sindh High Court building a little before sunset," says Ansari, "and experience the magnificent specimen of a banyan tree that houses hundreds of crows and minas that make a bee line for the tree from the other end of the main building, swooping into the branches to their predetermined abodes."

Meanwhile, Haq urges patience and consistency as essential for any successful tree plantation drive. "When you plant a tree do not expect a canopy the next day; it takes consistent dedicated work in association with technical guidance by experts, societies and groups engaged in the task," he says. "The campaign can take three to five years to show results. If we target to turn at least 25-35 per cent of this city green, it would be a major achievement."

A word of caution too: do not promote monoculture, plant a variety of trees, and always prefer local species. A systematic maintenance of diversity can bring more desirable results since a species is less likely to contract a disease that another is suffering from.

What to plant where?



It's best to plant local fruiting, flowering and shady trees depending on the location. Here are some ideas:

Near the beach: Different trees resist different levels of salinity; however, coconut is one tested tree that grows well near the sea. Mangroves growing by the coastal belt are our treasure which is being lost. You can help organisations replant mangrove forests.

Outside buildings: The biggest hurdle while selecting trees to be planted outside a building is the web of wires hanging from one pole to the other.

For places facing this problem, trees with short height but bigger canopy are ideal.

Lignum tree, which is not local but acclimatised to our climate and is non-invasive, looks beautiful and is easily available.

By the roadside: Plant Neem trees to add shade for the people and to purify the air.

On a rooftop: Plant chiku, shareefa and lemon in large pots on a roof top for added advantage of eating fresh fruits!

If you are growing trees in or around your house, Haq recommends the following for beginners:

Local fruiting trees: Beir, Chiku, Jungle Jalebi, Shareefa.

Flowering trees: Amaltas, Gol Mohar, Lignum though not local it has acclimatised.

Shady trees: Neem, banyan (many species are available), Sirus, Bakain

Other trees to try are badam, imli, injeer, papaya, lemon, shareefa, shehtoot, kathal, keekar, amaltas and babool.

Know your soil

Different areas of Karachi have different

types of soil; knowing their variation is key in avoiding any failures. Rafiul Haq classes them according to administrative districts:

South: The soil is waterlogged and at places saline. This includes areas like DHA and Clifton; however, this part has significant amount of greenery.

West: This district has a mix of waterlogged and saline soil with a patch of productive land near Garden area. The industrial area has some road side greenery which is lacking in general. The residential areas are very thickly populated and do not enjoy much of this luxury.

Central: This district is worst affected by so called development. It has productive soil, with a belt of calcareous origin in its northern end. Majority of its green belt was removed, besides a numbers of known public parks been encroached upon rather removed, depriving the residents of their oxygen source.

East: District East and Malir also have patches of productive and compromised lands; however, the overall quality of soil supports tree growth, if planted following prescribed protocols and adopting precise management practices.

Tips to grow a tree

It is best to buy a young tree from a nursery and save a few years of work. These trees are available at almost all nurseries and are not costly.

"Date and neem trees are the easiest to grow," recommends Walid Ansari. "The seed should be placed about an inch below the soil, or in some cases just below the surface after the surface has been dug well and made loose."

Ansari suggests digging a two by two feet deep hole for planting saplings into

the ground. Soil must be loose which will make it easy for the young roots to find water and grow strong.

New soil with added compost can be used to improve the old soil if needed. Young trees will need protection from animals and shelter from strong winds. Regular watering will also be needed until they are big enough to manage on their own. ■

Courtesy: Daily Dawn

A very humble request to all.

1. Don't throw garbage on the roads/streets.
2. Don't spit on roads and walls.
3. Don't write on walls and currency notes.
4. Don't abuse and insult others.
5. Save water and electricity.
6. Plant a tree.
7. Follow traffic rules.
8. Take care of your parents n grand parents, take their blessings & always respect them.
9. Respect women.
10. Give way to ambulance.

We got to change ourselves and not the country. Once we change ourselves the country will automatically change.

Interesting notice boards:

Forest Dept: "Shoot the bird with camera not with Gun..."

Traffic Dept: "Donate blood, But not on Roads..."

Petrol Pump: "No smoking" "Your life may be worthless but our petrol is Costly"

And Finally!!

Hospital Board:- "If you still want to continue looking at girls, even after your Death "DONATE YOUR EYES"

By ASHFAK BOKHARI

Climate change calls for revisiting IWT

THE Senate has passed a resolution asking the government to 'revisit' the Indus Waters Treaty signed in 1960 with India, but the government benches opposed the move.

PPP senators, who are in the majority, proposed to make the IWT a part of the 'comprehensive bilateral dialogue' with India to make new provisions in the treaty to enable Pakistan get more water for its rivers. The ruling party members, however, indulged more in polemics than stating the government's position on the issue.

The government has not yet formulated a clear policy on the treaty as is evident from a recent statement of Federal Minister for Water and Power Khawaja Asif that the IWT was heavily tilted in favour of India and the government should revisit it in the greater interest of the country. But he was quick to add that he cannot give his opinion as to whether the treaty should be reviewed or not.

During the interaction with the media, top officials of the Pakistan Commission on Indus Water expressed views which were in conflict with those of the minister and his ministry's secretary. The additional commissioner of Indus waters was of the view that India was not involved in halting Pakistan's water and insisted that the hydropower projects that India had built so far on Pakistan's rivers are not inflicting loss to water interests of the country.

Even the Indus River System Authority (Irsa) chairman was seen going against the



traditional narrative that India was responsible for Pakistan's water woes. Speaking at a meeting of the Senate Standing Committee on Water and Power last July, he said the reports in the media about India getting more water than its allocation is mere propaganda for the neighbour is using water only to produce electricity.

The Hindu recently observed: "New Delhi needs to factor in a new reality: More than Kashmir, it is the accusation that India is stealing water that is rapidly becoming the 'core issue' in the Pakistani establishment's narrative about bilateral problems."

The fact remains there is no provision in the treaty which allows India to construct a certain number of dams. Nor is there one that prohibits India from making dams beyond a certain number. Therefore, it is an issue outside the scope of the treaty.

In the past, Pakistan has invoked the jurisdiction of the neutral expert where it has failed to get a favourable verdict after lengthy process during which the construction was completed. Pakistan has thus 'lost' cases before the neutral experts who, according to legal experts, never had the legal competence to decide issues on merit.

The fact remains that the treaty was signed in an era when climate change, environmental and ecological changes were not a threat to the planet and countries. It is interesting to note the terms and language used by the neutral expert in his verdict on Baglihar project dispute such as 'new technical norms and new standards', 'state of the art' and 'best and latest practices in the field of construction and operation', the risks of increased floods associated with 'climate change'. It shows that the treaty needs to accommodate the new

realities in the Indus basin treaty.

Despite being largely successful and having survived severe tests there are some limitations within the IWT that require review. Michel T Klare, a noted scholar on water resource issues, is of the opinion that the treaty does not allow for joint development of the Indus basin, nor does it eliminate the grounds for conflict over water distribution since it is a plan for the separate development of the basin.

Similarly, it does not create mechanisms to address issues specified in the treaty such as groundwater use, changes in flow due to climate change, changing domestic demand due to population increases. This lack of cooperative sharing of water, he says, has considerable negative consequences for the ecology and societies of the Indus basin and calls for a review of the IWT.

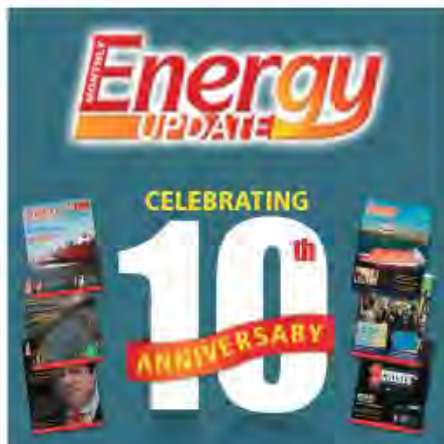
Besides, the Himalayan glaciers are melting at an alarming rate because of climate change. Within the next 50 years, experts believe there will be a 30-40pc drop in glacial melt. A strategy to create more storage capacity for water is the only option available.

As pointed out by Ahmer Bilal Soofi, an eminent lawyer, "We can blame India's conduct as an upper riparian state only up to a point. What of our own conduct and responsibilities? Lamentably, we have been wasting our water resources with almost criminal negligence and abandon."

Hence, there is no escape from building several water reservoirs. Latest official estimates show that per capita water availability in the country has come down to 1,032 cubic metres in 2016 from 5,260 cubic metres in 1951.

It is obvious that Pakistan is feeling alienated from the IWT after repeated failures to get redress of its grievances and, hence, would like to replace it with a new treaty. But India does not need an amended or new treaty. And without its consent, the IWT cannot be revisited. A pragmatic approach would be to hold bilateral talks outside the treaty to remove the lacuna it suffers from. ■

Courtesy: Daily Dawn



Oldest refinery in midst of upgradation

Attock Refinery was incorporated on Nov 8, 1978 and came to be listed on the stock exchanges on June 26, 1979. The company is a subsidiary of Attock Oil Company Limited, UK and its ultimate parent is Bay View International Group S.A.

ARL is a member of the Attock Group of Companies which also has under its fold four other listed companies: Pakistan Oilfields, National Refinery, Attock Petroleum and Attock Cement.

The company prides itself on being the pioneer of crude oil refining in the country with its operations dating back to February 1922. Drilling started on Jan 22, 1915 when two small stills of 2,500 barrel per day (bpd) came on stream at Morgah, Rawalpindi (the site of ARL) following the first discovery of oil at Khaur. But being that old has its shortcomings. The refinery requires constant care of the wear and tear.

ARL is currently in final stages of completion of the largest expansion and upgradation ever since its inception. The extensive up-gradation project, which was estimated to cost \$251m is largely financed through debt-equity ratio of 80:20. From the point of view of investors in ARL stock the exciting development was thought to be an improved payout by the refinery.

Post up-gradation government may relax the cap on the dividend. Currently, the refinery cannot distribute fuel refinery earnings more than 50pc of the paid up capital, the restriction on dividend placed by the Petroleum Policy, 2001. The extra earnings have been stipulated to be utilised only for refinery up gradation. "However, likely completion of the plant up-gradation by the end of FY16 could unlock the dividend capping", market participants are optimistic. The company in a filing with the stock exchange on Aug 07, 2015 disclosed that the upgradation project would be completed by the end of FY16.

On Feb 9, 2016, chairman, Shuaib A. Malik wrote the directors' review on the latest available half yearly accounts for the six months ended Dec 31, 2015 and gave the feedback on ARL's up-gradation Project. He mentioned that a preflash unit, naphtha isomerisation unit, diesel hydrodesulphurisation unit, auxiliary units, utilities and expansion of existing captive power plant. All of those were completed. Construction activities related to equipment interconnecting piping, instrument and electrical cable installation, work inside electrical substations and control room, remaining civil works i.e. paving and finishing etc.

In a recent filing with the stock exchange, the company disclosed that the upgradation project would be completed by the end of FY16



were underway. The shut-down activity for carrying out revamping work on existing units had begun. Mr Shuaib termed the overall progress as 'satisfactory'.

Analyst at brokerage Foundation Securities says: "We see commissioning of ATRL's expansion and upgradation project to provide substantial upside to the company's prevailing margins. The project should primarily improve company's product slate, whereas incremental throughput should also be a positive for the company".

Saqib Hussain, analyst at brokerage Sherman Securities stated that the expansion in Naptha isomerization unit (to convert naptha into petrol) would increase gasoline production by 7,000bpd to 12,000bpd. And he added: "With additional 5,000bpd of petrol production, it is anticipated that this project will improve earnings before income tax, depreciation, amortisation (EBITDA) by Rs1.8bn per annum".

On the overall basis the company earned profit of Rs35m from refinery operations during the latest released accounts for the six months period ended Dec 31, 2015, against loss of Rs1.6bn sustained in the corresponding period of 2014. After including non-refinery income of Rs 995m (Rs1bn in HY14) the company closed the period with a profit after tax of Rs 1.0m against loss of Rs543m YoY.

Chairman, Shuaib A. Malik in the directors' review observed: "The phenomena of fall in prices of crude oil as well as products continued during the period under review which resulted in inventory losses. The

depreciation of rupee versus dollar also caused exchange loss on foreign currency transactions relating to crude oil". Due to slight favourable fluctuation in the prices of products and crude oil in the second quarter of the year, the company managed to have a positive but depressed gross refiner's margin (GRM). However, it enabled the company to recover loss from refinery operations incurred in first quarter of the year.

The ARL chairman affirmed: "Despite challenging operating environment the company maintained continued supply of petroleum products by operating at 99pc of its capacity. The refining throughput during the half year was 7,524m barrels (December 31, 2014: 7.8m barrels) while the sales volume was 7,039m barrels (December 31, 2014: 7,577m barrels). All the processing units of refinery operated smoothly during the period under review".

The ARL chairman lamented that the overdue receivables from government owned entities were still on the rise. "We urge the government to take appropriate steps for resolution of the circular debt issue on a long term and permanent basis", he urged.

ARL carried total assets of Rs84bn on its balance sheet on Dec 31, 2015. The company maintained paid-up capital at Rs853m in 85.3m shares of Rs10 each. With the closing stock price on Thursday at Rs230.37, the market capitalisation of the refinery works out at Rs19.7bn. ■

courtesy: Daily Dawn

N-energy essential part of national energy mix :Kidwai

By ALI HUSSAIN

Advisor Development, National Command Authority (NCA) Lieutenant General Khalid Kidwai (Retd) said that Pakistan will neither curb nor will it accept any restrictions on its nuclear weapons programme. "Pakistan will continue to respond to the threats to its national security without indulging in nuclear arms race, and it will participate in the 2016 Nuclear Security Summit because it believes in the objectives of NSS process and will abide by its obligations as a responsible nuclear weapons states," Kidwai, who is also former Director General, Strategic Plan Division (SPD), told a seminar.

General Kidwai said that Pakistan has a proven record spanning 42 years of safe and secure operation of civilian nuclear power plants, which are all placed under the IAEA safeguards. He said that Pakistan needs alternate, clean and sustainable civil nuclear energy for its burgeoning industry and to meet growing consumer demand. Our National Energy Security Plan includes a Nuclear Energy Vision - 2050, duly approved in 2011 by the NCA, to redress the existing energy deficits and to respond to the future requirements of our economy, he added.

In that context, we envisage generation of nuclear energy of 8,800 MW electricity by 2030 and 42,000 MW by 2050, he said, adding it was realistic, doable and under implementation with the near readiness of Chashma 3 and Chashma 4 Plants (each of 340 MWs) and the ongoing construction of KANUPP 2 and KANUPP 3 near Karachi (each of 1100 MWs). "Nuclear energy is therefore an essential part of our national energy mix and the Vision 2050 is generally on track", he said, adding it was high time that a discriminatory approach towards Pakistan is discarded and Pakistan is fully integrated in the international nuclear mainstream.

"This can be best done by removing restrictions imposed on Pakistan...Pakistan looks forward to an equitable access to international civil nuclear cooperation. All reasons put forward by the international community for not doing the right thing by Pakistan have become outdated and have run their cycle of illogic by now", he added. General Kidwai, in his remarks, commended Pakistan's role in the NSS process, saying the country attaches highest importance



to nuclear security. Over the past 15 years, he said, Pakistan has developed a rigorous nuclear security regime at the strategic, operational, and tactical levels which has made Pakistan's nuclear deterrence as well as its nuclear security a full spectrum capability.

He said that the SPD has incorporated the most stringent physical and technical solutions, runs a strict personnel reliability programme, and has developed security and intelligence capabilities to deal with all the issues impinging on national security, including proliferation, internal and external threats, accidents, precluding any possibility of WMD [weapons of mass destruction] terrorism.

He pointed out that Pakistan has created a comprehensive nuclear regulatory regime; developed Pakistan Nuclear Regulatory Authority (PNRA); created a comprehensive export control regime in harmony with the Nuclear Suppliers Group (NSG), Australia Group and Missile Technology Control Regime (MTCR); established its National Detection Architecture; set up a Centre for Excellence for Nuclear Security; implemented a Nuclear Security Action Plan (NSAP); ratified the Convention on Physical Protection of Nuclear Material (CPPNM) and has been working with the Global Initiative to Combat Nuclear Terrorism (GICNT).

He said Pakistan is a country with 42 year of proven record of safe and secure civil nuclear operation, and a discriminatory approach towards it should be discarded and it should be fully integrated in the international nuclear mainstream. "This can be done by removing restrictions imposed on Pakistan, and through an equitable access to international civil nuclear cooperation," he said, adding the rumours of Pakistan's fastest growing nuclear programme are seriously flawed and biased. He said

that Pakistan's full spectrum deterrence has neutralised use of military as an instrument of policy in South Asia.

He pointed out that Pakistan's nuclear security regime deals with the full spectrum of any nuclear threat - internal, external or cyber threat, reinforcing the very sizable numbers of security troops, a highly professional Special Response Force works round-the-clock to secure our assets and facilities. An integrated intelligence system has been instituted to provide depth in defence, he said, adding nuclear security is not just about protecting nuclear assets and forces but it is a complete cycle of threat assessment, vigilance and response mechanisms.

