

**Gadani Power Park:  
The Game Changer**

**Tight Gas:  
A potential source**

**Biogas programme  
in Punjab**

**Exclusive Interviews**

**Rohail Muhammad  
CEO Engro Fertilizer**

**Saleem Khan Tanoli  
CEO FAKT Exhibitions**



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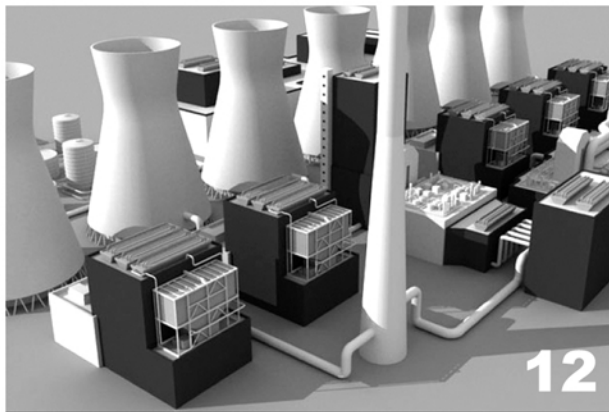
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## ***A costly road to recovery from energy crisis***

*Government seems ambitious to end energy crisis in the country gradually in years to come as it has realized that the national economy can not be sustained without addressing truly the deteriorated issues of power and gas shortage.*

*The policies and projects that have been rolled out in the recent weeks not only has pinned hope among collapsing stakeholders of energy sector but it has also boosted confidence among local and foreign investors having stakes in different businesses.*

*PML (N) cabinet has recently announced a power policy and a mineral policy for a roadmap to generate energy resources under one agenda to make country self-sufficient in producing electricity in accordance with its needs of domestic, commercial and industrial sectors.*

*The government efforts are encouraging regarding the clearance of circular debt and the addition of 1700 MW to the national grid and a robust plan of constructing new power plants including 969MW Neelum-Jhelum hydropower project, 425MW Nandipur power plant, 2117MW Karachi coastal power plant, 6600 MW coal thermal power plant at Gaddani, 1200MW coal plant at Jamshoro.*

*It approved three different projects for the construction of terminals at Port Qasim for receiving, storing and re-gasifying the liquefied natural gas (LNG) from Qatar to get 500mcf/d LNG to Pakistan by next two and half months.*

*Though the government is apparently uncertain about Iran Pakistan Gas Pipeline but it could be hoped that government will not come under pressure of United State of America after it has decided an independent and agreed policy of counter-terrorism and peace through dialogue process with local Taliban.*

*Going forward, if the government is firmed to materialize its plan of power projects and natural gas imports, the handsome foreign and local investment will be seen in the country, employment will be generated and businesses will be revived and flourished in different industries.*

*However, masses suffering will not be ending at large from these projects because the government has committed with International Monetary Fund (IMF) to increase electricity tariff by 50 percent on its domestic, commercial and industrial customers as against \$6.7 billion Extended Fund Facility (EFF), which has become crucial to prevent country from default as country's foreign reserves depleted fast.*

*The government has also decided to phase out all subsidies on electricity to agriculture and different sectors in the coming years which will add insult towards their injury and misery.*

*These strict measures will come up with spike in inflation in every two or three month as every sector is dependent of electricity from productions of goods to rendering of services, resultantly a big section of masses will hurt from government policies, which should be compensated by the government through creating alternative measures of increasing their income affordability or adjusting the macro-economic issues with different resources such as boosting up of exports and diminishing of the imports.*

*Naeem Qureshi*

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# Letter's to Editor

Send your letters to  
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## Power standoff

As I settled for breakfast with a cup of tea in one hand and a copy of the newspaper in the other, I was shocked to see an advertisement in glaring bold letters on the front page: "Forced increase in loadshedding upto 10-13 hours per day in Karachi". The advertisement then harped on about outstanding dues of the KESC which the government has to clear. This state of affairs is indeed deplorable. After a particularly testing Ramazan, and a gloomy Eid, this increase in loadshedding is uncalled for.

The issue of outstanding dues is a matter between the government and the KESC, and should be resolved between them. The millions of KESC customers who pay their bills on time should not be burdened. The KESC should not be allowed to harass the hardworking and stressed residents of the city.

**Engr. Nadeem Ashraf, Karachi**



## Super-critical coal-fired power plants

THE PML-N government is setting up 10 coal-fired power plants at the Gadani Power Park with the cooperation of China. These plants would be operated on imported coal.

Though there are reservations regarding the use of imported coal instead of local, that's abundantly available in our Thar Desert, yet, as far as selection of equipment for the power plants is concerned, we must go for the best available in the market. Also, we should adopt cleaner methods of coal extraction and subsequent power generation for which super-critical technology should be used.

It may be mentioned that super-critical power plants operate at a much higher temperature and boiler pressure and burn coal more efficiently. If we burn one kilo of coal, we'll get almost 20pc more electricity, and in the process 40pc less carbon dioxide too. Many countries are using this technology for their latest coal plants. This technology is affordable and economical. Any plant, whether old or new, can be upgraded to this technology to increase the overall plant efficiency. Now that we would be installing 10 coal-fired power plants in the Gadani Power Park, let us start on the right foot from the very beginning.

It shouldn't occur to us after the installation of these plants that we should upgrade these plants to super or ultra-super technology, which would entail a huge expenditure at that time.

**AIR CDRE (R) AZFAR A. KHAN, Rawalpindi**

## Electricity and gas theft

FIA has been made responsible on the direction of Prime Minister Nawaz Sharif for detecting the pilferage of national resources of the country. So the campaign against electricity and gas theft is in full swing.

The government vowed to continue the campaign without succumbing to any pressure.

Many big fish involved in power and gas theft have been caught. Some of the accused have been heavily fined while some have been arrested. These culprits are also responsible for the power crisis besides other illegal acts. The campaign is a great move by the government to bring the culprits to book. It will help to resolve the load-shedding issue.

The amount which is being received from the accused will be used to write off circular debts which are mounting day by day. Recently, the government detected many cases of power theft in which government officials were involved. Without the involvement of government officials it is impossible for consumers to pilfer electricity on such a large scale.

Generally, meter readers are involved in taking bribes from electricity thieves. Another malpractice which is carried out by the officials of the power supply company is that they overwrite the reading of units actually used by domestic consumers. This is done to conceal those units which were not written in the record of big factory and mill owners of the same area.

The main reason for electricity theft is the involvement of power supply company officials. An official of such a company once told me several ways to have one's bill lowered. The government should constitute a committee which should keep an eye on such officials. The assets of officials whose salaries are low but who live luxurious lives should also be checked thoroughly.