"That is why we created a comprehensive nuclear regulatory regime that encompasses not just physical protection of materials and facilities, but also fissile material control and accounting, transportation security, prevention of illicit trafficking, border controls and plans to deal with possible radiological emergencies," he added.

Overtime, he said, Pakistan Nuclear Regulatory Authority (PNRA), an autonomous oversight body, has developed a sustainable nuclear safety regulatory system with established response and recovery capabilities for radiological sources. It has earned the confidence and respect of the IAEA because of its close co-ordination with the world body, he added.

Dr Ansar Pervaiz, in his remarks, said that Pakistan actively participated in the NSS process and assured the international community about that safety and security of Pakistan's nuclear assets.

Zafar Ali talked about Pakistan's role in strengthening its border control and strategic export controls. He emphasised that it is Pakistan's national responsibility to maintain the safety and security of its nuclear assets.

Brigadier Zahir Kazmi, critically evaluating the NSS process, highlighted that the process has tried to establish a parallel nuclear regulatory framework which is not a responsible entity and it is a legacy of the Obama administration which is based on political motives alone. The seminar "Pakistan's role in Nuclear Security Summit (NSS) Process" was organised by Institute of Strategic Studies, Islamabad (ISSI) in which other scholars including Dr Ansar Parvez, former Chairman PAEC; Zafar Ali, Director General, SECDIV, Ministry of Foreign Affairs, Brigadier Zahir Kazmi, Director, Arms Control and Disarmament Affairs (ACDA), SPD, Ambassador Ali Sarwar Naqvi, Executive Director, Center for International Strategic Studies (CISS), Dr Zafar Iqbal Cheema, President Strategic Vision Institute (SVI) and others also presented their papers. ■

KP's hydropower policy

WHE Khyber Pakhtunkhwa Power Development Programme envisages construction of 356 micro hydropower plants and some medium-size projects to provide cheaper electricity.

A senior official says the provincial government has prioritised five projects for execution - Matiltan, Koto, Lawi, Jabori and Karora. These would produce 216 megawatts of electricity collectively. "We need at least Rs64bn for the execution of these projects," he said.

The Pakhtunkhwa Energy Development Organisation (PEDO) raises Rs3bn annually for the KP government through generation of 105MW of electricity.

The PTI-led coalition government is working on projects of over 3,000MW. Much of the progress will depend upon the approval process of these schemes as projects above 50MW need the federal government's nod.

KP has an Rs15bn hydropower development fund to initiate these projects. The province would receive past arrears of Rs70bn from the centre in four years as agreed by the federal government.

The official is optimistic that the timely release of the funds will largely resolve the issue of cash to initiate work on the identified projects. But KP has also issues with the federal government on four operational projects. Pesco has not paid Rs900m arrears to the Pehur Power Plant (12MW). It is only paying 20pc for electricity supply. In February 2016, the federal government agreed to evolve a mechanism to settle the matter.

Moreover, Machai, Mardan (2.6MW)



Industrialists will be encouraged to set up their factories near hydropower generation spots

and Ranolia, Kohistan (17MW) plants are still awaiting connection to the national grid by NTDC/Pesco in spite of the fact that advance payments have been made by the provincial government.

Construction was initiated on three projects - Jabori, Mansehra (10.2MW), Karora, Shangla (11.8MW) and Koto, Dir (40.8MW). All formalities are at advance stage for awarding contracts for two other projects - Lawi, Chitral (69MW) and Matiltan, Swat (84MW).

According to the PEDO documents, feasibilities of 17 power projects have also been completed which will add another 2,525MW to the national grid. The PEDO has also identified projects to be transferred to the local communities.

Moreover, 10 pilot projects of run of canal will be completed in a year's time. The feasibility study of 800MW gas-based combined-cycle power plant is underway. The federal government would allocate 100mmcf/d gas to the KP government to use it in power generation either on its own

or through partnership with the private sector. The power policy revolves around two basic themes - assured cheap hydro-based electricity to industries and private sector-led management of the industrial zones. Cheap electricity will be offered to the investors near the gas extracting spots.

Under the policy, industrialists will be encouraged to set up their factories near hydropower generation spots. Electricity would be supplied to such industries from the new projects through wheeling charges by using the Wapda distribution network.

For example, Gadoon Amazai Industrial Estate in Swabi district will be offered electricity at cheap and concessional rates and on a priority basis from Pehur High Level-I hydropower plant. Investors in Dargai, located in semi-tribal Malakand Agency (earlier identified for setting up an industrial zone), will be offered electricity from the Malakand-III hydropower plant.

The Malakand-III power station generates 553m kilowatt per hour (kWh) of electricity annually. The cost of generation is around 2.18 cents per kWh. And its electricity is sold to Wapda at a cheap rate.

The PTI-led government intends to revise the agreement with Wapda, to get higher per unit rate, and secure a maximum share of power for the industrial zone to be set up nearby. Experts say if the hydro energy can yield more than Rs50bn in annual profits for KP, the province would be able to launch massive projects for poverty eradication and job creation. ■

Courtesy: Daily Dawn



Regulating Corporate Social Responsibility in Pakistan

T Regulators all around the world are now increasingly holding the corporate sector 'responsible' for its impact on society, the economy and the environment. This is being seen through increased regulatory behavior to guide companies in driving corporate social responsibility. Keeping with global best practices, the Securities and Exchange Commission of Pakistan has recently released 'Voluntary Guidelines for Social Responsibility'.

Shareholder value and reputational risk have increasingly become associated with managing impacts and performance in the triple bottom-line. Most companies listed on international stock exchanges today are choosing to adopt policies that embed CSR in their business practices and disclose related information in annual reports. These efforts are recognized on many levels from the Dow Jones Sustainability Index to Corporate Register as stakeholders choose to judge a company in terms of environmental performance and impact on society.

The corporate community in Pakistan through its philanthropic contributions and donations has a historical background of being socially responsible. As the understanding of an organization's responsibility moved towards sustainable development, the concept of sustainability evolved. In the recent past, many listed companies have begun to develop policies and practices to realize the social, economic and environmental impacts of its business practices as part of understanding business sustainability in the long term.

The current management of CSR by the corporate sector varies from company to company and sector to sector. A growing number of companies have chosen to treat CSR as an investment, choosing to follow international best practices of management and reporting, going beyond the requirements of local legislation. Others give CSR token recognition; thus disclosing on CSR performance is simplistic as compared to sophisticated reporting of financial figures. As both content and methodology of disclosures varies across companies, it is difficult for stakeholders to understand the company's CSR performance related data.

Voluntary Guidelines for Public Companies

The recently released 'Voluntary Guidelines for Corporate Social Responsibility' by the Securities and Exchange Commission of Pakistan (SECP) strives to make CSR performance more congruent amongst companies. The Guidelines, SECP's second regulatory input related to CSR, follow on from the mandatory CSR General Order in November 2009 that stated listed companies were to include monetary and descriptive disclosures in their Directors Report.

The guidelines are targeted towards all public companies and although voluntary, are expected to increase the number of



companies which consider CSR to be a part of their business practice. Through implementation, it will lead to a process of accountability and transparency in the commitments made by management to key CSR issues.

The guidelines, focus on promoting a CSR culture in the company by identifying key aspects of establishing CSR processes in the company - placing emphasis on various stages of how CSR should be integrated in business practice, mainly focusing on identifying a CSR consultative committee, on developing a CSR Policy, identifying goals and achievements, and related disclosure and reporting, and independent assurance of CSR performance.

The SECP has placed emphasis on expectation of the board of directors to play an active role in formulating CSR policy. The significance of making CSR a priority of the top management is that it places CSR in the roles and responsibilities of the top management. It also sends a message to all departments that targets set for CSR will be reviewed in the same manner as other business targets. The guidelines identify a top-down approach for practicing CSR, focusing on commitment of top management to include CSR into strategic business decisions.

Companies to Choose their own CSR Interests

The guidelines, whilst giving the company a direction in managing CSR, give the company freedom to develop its own understanding of CSR. This can be tricky if companies still understand 'CSR' to be charitable donations. It does suggest a number of areas of interests which a company can focus its CSR activities on. This includes climate change, governance and product responsibility. These are important focus areas in a company's corporate responsibility - and the nature of the guidelines leave the company free to develop their own understanding of these terms.

The advantage of this freedom is that the company is left free to decide which interests are material issues - an impact of which could influence the decisions and behavior of stakeholders. The disadvantage in leaving an open field for a company to choose from might result in a company continuing to focus only on charitable donations.

Other regulatory guidelines in the region have chosen to be specific in defining what constitutes corporate social responsibility. In India 'National Voluntary Guidelines on Social, Environmental and Economical Responsibilities of Business' (2011) released by the Ministry of Corporate Affairs encourage businesses to implement all 'nine key principles in their entirety rather than picking and choosing what might suit them'. The principles cover all aspects of corporate responsibility including governance, environmental protection, human rights and product responsibility

from cradle to grave.

Similarly Bursa Malaysia's 'Guide to Directors' identifies 'A company's sustainability focus as being dependent on the business impact of their operations on the community, environment, marketplace and the workplace as well as stakeholder expectations and corporate strategy'. It gives a detailed description of common sustainability issues in terms of a company's value chain. The statement leaves no ambiguity to the company in determining the scope and focus of its areas of interests.

The Stepping Stone to Further Legislation?

As stakeholder focus increases on sustainable business practices, regulators in most countries have now introduced reporting and disclosure requirements. This shows the growing value given to socially responsible behavior of the corporate sector. As understanding of national sustainability issues increases, regulators now hold the corporate sector 'responsible' for shaping a country's future development. The SECP's Guidelines are a step in the right direction. The guidelines in its present form can be regarded as a preliminary step to further legislation if it wants to be compared to other global regulators.

Key practices adopted in other countries include:

Moving towards mandatory legislation. A number of countries have moved towards mandatory legislation related to reporting

and disclosure of a company's performance in terms of both its environmental and social responsibilities. This shows that regulators have now begun to view sustainability performance at par with financial performance.

Integrating sustainability performance with national development goals. Qatar has recently made reporting on sustainability performance mandatory for industry. Here, mandatory reporting will ensure that companies strive to align their aims and objectives with Qatar's National Vision 2030.

Sector based legislation. Indonesia has implemented sector based mandatory legislation related to CSR. Presently, only those companies with business activities in and or related to natural resources are required to implement CSR (Waagstein, 2011).

Mandatory reporting in key sustainability focus areas. Some countries are going a step ahead and are now moving towards making certain aspects of corporate responsibility mandatory. Most mandatory regulation is linked to national goals and strategies. This includes specific regulatory impacts for reporting on carbon disclosures etc made by United States, Australia, the UK and France. This measure will increase monitoring and perhaps work as an incentive for working towards reduced carbon emissions.

Obligatory allocation of profits towards

CSR. India has recently introduced a bill that requires companies that have a high net profit (\$920,000 or more) to spend 2% of the profit on CSR activities. It is also mandatory to disclose the expenditure amount. The objective behind the bill is to increase transparency which will attract foreign investment.

In releasing the Guidelines, Pakistan's regulators have begun to hold the corporate sector 'responsible' for their actions. As CSR processes mature in the corporate sector, evaluation of progress in CSR disclosures will pave the way for more sophisticated measures which can be linked to aims of national development and foreign investment.

Viewing the Guidelines as Insurance for managing risks

Businesses face a number of strategic risks as consumers demand for responsible practices and future strategic investments need to be considered in terms of environment and society. The risks related to regulatory compliance is growing as international trade demands stricter regulatory measures related to labor and environmental compliance. SECP's guidelines will encourage the corporate sector to develop an understanding of where the company's responsibility lies towards society and environment. Public companies interested in adopting best practice to manage risks will benefit from investing in implementing the guidelines. ■

Tree Plantation to show solidarity with Lahore blast victims

In order to show solidarity with the 72 people who lost their lives in the blast that took place in Lahore's crowded Gulshan-e-Iqbal Park on Sunday evening, members of civil society, law enforcement agencies and academia and people from almost all walks of life in Karachi thronged the Frere Hall on yesterday evening to plant as many as 110 trees.

Armed with small neem trees and water cans, several young students were planting the trees. The event was organised by a non-governmental organisation, Voice of Karachi (VoK).

The President of VoK Basit Mundia told newsmen that people usually lit candles to commemorate victims of terrorist attacks. The candles, according to him, extinguish and yield no result. That was why, he said, they decided to do something that lasts forever and came up with the idea of planting trees.

Another senior committee member of the VoK team, Malik Tufail, said they had arranged the event for the martyrs of the Lahore attack. He maintained that this act of planting trees will also help control



pollution and the heatwave that is most likely to hit Karachi in the following months.

The president of the National Forum for Environment and Health (NFEH), Naeem Qureshi, was of the opinion that candle vigils are an imported and adopted technique to show solidarity with the victims of any sort of incident. He said they wanted to do something that could have a sustainable benefit for the society and, due to the upcoming heatwave, tree

plantation was the best thing they could do. He announced NFEH will plant 100,000 trees in city in next 2 months under the ongoing campaign Sarsabz o Pursakoon Karachi, commissioner Karachi office, NGOs, corporate sector & municipal bodies are partners of this campaign he added.

Citizens-Police Liaison Committee chief Muhammad Zubair Habib, DIG south Dr Jamil Ahmed, politician Najmi Alam who

Government relaxes LPG Import Policy

Anyone can import LPG after paying govt. dues

The long awaited LPG policy has been announced by government as measures have been taken to liberalise its import and usage among the consumers across the country. Though considered as green energy and safe for domestic and commercial usage, it's been still called a dangerous and hazardous source of energy. It's need of the hour that stakeholders should launch a campaign to create awareness among the people.

Producer and consumer prices of LPG have been de-regulated by the government since September 2000. Oil and Gas Regulatory Authority (OGRA) is regulating the LPG sector with effect from 15th March 2003 under the LPG (Production & Distribution) Rules, 2001.

OGRA is responsible for issuing licenses to construct and operate LPG production, storage/ filling facilities and refueling stations under the LPG (Production and Distribution) Rules, 2001.

There are three main sources of LPG supply i.e. refineries, gas producing fields and imports. Currently 12 LPG producers are producing around 1,964 MT/ day of LPG which is being marketed by 97 licensed LPG marketing companies all over the country through their more than 4,000 authorized distributors.

It may be noted that the producer and consumer prices of LPG have been de-regulated by the Government since September 2000. The Government since its LPG (Production & Distribution) Policy Guidelines 2013 has reiterated its commitment to follow the de-regulation policy. In pursuance of LPG (Production & Distribution) Policy Guidelines, 2013; LPG producer and consumer prices are being determined by market forces being a deregulated activity. Further, price of LPG product varies from company to company and city to city and



the same are being determined by LPG marketing companies keeping in view the demand supply situation and seasonal variation. As per this Policy OGRA can determine reasonable consumer prices. However, it is pertinent to mention here that matter regarding determination of reasonable consumer price of LPG is subjudice in Lahore High Court, Lahore. The matter is being followed by OGRA.

In December 2011, the Petroleum Products Petroleum Levy Ordinance 1967 was amended to provide for imposition of Petroleum Levy on LPG @ Rs 11,486 / MT (Rs 135 / 11.8 Kg Cylinder) on domestic production which is equal to marine freight and other import incidentals for imported product. The rationale of imposing this levy was to provide a level playing field for domestic and imported products with the objective of enhanced LPG availability through imports. The said objective, however, could not be achieved as on one hand the local producers have not been able to

maintain their prices at Saudi Aramco Contract Price resulting in fluctuation of LPG consumer prices from Rs 1,150/Cylinder to Rs 2,000/Cylinder in the market and on the other hand the imposition of levy got struck down by the Courts on various grounds. The matter is still pending adjudication and being pursued in the Courts.

Since deregulation, the domestic LPG market has been experiencing various challenges including demand supply imbalance, cartelization, litigations and price distortions. In 2001, the local production was 979 MT/day and the current average production is around 1,964 MT/day.

Taking cognizance of the issue, MPNR has reviewed the issue in its entirety and has concluded that price deregulation policy has failed to achieve its intended objectives of availability of the products at affordable prices. LPG is considered as poor man's fuel, yet the same is being priced at over 20 times higher than natural gas for domestic consumers.

The situation warrants immediate intervention and MPNR considers it expedient to put in place a framework to regulate the LPG prices both at producers' and consumers' level. For the purpose, MPNR has undertaken a consultative process with LPG Producers as well as LPG Marketing companies. LPG Producers have expressed

Rs/MT Rs/Cylinder

Producers' Price (including excise duty)

41,000 482

Marketing/Distribution margin

24,000 283

Consumer Price (Ex-GST)

65,000 765

17% GST

11,050 130

Final LPG Consumer Price

76,050 895

By ASHFAK BOKHARI

Town Houses revised Survey			Cost of plant	Cost of pipeline	Total Cost
1 Bella	6000	46	350	146	496
2 Zhob	2600	50	350	154	504
3 Qilla Saifullah	1800	32	305	141	446
4 Khuzdar	3000	55	350	175	525
5 Loralai	2300	44	350	157	507
6 Kharan	2000	26	305	98	403
7 Musakhail	850	16	305	73	378
8 Qilla Abdullah	300	8	305	55	360
9 Keech at Turbat	1700	34	305	136	441
10 Umerkot	21537	270	500	1112	1612
11 Mithi	7000	175	350	846	1196
Total			3,775	3,093	6,868

LPG general information:

No. LPG Producers : 12 (6 E&P Companies, 4 Refineries, 1 Plant)
 No. of LPG Marketing Companies : 97
 No of LPG Distributors : 4500
 LPG Autogas Stations : 4
 LPG Import Terminals : 2
 Throughput Capacity of Terminals : 60,000 Tons/ Annum
 LPG Indigenous Production (average) : 1964 MT/ day (December 2015)
 LPG Import (average) : 188 MT/ day MT/Day (2014-2015)
 Price of 11.8 KGs LPG Cylinder in Pak Rupees
 (January, 2016) : Rs. 1375/ MT (Average)
 Indigenous LPG Producer Price (January 2016) : Rs. 46,902/ MT (Average)
 Saudi CP Price (January 2016) : \$372/ MT (Approx Rs. 49,017/ MT)
 No. of LPG Cylinders in the Country
 (Domestic) : 4.5 Million
 (Commercial) : 0.3 Million
 LPG PRODUCTION - December 2015 MT/ day

OGDCL : 205

POL : 48

Ocean Pakistan Limited : 25

United Energy Pakistan : 38

PPL : 163

MOL Pakistan Limited : 490

Pakistan Refinery Limited : 35

Pak Arab Refinery : 446

National Refinery Limited : 16

Attock Refinery Limited : 10

Bosicor Refinery Limited : 84

JJVL : 354

TOTAL : 1964 MT/ day

LPG CONSUMPTION PATTERN 2014-15**Sector Avg Annual Consumption MT %**

Domestic 7,474 46.5

Commercial 6,187 38.5

Industrial 2,403 15.0

Total 16,064 100.0

Subject to Policy Guidelines of the Federal Government, Oil and Gas Regulatory Authority will regulate and notify the prices of indigenous LPG including producers' price, margins of marketing companies and end consumer prices. Distributors' margin will be included in the marketing companies' margin.

For domestic and commercial sectors, the above mentioned price is proposed w.e.f. date of approval of summary which will be subject to revision by MPNR from time to time to benefit the interest of domestic as well as commercial consumers.

The Government may charge a Petroleum Levy from local LPG producers as provided in the Petroleum Products (Petroleum Levy) Ordinance, 1961, as specified from time to time by MP&NR.

LPG AIR MIX PLANTS

SSGCL have initiated the process/activities to install LPG Air Mix plants for gas supply to less developed areas including 22 Nos. towns of Balochistan and 02 Nos. towns of Sindh. SSGC has so far carried survey of 11 Areas which are taken as Phase-I and submitted cost estimates as under.

LPG PRICING:

The Government will continue to follow its deregulation policy and the Price of LPG supply chain will not be determined or notified by the Government. The Government will charge a Petroleum Levy from local LPG producers as provided in the Petroleum Products (Petroleum Levy) Ordinance, 1961 as specified from time to time by MP&NR and level of this levy be so fixed to protect investment in local LPG production as well as to encourage imports.

To ensure that cartels are not formed and high consumer price of LPG is not charged, MPNR & OGRA will determine the quantity of LPG to be imported to meet the gap between demand and supply. This quantity will be imported by public sector Sui companies. Besides, the private sector companies can also import LPG to meet the demand. The LPG consumer price/retail prices will be determined by Market forces in accordance with Government's deregulation policy. However, OGRA will oversee/ monitor that LPG Prices remain within a reasonable margin after accounting for primary transportation, all operating and administrative costs and taxes for LPG marketing companies and distributors.

Any party having valid OGRA License can import LPG after paying applicable government dues. ■

some concerns on regulation of prices which has been attached with the summary.

In order to address the issue of increase in LPG Prices and to benefit the domestic / commercial consumers, MP&NR submitted a summary for the CCI on 25.08.2015 to Inter Provincial Coordination Division. It was proposed in the said summary to

regulate the LPG prices. For domestic and commercial sectors the following price was proposed w.e.f. date of approval of summary: -

The amendment of LPG (Production & Distribution) Policy 2015 has been proposed containing following major amendments/ additions/ salient features:

Govt should announce interest free loans to SMEs in Energy Sector - Waliullah Khan

Govt revenue can be multiplied through policy implementation in true spirit

By Sajid Aziz

Country's prominent tax expert and CEO, SMEBS, Waliullah Khan has called upon the government to implement its tax policies in true spirit in order to multiply its present level of revenue collection. He believes that without projecting SME sector, the economy will not grow. He striving hard to bring investments in Energy sector from China has called for In an exclusive interview with the Energy Update he continues to say that.....

EU: As you are catering to the Small and Medium sector, what services you offer to them?

Waliukkah Khan (WK): We serve business sector in all legal matters most specifically Accounting, Taxation, Corporate affairs, intellectual property rights & other related matters whenever & wherever required. We also make feasible for SME's to acquire loans from financial institutions.

Our aim is to serve Pakistan, but our biggest challenge is our economy, we are taking initiatives with true spirit of patriotism, in this journey, we are associating a big team and inviting educated, talented young Pakistanis who also can work with us with patriotic essence and become the part of successful team.

EU: What is your plan to promote Business sector in Pakistan?

WK: We have high goals to promote business sector, in which we are making a huge team all over the country to facilitate the investor, we have plan to open unique system of franchise, across the country, by the help of this system, we can easily assist not only urban cities as well as the rural cities of Pakistan, there is huge investment waiting, as we know, there are many of Pakistanis who have interest to invest in corporate sector, due to distance hurdles and complications of communication they do not have courage to join corporate sector or form a company....

We are actually forming the bases of business in the shape of helping hands, initially whatever the steps to be taken by the growing up company, we facilitate all of the issues so that legally a new born company i.e. SME's makes its status high.

EU: Do you think that your Corporate sector can bring the country out of the red in given circumstances?

WK: SME sectors have potential to contribute massive amount in Pakistan's GDP. In developing Country like Pakistan, small and medium businesses played a vibrant part in enhancing economy. The growing tendency of SME's structures will direct impact on economy & manipulating large investment from all over the globe.

EU: Do you think that government is giving required attention to the SME Sector?

WK: As far as government is concerned, there are various scheme and plans from the government side but the darkest aspect of our country that the execution is not successful, that is how we, with the collaboration of government sector want to improve the circumstances.

Previously SME sector was neglected by the government, whereas, government has introduced many incentives for cottage industry regarding taxes waivers but other factors are still require attention. It is the prime responsibility of the government to facilitate & offer feasible environment to SME sectors by means of developing intellectual infrastructure i.e. land should be allotted to the SMEs at concession and on installments



It is the prime responsibility of the government to facilitate & offer feasible environment to SME sectors by means of developing intellectual infrastructure i.e. land should be allotted to the SMEs at concession and on installments or funding to develop equity capital.



or funding to develop equity capital. Notwithstanding the facts that once, SME sector become steady in a country it is easy to capture world business more effortlessly & economy will be improved in the same manner.

EU: Due to what measure government can multiply its current level of revenue and enhance tax net?

WK: Government can multiply its current level of revenue and enhance tax net by implementing existing policies in a proper manner. Government has to introduce various immunity schemes in favour of increased taxes as compare to previous year to give relaxation with Income Tax Audit. However, the more important thing is that Govt. should clean internal corruption within the department & to organize different training programs internally for department officials. Individuals should get incentives from the taxes which they paid as a taxpayer to Government, whereas, proper accountability or check & balance should be made & disclosed publically.

EU: Did you prepare any comprehensive suggestions for the government to incorporate in forthcoming federal budget?

WK: In forthcoming budget, government should focus neglected sectors like SME's. Government should introduce interest free loan program for SME's. Make relaxed policies of registration of business with FBR most specifically for Sales Tax. Provide extra incentive for manufacturing

companies who are willing to take initiative in making products which are not locally produced in Pakistan with respect to taxes & duties. The implementation of tax exemption certificate should be appropriately done. IT department of Pral should respond unresolved queries in a swift & prompt manner.

EU: Please give some detail of yours and your company's profile?

WK: SME Business Solutions Limited is a leading Company offering World's Best Law Consultancy Services. The word SME is the abbreviation of Small Medium and Entrepreneur. The Company has been dynamically operated in global specified field for last couple of years. SME is a limited liability Company by shares and Registered with The Securities and Exchange Commission of Pakistan (SECP) pertaining Corporate Universal Identification Number 0077122.

We strive for excellence in every aspect of our business. We don't only aim to meet quality standards; we also endeavor to surpass them. Our firm belief is that our excellence is enhanced by the dedication and commitment of our people.

Presently SME have around bunch of clients from all over the World. As maintained an enormous position in advisory services by means of highly professional & proficient team of Taxation, Accountancy & secretarial services & after considering the demand of SME valuable services it's looking to extend its professional services in overall the world more over we provide the opportunity of employment in our company, hence,

The SME Business Solutions Limited, is an open door company for each individual employee and we value with respect for who they are as a person and what they bring to the organization, we hire on merit, skill, and ability without any discrimination, we fascinate educated, talented male and female from all over the country, we facilitate our employee and provide such comprehensive environment of work, where, a bright career is guaranteed.

EU: Any other plan or message for the young generation you want to disseminate?

WK: Youth is an asset of our country. The prime focus of youth should be an education because only education can make a difference in the world of technology & business. The productive work can only be performed with passion & morality. The key of success in profession is to work with loyalty, genuineness & scrupulously which make individuals to the height of success & the success of youth is undeniably a country's success. ■



By Sajid Aziz

In the era of cheap global oil Pakistan facing energy crisis Diversifying energy sources to meet needs

Even in the present era of cheap global oil, Pakistan faces energy deficit of 4,500 to 5,000 MW. In recent years, this shortfall has sometimes soared to 8,500 MW - more than 40 percent of national demand. As a result, Pakistan's urban areas regularly experience several hours of outages every day, while in some rural communities residents are fortunate to receive four hours of electricity per day.

At the same time, the consumption levels for Pakistan's two most heavily utilised sources of energy (oil and gas), are so high that the national oil and gas company, Oil and Gas Development Company Limited (OGDCL) predicts that indigenous oil reserves will be exhausted by 2025, and that Pakistan will run out of domestic natural gas by 2030. What's more, the pollution caused by burning fossil fuel and the effects thereof on the environment and people have been proven to be exceedingly harmful.

Currently, the average demand is estimated at 17,000 MW, with the approximate shortfall recorded at up to 5,000 MW. These figures will worsen, however, as demand is expected to increase at a rate of 5% per annum over the next 10 years. With an ever-rising energy demand in Pakistan, coupled with the rapid exhaustion of existing energy resources, the crisis is exacerbating. Given the current scenario, diversifying, expanding and creating energy sources is essential for the economy and the well being of the people.

While sharing his point of view on alternate energy sources, Bill Gates said, "Nuclear energy, in terms of an overall safety record, is better than any other energy." Scientists have revealed that nuclear plants are able to provide clean energy without the production of greenhouse gases such that nuclear power has been reported to have low negative impact on the environment compared with other power generation options.

While Pakistan has been using hydro-electricity as well as fossil fuels to meet all its energy needs, there is a precedent of Nuclear Energy. 1972 witnessed the creation of the first nuclear power plant in Pakistan, 137 MW KANUPP, which has ever since been operating on a self-financed basis with no untoward incident or accident occurring. To meet future needs, the Pakistan Atomic Energy Commission (PAEC) has started constructing the K-2/K-3 Nuclear Power Plants in Karachi, after having all plans approved by the authorities concerned, with China having offered to loan most of the money required for the project.

The cost of production per unit of nuclear power is far less than the production of electricity from hydrocarbon fuels like coal or furnace oil, if environmental costs are also taken into account. This in turn means that electricity can be provided to consumers at a much lower cost. PAEC is building a Gen III reactor, it means that the power plants will have the latest safety features, ensuring that natural disasters such as tsunamis would not result in any leaks that may threaten the surrounding population. There are no mangroves or turtle habitats near the proposed site of the K-2/K-3, so no wildlife will be negatively impacted due to

the presence of the nuclear plants. Also, the marine life around the coastal area of the region will not be affected.

Fear mongering and limited scientific information has created a negative perception of the word nuclear in the minds of the people. For a country like Pakistan nuclear energy solutions are cheaper than the conventional way Pakistan has been producing energy, but are also much safer and have less of a carbon footprint than those conventional means. The K-2/K-3 Nuclear Power Plants project will offer a safe source of energy, reap economic benefits and address the energy crisis positively.

Regulations, international organisations and scientific advancements have ensured that nuclear power plants are safe. Modern nuclear plants have cutting edge design schematics, built in safety measures, conservative procedures and extremely cautious emergency plans, to the extent that any radioactivity that is released is carefully planned and monitored, with maximum dosage of about 0.01mSv, less than a hundredth dose that the population is exposed to

of the
from natural sources.

The system proposed by PAEC has sufficient flexibility to absorb and mitigate effects of human error, with the plant being able handle any accident for up to 30 minutes, giving its human operators ample time to decide on the best course of action. The security measures of the Plants ensure that even in the case of sabotage, backup safety systems stay intact, with a shut down protocol for the whole plant becoming active if necessary. Safety features take into account pipe breakage, power failure, earthquakes, tsunamis, flooding and even complete station black-out, allowing the reactor to handle any and all situations. Furthermore, the outer shell of the reactor is strong enough to keep the reactor safe even in the event of a plane crashing on top of the reactors.

Every form of energy production - renewable, fossil fuel or nuclear - has costs, advantages and disadvantages. The Pakistani reality is that we have communities off grid, villages that have no electricity, towns that have electricity less than a couple of hours a day and cities that have four to eight hours of load shedding daily. While solar and wind solutions are intellectually appealing, they require consistent sun or wind, improved energy storage and access to gas as a supplementary fuel for the days the sun doesn't shine or the wind doesn't blow. Hydroelectricity has been integral to Pakistan but there are costs associated with that too - including the loss of water to evaporation during the production process.

Pakistan needs to diversify its sources of energy as rapidly as possible. The way forward for the country has to include individuals installing solar panels, building small hydroelectric dams and nuclear power plants - the shortfall is too great and the risks of not having enough electricity for our economic and social needs too many for us to choose any other path. ■





Introduction

GeoScience Associates (GSA) was founded by Mr. Syed Mosoof Hussain in 1999. GSA is a leading consulting & testing company specializing in Geophysics, Water Resources, Geotechnical Engineering, Foundation Pile Testing and Environmental studies.

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Thar Coal Energy Project reaches into practical phase - Younus Dagha

Thar Coal to yield 600 MW by 2018

Federal Secretary Water & Power talks to EU on power crisis situation

By M. Naeem Qureshi

Thar coal and power project in Block-II of mining area reached its financial close by end of year 2015 meaning that one of the most vital energy project of the country has entered into its practical phase in real terms, said Federal Secretary for Water and Power Mohammad Younus Dagha in his recent interview to 'Energy Update' (EU).

The federal secretary said that it was a big achievement that the major energy project like Thar Coal was entering into its practical phase while till year 2018, the project would start producing 660 megawatts electricity. The rest of 660 MWs power from Block-II would be available either by end of year 2018 or by beginning of 2019. Rest of the two mining and energy projects in Block-I and Block-VI of Thar would also reach financial close during current year, he said.

In his chat with EU Mr. Dagha exclusively continues to say that.....

EU: Kindly tell us about your association and commitment with Thar coal project?

Dagha: I was appointed Secretary Mines and Minerals in Sindh government during tenure of the then caretaker govt

in year 2008. When new government of PPP came into power the same year, it expressed to resolve and make progress on long-delayed project of Thar Coal. After departure of prospective Chinese investors in 2005, chapter of Thar Coal had been completely closed. Nobody including both local and international prospective investors was taking the project seriously at that time. I was asked at that time by the government to get Thar Coal project moving and making progress by any mean. While that was a major challenge of its time as nobody was willing to invest in the project.

I prepared the proposal for the government of that time that it should increase its share in Thar Coal project in order to lure a reputable company or investor for the energy project. In this regard, a joint venture company was formed. I didn't want that purely a public sector company should be established for the purpose as it was feared that owing to its usual inefficiencies the public sector could not successfully run the coal-based project. We wanted a project having reasonable investment and management from private sector while there would be no interference from the govt in the joint venture in energy sector. At that time no big company was ready to talk to us as Thar Coal project had already earned much ill-fame and bad reputation.

EU: What solution you sought to reverse the situation in favour of Thar coal project?

Dagha: Then I sensed gravity of the situation and decided to invite each of major company having potential to make investment in Thar energy project for an interaction with the govt. In this regard, I one by one lectured five to six big group of companies of that time on utility and massive benefits of Thar coal in near future. After lecturing, we gave advertisement in newspaper inviting expression of interests for the project, which surprisingly caused massive competition among prospective investors for the project. We then short-listed the companies through ranking process and after international bidding we selected Engro Corporation for the public-private partnership project in power sector of Thar.