**M. MUKARRUM, Lahore**



## Low-cost hydel energy needed

THE government deserves credit for cobbling together the first-ever consolidated National Power Policy 2013 amid energy outages that have affected the pace of socioeconomic development and created enormous difficulties for domestic households. While the goals outlined in the policy are ambitious, if at all they are achieved, it is important that we not only

generate enough energy to keep the engine of economy moving but also produce low-cost, environment-friendly and affordable energy, which is within the paying capacity of domestic and commercial users. It calls for changing the current energy mix towards low-cost power generation sources such as hydel, wind, coal, biomass and solar. Of all the available sources for low-cost power generation, hydel presents the best option. According to experts, Pakistan has the identified potential of 60,000 MW of hydel power while currently the country has an installed capacity of about 6500 MW, which is just a fraction of the overall potential. It is hoped that the government and Wapda would double their efforts to increase hydropower generation. Wapda particularly has a job cut out for itself and hopefully it will rise to the occasion.

**FARHEEN SADIQ, Lahore**



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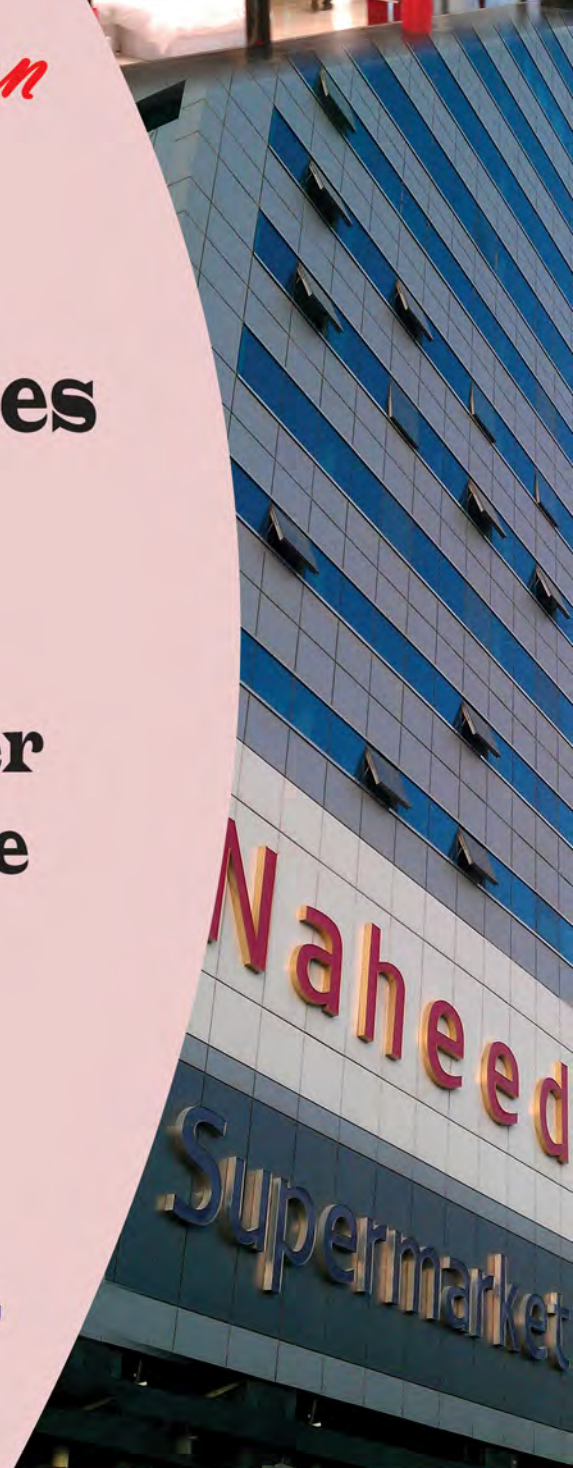
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DEBENHAMS



# GADANI POWER PARK The Game Changer

— By Akhtar Ali —

PM Nawaz Sharif has announced Gadani Power Park project where up to ten coal power plants with a combined capacity of 6000 MW would be installed. The announcement made headlines as the project has a potential of being a game changer. This is as they say in urdu 'Sau Sunar ki aik Luhar ki' (Ironsmith's one hit is equal to one hundred hits of the goldsmith); the project is so huge that, if implemented in time, it can end our load shedding miseries.

Many people have asked me many questions and are groping for some details. I will try to explain various aspects of the project and will offer some humble suggestions to those involved with the project for the project's better implementation.

In these crisis days, the foremost criteria are the time span required and whether some credible party or country is ready to implement it. On both counts the project fares well. Chinese government and companies have reportedly offered to install four plants with a capacity of 2660(4x660 MW). First plant would be commissioned in three and half years. If Chinese are involved, this would be possible. In their own country, where immense local capability is there, they can install a coal power plant in 18 months.

The whole project can be implemented, if finances are there (a big if), in about seven years, starting with the first project in three and half years and there after commissioning one plant every year. Another positive aspect is that the government will invest in the first plant itself which would solve many problems of permissions and various risks involved. Had a small power plant like 400 MW been installed by the government, federal or provincial, in Thar, the situation would have been different today. We will revert to Thar later, however.

The project would be based on better imported coal from Indonesia, South Africa or Australia. Due to large coal requirements (about 20 million tons per year), and economical coal transport, a special purpose jetty would have to be installed, seven kms into the sea to have an appropriate draft (sea depth) to accommodate large Panamax and Capsize vessels containing 100-200,000

tons of coal. The unloading facilities are to be fast enough so that a whole ship can be unloaded in one or two days which means a system capacity of some 4000 tons per hour or even more.

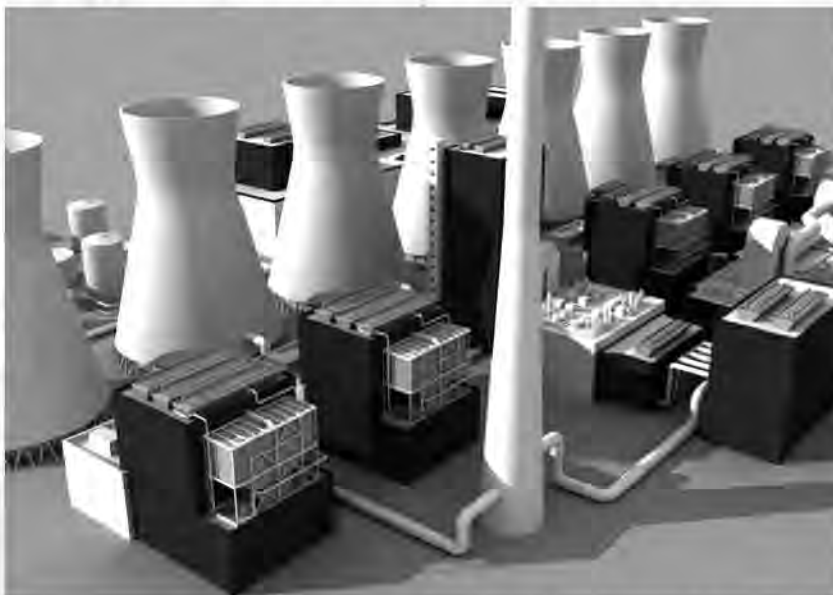
The idea is neither new nor unbelievably large, although the norm is of 1000 MW projects world wide. There are several projects of this size operating in China, Poland and India. In fact in India, there is a scheme abbreviated as UMPP (Ultra Mega Power

Project) whereby 16 such projects would be installed each with a capacity of 4000 MW. One such project has already been commissioned at Mundra Port in Gujarat by Tata Power based on imported coal. India has large coal reserves of 276 billion tons and a coal production of 526 million tons per year catering to 365 coal power plants with a combined capacity of some 126,000 MW forming 57 % of total power installed capacity in that country. For a variety of reasons, India has been facing shortages and has started importing the coal. Domestic coal in India is 50 to 70 % cheaper than the imported coal.

UMPPs in India are based on both, local and imported coal. 4 UMPPs (16000 MW) is at various stages of implementation.

Gadani project is an offshoot of a proposal prepared in around 2005 by two major and credible companies, AES and MITSUI, the latter did not pursue its proposal but AES followed it through and got its tariff approved at about 8 cents by NEPRA. In the meantime, the enthusiasm with Thar coal and usual apathy combined did not let attract further progress in this direction. Now wasting more than a decade hoping for Thar project to come out with something, stage is set to follow the Gadani project. The feasibility study is already (which is a big time saver, saving one full year) there, whether it can be used legally speaking is for lawyers to comment. AES can comeback and install one of several plants. There is scope for many. In fact MITSUI may also be back and should be invited.

In India imported coal power is expensive than that on local coal; for example, MUNDRA got a winning tariff based on ICB (International Competitive Bidding) at about 5 cents and



demanding another 26% increase due to force-majeur conditions of Indonesian governments change in coal export policies and prices. By comparison local coal power in India is at 3-4 cents mostly. In Pakistan reverse seems to be true; Engro's proposed tariff as reported in this magazine (CEO Khalid Mansoor's interview) and several discussions and public presentations, is 11 cents, unheard of for coal in any part of the world. This sweet dish for Pakistan's economy was prepared by those who have since joined a revolutionary political party to change Pakistan's economy and governance. Naturally with a ROE of 20.5%, poor credit rating, biting larger than you can chew and providing for every one's interest should result in such horrible proposals. With such a tariff, the country is better off without Thar coal than with Thar coal. This seems to be one of the major reasons behind present governments soft-peddalling (if not altogether abandoning). The PM has asked Sindh government to continue treading on its solo flight under the slogans of provincial autonomy.

It is unfortunate that due to the back box of Thar coal governance, no body is prepared to come to Thar or finance Thar coal projects. Chinese Senhua has done a full feasibility study and has spent valuable time in Thar field with scores of Chinese experts. Senhua had offered 5 cents tariff on Thar coal to WAPDA, then managed by General Zulfikar and the country under the whelm of redoubtable General Musharraf. The offer was not accepted and now we have Engro's 11 cents possibly even more. I wonder why Senhua does not entertain Thar. This is something that should be asked from the administrators of Thar project and the provincial government. In fact they should ask themselves and try to correct the situation. Why don't other project promoters with MOUs do not push ahead despite newspaper announcements. Although the issue is more complicated than the inefficiency and posturing of the provincial government.

A suitable and precise formula has to be worked out for provincial sharing of the energy produced in provinces. At present, there is a vague and broadly mentioned "priority" for the producer province. Under this broad definition, Punjab has suffered more than Sindh, where people in Punjab did not have gas to cook their meals while in Sindh people revelled in CNG. Perhaps a defined 25% it has to be studied, for the producer province may be allocated in place of the vague but indefinitely expandable priority prescription leaving the consuming provinces in the lurch. More specifically, what happens if after labouring on a 5000 MW power ca-



capacity in Thar, the provincial government demands all of it for itself. This is risk analysis, all risks have to be mitigated. Four decades earlier, the position of gas was the same as it is of Thar. There was enough of hydro power and oil was cheap. Gas resources were developed in national interest which later was converted into resource nationalism. The issues should be resolved. The initiative should be taken by the provincial government which until now thought that it had the trump card and everybody would come to their door. With Gadani, there is a game changer.

Let me now tell you how big the impact going to be. Presently, there is 90 billion units (kWh) of electricity generation, stuck at this level for past many years. Coal power plants produce much more than an equivalent hydro power plant with capacity factors exceeding 80% as opposed to Hydro of 45-50%. A 1000 MW coal power project would generate about 6 billion kWh and 6000 MW would inject 36 billion units, about 40% of present generation at a cheaper rate of around 7-8 cents, replacing the present oil based power plants in total or relegating those to a peak power use only of less than 1000 MW. Cost of generation would go down and with this the power tariff as well. The nation would have to wait, however, in the intervening period in which improvements can be brought about by reducing the power losses, theft and non-payments.

The readers may be surprised that non-payment of bills alone are of the order of 100 billion Rupees, a major chunk of which is from interior Sindh. That is the reason, there is a move to provincialize the power losses creating some incentive and responsibilities on provincial governments which currently take no interest in this matter.

It appears that on conversion of oil fired plants to coal has gone to back burners. EOIs have been invited for conducting feasibility studies on the instance of ADB, the main potential financier. Selection of consultants alone may take several months

and feasibility many more months and the bidding processes and the potential snags and litigation. This means that the project has gone out of the emergency list. If some thing had to be done, it could have been done real fast with a negotiated price with Chinese. However the logistics of imported coal, when there is no breakthrough on local Thar, and the conversion cost may have been a restraining factor. A coal boiler (with all auxiliaries like coal preparation, storage and pulverizers) can easily cost 400,000 USD per MW as opposed to 250,000 USD per MW of turbo-generator set. And uncontrolled Sulphur may have implications for agriculture, acid rain and what not. Feasibility studies would be examining all these questions. Some times a lot of thinking may be counter-productive. They say, doers are not thinkers and vice-versa and thus the stampede into Gadani.

In the end, we would recommend the government push ahead with the construction of the coal jetty, since it is a common facility that would be utilised by all power plant owners. It can always be privatised later. Thar coal should not be left as an orphan. Thar coal can be used in deep land projects in Sindh and as well as in Southern Punjab, both for new projects as well as for conversion of oil fired plants to coal.