Then we carried out all initial investigations for Thar coal and also got involved Sino-Coal, a major Chinese company in the project. So the project we launched in 2008 now reached its financial close by 2015. In the meanwhile, I being on a key post of additional secretary in Islamabad had forwarded the summary to Economic Coordination Committee for securing sovereign guarantee for the project. So one way or the other I was somehow held any of the key posts whenever any significant development takes place regarding Thar Coal.

EU: What new incentive you have got secured for Thar coal project?

Dagha: When we signed agreement for proposed China-Pakistan Economic Corridor (PCEC), we placed three project of Thar Coal in CPEC i.e. Engro project in Block-II, Block-I project being carried out by Sino-Sindh Resources, and Block-VI project being carried out Oracle Coalfields.



Initially electricity produced through Thar Coal project would seem to be expensive as compared to power produced on coal internationally. But as size of mining would grow there would be reduction in cost of electricity due to economy of scale factor. As soon as power plants having capacity of over 3000 MW electricity were installed in Thar then the cost of producing electricity in Pakistan would become easily comparable with that of India.

EU: What is role of China in assisting power projects in Pakistan?

Dagha: It is difficult to find financing of international level for coal-based energy projects so we have to rely on Chinese assistance for such a cause. China is providing maximum assistance for energy

projects in Pakistan with around Rs22 billion investment being made. After China, Russia is also taking keen interest in energy sector of Pakistan. American assistance is also available through USAID-funded projects but that interest is not of much significant proportion. Whenever international sanctions were lifted from Iran, there could be phenomenal import of electricity through cross-border transmission system from Iran to Pakistan.

One more thing, as there could be done limited work on power projects consuming imported fuel so Thar coal and hydro-power projects could be rightly termed as energy security for the country.

EU: Is it true that 32 wind power projects in the country have been pending as what the recent reports says?

Dagha: These alternative energy projects have not been pending but instead they have been in different stages of implementation. Already six wind power projects have been completed while till coming June seven or eight more such projects would also be commissioned. While there is limitation on evacuation of electricity produced in wind corridor in the province owing to limited available capacity of national grid. If we draw more electricity than available transmission capacity, it would destabilize the entire national grid. So we continue carrying out work on such wind projects keeping in view available capacity of power grid.

A recent study has shown that we could only draw up to 1700 MWs electricity through wind-based projects for sake of stability of national grid so we are completing these projects in the same gradual manner.

EU: When will be the new electricity tariff announced in view of reduction in oil prices?

Dagha: New tariff for electricity is being discussed at level of NEPRA as it would be notified in one or two months. In the meantime, it is obligatory upon all of us to lessen our reliance on imported fuel for electricity generation and instead rely more on coal-based and hydro-power projects for sustainable and much inexpensive production of electricity. With adopting such a strategy, we would not be affected by any future expected increase in oil prices.■

Announcement for CSR Club Pakistan



The CSR Club Pakistan (CCP) is yet another initiative taken by the National Forum for Environment & Health in order to promote awareness, Knowledge, success stories and the healthy CSR activities all over Pakistan.

Presently, we are inviting CSR Professionals, Practitioners, NGOs and Corporate Companies to become a founder-member of "CSR Club Pakistan" by filling-out the "Membership Form" and submitting it either to NFEH's Rep or emailing it to: ruqiyanaeem@gmail.com. Kindly note, registration is free till 10 May 2016.

Objectives:

- i) Establish one platform of CSR Professional/Practitioners, NGO's and other.
- ii) Promote successful CSR Pilot Projects
- iii) Provide guidelines and encourage members, corporate and industries to part of an effective Social Programs and Trainings
- iv) Develop CSR Strategies for Poverty Alleviation & development.
- v) Share CSR success stories & Information among members, corporate & industries.
- vi) Encourage Group Corporate Members to part of Joint-venture deal of large or mega-project
- vii) Encourage Group Member to raise voice against Poverty, Illiteracy, Inequality, Crime, Unemployment, Pollution etc.
- viii) Publicity & image building of CSR project through CSR magazine awareness through print, electronic and social media.

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Unconventional sources of oil change the world

There is a famous Urdu proverb which translates into "Look at the oil..Look at its flow". It is usually used to express the feeling of wait and see. It implies that if you watch circumstances closely you will be able to reach the right decision. It has now been nearly two years that the entire world is watching the flow or should I say downward spiral of oil prices globally. Gone are the days when OPEC ruled the roost and Saudi Arabia could push Europe into the dark ages. It is now a very confusing and multi faceted playing field with many unconventional sources of oil like deepwater oil, Shale oil and tar-sands oil challenging the old guard. The United States has been extremely successful in developing hydraulic fracturing (fracking) and horizontal drilling to produce more oil. Canada is doing the same in developing tar sands in the region of Alberta. Oil dinosaurs like Saudi Arabia have a greatly reduced influence on oil prices right now and are actually struggling to survive with rumors of impending taxes on Saudi citizens perhaps for the first time in their history. Other countries from the Middle East are in the same situation. How powerful these countries used to be and what clout they carried now reads like a fairy tale.

It was in October 1973 that the Arab oil producing countries

OPEC together with Egypt and Syria decided to lay an embargo on oil to western countries. The price of oil at that time was \$ 3 a barrel that rose to \$ 12 a barrel. The oil embargo had many short term and long term effects on global economy and politics. The embargo was a result of response to American involvement in the 1973 Yom Kippur war. The influence of oil on politics and economy was so great that it created a rift within NATO and some countries like Japan distanced themselves from USA to avoid becoming targets of the embargo. Initially USA assumed that the embargo would hit the Arab countries hard financially but the rise in price of oil more than offset the losses incurred by Arab countries because of the embargo. This put USA under a lot of pressure and Henry Kissinger swung into action to resolve disputes between Israel and its neighbors. He arranged for Israel to pull back from the Sinai Peninsula and the Golan heights. USA finally convinced Arab nations of its sincerity and the embargo was lifted in March 1974 but not before Europe and North America spent a bitter winter of discontent.

As stated earlier In the months after the embargo was announced, the price of oil shot from \$3 per barrel to \$12. Newspaper reports outlining the crisis had this picture to present to their readers "After decades of abundant supply and growing consumption, Americans now faced price hikes and fuel shortages, causing lines to form at gasoline stations around the country. Local, state and national leaders called for measures to conserve energy, asking gas stations to close on Sundays and homeowners to refrain from putting up holiday lights on their houses. In addition to causing



major problems in the lives of consumers, the energy crisis was a huge blow to the American automotive industry, which had for decades turned out bigger and bigger cars and would now be outpaced by Japanese manufacturers producing smaller and more fuel-efficient models.

Though the embargo was not enforced uniformly in Europe, the price hikes led to an energy crisis of even greater proportions than in the United States. Countries such as Great Britain, Germany, Switzerland, Norway and Denmark placed limitations on driving, boating and flying, while the British prime minister urged his countrymen only to heat one room in their homes during the winter. On 4th May 2008 Prince Turki Al-Faisal, former intelligence chief and ambassador to Washington, said in an interview with Asharq Al-Awsat that the United States threatened to use force against Saudi Arabia in 1973 after King Faisal, along with other Arab leaders, imposed an oil embargo on countries that supported Israel during the October War. In the interview, that appeared ahead of a scientific seminar on King Faisal opened by Riyadh Gov. Prince Salman, Prince Turki shed light on important events that took place during his father's rule. Prince Turki, who was an adviser at the Royal Court in



1973 when King Faisal took the oil-embargo decision, said the king was not shaken by the US threat and stood firm.

He added that the oil embargo was instrumental in encouraging the US to find a quick and just solution to the Arab-Israeli conflict. "King Faisal and other Arab leaders were forced to take the decision as a result of America's unprecedented support for Israel during the war," the prince said. He added that American officials talked about the possibility of attacking Saudi oil fields, something that was leaked in US newspapers. Some of these statements came from the then US State Secretary Henry Kissinger.

Prince Turki said King Faisal, who was in Jeddah at the time, received a telegram from Kissinger warning that if the Kingdom did not lift the embargo, the US would take all measures to protect its interests.

"The message was not specific about the measures they were going to take, but it appeared that they would use force. A CIA representative gave me the unsigned message, telling me it was from Kissinger... I went to the king and conveyed its contents. He received the message, read it and said: 'Kheir insha Allah (Good, God willing). On March 25, 1975 Faisal bin Musaid bin Abdul-Az nephew of King Faisal

assassinated King Faisal. It is a commonly-held, but so far unsubstantiated, popular belief in Saudi Arabia that Faisal bin Musaid was a pawn in a Western conspiracy to assassinate King Faisal.

It can however be assumed that the governments and the people of these countries never forgot those moments and in silence vowed that it will never happen again to them or their coming generations. It must be remembered that King Faisal of Saudi Arabia was the architect of the oil embargo and it was his towering personality that encouraged rulers from other Arab countries to stand firm in their resolve. Even though before his death the king pardoned his nephew and asked that his life be spared Faisal bin Musaid was beheaded. Some people think it was important to silence him forever. You see how the oil flows and what lessons you can derive from it.

Western countries devoted their efforts to developing alternate sources of energy and after the so called Arab spring with vast Arab oil fields in the hands of rebels selling stolen oil to anyone at any price world oil market saw an unprecedented slump. One would think that in such a situation friends would take steps to normalize the situation but on the contrary

USA after many decades made its first international shipment of oil in December last year adding to the woes of oil producing countries. Oil hit a new low of below 30 dollars a barrel and with restrictions being lifted on Iran the coming days will see more oil in the market and a resultant further slump in oil prices. It is killing two birds with one stone. Economies of Arab countries going haywire and Russia that was challenging USA and its allies in Syria and Yemen is also facing economic difficulties. Russian TV keeps running footage of ISIS oil tankers entering Turkey but no one bats an eyelid. With so much "Rogue oil" also reaching markets oil is bound to slide further.

The oil embargo of 1973 and the present circumstances bring us back to the Urdu proverb advising us to quietly watch the flow of oil and by observance learn. The western countries learned a lesson in 1973 but unlike us they did not just bemoan the hard times but worked silently and relentlessly to turn the tables which they have done now. Oil giants are turned into minnows and oil which at one time was a weapon pointed at the heart of Europe and America is now a toothless tiger. Today in Karachi Gasoline is cheaper than milk. Oil as a weapon? Not in our life time. ■

A reply from Mukesh Ambani (Reliance Group) to a pretty girl seeking a rich husband

A young and pretty lady posted this on a popular forum: What should I do to marry a rich guy? I'm going to be honest of what I'm going to say here. I'm 25 this year. I'm very pretty, have style and good taste. I wish to marry a guy with 100 crore annual salary or above. You might say that

I'm greedy, but an annual salary 2 crore is considered only as middle class now days. My requirement is not high. Is there anyone in this forum who has an income of 100 crore annual salary? Are you all married? I wanted to ask: what should I do to marry rich persons like you? Among those I've dated, the richest is 50 crore annual income, and it seems that this is my upper limit. If someone is going to move into high cost residential area on the west of New York City Garden(?), 50 crore annual income is not enough.

A philosophical reply from Mukesh Ambani-



Dear Ms. Pooja,

I have read your post with great interest. Guess there are lots of girls out there who have similar questions like yours. Please allow me to analyse your situation as a professional investor.

My annual income is more than 100 crore, which meets your requirement, so I hope everyone believes that I'm not wasting time here. From the standpoint of a business person, it is a bad decision to marry you. The answer is very simple, so let me explain.

Put the details aside, what you're trying to do is an exchange of "beauty" and "money". Person A provides beauty, and Person B pays for it, fair and square.

However, there's a deadly problem here, your beauty will fade, but my money will not be gone without any good reason. The fact is, my income might increase from year to year, but you can't be prettier year after year.

Hence from the viewpoint of economics, I am an appreciation asset, and you are a depreciation asset. It's not just normal depreciation, but exponential depreciation. If that is your only asset, your value will be much worse 10 years later.

By the terms we use in Wall Street, every trading has a position, dating with you is also a "trading position". If the trade value dropped we will sell it and it is not a good idea to keep it for long term - same goes with the marriage that you wanted. It might be cruel to say this, but in order to make a wiser decision any assets with great depreciation value will be sold or "leased".

Anyone with over 100 crore annual income is not a fool; we would only date you, but will not marry you. I would advise that you forget looking for any clues to marry a rich guy. And by the way, you could make yourself to become a rich person with 100 crore annual income. This has better chance than finding a rich fool.

Hope this reply helps.
Mukesh Ambani ■

By SYED MANSUR HASHIM

Rise of the renewable

The introduction of solar technology at household level has improved lives of entire communities, as it provides a cheaper and safer form of electricity that power up all sorts of electrical appliances.

One would have thought that the flattening out of global oil prices would have spelt doom for the renewable energy industry. On the contrary, we find that there has been a 4pc increase in clean energy technology spending in 2014 and the price of photovoltaics and wind turbines are coming down drastically.

While the oil industry has frozen up to \$380bn investments in new energy, new investments in renewable has topped \$329.3bn.

China remains the market leader for renewable energy with spending up by about 17pc, or in dollar terms, some \$110bn, roughly double what the US has spent.

We find that across the board, advanced economies are pouring money into renewable energy. According to the Bloomberg New Energy Finance research, "Wind and solar power are now being adopted in many developing countries as a natural and substantial part of the generation mix. They can be produced more cheaply than often high wholesale power prices. They reduce a country's exposure to expected fossil fuel prices. And above all, they can be built very quickly to meet unfulfilled demand for electricity."

The worldwide interest in clean energy technology has been spurred primarily by the collective realisation that we need to do something for climate change.

The December 2015 agreement to cut emission in an effort to contain global warming has prompted action across the field on various renewable technologies. The year 2015 saw more countries putting more money in solar, wind, geothermal and other sources of renewable energy and this trend is expected to continue in the current fiscal.

According to World Bank data, countries far and wide have undertaken 'green' programmes. In the Middle East, Morocco has taken the lead to become a 'solar powerhouse'.

Bangladesh has seen the 'world's fastest expansion' in solar energy. As of January 2016, some 3.5m homes got power from solar energy or 18m residents have benefited from off-grid 'green' electricity



It is building the world's largest concentrated solar power plants in the Saharan desert. The Noor-Quarzazate power complex when it goes into operation will give power to 1m of its citizens and reduce Morocco's dependence by 2.5m tonnes of oil annually.

Mexico has undertaken a nationwide programme to make households energy efficient by distributing more than 20m energy efficient bulbs free of cost.

That means some 5.5m Mexicans will save about 18pc of their energy bills. China, the undisputed leader in renewable technology is turning 800 schools into 'sunshine schools' through rooftop solar connections generating 100MW of power that will power classrooms. And in Europe, Turkey has put

into place 16,000MW of hydro, geothermal, wind and other renewable power.

As we draw closer to home, Bangladesh is forging ahead with solar-powered homes. Indeed, our country has been dubbed the 'world's fastest expansion' in solar energy.

As of January 2016, some 3.5m homes got their power from solar energy, i.e. 18m residents have electricity generated from off-grid 'green' power.

Access to electricity translates into bolstering income and reducing expenditures; uninterrupted education for children and access to cell phone technology; and of course employment generation with a budding solar industry - which has generated some 70,000 jobs. The solar revolution in remote areas of Bangladesh has transformed lives for the better.

A 20-watt system costs approximately \$150, which users pay over three years. The system produces enough energy to power two lights and one mobile charger.

The deletion of kerosene lanterns is a safety boon where it could easily ignite mosquito nets used in rural households. The benefits of power in rural Bangladesh is most important as access to electricity enables mobile phones to be charged - which in turn allows for mobile banking to complete financial transfers. The process becomes much easier as this can be done at home.

To put all this in perspective, the introduction of solar technology at household level has improved lives of entire communities, as it provides a cheaper and safer form of electricity that power up all sorts of electrical appliances - TVs, radio, cell phones, etc. Poorer communities can check on a weather forecast which is a major boon for a country that suffers from extreme and unpredictable weather conditions.

On the health front, the replacing of kerosene lamps with electrical bulbs mean no more toxic fumes that contribute to indoor pollution and lastly, the rapid growth of the solar panel industry means substantial new employment generation, for both men and women. ■

The writer is an assistant editor at The Daily Star.

In the jungle of wind turbines Pakistan soon to generate 614mw wind energy

It was a bumpy ride and I was looking out of my car window across the far stretched low land with thorny bushes scattered haphazardly. Standing erect amidst them were straw and clay made slums. It testified the fact that man has filled this area with his presence and created a world for himself in the middle of nowhere. We people of urban areas can hardly imagine their difficult lives of distant remote area. My destination was to investigate and study wind mills projects of Jhimpir which are one of their kind in Pakistan. Travelling on extremely rutted road made me wonder how expensive and treasured materials of this project brought to the designated place and there are so much chances of damage to them.

In this wilderness, out stretched 275ft high wind turbines were making a mesmerizing landscape. While getting closer, feeling of happiness, hope and pride was becoming deeper that Pakistan can obtain energy and minimize its problems by taking advantage of nature's power.

For utilizing the power of wind, a project in Gharo region and five projects of wind energy farms in Jhimpir established and are providing 308.2 megawatt electricity to national grid station. Energy generated by these wind power plants is contributing to National grid and is utilized by WAPDA in Sindh. As national grid supply electricity to K-electrics according to its approved quota, therefore production of wind energy is not fully contributing to Karachi.

Furthermore, through Pak-china economic corridor five more wind energy projects being under process of installation. This includes 3Gorges, Sachal energy development, Sunec China, Hydro China Dawood and United energy. while, Pakistan's local industries like Gul Ahmed (50MW), Metro energy (50MW), Fauji fertilizer Company (50MW), Tapal wind energy (30MW) are in the last stages of completion and will be operational in the mid of year 2016. Hence, by the end of December 2016, all these nine projects will

Completed/Commissioned Projects

S#	Name	Capacity mw	Location	Current status
1.	FFC Energy Ltd	49.5	Jhimpir	Commissioned
2.	Zorlu Enerji Pakistan	56.4	Jhimpir	Commissioned
3.	Three Gorges (Pvt) Ltd	49.5	Jhimpir	Commissioned
4.	Sapphire Wind Power Ltd	52.8	Jhimpir	Commissioned
5.	Foundation Wind Energy I	50	Gharo	Commissioned
6.	Foundation Wind Energy II	50	Gharo	Commissioned
Total Commissioned project		308.2		



Project Under Construction

S#	Name	Capacity mw	Location	Current status
1.	Metro Power Ltd	50	Jhimpir	Start Pro. June 2016
2.	Yunus Energy Ltd	50	Jhimpir	Start Pro. June 2016
3.	Master Wind Energy Pvt Ltd	49.5	Jhimpir	Start Pro. June 2016
4.	Tapal Wind Energy Pvt Ltd	30	Jhimpir	Start Pro. June 2016
5.	United Energy Pak Pvt Ltd	99	Jhimpir	Start Pro. June 2016
6.	Hydro China Dawood Power	49.5	Gharo	Start Pro. June 2016
7.	Tenega Generasi Ltd	49.5	Jhimpir	Start Pro. June 2016
8.	Gul Ahmed Wind Power Ltd	50	Jhimpir	Start Pro. June 2016
9.	Sachal Energy Development	50	Jhimpir	Start Pro. June 2017
Total under construction Project Capacity		477.5		

Projects Under LOI (Letter of Intent) by Federal AEDB

S#	Name	Capacity mw	Current status
1.	Jhimpir Wind Power Ltd	50	Jhimpir Financial close not achieved
2.	Hawa Energy Pvt	50	Jhimpir Financial close not achieved
3.	China Sunec Energy Pvt. Ltd	50	Nooriabad Financial close not achieved
4.	Wind Eagle Pvt Ltd I	50	Jhimpir Applied to NEPRA for tariff
5.	Wind Eagle Pvt Ltd II	50	Jhimpir Applied to NEPRA for tariff
6.	Tricon Boston Pvt Ltd	50	Jhimpir Applied to NEPRA for tariff
7.	Tricon Boston Pvt Ltd	50	Jhimpir Applied to NEPRA for tariff
8.	Tricon Boston Pvt Ltd	50	Jhimpir Applied to NEPRA for tariff
9.	Western Energy Pvt Ltd	50	Jhimpir Awaiting Grid Studies NTDC
10.	Hartfordd Alt. Energy Ltd	50	Jhimpir Applied to NEPRA for tariff
11.	Burj Wind Energy Pvt Ltd	14	Gujju
12.	Zephyr Power Pvt Ltd	50	Gharo Fresh LOI Issued
13.	Trident Energy Pvt Ltd	50	Land not allocated yet
Total Project capacity		614	



toxic gases in the environment so is not harmful to the wild life and reduces the risk of outbreak of diseases.

Along with the privileges that these employees enjoy, they also encounter few problems. The significant issue is Chinese companies are bringing in their own engineers as well as laborers from their country for the upcoming projects. Consequently, there's deficit of job opportunities for the locals of Jhimpir. This trend is causing uneasiness and insecurities of future among the local people. While the other important affair is these wind turbines are functional for about twenty to twentyfive years. Government of Pakistan needs to install and start new wind energy projects. The unreasonable disregard of the government for these projects and it's refusal to issue new licenses to further developmental projects, all in the wake of this immense need of energy is a severe and cold injustice to this country and its people.

In accordance with the statement of the board of alternate energy development we would only acquire as little area as Thatta's coastal belt to generate 50,000 megawatt which can light new economically stable pathways and open doors to progression in industry. This journey can brought revolutionary economical change and prosperity to Pakistan, if our government acknowledges this gift of nature. ■

be operational and contribute about 800megawatt electricity to the national grid station. It is the apparent evidence of struggles of Pakistani industrialists and skilled persons.

Considering these expanding wind mill farms, a large grid station will be needed when all these projects become operational. For this purpose grid station of 1756MW, which had to be completed in 2016 but due to technical reasons, has been delayed and now expected to be completed in 2018. Owing to this lag, upcoming projects are facing difficulties and delays in providing electricity to the grid station.

One can spot workers laboring on the functional wind turbines. When the fruits of their hard work are finally ripe for the taking, it brings them an unparalleled sense of achievement and satisfaction. Now their lives take a turn for the better each new day. Even though they are not paid handsomely (around Rs10,000 to 12,000 per month for laborers), with every turn of each windmill, the engineers, laborers and inhabitants here take pride in the consciousness that they are given a chance to turn things around for their homeland and themselves along with it. Working here

means more to them than just trying to make ends meet, it's the guarantee of a secure future for their families as well.

The wind energy companies here are not only providing jobs to these neglected and forgotten people but also trying for the enhancement of their lives. Like Zorlu Enerji Pakistanb Ltd, a Turkish company, gives the facility of clean drinking water to it's laborers and their families. Furthermore, in collaboration with EFC Energy Ltd, Zorlu also started a dispensary and ambulance services. Apart from these, Gul Ahmed wind power and Metro power company ltd founded two primary schools and two madersa for the children of Jhimpir. Here they've hired good sincere teachers too. According to the senior engineer of Metro power ltd, meals are given to the workers with respect to the hot climate of Jhimpir and it's hardships so they can deal with the toils suitably.

With all these positive aspects, these wind energy farms doesn't pollute at all and are fuel free low-cost projects as the main cost is the installation of wind turbines. Moreover, the land used to install wind turbines can also be used for agriculture purposes. It doesn't generate toxic emissions, radiations and release



LNG Pricing - The Enemy Within

Australis swamps Asia with fresh supplies of 70 mtpa

Most people bring their gut reactions from the oil world when they think LNG and that's a fallacy. Compared to LNG, oil is a super liquid market with ample overcapacity on all parts of the supply chain, countless suppliers on all rungs of the ladder, countless consumption points on all rungs of the ladder and it's a generalized business that affects all parts of the globe from downtown Manhattan to the Falkland Islands.

LNG, in contrast, is still some sort of fly on the wall that is done by the weird and functions - at least in public perception - just like oil does, only colder. We LNG folks know that this is rubbish as LNG has its own dynamics and they are as different from oil as massage parlours are from candy shops. Both give some pleasure but could not be more different otherwise. Let's skip all the chatter on LNG becoming a commodity for a second. It's an extremely interesting discussion in its own right but it bears little relevance to our main topic here.

The current torrent of cryo liquid is just rolling into high gear. Australia swamps Asia with around 70 mtpa of fresh supplies which will put a plug into all possible available markets in this part of the world. Aussies are geographically closer to those markets than the Atlantic producers so they can afford to undercut them. Their only impediment is the relatively high cost they have logged in when building those plants but now they stand and must produce - come what may. This means that they will eventually squeeze out all opportunities for producers west of Qatar to place volumes. Let's not forget that most LNG sup-



pliers that have traditionally delivered into the US markets (ready or planned at the time) have switched to Asia at the time as it sucked up anything that came out of the plants at exorbitant prices.

This giant sucking sound also was the commercial rationale for many of the new plants. As it has disappeared, they are all in distress as they have not prepared for a world with lower prices. Anyhow, produce they must as they cannot simply switch their plants off as this would mean forgone revenue and another grain of sand on the balance towards forced impairment which all of them must shun more than the devil shuns being baptized. So they will keep the waggon rolling at all costs, even if hell freezes over.

Back to the market, I have just said that as the Asian market is going to be stacked solid by Kanga LNG, all the old ex-US-bound LNG comes back into the Atlantic with no place to go. No producer west of Qatar is going to place any LNG in Asia anymore over the next couple of years. But in order to add insult to injury, there is plenty of new US LNG entering the market at the same time. Most of it will come around 2018. This means that the backlash from Asia is joined by a flood of fresh, uncommitted LNG. They can go to South America but this tiny consuming region cannot swallow enough in order to put a meaningful dent into the market. Remains just - Europe. Let's do the scan. Essentially you have Mediterranean terminals, Atlantic Spain and France, the UK, North Western Europe and the new Baltic coast players.

Only the UK and North Western Europe have big terminals backed up by big hubs and grids and storage and functioning trading regimes to swallow big volumes on short notice. It's going to drive prices down but it's not going to kill the market. All the others are little physical terminals that are custom built for their situation, their town, their industry, their country. Like South American terminals, they are flexibility takers and not flexibility givers so they will also not have a noticeable effect on the volumes. This makes North Western Europe and the UK the market sink for overflow volumes of LNG for the world and we are facing the largest overflow of LNG in human history. That's an exciting position to be in for holders of terminal rights in this region. But in order to sink their volumes, they will have to be price competitive with European pipeline gas which means they will have to undercut everyone else which is mainly Russians and Norwegians in this part of the world.

And as there is not enough regasification capacity for all the LNG coming, they will also have to bite each other on the way to salvation. This means that the most brutal of all price fights will happen both among LNG players and pipeline players and also among the LNG players themselves. Not because they want to but for mere survival. Exciting times for those with a steady heartbeat. All others are advised to stock up on sleeping pills, heart drugs and tranquilizers as this is not going to be for the faint of heart. But what an opportunity. ■



**The Premier
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Chinese solar-powered tri-wheeler steals the limelight

Solar-powered and hybrid public vehicles would be the future of Pakistan's public transport - Mashhood

China has recently displayed the solution of Pakistan's expensive and hazardous to environment public transport as it displayed a number of solar-powered and environment-friendly hybrid tri-wheelers and rickshaws at the recently concluded Pakistan Auto Show 2016 held at Lahore Expo Centre. The vehicles on display were the immediate solution to Pakistan's transport woes as these vehicles are quite cheap and would be almost free to use in many years to come.

"Solar-powered vehicles are the future of our public transport as we need green energy to keep our environment clean", said Senior Vice Chairman PAAPAM, Mashhood Ali Khan. Talking to the media at the show he said that our automobile manufacturers can easily assemble these rickshaws and loading vehicles as they are already manufacturing CNG rickshaws that have replaced petrol tri-wheelers.

The Chinese hybrid tri-wheeler and solar-powered vehicles stole the limelight of the Pakistan Auto Show 2016, organized by the Pakistan Association of Automotive Parts & Accessories Manufacturers (PAAPAM). The Chinese companies have displayed very economical battery-operated rickshaw and loading vehicles with 12-hours batter time, noiseless and smokeless while the price quoted by the Company's General Manager, Chuanhai Fang as \$1,150 CN&F. He said that the rickshaw has the maximum speed of 50 kms per hour. The solar-powered vehicles and two-wheeler were also the attraction of the visitors. On the second day Italian Ambassador Stefano Pontecorvo has also visited the three day extravaganza and taken keen interest in Pakistan's advancement in automobiles sector and praised the quality of automotive vendors. The Senior Vice Chairman, PAAPAM, Mashhood Ali Khan said on this occasion that Italian's Ambassador's visit to the show was a breakthrough for Pakistan's auto vendors are on the threshold of automobiles' major exports markets including USA and European Union. He said that as many of the Pakistani manufacturers of auto parts and accessories have gained confidence for entering into high-priced export market. He said that the association has introduced an extensive programme called "Export Coaching" under which the auto manufacturers are being prepared to fetch their share of \$600 billion after market.



Mashhood said that under the programme auto vendors and manufacturers who have export surplus and further capacity for expansion would be taken on board and trained for the export market. He said that under this plan the PAAPAM set an export target of \$5 billion in next three years.

The foreign manufacturers have expressed their satisfaction over the ongoing progress of the show and receiving many inquiries about their products and vehicles. The auto show features more than 135 international & local Auto-manufacturers and related enterprises and showcases the vast potential of Pakistan's robust automotive industry. It also features numerous insightful training sessions where industry experts are providing technology updates and authentic knowledge to the thousands of professionals and visitors thronging the exhibition.

On 2nd day of the Show among the high profile visitors Federal Secretary for Industry, Italian Ambassador in Pakistan - Mr. Stefano, Co-chairman of Auto policy Committee ECC, -Mr. Zubair witnessed the exhibition. Furthermore, Mr. Ali Zafar, the brand Ambassador of Yamaha also visited the expo center.

The Chief Organizer of the Pakistan Auto Show 2016 - Syed Nabeel Hashmi expressed his satisfaction over the overwhelming response of the stakeholders and stated that: The PSDC Seminars and Workshops being held during the Auto Show are a great attraction for the industry professionals. Conducted by very learned speakers these sessions will disseminate high-valued information. The session topics include: "Quality Function Deployment, Cost Effective Customized Solutions, Materials for Auto Manufacturing, Exhaust Plume Flow Visualization for Qualitative Analysis of Engine Combustion Performance, Motion Control of Future Electric

Vehicle fitted with In-Wheel, Intersection of Research and Commercialization, Addressing 2 & 3 wheeler problems, Development of Auto Parts Sector by SMEDA, Automotive Crashworthiness, Wise Decisions on cost of quality, and Developing Exporting Skills.

he Chairman of PAAPAM, Mumshad Ali commented that: PAAPAM is committed to play a key role as the binding force for the Auto industry. Since its incorporation in the year 1999,

PAAPAM has successfully grown to 292 registered members. The estimated number of Parts-Manufacturers in Pakistan includes; 670 units in Tier One, 900 units in Tier Two and 1300 units in Tier Three. This industry comprises of 500,000 skilled workers as Direct Employees and 2.4 million indirect employees (Total 2.9 million). With an Investments volume of Rs.270 billion, this industry contributes a revenue of Rs 110 billion per annum to the national exchequer. It has achieved an Import substitution worth US\$ 3.3 billion per annum and an Exports volume of US\$ 110 million per annum.

The SVC of PAAPAM - Mr. Mashood Ali Khan stated that: As the demand for automobiles is expected to rise continuously over the next 3-5 years, the big challenge for Pakistan is to nurture local assemblers & vendors and rapidly generate investments in capacity building to meet the sharply rising demand. The base of Engineering Technologies in this industry is spread across; Sheet Metal Parts, Plastic Injection and Blow Molding, Rubber Components, Steel Forging & machining, Foundry / Castings, Aluminum Die Casting & machining and Electrical & Electronics, so we need to work on multiple fronts to achieve our growth objectives, while consistently maintaining the quality of our products.

The Vice Chairman of PAAPAM - Mr. Mahmood Alam Sherani stated that: This industry has already achieved a high level of localization, whereby it boasts: 75% localization in Cars & HCVs, 96% in tractors, 96% in Motorcycles and 80% in three-wheelers. Its products are being exported to; The European Union, USA, African Countries and all over Asia. The annual production in 2015 had reached; 180,000 cars, 1.8 million motorcycles, 4000 trucks, 600 busses, 47,000 tractors and 50,000 tri wheelers. ■

4th Annual Public Seminar on Women Healthy by NFEH

Experts highlight the increasing incidences of breast-cancer



The minimum recommended age for a woman to undergo mammography is 45 but if there is an instance of breast cancer among close relations in the family then other ladies of the family should opt for mammogram in 10 years younger age than the age in which the family-member is detected with the cancer for effective prevention.

Audience of a seminar was informed this as speakers on the occasion highlighted the fact that regular check-ups, tests, and certain changes in lifestyle could effectively prevent major health issues affecting lives of women especially in forms of Osteoporosis, breast cancer, and reproductive health problems.

The fourth annual public awareness seminar on women health issues was organized by National Forum for Environment and Health and Ministry of Youth Affairs Department, Govt of Sindh the other day at a hotel. Naem Qureshi, Dr Kaiser Waheed, Ruziya Naeem, Najia Ashar, Sobiya Munawwar, Mirza Ishtiaq

Baig and other spoke on the occasion.

Sindh Secretary for Social Welfare Department Shariq Ahmed, who was chief guest on the occasion, said although Sindh had lately adopted a law to prevent marriages of females in early age but that the legislation was required to be effectively implemented in the society for countering such an anti-social practice causing health issues for women.

The Head of Radiology Department of Jinnah Postgraduate Department Prof Dr Tariq Mahmood said on the occasion there was no harm at all if women in young age opted for undergoing the test for detection of breast cancer.

Dr. Mahmood said that there should be great emphasis on motivating females to opt for early check-up and test for detection of risk factor of breast cancer when one in nine women in Pakistan had been susceptible to developing breast cancer while the same type of cancer accounted for 45 per cent of female cancer patients in the country.