Secondly, the Prime Minister has announced a transparent mechanism which involves a competitive bidding process. For the Chinese companies, it may be irrelevant. They are all one party (although, I have to update myself on this). And when the Chinese are there, nobody else comes nearby due to low Chinese bids. A fair price can always be negotiated on imported coal projects. There are all kinds of numbers and data. For the first few Chinese projects, negotiated prices ought to be adopted; similarly, Russian and Polish sources on a government-to-government basis. The government can always privatise these projects.

Pakistani private sector is too small for the billion dollars utility projects.

However, they can prove their efficiency by transporting the used coal power plants from the Western countries. 50,000 MW of Coal power plants are in the pipelines to be retired not all of which have completed their useful life. Many power plants are being discarded due to new and stricter environmental standards in those countries. Environment is important here as well, but it is all relative. After all the plants being now discarded were tolerated all these years and were permitted and cleared earlier by respective authorities in those countries. We can, for the time being, settle for less say of 1980s USA or Europe. It won't be a bad deal. ■

# National Power Policy 2013 At Glance

Pakistan Muslim League (N) government has recently chalked down an ambitious power policy to end energy crisis in the country with focus laid upon power generation and distribution, its resources-oil, gas and coal, and pricing for customers.

The policy is the landmark step of the new government which is seemingly serious to execute all-out efforts for resolving energy crisis through all financial and policy means.

In the Power Policy 2013, the government has set key targets in terms of the demand-supply gap, affordability, efficiency, financial viability and governance of the system. The extent to which the policy can meet these targets will measure the success of the policy and the nation's ability to overcome the key problems afflicting the power sector.

## Power Policy 2013 Targets

- " Decrease supply demand gap from 4500 - 5000 MW today to 0 by 2017
- " Decrease cost of generation from 12c / unit today to ~10c / unit by 2017
- " Decrease transmission and distribution losses from ~23-25% to ~16% by 2017
- " Increase collection from ~85% to 95% by 2017. Decrease decision making processing time at the Ministry, related departments and regulators from long to short durations.

## Efficiency

Efficiency is the cornerstone of developing competitiveness. The principle of efficiency will be predicated on three pillars: merit order, transparency / automation, and accountability.

## Competition

Competition creates the edge essential for developing a robust energy cluster. The principle of competition will be built on three pillars: infrastructure development, up front tariff and competitive bidding, and key client management.

Infrastructure will be developed and incentives provided to attract greater private sector investments. Government would like to limit its role to policy making, and unless necessary, service delivery will be promoted through a fiercely competitive and transparent private sector.

In this light, NEPRA will be strengthened to create a world class regulatory authority with sophisticated and efficient capacity to establish tariffs and set the foundation for a competitive bidding process.

## SUSTAINABILITY

Sustainability is the underpinning of long term transformation. The principle of sustainability will be grounded on three pillars: low cost energy, fair and level playing field, and demand management.

by protecting the poor and cross-subsidizing their consumption from the affluent. A level playing field will be created by providing power at comparable prices to all industrial users.

be introduced through novel policy, pricing and regulatory instruments.

## Demand Strategy

The government will pass energy conservation legislation aimed at three key areas: a) technology / product labelling standards power time of use, and

improving the energy efficiency of the existing and new infrastructure.

The strategy will set energy conservation and product labelling standards which would ban the import of inefficient electronics into the country. The local industry will be granted a three-year exemption period to bring its production to the required levels of power efficiency. Green energy building codes will be established and introduced across the country.

The strategy may also impose timing restrictions for evening commercial activities and introduce "time A conservation program based upon energy saver lighting is already underway with a potential of saving 1000 MW if all 50 million consumers were to be converted to fluorescent bulbs. In addition, technology solutions such conical bafflers for water heaters will be introduced.



### Affordable Strategy

The strategy focuses on shifting Pakistan's energy mix toward low cost sources such as hydel, gas, coal, nuclear and biomass. Local and foreign investments will be aggressively sought for small and medium size run of river hydel projects. Selected hydel projects under development will be positioned for privatization. Multilateral agencies will be invited to partner in large infrastructural hydel projects.

### Supply-chain Strategy

The supply-chain strategy will minimize pilferage and adulteration in fuel supply.

Once the relief from load shedding is forthcoming because of a decreased supply and demand gap, this strategy will focus on redirecting the supply of fuel from inefficient GENCOs to the most efficient IPPs. This reallocation alone has the potential of saving Rs 3 billion per month and generation an additional 500MW of electricity.

At the same time, the MoWP will sign performance contracts with GENCOs, PSO, and fuel transporters and hold them accountable for the quality and theft of oil. Fuel procurement contracts may be made open sourced to eliminate the power of a single supplier.



### Generation Strategy

The strategy focuses on establishing plant efficiency through external heat rate testing, building a merit order accordingly, and allocating fuel to the more meritorious plants. Merit order will privilege fuel allocation on the basis of efficiency and optimize dispatch and payments. Transparency will be achieved by providing greater and easier access to information through a public website. Allocations will be made publicly online to increase the transparency. The strategy calls for the privatization or O&M based leasing of GENCOs.

### Financial Strategy

The financial efficiency strategy is geared towards punishing private defaulters and proposes severing the electric connections of defaulters after 60 days of non-payment and only reconnecting them to the grid with pre-paid meters.

External collection agencies may also be sourced to improve cash flows. At the same time, load-shedding may be focused on areas of high theft and low collections as opposed to the current structure of indiscriminate load-shedding.

The strategy also covers the independent audit of all financial transactions within the power sector. An independent firm will be used to audit these transactions and ensure the greatest degree of financial propriety within the power sector.

### Impact

The successful implementation of this policy will lead to enormous improvement within the power sector. By 2017, the supply-demand gap could be eradicated completely; and by the end of the five-year term of the current government the country will have a power surplus which can then be regionally traded. In essence, by the end of the decade Pakistan could be transformed from an energy strapped, importer of power to a regional exporter of power.

The cost of power generation will be reduced to an affordable amount, and the efficiency improvements in transmission and distribution will decrease the burden of power to the end consumer. In summary, prosperity and social development will become a reality in a Roshan Pakistan. ■

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# Tight Gas:

— By Ismat Sabir —

## A potential source to control energy crisis

All eyes are set on the much-awaited gas supplies project of tight gas from Kirthar Block in Dadu, Sindh, which is now expected to start in August or September 2013, instead of May due to a delay in construction of the pipeline to supply gas.

The Kirthar Block is jointly owned by Poland's PGNiG, 70 percent, and Pakistan Petroleum Ltd. has 30 percent share. State owned gas utility, Sui Southern Gas Co. signed the country's first tight gas sales and purchase agreement with PGNiG and PPL in November, 2012, for supply of 30,000 Mcf gas per day. The agreement was signed on November 13, 2012 in Islamabad for the production gas from a tight gas reservoir in Dadu.