Dr Mahmood said that Radiology Department of JMPC had been providing state-of-the-art treatment services for completely curing the cases of breast cancer patients detected at early stages of the disease. He said that such radiotherapies were now available, which in cases of early detection of the disease would be used for removing the cancerous gland only instead of removing the entire breast (Mastectomy). He said that common occurrence of Osteoporosis among women in the country were also fully preventable with early detection of the disease at the stage of Osteopenia. He said that some 9.9 million people in the country had been suffering from Osteoporosis so women in young age should also opt for bone scanning to check bone mineral density for early detection and prevention of the serious medical condition.

Also speaking at the seminar, senior Orthopaedic Surgeon Dr Zubair Mirza highlighted the importance of Vitamin 'D' for women's health stating that on worldwide basis 45 per cent of the people were considered living with deficiency of Vitamin D while the ratio in Pakistan should have reached the alarming proportions of 90 per cent.

He said that healthy presence of Vitamin D in the body was proven to be helpful for maintaining strength of teeth, bones, hair, muscles and would also be helpful for any person's drive for weight loss and improving his or her athletic skills. He said that with such usefulness of Vitamin D for the body, which could prevent the serious bone conditions in forms of rickets, Osteomalacia, and Osteoporosis, the women especially of affluent classes should at once change their unhealthy habit of avoiding direct exposure of sunlight even for a few minutes. ■



Pakistan is happier than India: report



Pakistan is happier than India and even Bangladesh, says a recent report on world happiness released by the United Nations.

Pakistan ranks 92 on the index much better than India at 118 and Bangladesh at 110. The report which indexed 156 countries takes into account GDP per capita, life expectancy, social support and freedom to make life choices as indicators of

happiness. Denmark takes the top spot as the happiest country in the world, according to The World Happiness Report 2016. Switzerland was ranked second on the list, followed by Iceland (3), Norway (4) and Finland (5). Details of the report puts India in the group of 10 countries witnessing the largest happiness declines along with Venezuela, Saudi Arabia, Egypt, Yemen and Botswana. The report was released in advance of UN World Happiness Day on March 20.

AMAZING GALLERY

Man taking selfies with gun fatally shoots himself

A 43-year-old man has died after authorities say he accidentally shot himself in the face while taking selfies. The Skagit Valley Herald reports the man and his girlfriend were photographing themselves with the weapon on Sunday at a residence when he shot himself. Skagit County Sheriff's Office Patrol Chief Chad Clark says the woman reported that she and the man had taken photos with the gun several times that day and that the man had loaded and unloaded bullets multiple times.

World's Longest flight lands in Auckland

An Emirates Airbus A380 touched down in New Zealand on Wednesday, completing what is believed to be the world's longest non-stop scheduled commercial flight. The service from Dubai to Auckland covered 14,200 kilometres (8,824 miles), according to industry website airwaysnews.com, pipping Qantas' 13,800-kilometre Sydney-Dallas route launched in 2014. It said the route was also the longest in duration, with passengers set to spend 17 hours 15 minutes in the air during the return leg from Auckland to Dubai. However, that record is expected to be short-lived because Emirates' upcoming Dubai-Panama City service will take 17 hours 35 minutes when it launches later this month. Emirates described it as "one of the longest air routes in the world by distance".



"But with the assistance of clever technology and good planning, passengers will get to their destination in the shortest possible time," it said.

Student-built solar motorbikes in Kenya

Motorcycle taxi operators waiting for passengers in this village in western Kenya's Kisumu County lounge on their various machines – but Alfred Omondi's plug-in electric scooter stands out from the crowd. Surrounded by motorbikes running on polluting fossil fuels, Omondi sits astride his solar-powered rechargeable motorcycle, which uses technology developed by students from the University of Nairobi. Charles Ogingo, Robert Achoge and James Ogola – all final year students – have built a system they call Ecotran, which captures the sun's energy, stores it in batteries, and uses it to charge a motorcycle's electric motor. Much of western Kenya has no grid electricity, and the places that do face frequent power disruptions, so solar energy is a promising alternative, they say. The three students have set up a "fuelling" station with 40 solar photovoltaic units, each generating 250 watts of electricity. The energy is stored in batteries before being transformed by powerful inverters into the alternating current needed by the motorcycle. The motorbike uses a small portable battery which, fully charged, can run for 70 kilometers (40 miles), after which it must return to the station to be recharged while another charged battery is fitted to the bike. The students, who have set up a company called Pfoofy Solar Ltd, put together their system in 2014 at a climate change innovation center at Strathmore Business School in Nairobi, where they had been sent to give practical form to their ideas.



England brings in plastic bag charge



Shoppers in England faced paying a charge for plastic carrier bags from Monday in a move aimed at helping the environment, although smaller, independent retailers are exempt from the rule. The five pence (eight US cents, seven euro cents) charge per single-use bag is intended to reduce litter and protect wildlife. The British government expects the scheme to reduce usage by up to 80 percent in supermarkets. The number of single-use bags given out by major supermarkets in England reached more than 7.6 billion last year – the equivalent of 140 per person and 61,000 tonnes in total. "The more bags we take, the more plastic makes its way into our environment, blighting our high streets, spoiling our enjoyment of the countryside, and damaging our wildlife and marine environments," said Environment Minister Rory Stewart.

GMO crops threaten our food security

Unnatural seed causes environmental degradation

By Prof. Dr Shahida Wizarat

It is quite ironic that Pakistan basically an agricultural country producing more than one fifth of its output from agriculture and a little less than half of its population working in agriculture should be food insecure.

From 2006-07 onwards growth in the agricultural sector started declining. The decline continued till 2012-13, in spite of substantial increase in support prices of agricultural products in 2008 by the Government. Violent fluctuations in the production of five major crops occurred during the period 2003-4 to 2012-13. A high rate of growth in one year was followed by a negative growth rate in the following year. And the same pattern was repeated later. These fluctuating growth rates of major crops reflects the following: One, that Pakistan's agriculture is totally at the mercy of the weather. Second, that the high support prices of agricultural crops announced in 2008 did nothing to boost agricultural growth.

Third, it shows that Pakistan's economy is poorly managed. The Seed Act 1976 passed during the tenure of Pakistan Peoples

Party in the 1970s was recently amended by the National Assembly in March 2015 and by the Senate in June 2015. This is in spite the fact that a lot of concerns are being raised about Genetically Modified Organisms (GMOs). These concerns are on account of the fact that they reduce nutrient content in foods. They also increase allergic reactions, resulting in the production of harmful proteins.

GMO foods increase cancer and cause Horizontal Gene Transfer between modified organisms and human bacteria. French scientists led by Gilles-Eric Seralini at the University of Caen in Normandy conducted a study published in Food and Chemical Toxicology revealing that 50-80 percent of female rodents developed tumors in all the groups, while male rodents suffered from liver damage, kidney problems, indigestion and skin tumors when they consumed NK603 for 24 months. With increase in the import of GM food items like lentils and vegetables from Australia, Canada and India there has been a tremendous increase in cancer

From 2006-07 onwards growth in the agricultural sector started declining. The decline continued till 2012-13, in spite of substantial increase in support prices of agricultural products in 2008 by the Government.



in Pakistan. European Union has banned GMOs. Recently China refused to allow Bt corn imported from USA to enter the Chinese market.

There are reports that WWF is growing organic crops in Pakistan for Western consumers. While Canada is growing GM crops for aid/ export to less developed countries but has banned their sale in Canada. Consumption of these products in Canada will be considered only after surveys have been conducted to quantify increases in serious illnesses in countries consuming GM crops exported/donated by Canada and other rich countries.

In addition to the impact of GMOs on health, they have serious adverse impacts on the economy as well. Seeds from GM crops can not be used for sowing and fresh seeds have to be imported for each crop, which increases foreign exchange requirements resulting in increase in the trade deficit. While natural seeds which are healthier do not use up foreign exchange, GM seeds which have adverse impacts on our health and the environment need foreign exchange for every crop that has to be sown. Through increased fertilizer and herbicide use, they increase the cost of production of crops, causing increase in prices of food crops, rise in the rate of inflation thus making the country food insecure.

Moreover, the absence of a Labeling Law which would inform consumers that the food they are purchasing is GM or otherwise ensures that consumers developing diseases as a result of consuming these foods will not be able to take legal action against chemical cos and countries selling these seeds and crops to Pakistani consumers.

Recent amendments to the Seed Act 1976 by the National Assembly and the Senate without any debate on the pros and cons of GMOs shows the lack of interest of elected representatives in this very vital issue which has grave consequences on health, environment, farmers well being, economy and food security of the country. Although the People's Party in whose earlier tenure the Seed Act was passed in 1976 did not take ownership of the Act or resist attempts to make amendments to it. The PML-N's patriotic face has been totally smashed as a result of its commitment to bringing about amendments in the Seed Act as revealed by Finance Minister Ishaq Dar's budget speech on the floor of the House during the budget session.

The PTI which has always tried to present itself as a party upholding the interests of the country and the common man also stands exposed. The MQM, the religious parties, who draw their support from lower middle classes were also not

interested in an issue of such grave importance to the common man. A cheaper and healthier alternative to the problem of food insecurity is organic farming which does not entail import of seeds, fertilizers and insecticides. Since it does not require these high tech inputs, organic farming does not require large amounts of water which is already scarce in Pakistan.

It also does not use up the country's foreign exchange earnings. Organic farming would therefore not only be cheaper, but a more healthy alternative as well. If the government is sincere about making Pakistan food secure it should give 5 to 7 acres of hitherto uncultivated land to landless peasants in areas where water is not a serious problem. Small loans from commercial banks can take care of seed, natural manures and natural insecticides. Produce of such organic farms should be for the home market in Pakistan and not for export. This would be a far more effective way to make the country food secure.

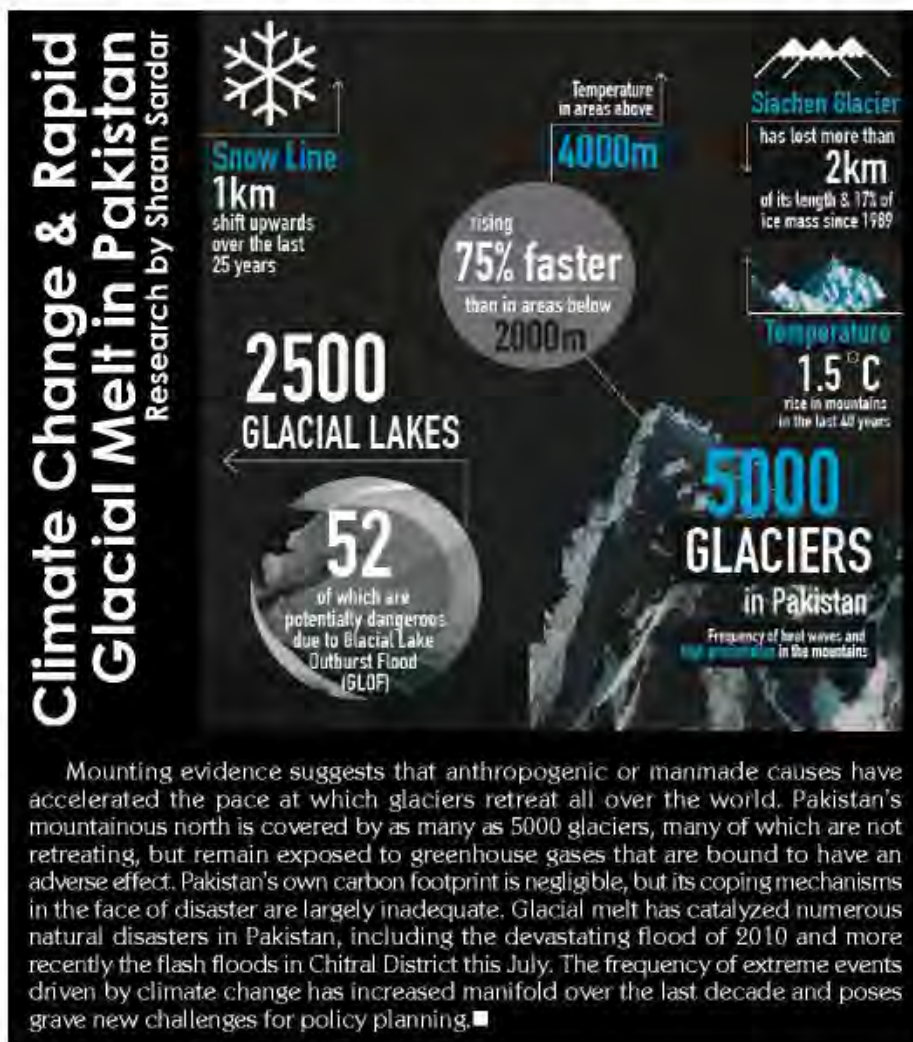
If, however, the government continues to ignore such serious threats to the people of Pakistan and the country, then the people

of Pakistan must remember that people's power is stronger than government power.

The government can continue to flood the market with contaminated seeds and commodities, but if people do not buy these products there is no way they can be forced. If consumers decide not to purchase the polluted products imported from abroad or grown by sowing GM seeds how do they meet their consumption needs? One way would be through developing an alternative market for organic foods. Importers can try to tap organic growers and import their products for consumption in Pakistan.

But this will cater to the needs of the more affluent classes who can afford to buy imported products. What about the common men and women, how will they meet their needs? Kitchen gardens can provide a solution.

People can grow vegetables and fruits in the spare space in their homes, in pots and tubs and exchange these with their neighbors and friends. People are already growing vegetables in their kitchen gardens, we only need to expand the scale of these operations!■



While government bags extra billions, Consumers denied benefit of falling oil prices

The government has recovered an extra Rs92 billion from consumers of five petroleum products during the last eight months by adjusting upwards the sales tax rates, denying them the full benefit of reduction in prices in the international market. The consumers of high-speed diesel, which is mainly used in public transport and agriculture sectors, paid most of the additional Rs92 billion that the government collected from July through February 2015-16 by charging sales tax above the standard 17%. Despite a 30% reduction in the value of imported petroleum products due to decrease in crude oil prices, the overall tax receipts from petroleum products increased to Rs275.6 billion, up by Rs51.3 billion or 22.9% from July through February, showed data of the Federal Board of Revenue. The amount does not include petroleum levy receipts, which stood at Rs68 billion in the first half of fiscal year 2015-16. Out of Rs275 billion tax receipts, an amount of Rs252.6 billion was on account of sales tax collection from all petroleum products, while the remaining Rs23 billion was on account of customs duty. The Rs252 billion was roughly one-third of the total sales tax collection during this period, highlighting the government's growing dependence on relatively easy source of revenue generation.

High-speed diesel, light diesel oil, kerosene oil, petrol and high octane were the major petroleum products imported. From these five petroleum products, the government earned Rs182 billion in sales tax. At 17% standard rate, the collection could have been Rs90 billion, according to the FBR's statistics, Rs92 billion less than what was actually charged. The government's sales tax revenues from just five products grew almost 40% in July-February of this fiscal year, compared to Rs129.3 billion in the comparative period of last fiscal year.

Besides increasing sales tax rates, the government also adjusted customs duty rates, which resulted in a 130% increase in customs duty collection in just eight months of this fiscal year. First in June 2015, the government increased customs duty on high-speed diesel to 10%, in addition to levying 2% duty on other petroleum products. Then from December 2015, it levied an additional 1%



customs duty on all petroleum products, increasing the rate to 3%. The value of dutiable imports (imports after duty) grew 206% to Rs520 billion from July through February. However, the steep decline in crude oil prices helped the government save \$3.1 billion in just eight months, as petroleum products import bill stood at \$5.1 billion.

This showed in order to offset the impact of declining prices, the government has been constantly tinkering with sales tax rates. The revenues from the petroleum products have increased despite the value of dutiable imports decreasing 30%, indicating the extent of additional taxes that the consumers have been paying.

Although, the government has also decreased the price of petroleum products, the decision to only partially pass on the benefits of reduced prices is contrary to the government's policy of linking the domestic market prices with international market. There are no subsidies on petroleum products after 2008 and the consumers had paid the full price when the crude oil was traded at \$150 a barrel.

The government is currently charging Rs29.57 per litre sales tax on high-speed diesel, which comes to 108.7% of the ex-refinery price of the diesel. Diesel consumption is roughly seven times more than the petrol consumption. The ex-refinery price of diesel is Rs27.18 per litre but the consumers are paying Rs71.12 per litre. ■

PQA demands textile city's land for LNG power plants

The Port Qasim Authority (PQA) has asked the prime minister to provide 1,500 acres of land, which was earlier allocated for setting up a textile city, for building new liquefied natural gas (LNG)-based power plants.

"PQA is short of land which is needed for installing more LNG-based power production plants," an official quoted PQA chairman as telling Prime Minister Nawaz Sharif in a meeting of the Cabinet Committee on Energy. He noted that 1,500 acres of land initially earmarked for establishing a textile city at Port Qasim was lying unutilised as nine years had passed and not a single project had been undertaken on that piece of land. Furthermore, he said, the textile city had become a liability with a debt burden of Rs2.8 billion and its land should be handed

over to the PQA for installing new LNG plants.

He also touched on the topic of coal transportation, saying it was difficult to construct a conveyor belt at Port Qasim for shipping coal to the Sahiwal coal power project within the deadline of December 2016. Therefore, an alternative plan, or Plan-B, has been conceived for coal supply to the power project if the conveyor belt is not completed on time. For this purpose, the request for proposals has also been issued. Elaborating, the PQA chairman said under Plan-B coal would be transported through the Marginal Wharf, which would save a substantial amount of money. As part of this arrangement, coal will be loaded onto vessels at \$4 per ton excluding the royalty of \$2.40 per ton for the PQA. However, committee members were of the

view that the alternative arrangement should not hurt the original plan. Both arrangements should be finalised to ensure an uninterrupted and smooth supply of coal to the power project, they said. An official of the Ministry of Water and Power gave updates on the laying of transmission lines from Port Qasim to Matari, Thar to Matari, Matari to Lahore, Matari to Faisalabad and power transmission from the Neelum-Jhelum and Tarbela fourth extension projects.

The transmission line from Port Qasim to Matari would be completed in two phases. In the first phase, power lines will be laid over 45 km by December 2016 with the help of power ministry's own resources whereas in the second phase power lines will cover 140 km by September 2017. He pointed out that the Matari to Lahore and

Consumers attract to shift to renewable energy resources



Solar Pakistan - the 5th International Renewable Energy and Power Exhibition & Conference organized by FAKT Exhibitions that was held in Lahore is still garnering the attention of industry experts and businessmen who are willing to embrace the latest equipments and technology to reengineer their businesses. On the second day of the event a full day conference was held. The conference attracted industry experts of the solar industry, which were eager to learn and discuss about the latest industrial technologies, developments and trends. The conference served as a great learning platform, enlightening the audience about industrial trends and providing a great networking opportunity.

Saleem Khan Tanoli C.E.O, FAKT Exhibitions while addressing the media said "Solar Pakistan 2016 attracted over 100 companies from 15 countries. He also said that the exhibitors were pleased

to be a part of the event and appreciated the efforts of the organizers for organizing an exhibition that gathered the industry on a single platform to network and meet potential clients."

Solar Pakistan 2016 is aimed to advance exchange between nations keeping in mind the end goal to help the easing of economy. Such events help in holding monetary development and success to recuperate from the retreat. The display showcasing the cutting edge equipments and technology with colossal remote investment is sure to exhaust progression and development for the business. The event has all the impulses to make a benchmark in the solar business and its connected portions.

The event attracted numerous of local and international trade visitors on the second day and is expected to attract a greater number of visitors on the third day. ■



Gamesa to define the future of Wind Energy in Pakistan

Gamesa has organized seminar on Wind Turbines as part of a high-level delegation visit to Pakistan, a global leader in the design, manufacture, installation, operation and maintenance of wind turbines, in joint collaboration with Orient Energy Systems (Pvt) Ltd at a local five-star hotel here in Karachi. In attendance were local stakeholders such as developers, IPPs, engineers, consultants, investors, related institutions and key representatives of media.

The seminar was inaugurated by Carlos Morales Sanchez the Ambassador of Spain in Pakistan. Amjad Ali Awan, Chief Executive Officer, Alternate Energy Development Board Pakistan, gave an introductory address highlighting the situation of wind energy sector in Pakistan. The director of Alternate Energy, Mehfooz



Ahmed Qazi also spoke during the inauguration of this historic seminar. After the insightful opening addresses, the expert panel from Gamesa talked about the products and energy solutions best suited for the Pakistani market and why Gamesa is truly a global leader when it comes to wind energy solutions. Speaking on the occasion, the CEO of Gamesa APAC, Alvaro Bilbao said "By providing best in class wind turbine with competitive price, high level O&M excellence and flexibility of EPC cooperation."

Pakistan is currently in the grips of severe energy crises, and there is a dire need to explore alternative, renewable energy sources to alleviate the shortage of power. It is estimated that Pakistan loses close to 3 per cent of its GDP due to this energy crises and that it can potentially produce more than 40,000 megawatts with wind energy. Gamesa a global leader in the energy sector in collaboration with Orient Energy Systems (Pvt) Ltd is set to redefine the future of wind energy in Pakistan. ■



IEEEP 31st Multi Topic International Symposium in Karachi PEC to facilitate Academia and Industry contacts: Chairman



Institution of Electrical & Electronics Engineers, Pakistan, generally known as IEEEP is the largest body representing Electrical, Electronics and all its Sub-disciplines like Telecommunication, Bio-medical, Avionics, Computers, Controls, Mechatronics etc. in Pakistan. IEEEP Karachi Centre conducts monthly technical seminars, yearly student's seminar for encouragement of students and a Multi Topic International Symposium every year.

This year the Multi Topic Symposium was held at Pearl Continental Karachi on 25th and 26th March 2016. The Symposium was inaugurated by Chief Generation & Transmission Officer, K-Electric Engr. Dale Sinkler who in his speech lauded the efforts of IEEEP and said their efforts for dissemination of technical knowledge to engineers and encouragement of students from Engineering and technical institutions is being lauded. He said that he strongly recommends K Electric to participate in this symposium every year.

IEEEP President Engr. Mohsin M Syed delivering his address acknowledged the tireless efforts of IEEEP Karachi centre and its office bearers and encouraged them to carry on their work with new zeal and determination.

Engr. Asif Siddiqui Chairman IEEEP Karachi chapter in his welcome address said that Engineers are synthesizers. They use the knowledge already obtained by other researchers and develop something new by using the previously obtained knowledge. He said we at IEEEP are trying our best to help our engineers reach the existing level of universal knowledge so that some of them could rise above it and make us proud. This symposium is just one step towards it.

On day two in the concluding session, Engr. Jawed Salim Qureshi Chairman Pakistan Engineering Council was the Chief Guest. In his address Engr. Salim Qureshi

lauded the services of IEEEP to the engineering profession. He said PEC wants more concrete interaction between Industry and academia and are planning exhibitions of projects by engineering students where top Industrialists will be invited. He stressed the need for students to understand the demands of industry and prepare projects in line with their demands. He announced that PEC will award a prize of one million rupees to the best project by a student.

The highlight of the concluding day was a panel discussion on the topic of "Coal Based Power vs Hydro Electric Power: Preferred Solution?". The panelists included Mr. Khalid Javed Chief Operating Officer K-Electric, Prof. Dr. Nasim A. Khan Senior Executive Director Osmani & Company, Syed Abrar Ali Consultant Power Gen-

eration Osmani and Company and Mr. Ronald Desouza. The session was moderated by Engr. Sibte Ahmad Jafri.

The panelists agreed in general that coal based power is detrimental to the environment and should be avoided. About Hydro power they were in favor of smaller dams and the general consensus was that Pakistan should do what is within our means and in attempts to emulate other countries not miss the chance it has to do in the local framework through locally available resources and expertise. The panel seemed much in favor of wind and Solar and pointed out that Pakistan was lagging far behind countries that had less sunshine in the matter of Solar energy. Small, affordable, sustainable and indigenous was the formula presented by panelists for power solution to the country. Small village centered power generation rather than huge dams was the message conveyed.

A Key note speech was also delivered in this session by guest speaker from India. Engr. Jamshed Akhtar writer and Scholar gave a presentation on "Scientific Information in Quran". It was a very interesting presentation in which he described methods which can be adopted to decipher scientific knowledge from the Holy Quran.

The symposium concluded by presentation of awards. A life time Achievement award was presented to Engr. Sibte Ahmad Jafri for his lifelong service to the profession. ■

No petrol shortage expected: PSO has ample MOGAS stocks

The nation's leading Oil Marketing Company (OMC), Pakistan State Oil (PSO) has ruled out any shortage of clarifies that there is no MOGAS shortage expected in the country following a MOGAS vessel that got rejected in the initial test conducted by HDIP.

A cargo ship containing 50,000 MTs of MOGAS/Petrol was imported via international tender. The shipment was imported via Emirates National Oil Cargo (ENOC) of UAE. All shipments are inspected for quality assurance before offloading, which is performed by PSO and Hydro Carbon Development Institute of Pakistan (HDIP) both. HDIP is a government owned organization and performs third party testing. After the inspection, the product was found to be substandard. The distillation point of the product was found to be 207 degree against the standard mark of 205 degree. Based on the results of the testing, offloading was not performed. However, as per the terms and conditions of the contract, the product is being tested again and results are expected by tomorrow evening. The final decision is subject to the result of second inspection. PSO will not bear any financial losses in case the cargo is rejected. As per the terms and conditions of the contract, supplier will ensure availability of the second cargo within 3 weeks.

PSO has ample stock of fuel available i.e. 86,000 MTs which is enough to meet the requirements for the next 15 days. Cognizant of its responsibilities as the nation's leading Oil Marketing Company, PSO, is committed to fulfilling the fuel needs of the nation in a timely and responsible manner. ■

New office Bearers of NFEH Announced for 2016-17



National forum for environment and health hold its election in 3rd week of March 2016. According to results Dr. Kaiser Waheed has been elected as Chairman and M. Naeem Qureshi as President of the forum.

NFEH is the non-profit, non-governmental and voluntarily organization established with an aim to facilitate, promote and help to create awareness regarding environment and health among the general public, corporate sector, women, youth and children.

According to results announce by election commission Engr. Nadeem Ashraf has been elected as Secretary General, Khalid Iqbal as Sr. Vice President, Shazia Alam as Vice President, Mustafa Tahir as Information Secretary, Ghulam Kiberia as Deputy Secretary, Ahmed Tareen as Finance Secretary, Zahid Ali as Office Secretary and Shakeel Qureshi as Joint Secretary. a 10 members governing body & advisory board also formed on this occasion.

These all winners has been elected for the year of 2016. The elections were held at local hotel on March 24, 2016 under the constitution of NFEH. ■

PSO buying 27 percent more stakes in PRL

Pakistan State Oil (PSO) is increasing its shareholdings in Pakistan Refinery Limited (PRL) by almost 27 percent, said a PRL stock filing on Friday. The transaction, which is being made in line with the March 1 order of the Competition Commission of Pakistan, will see PSO's shareholdings in PRL growing to 49.17 percent from the existing 22.5 percent. This also includes 6.67 percent shareholding being subject to Sindh High Court's final order. "Pakistan State Oil intends to increase its shareholdings in the company," said Shehrzad Aminullah, PRL's company secretary. ■

Mari Petroleum announces 'significant' oil discovery

Mari Petroleum Company announced that it has made a "significant" crude oil discovery at the exploratory well Halini Deep-1 in Karak Block, according to a stock notice. It is Mari Petroleum's third consecutive discovery in the Karak Block.

Karak Joint Venture consists of Mari Petroleum as operator with 60% working interest while MOL Pakistan acting as a joint-venture partner with 40% working interest. The first crude oil discovery at Halini X-1 was made in 2011 while the second discovery of crude oil, condensate and gas was made at Kalabagh-1A in 2015. "The discovery at Halini Deep-1 has further augmented Mari Petroleum's exploration success rate, which is already the highest in the country.

"This discovery will further enhance the country's hydrocarbon reserve base and play a pivotal role in achieving the company's planned growth and expansion targets," said the company statement.

Investors reacted positively to the news, as the share price of Mari Petroleum increased 5%. With as many as 572,200 shares changing hands, its price gained Rs32.34 per share to close at Rs682.47.

The government has a 20% stake in Mari Petroleum while Oil and Gas Development Company Limited (OGDCL) controls 20% shareholding. Fauji Foundation and general public control 40% and 20% shares of Mari Petroleum, respectively.

The net profit of Mari Petroleum for July-Dec 2015 was a little over Rs2 billion, down 21.5% for the same period of the preceding year. "The main reason for the decrease in profit is an increase in operating expenses and exploration and prospecting expenditure," according to the company chairman's performance review for the six-month period. ■



Renewable Energy offers reduced use of carbon and water

Scaling up renewable energy and introducing improved plant cooling technologies in China's power sector can reduce water-intensity up to 42 per cent and emissions-intensity up to 37 per cent in 2030, according to a new joint brief by the International Renewable Energy Agency (IRENA) and China Water Risk.

The brief, *Water Use in China's Power Sector*, examines the expected impact of China's power sector on water and climate in 2030. It finds renewable energy is crucial to not only de-carbonize the sector, but also to realise dramatic water-related benefits for the country.

China has pledged to reduce carbon emissions by sourcing 20 per cent of primary energy consumption from non-fossil fuels by 2030. IRENA's *REmap* analysis on China, released in late 2014, finds that achieving a 26 per cent share of modern renewables by 2030 is both technically and economically feasible. Doing so would not only reduce emissions-intensity of power generation by 37 per cent, but also reduce water-intensity by 42 per cent thanks largely to the water saving potential of solar photovoltaics (PV) and wind. During power-generation, solar PV requires far less water than thermal to produce the same amount of electricity. Wind power requires no water. ■



Intelligent people tend to have less friends than the average person. The smarter you are, the more selective you become.

CEO TDAP links export target to release of refunds

Chief Executive Officer of Trade Development Authority of Pakistan (TDAP) S M Muneer has said export target of USD 35 billion can be achieved in next three years subject to immediate payment of exporters refunds stuck up since long.

In a statement issued here on Friday he said the new Trade Policy is according to ground realities and aspirations of the business community and realising the export target is linked to the prompt payment of refunds to the tune of Rs 210 billion.

S M Muneer said that exporters are passing through difficult times due to held up refunds despite the fact that top government functionaries have assured payment of refunds to exporters soon.



The CEO TDAP lauded the government for allocating Rs 20 billion to achieve target and demanded that Rs 6 billion allocated for ongoing year should be disbursed immediately.

He said besides refunds, continuous and uninterrupted supply of gas and electricity to industrial sector can help achieve export target. All the economic indicators of Pakistan are positive and it is foreseen that current GDP growth of 4.2 percent will go beyond 5 percent at the end of current financial year, he said. He asked all the concerned departments to facilitate the exporters by providing enabling environment so that they can play their due role in the national development with peace of mind. ■

Should we save melting glaciers to avoid climate change

A seminar was organized to commemorate the International Day of Forests by IUCN, International Union for Conservation Nature and the Ministry of Climate Change, Government of Pakistan, the Capital Development Authority, Bahria University at Bahria University, Islamabad Campus with an objective to highlight the importance of the International Day of Forest. The theme of the year 2016 is: "Forest and Water".

While speaking on the occasion Ifrikhar Gillani, Joint Secretary Ministry of Climate Change said that the MoCC has been playing a key role by providing stewardship all over the country to celebrate this day since the United Nations General Assembly adopted the Resolution on 21 December 2012. He lauded the role of IUCN Pakistan and Bahria University who have become partners of the Ministry of Climate Change in such events.

While elaborating the significance of forests Abdul Munaf Qaimkhani, Deputy Inspector General Forests, Ministry of Climate Change, Government of Pakistan said that in order to reduce the rising temperature and melting glaciers it is imperative that we should devote our energies towards bringing maximum area under green cover. He further said that the vision of the Prime Minister for our Green Pakistan Programme is to green the country on the lines of the Great Green Wall of China; and the Ministry of

Climate Change has already started working on his directives. He expressed his shock that the main species used by the Chinese is Ubhaan (Populus Euphratica) that is a native of Pakistan that once used to be plenty in our riverine ecosystems and now it is on the verge of extinction in Pakistan. He also informed that some of the provinces have already started planting this specie in the current spring tree plantation campaign. Similarly, many forgotten local trees are in the focus of the Ministry of Climate Change, one of them is Sohna (Moringa), which is also called the Miracle tree.

Zill-e-Huma, Public Relations Officer, Ministry of Climate Change made a presentation. She said that despite of all these priceless ecological, economic, social and health benefits, global deforestation continues at an alarming rate. The rate of destruction is 13 million hectares of forest per annum. Deforestation accounts for 12 to 20 percent of the global greenhouse gas emissions that contribute to climate change.

Sanaullah Aman, Member Capital Development Authority (CDA) made a detailed presentation on the Green Islamabad Programme of Capital Development Authority. Moreover, he informed about the practical steps being taken by CDA to reduce environmental degradation and make Islamabad greener and

Public hearing meeting by EPA Sindh regarding 338 km long RLNG Karachi to NARA pipeline project of 42 dia.

Sindh Environmental Protection Agency, Govt. of Sindh arranged a public hearing meeting to consider a report, submitted by SSGC on environmental effect, (EIA) at 42 dia, 338 km RLNG pipeline project being laid down from , in the regional office Qasimabad, Hyderabad on 3rd of March, 2016.

The public hearing meeting presided by Muhammad Imran Sabir, Deputy Director Technical (SEPA). Waqar Ali Dy. General Manager (LNG) SSGC provided details & awareness about the importance and need of the project. Environmental Expert Consultant also provided presentation regarding EIA report on SSGC's RLNG pipeline project.