SSGC is in the process of constructing a 52 kilometer, 32.24 mile, pipeline at an estimated cost of Rs325 million or \$3.31 million, to move the gas from the Kirthar Block. The gas will be sold at \$6.50 mmbtu, around 47 percent lower compared with imported gas price of \$12.30 mmbtu, but 40 percent higher than the current price of conventional gas produced in Pakistan.

The higher price for tight gas is in accordance with the government's tight gas exploration policy approved in February 2011 and later on renamed as the Petroleum Policy 2012. The exploration companies have been offered 40 to 50 percent higher prices for tight gas, compared with the \$4.26 mmbtu price for conventional gas announced in Pakistan's Exploration and Production Policy of 2009. Accordingly, companies that succeed in recovering gas from tight fields within two years will get a 50 percent premium over the 2009 price, but if extraction takes more time they will

get only a 40 percent increase. Leases for tight gas fields will be for 40 years, instead of the 30 years for conventional gas assets.

### Definition of Tight Gas Reservoir

Reservoir is designated as tight if:

1. The effective permeability is less than 1 md and generally the non-stimulated gas flow rates is less than 1.0 mmscfd

In the TGR's, there is lots of uncertainty regarding:

1. Irreducible water saturation and the connate gas saturation,
2. Overburden correction factor that has a big impact on the low range value.

### What is Tight gas?

Tight gas refers to natural gas reservoirs locked in extraordinarily impermeable, hard rock, making the underground formation extremely "tight." Tight gas is usually trapped in sandstone or limestone formations that are atypically impermeable or nonporous. Tight gas is held in rock pores which are up to 20,000 times narrower than a human hair.

Exploration and extraction of tight gas is more costly and difficult to explore, therefore, the exploration companies need to be given more incentives or facilitations. The tight gas reserves in Pakistan are at 40 TCF and most of the reserves are in Sindh. Sindh is already produces 70 percent of the 4.2 Bcf per day of the total natural gas output. The natural gas supply falls short of demand by 1.2 to 1.4 Bcf per day. The government is also working





on to import 3.5 million mt per year of LNG to meet energy demand.

A conventional gas formation can relatively easily be drilled and extracted from the ground unassisted but tight gas requires more effort to pull it out from the ground because of the extremely tight formation in which it is located.

While conventional gas formations tend to be found in the younger tertiary basins, tight gas formations are much older, having been deposited some 248 million years ago. Over time, the rock formations have been compacted and have undergone cementation and recrystallization, which all reduce the level of permeability in the rock.

### Gas Reserves in Pakistan

Pakistan has estimated total tight gas reserves of about 24 to 40 TCF, which makes them larger than the existing natural gas reserves. The government has also realized that extracting tight gas requires the use of proven, state-of-the-art technologies for seismic acquisition and processing, drilling, reservoir stimulation and development plans entailing massive investments with longer recovery cycle.

An ideal conventional well produces around 50 mmcf/d gas, whereas same production of tight gas may require 10 to 50 wells giving rise to manifold increase in the production costs for the same level of output. The government has, therefore, accelerated its exploration and development effort in order to increase indigenous gas production and supply.

The Sui area in Balochistan has huge reserves of tight gas equivalent to its presently known natural gas reserves. The natural gas reserves are now estimated at 100 trillion cubic feet, compared to the previously estimate of nearly 29 trillion cubic feet as per information released by the government concerned ministry.

In February this year, the Council of Common Interests approved a policy for the exploitation of tight gas, which is natural gas reservoirs locked in difficult rock or underground formations extremely "tight" to drill. It had been kept hidden in the past and was brought out by the present government, but he did not mention who was responsible to hide these reserves.

Mari Gas Company Limited in Zarghun block, Polish Oil and

Gas Company (PGNiG) in Kirthar block and OMV in Miano and Sawan blocks, has found tight gas.

Tight gas reserves have also been identified in the existing development and production leases granted to various E&P companies operating in Pakistan. Main tight gas regions identified are Kirthar Foldbelt located in Dadu, Sindh, Sulaiman Foldbelt located in Balochistan, Potohar region in Punjab and offshore areas near Karachi.

### Global Tight gas Reserves estimates

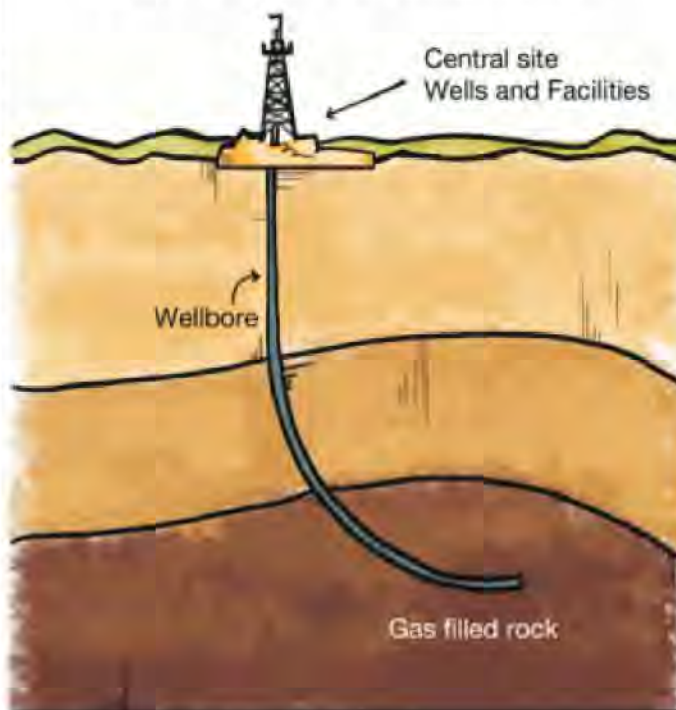
S.no	Region	Tight gas reserves (trillion cubic feet)
1	North America	1,371 (18.51%)
2	Latin America	1,293
3	Western Europe	353
4	Central & Western Europe	78
5	Former Soviet Union	901
6	Middle East and North Africa	823
7	Sub-Saharan Africa	784
8	Centrally planned Asia and China	353
9	Other Asia Pacific	549
10	South Asia	196 (2.65%)
	WORLD	7,406

Source: Directorate General of Petroleum Concessions (Pakistan), 2009

Worldwide recoverable gas resources are now estimated as being equal to 250 years of current production, of which roughly half is tight gas, shale gas and coal bed methane. And many countries including the US, China and Australia are now moving to produce their tight gas resources. Europe, too, has its share of these gas deposits, but it will take some years before they are produced on any significant commercial scale.