Director Environmental Sciences Sindh University, Shakila Laghan , Sociologist (SIDA), Munir Ahmed Abbasi, Regional Head (SEPA)Hyderabad, Aamir Mumtaz Khan Acting Senior General Manager (GS), Nisar Shaikh Acting General Manager (Distribution North), Adnan Sagheer Acting General Manager (Transmission) and officials of other departments and public representatives also attended this hearing. To answer the public queries about the project, a team of expert engineers from different departments of SSGC was present on the occasion, who satisfactorily answered the public queries about the environmental effect of this project. ■



Pak-China working on electricity supply contract: Daghuaha



The Ministry of Water and Power and State Grid Corporation of China are working closely to build an Interconnection Grid for electricity between Pakistan and China which will mutually benefit both the countries by utilizing each other energy potential.

This was stated by Secretary Ministry of Water and Power, Muhammad Younus Dagha in Beijing at the occasion of Global Energy Interconnection Conference where more than 700 delegates have participated.

The Secretary Ministry of Water and Power said that the building of an Interconnection Grid between Pakistan and China will allow Pakistan to meet its energy demands when there is requirements. It will also benefit China to benefit from the potential of clean energy in Pakistan, especially hydroelectricity on the Indus River cascade lying all along the route of China Pakistan Economic Corridor, he added.

Dagha said that Pakistan is very much positioned to become energy corridor for the region and facilitate the exchange and

optimize use of clean energy available in the region of South Asia, Central Asia, Middle East and China. He said that Pakistan can play an active role in the Global Energy Interconnection.

While apprising about CASA-1000 project, Dagha said that Pakistan has a unique geographical position, strategically located at the confluence of South Asia, Central Asia, Middle East and China. We are aware of the opportunity offered by our geographical location. Working on it since past many years, we succeeded in signing an agreement on Central Asia South Asia transmission line, known as CASA-1000, with Tajikistan, Kyrgyz Republic and Afghanistan to build a 1400 kms long HVDC transmission line which will bring 1300 MWs of clean power to Pakistan. We already have Grid interconnection with Iran and plan to further enhance it. We are also working with South Asian countries to bring interconnectivity within South Asia. We have found a lot of interest in CASA-1000 in the countries of the region such as Turkmenistan, Kazakhstan and Russia.

The Dagha said that Pakistan has the potential and is fast becoming an energy surplus from an energy deficit country in the next three years due to the volume of energy projects initiated by the Government.

Although at present, Pakistan might be facing a deficit of transformed energy, especially power, but has a sizeable potential in terms of its untapped energy resources. Such untapped resources has a large share of clean energy, apart from fossil fuels.

While we hope to become self-sufficient in Power generation in 2018, we will still be left with an untapped potential of more than 60,000 MWs of hydroelectricity power, most of which lies right across the Pakistan-China border; also an untapped potential of more than 90,000 MWs of Wind Power in our South and an unlimited potential of Solar power all across the 850,000 sq kms of its area, with almost 300 days of bright sunshine. ■

Gharaan Jo Melo - A celebration of self-reliance initiatives

The mendicant community living in Makli village was given a special treat in the form of Gharaan Jo Melo - Family Festival - a celebration of self-reliance initiatives introduced by Heritage Foundation that included the distribution of 50 toilets which are being finished by the household themselves, and the provision of skill training for chulas to the local community. This CSR event was a joint venture by the Heritage Foundation Pakistan and Starlinks PR and Events.

Representatives of various print and electronic media and bloggers were welcomed at Makli by Khalifa Shakeel Ahmed, the custodian of Hazrat Ashabi Shrine. Shanaz Ramzi, CEO Starlinks and Board Member of Heritage Foundation Pakistan gave an introduction to the initiative. She highlighted the transformation in the lives of the beggar community of Makli, which is now involved in constructing toilets and chulas as a means of livelihood. She stressed on the need for appreciating the taking-up of such self-reliance initiatives by local, impoverished communities.

The attendees were then treated to an endearing performance by local street children. The highlight of the day was a special performance by well-known TV and film star Tipu Sharif, who performed pro bono for the villagers of Makli and surrounding areas. Tipu Sharif accompanied by a guitarist gave an amazing acoustic performance for the villagers - a first-in-their-lifetime experience as no one had ever performed for them before. Tipu enthralled the local community as well as the media with his melodious renditions and everyone appreciated his gesture of coming all the way to Makli to perform.



Awards were given to community role models to honour their work towards self-reliance. Naeem Shah, Humanitarian Manager of Heritage Foundation, gave the vote of thanks. After which the guests were taken around the local village, where CEO Heritage Foundation Yasmeen Lari also announced the gifting of a small adobe to the oldest resident of the village, a hundred year old elderly woman. This was followed by a tour of the Makli Necropolis with a detailed briefing by CEO Heritage Foundation, Yasmeen Lari, and lunch for the visitors. All in all it was a unique experience for both the guests and the local community. ■

Govt to set up LPG air-mix plants in hilly areas

The government has planned to set up 30 liquefied petroleum gas (LPG) air-mix plants with the assistance of gas utilities in Murree, Gilgit, other hilly areas in the north and Azad Jammu and Kashmir (AJK) where the laying of natural gas distribution network is not considered economically feasible, officials say.

In an effort to push ahead with the plan, the board of directors of Sui Northern Gas Pipelines Limited (SNGPL) had already accorded approval for installing 20 LPG air-mix plants in these areas in a meeting held on June 12, 2014.

These areas have a sizeable number of domestic and commercial consumers who are burning wood to meet their cooking and heating requirements, which in turn is causing rapid deforestation in the country.

According to the officials familiar with the developments, comprehensive site surveys have been conducted to select potential points for the establishment of air-mix plants. Initially, three suitable locations have been identified in Murree.

Pakistan faces an acute shortage of natural gas both for electricity generation and general consumption. The domestic production of 4 billion cubic feet of gas per day (bcfd) could not meet the growing demand as the gap between supply and demand stands at around 2 bcfd and is continuously widening.

The energy scarcity is not only causing hardships for the common people but is also slowing down economic growth. To tackle the challenge, the government is working on a plan that will provide gas through LPG air-mix plants to the areas where piped gas is not economically feasible.

The three sites identified in Murree are Kur Bagla Dewal, Tret and Company Bagh, for which SNGPL has invited tenders according to rules of the Public Procurement Regulatory Authority (PPRA).



According to officials, comprehensive site surveys have been conducted to select potential points for the establishment of air-mix plants

The energy scarcity is not only causing hardships for the common people but is also slowing down economic growth. To tackle the challenge, the government is working on a plan that will provide gas through LPG air-mix plants to the areas where piped gas is not economically feasible.

However, the company has highlighted that keeping in view policy guidelines of the government, all proposals for air-mix plants were required to be placed before the Economic Coordination Committee (ECC) of cabinet for approval. After that, the projects will be sent to the Oil and Gas Regulatory Authority (Ogra) for determining a rate of return that is equal to the return on gas operations. Ogra will assess the cost of LPG air-mix - a blend of LPG and air - in order to calculate the weighted average cost of gas.

During the tenure of the previous Pakistan Peoples Party (PPP) government, LPG air-mix plants were approved at a higher rate which sparked controversy. At that time, Ogra estimated that air-mix could be

injected into the Sui Southern Gas Company (SSGC) network at a cost of \$25 per million British thermal units (mmbtu) as LPG prices were high.

The PPP government planned to calculate LPG prices on a weighted average basis and as a result all consumers, except for domestic consumers, were expected to face a price hike of up to 9.9% with the injection of 50 million cubic feet of LPG air-mix per day as approved by the ECC.

However, now LPG prices have come down and the government is going to regulate the market to make the commodity affordable for the consumers. Therefore, the officials suggest, it would be feasible to inject LPG into the pipeline network of gas utilities when prices stand lower.

In the past, Ogra had opposed the scheme, arguing that air-mix plants would spark a sharp rise in gas prices for the end-consumers. It, however, insisted that to protect the consumers, the air-mix plants should work as a standalone and be not made part of the larger system. ■



Karachi Council on Foreign Relations Signed MoU with Institute for Political and International Studies

Karachi Council on Foreign Relations and the Institute for Political and International Studies (IPIS) - Iran signed an important accord to develop cooperation and partnership between the two institutions in the Prime Minister house on March 25th, 2016. Iranian President Hassan Rouhani along with a large political and economic delegation arrived Pakistan on a two-day visit to meet with Prime Minister Mian Nawaz Sharif with an aim to boost trade ties and energy cooperation between the two states.

The Memorandum of Understanding was signed between KCFR and Iranian institute by Mr. Ahsan Mukhtar Zubairi Secretary General KCFR and H.E. Mr. Mehdi Honardoost on behalf of Institute for Political and International Studies in the presence of Prime Minister of Pakistan Mian Nawaz Sharif, and Iranian President Hassan Rouhani. Other key notables present during the ceremony include Adviser to the Prime Minister on Foreign Affairs Sartaj Aziz, Minister of State and special assistant to the Prime Minister on Foreign Affairs Syed Tariq Fatemi, Finance Minister of Pakistan Mohammad Ishaq Dar, Foreign Secretary of Pakistan Aizaz Ahmad Chaudhry, Mr. Mohammad Javed Zarf Iranian Foreign Minister, Commerce Minister and Finance Minister and other members of the Iranian delegation. Presence of these eminent policy makers and heads of the states of Pakistan and Iran increased the signif-



icance of the agreement exponentially.

The agreement is likely to improve social and cultural ties between the two countries. Iranian President Hassan Rouhani & Prime Minister Mian Nawaz Sharif personally congratulated Mr. Ahsan Mukhtar Zubairi Secretary General, KCFR after signing the MOU. KCFR has already signed MOUs with three Chinese institutes, and think tank of U.S.A, Russia, South Korea, Egypt, & Nepal to cooperate in different fields. This agreement is expected to open a new dimension of cooperation with another neighbor and a key regional state the Islamic Republic of Iran. ■

K-Electric conducts its 5th AZM Interdepartmental Cricket Tournament

K-Electric (KE) was pleased to announce that the company held its 5th AZM Cricket Tournament at the Moin Khan Academy where different departments competed against each other in this annual KE event.



12 teams comprising of around 200 employees participated in this tournament whereas famous cricket stars such as former Pakistan Team Captain and wicket-keeper Moin Khan, former Test Cricketer Shoaib Muhammad, Test Cricketer Asad Shafiq and domestic Cricket star Ramiz Raja Jr. were also part of this event. Also present on the occasion was Pakistan's very own star athlete Naseem Hameed.

K-Electric's Region 4 team 'Cheetahs' lifted the trophy after they defeated K-Electric's Region 2 team 'Stallions'. K-Electric's Chief Marketing & Communication Officer Fakhar Ahmed said that this annual event marks our belief in Sports and such activities where families of employees get together. We have not only invested in our core departments such as generation, transmission or distribution, we invest in our culture and sporting activities for a better tomorrow. ■

Global renewables grew at fastest rate on record in 2015

Renewable energy generation capacity expanded by 8.3 per cent last year to 1,985 gigawatts globally, the fastest annual rate on record, data from the International Renewable Energy Agency (IRENA) showed.

The strong growth was mainly due to a continued decline in technology costs. Overall, capacity has increased by roughly a third over the last five years, mostly fuelled by new installations of wind and solar energy.

Wind power capacity rose by 17pc, or 63 gigawatts (GW), from the previous year as the cost of onshore wind turbines fell. Solar power capacity increased by 37pc, or 47 GW, due to declines in the price of photovoltaic modules, according to IRENA's Renewables Capacity Statistics 2016. "Renewable energy deployment continues to surge in markets around the globe, even in an era of low oil and gas prices," IRENA's director general Adnan Z. Amin said in a statement.

"Falling costs for renewable energy technologies, and a host of economic, social and environmental drivers are favouring renewables over conventional power sources," Amin added.

Regionally, the fastest growth in renewable generation capacity was in developing countries. In Central America and the Caribbean it increased at a rate of 14.5pc last year while capacity in Asia rose by 12.4pc. ■

On a Lighter Note

A man brings his best buddy home for dinner unannounced at 5:30 after work. His wife begins screaming at him and his friend just sits and listens in. "My hair & makeup are not done, the house is a mess, the dishes are not done, I'm still in my pajamas and I can't be bothered with cooking tonight! Why the hell did you bring him home for?" Husband answers "Because he's thinking of getting married" ■



Youth ICON award Youth parliament organized youth ICON award at Governor House Dr. Ishrat-ul-Ibad Khan was the chief guest



Rizwan Jaffar President YP Presenting a charter of to governor Sindh. Governor Sindh Presenting award to CEO Haseen Habib Fawad Bari, Show Biz Personality Anum Tanveer, Anchor Najia Ashar



Meeting with DG Ranger Naeem Qureshi President NFEH, Sr. V. President MCB Kafeel Burny and other Businessmen meet with DG Rangers Maj. Gen Bilal Akbar and appreciate him his efforts for law & order in Karachi.



Administrator DHA Brig Zubair Ahmed is answering the question of audience at a seminar on greener DHA at Defence Authority Country & Golf Club



Indira Krishnamurthy Nooyi, Chairperson PepsiCo presented International Bottler of the Year 2015 Award to Yasir Haji Kassam and Siraj Kassam Teli of Pakistan Beverages Limited at a ceremony



The participants of IB Governance Seminar with Taymur Mirza, Rose Puffer, Kevin House, Mr. Gregory Briggs, Richard Tangye and Dr. John Sperando



Group photo of 'Pakistan-French relations in the new millennium' organized by the Karachi Council on Foreign Relations. Ms. Martine Dorance, Ambassador of France to Pakistan and others



Managing Director Sindh Solid Waste Management Board Roshan Ali briefing to Representatives of American Investors Organization about the different projects



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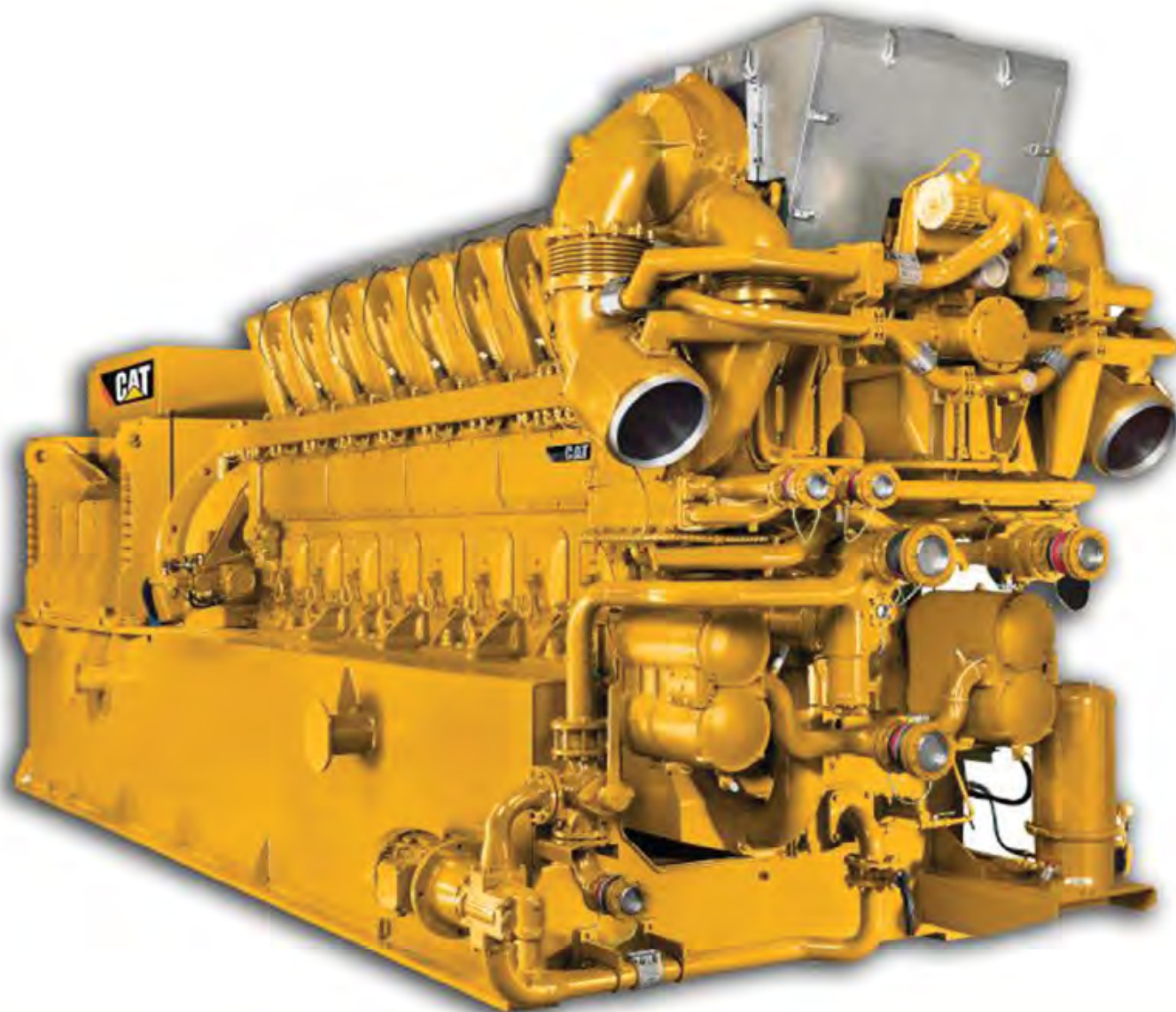
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