The price of tight gas is around \$6 per mmbtu, compared to around \$16-17 for LNG and \$25 for LPG, Air Mix. However, the government must offer a level playing field for both local and international companies involved in exploration and production of tight gas. The Petroleum and Natural resources Minister, Naveed Qamar, said in January, 2012, that total balance recoverable

### DIRECTIONAL DRILLING



from the country's gas reserves were estimated at 28.9 trillion cubic feet, enough for more than 20 years. However, he said the domestic consumption pattern is the worst form of using gas in the vehicles, which must go to industry. According to approved Tight Gas Policy in 2011, the government is focusing on exploration and extraction of gas in the country to overcome energy shortage. The 2009 Gas Policy would be revised and new 2011 Gas Policy has been issued with a better pricing structure to encourage investment in gas exploration and extraction sector.

The Tight Gas Policy states, if a tight gas or conventional gas are produced from the same well or from different zones of the D&P lease, the allocation of the tight and conventional gas shall be done on the basis of flow rates, supported with third party determination. No commingled production shall be allowed from the same well unless produced through dual completion or other internationally acceptable method as approved by the Regulator.

In case of production of tight and conventional gas from the same D&P lease, the operator shall provide daily wellhead gas production from each well as per requirements specified by the Regulator. Furthermore, operator shall put in place mechanism for observation of the wellhead gas flow rates by the representative(s) of the Regulator.

For the purpose of pricing and delivery obligations for tight gas, the field gate shall be outlet flange of the gas processing facilities. However, if the tight gas is discovered subsequent to the already developed conventional field and the tight gas is processed and delivered from the existing facilities and infrastructure, then the delivery point for tight gas shall be the same as for the conventional gas delivery. Subsequently, if normal gas volume is injected in the Tight Gas delivery point, then the tariff will be applied if the pipeline is constructed by the federal government and the provincial government concerned is the designated buyer.

According to the Policy, to exploit tight gas reserves, 40 percent premium would be given over the respective zonal price of Petroleum Policy 2009. However, in order to encourage the companies to fast track development and production of tight gas,

an additional 10 percent premium would be given for those volumes that are brought into production within 2 years of announcement of this policy.

For instance, if a field produces 300 MMCFD within two years of the announcement of this Policy, it would be entitled to 50 percent premium for 300 MMCFD gas only. Any subsequent addition in volumes after expiry of the two years' period would be entitled to 40 percent premium only.

The working interest owners shall have the right to sell the gas to third parties within Pakistan at mutually negotiated prices between the seller and the buyer.

Initial term of the development and production of tight gas lease will be up to 30 years. The lease may be renewed for a period not exceeding 10 years, subject to justifications acceptable to the federal government and the provincial government concerned. In case tight gas reservoir is extending into a free area then the lease area for tight gas shall be extended to the adjoining free area on submission of technical justifications.

In case of discovery of the tight gas under the existing D&P lease, the lease shall be amended to separately include the D&P rights for the tight gas reservoir or issue a separate lease, subject to justifications. On the expiry of the D&P right for the conventional gas under the existing lease, the area held for the production of conventional reservoir shall be relinquished, if it does not impede the production operation of the tight gas wells, and relevant amendments shall be incorporated in the lease on approval of Regulator.

The energy demand is projected to grow to 147 million ton of oil equivalent (MTOE) by 2022, reflecting a phenomenal increase of 245 percent compared to 2008. The gas being largest component of energy supply is also projected to decline from existing 4.2 billion cubic feet per day (BCFD) to 1.6 BCFD in 2022, giving rise to deficit of 7 BCFD.

To meet the targets identified, Pakistan's oil and gas industry will need to explore, discover and produce greater volumes of oil and gas than are being produced today. ■

## PSO should be autonomous: Abbasi

The Honorable Minister for Petroleum and Natural Resources, Shahid Khaqan Abbasi stated that the management of the Company will be autonomous to carry out their functions independently.

Speaking at his visit to a PSO office, he said that the government will oversee their functions as the majority shareholder and the BoM appointed by GoP will oversee the affairs of the Company as per the principles of corporate governance. He apprised the management about the government's vision for the energy sector and indicated the potential role of PSO based on its leading position. He advised the management to develop a robust and comprehensive plan of Corporate Social Responsibility (CSR) for contributing to the nation's development.

Accompanied by the Minister of State for Petroleum and Natural Resources Mr. Jam Kamal Khan, Federal Secretary for Petroleum Mr. Abid Saeed and other delegates.

Amjad Parvez Janjua, Managing Director, PSO welcomed the delegates and provided a comprehensive briefing on the policy and regulatory environment of Pakistan's energy sector with a particular focus of PSO's role in energy sector development and customer service.

The presentation covered various elements of PSO's supply chain and included details regarding the Company's geographical

presence nationwide such as its well-established storage infrastructure, wide-spread retail network and dominant position in the majority of the POL product markets. The presentation also

covered present and potential business challenges faced by the Company and the management's response plan.

The delegates were further apprised of the management's efforts to align the Company's practices with the best industry practices and to ensure compliance with legal and regulatory framework. The management's focus on transparency and accountability in business operations and zero tolerance policy against corruption and violation of Company's Values or Code of Conduct was highlighted as well. The Honorable Federal Minister commended the PSO management for their efforts to bring in best corporate governance & management practices and assured them of the support of the Government of Pakistan (GoP).

Also speaking at the occasion, Abid Saeed acknowledged the dedicated hard work of PSO's management and workforce to support the government in meeting the energy sector challenges. MD-PSO thanked the delegates and ensured that PSO will play its role in energy sector development.

PSO in its role of being both a public sector as well as the largest energy company in Pakistan today is working day and night to take Pakistan forward to ever greater heights. ■



— By Anjum Ibrahim —

# Politics of Energy

The newly-elected PML (N) government released its power policy amidst much fanfare. Ignored by the media was the last sentence of the second paragraph, "this document does not elaborate on issues surrounding operational strategy, nor does it lay out detailed implementation plans." In other words, it is a strategy, a vision that leaves ample room for the government to change the time of implementation of specific actions as well as its operational strategy no doubt premised on the extent of opposition from the public or the private sector.

The policy's objectives are varied but a start has been made in terms of attaining financial efficiency through implementation of three policy decisions: (i) elimination of inter-circular debt; (ii) a raise in tariffs; and (iii) a proactive approach to cut connections of bill defaulters as well as those with illegal connections.

The PPP-led coalition government, it may be recalled, implemented two policies with respect to achieving financial efficiency in the power sector: (i) elimination of inter-circular debt, around 300 billion rupees, through parking it in the Holding Company established as per the International Monetary Fund condition contained in the 2008 Stand-By Arrangement (SBA); Term Finance Certificates were issued for the purpose which increased the interest payment component of the budget and led to eventual escalation by banks to further increase their exposure to the power sector; and (ii) raising the power tariff across-the-board to reduce subsidies. However, tariffs were not raised by as much as required to achieve full cost recovery and in the absence of other reforms not only did the inter-circular debt resurface but also accounted for almost doubling of the budgeted power sector subsidies leading to a rising budget deficit.

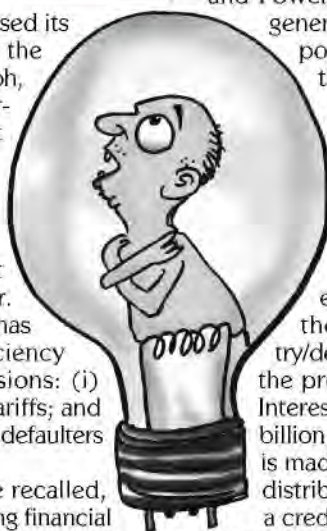
The newly-elected government cleared the inter-circular debt in fiscal year 2012-13 at one go. Dar's claim that it was from savings is simply too ridiculous to merit a comment. His insistence that the bulk of the debt be cleared by 30th June 2013 (and he had to compel the banks to stay open on Saturday to meet the deadline) was without doubt the reason why the 7.7 percent budget deficit he announced a day before the budget speech escalated to 8.8 percent on budget day. No economic analyst missed the significance of the timing of clearing the debt which has in effect enabled generating companies to begin operating at capacity accounting for approximately an addition of 1700 MW to the national grid.

The question is would the inter-circular debt reemerge like it did during the PPP rule? Musaddaq Malik, the Advisor to the Prime Minister on Water and Power, recently revealed that the debt is expected to rise to 400 to 500 billion rupees by the end of the current year if no other corrective policies are implemented. One such policy that has been implemented is the average rise of 35 percent in electricity tariffs on commercial and industrial consumers with domestic consumers expected to be slapped with a rate rise in the last quarter of the current calendar year. The returns on such a policy are immediate and needless to add a rise in tariffs is the easiest to collect - considerations that seem to guide our entire tax system which has rendered it extremely

unfair, inequitable and anomalous.

The PML (N) government has begun implementation of a policy that the PPP-led government was unable to: going after those who steal electricity or fail to clear their bills. The policy envisages a three-pronged approach. First reports from around the country reveal that the newly-elected government is proactively going after energy thieves and non-payers with connections to entire areas cut off due to the high rate of a particular feeder's customers' not clearing their bills. Second the Ministry of Water and Power is targeted to sign performance contracts with generation and distribution companies and fuel transporters to hold them accountable for the quality and theft of oil; fuel procurement contracts would be open sourced to eliminate a single supplier and the policy states that "in the event that fuel is found to be missing or adulterated the full economic value of the fuel will be appropriated to the end receiver." The implementation of this has not yet been reported and one may assume that it is yet to be implemented. And thirdly while the policy envisages a federal adjuster with the capacity to cut the bill amount due of the government ministry/department at source yet there has no agreement with the provinces on this score in the Council of Common Interest. Thus public sector arrears estimated at over 100 billion rupees would not be cleared till such an agreement is made effective with several provinces arguing that the distribution companies routinely overstate their arrears - a credible charge.

The newly-elected government, however, has challenged and at the same time given a vote of confidence to the Independent Power Producers (IPPs) established during the premiership of Benazir Bhutto which the party had vigorously attacked at the time claiming corruption and nepotism in their award. The PPP-led coalition government, including President Zardari, had periodically patted themselves on the back by maintaining that it was the IPPs that were by far the most efficient in generating electricity relative to state-run Gencos and hence the decision by the Bhutto led PPP government was fully vindicated. The energy policy 2013 acknowledges that the IPPs are indeed more efficiently run than the other Gencos but at the same time argues that heavier reliance on IPPs that use the more expensive imported furnace oil relative to hydel dams has led to rising tariffs. The policy envisages: "allowing the fuel mix towards less expensive fuels will lead to low cost energy. Investments required for low cost fuel mix will necessitate rationalisation of the electricity tariff." In other words, electricity tariffs would come down after the fuel mix is changed which would require massive medium and long-term investments. Given Pakistan's current state of the economy, the government would be compelled to rely on foreign investment, from multilateral and bilateral sources, to fund this change. However attractive the energy policy it is unlikely that the foreign private sector would be interested in investing given the law and order situation in the country. The energy policy also seeks to manage demand through raising rates at peak times, a tried and tested demand management policy, and improving efficiency of existing infrastructure, which would require massive investment. Finally the policy envisages the passage of legislation aimed at technology/product labelling standards which would ban the import of inefficient electronics in the country. One can just about imagine more than a mile long queue of aspirants for a job in determining product labelling standards and/or the rise in smuggling that would effortlessly compromise the implementability of such a condition. But one dud policy clause out of many good ones is perhaps easily forgiven. Not forgiven would be an inability to reduce load shedding. ■



# ENERGY CRISIS IN PAKISTAN

## What could be the solution?

— By Dr Sheikh Muhammad Ali —

### Are We Really Generating Less Than Our Demand?

First of all, we must know that there is really a genuine lack of power generation. Every new government blaming the previous government, of not increasing power generation capacity, won't help. People who know a little bit more, claim that it is actually grid losses which is the biggest problem in Pakistan and not generation. They claim that Pakistan already generates more than its demand and only if grid losses could be dealt with, Pakistan will be out of its energy crisis. Here, we must note that grid losses include technical losses due to lack of maintenance, poor quality / efficiency material, and also power pilferage. According to a World Bank report supported by IEA statistics, grid losses in Pakistan were 16% in 2010. Bangladesh had the lowest grid losses in world in 2010 which were only 2%. For Pakistan, the bright side is that the trend of grid losses in Pakistan is downwards, and the people who have worked for this downward trend must be appreciated.

Most of the areas in Pakistan that are rich in their energy resources have a big issue of security as well, and the oil & gas supplies to power stations get terminated due to this a number of times. These fields probably need the same level of security as palaces of our beloved politicians.

Another important factor is the lack of responsible management everywhere including generation, transmission and distribution related organisations. The government must take appropriate steps to end the culture where Baray Sahabji's tea is more important than supply of electricity to public and business.

According to an interesting research published in 2011, Pakistan's total power generation capacity was 19,855 MW and the demand was only 14,500 MW. The author blamed the government for poor management of available power systems. On the other side, Radio Pakistan recently reported the demand to be 17,000 MW and current generation to be 11,000 MW. Apparently, it is more of an issue to improve management of existing power systems than spending money on new sources.

### Renewable Energy Sources versus Energy Efficiency

Unfortunately, the energy issues in Pakistan are used for political reasons and their solutions are suggested only on political basis. At the moment, Pakistanis are more aware of solar panels and wind turbines as being renewable / alternative energy sources, so these 2 options have a higher 'wow' factor. Not many know of energy efficiency projects as potential opportunities. Also, how many of us know about RDF, ASHP, GSHP, etc. Therefore, it is more politically beneficial for politicians to talk about and spend money on solar PV and Wind turbines projects, irrespective of whether these are really the best options or whether other options (on generation side) could have been more beneficial overall. It is the public money that is spent on these projects



anyway, so does anybody care?

For the benefit of Pakistan and Pakistanis, it is vital to understand the difference between renewable energy sources and energy efficiency opportunities, and to know what potential drivers may / do exist to encourage green economy and discourage waste of energy & hazardous GHG emissions.

### Potential Energy Efficiency Opportunities

Energy efficiency means to reduce energy demand by employing measures, which may include but are not limited to, as below. Technological Improvements Such as using timers, thermostats, PIR sensors etc on lighting, HVAC systems, or replacing existing halogen / sodium lamps with LED / Induction lights, or use of telematics to reduce transport energy use, or use of high efficiency transformers, etc. There are trillions of such energy efficiency solutions available.

Increasing Awareness Such as running a campaign, or train workforce, so they understand how their behaviours can impact energy use, and how indirectly it is disturbing their own lives, etc. Micro-Grid Trading could also help in running the existing and new micro energy generation systems at maximum efficiency.

### Potential Energy Generation Sources

Despite the impression that Pakistan needs to focus more on existing power systems than putting new in place, it is important to plan ahead for our future energy generation systems. The cost of fossil fuels is always on a rise, more recently due to instability in Middle East. Global protocols and schemes such as Kyoto, UN-CDM, EU ETS, etc are now introducing new risks and opportunities. Rather than keep repeating the fairy-tales of our coal reserves or hidden oils, or promoting the wind / solar systems for political gains, it is now time we must evaluate our realistic options. We need a short term and a long term plan for our energy generation, in parallel to continually improving our existing generation, transmission and distribution. In general, hydro (i.e. generating

## Grid Losses (%)

Country	1960	1980	1983	1988	1993	1998	2003	2006	2007	2008	2009	2010
Pakistan	ND	29	25	22	23	30	25	22	19	21	20	16
Afghanistan	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Bangladesh	ND	35	26	36	19	15	12	6	5	5	2	2
India	ND	18	18	18	18	22	27	24	23	22	22	22
Iran	ND	7	10	11	12	14	17	19	19	18	16	14
Iraq	ND	5	5	5	4	6	6	28	41	49	40	37
Saudi Arabia	ND	7	9	8	7	6	5	8	8	9	8	9
UAE	ND	7	7	7	9	5	7	7	7	7	7	7
UK	9	8	8	8	7	8	8	7	7	7	7	7
USA	9	9	8	5	7	6	6	6	6	6	6	6
Worst (Congo)												83
Best (Bangladesh)												2

power from water through dams which doesn't consume any water) is the cheapest option, and then nuclear. Pakistan is using both, and also has huge potential to increase the capacities when required. Wind, Solar and other sources of renewable energy should only be considered in areas where they are a better option than other. Off-grid solar electricity may help a lot in rural areas, but again, we must not conclude anything before analysing all our options.

## Green Economy Drivers

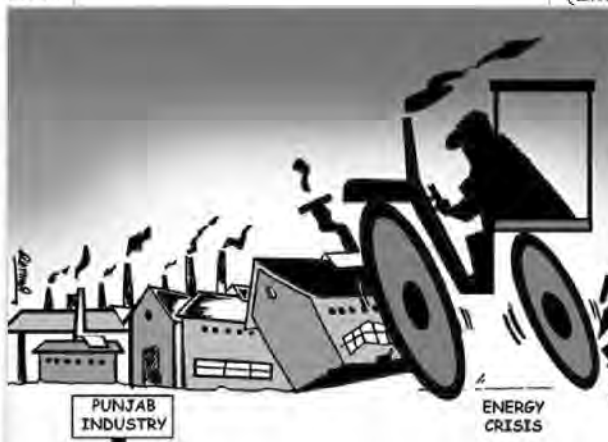
Governments in the world have been introducing their own mechanisms to drive their countries towards a green economy. The drivers include incentivising the generation of energy from renewable sources (such as ROC, FIT, RHI in UK), taxation on use of fossil fuels and electricity (such as CCL in UK), emissions trading schemes (such as EU ETS, CRC in Europe and UK) etc. Apparently, Pakistan has recently introduced FIT (i.e. feed in tariff) for Solar schemes up to 100 MW, but information could not be found on AEDB and NEPRA websites. Also, it will be interesting to know if this FIT scheme was really required at this stage. We must realise that the money paid to incentivise those generating electricity comes from public's pocket. In my opinion, other drivers such as taxation to large consumers, emissions trading scheme, FIT for energy efficiency projects (paid by money saved in energy savings and not public pocket, or may be by project financing firm such as in Green Deal in UK) should have been considered at this stage to provide immediate benefits to the country and its people without putting a burden on public's pocket.

Government may also introduce schemes at no extra cost to them (such as tax breaks, may be) for organisations interested in offering Energy Performance Contracts, or something similar to UK's Green

Deal scheme, etc.

## What Can Be Done?

The following approach may be used by the government and relevant bodies to deal with energy crisis in the country and keeping a long term view of country's energy needs.



**Step 1:** The government must improve existing power generation, transmission and distribution systems. At a higher level, the country may consider developing its own indicator for each individual power generation plant to improve this (if no such indicator is in use already), such as

$$GF = TEG / MEG$$

Where;

Maximum Energy Generation capacity per month = MEG

Total Energy Generated this month = TEG

Generation factor = GF

The performance of power plants with poor GF should be immediately scrutinised, and responsible people should be made accountable for performance.

In terms of grid losses, a league table should be published on which areas have lesser losses and why. Priorities can then be set where technical issues are the main reason. Power pilferage should publicly be

declared as criminal offence and enforcement action must be taken. Presenting a weekly 'Name & Shame' program about power thieves on television with evidence may be useful.

There are political reasons behind the security of oil & gas production & supply locations and their staff, and government must deal with these on a priority basis.

**Step 2:** Involving the existing relevant bodies and academia, government must use existing and new information to identify the social, technological, economical and economic benefits of all potential energy supply and energy efficiency options. Short-term and long-term goals can then be set on the basis of what is realistically needed. The process and outcomes at various stages must be made public to ensure transparency, and to win trust from public. Innovative tools such as CALoRIC (Carbon Abatement Low Risk Investment Chart), MACC (Marginal Abatement Cost Curve) and ERIC (Emissions Reduction Investment Curve)

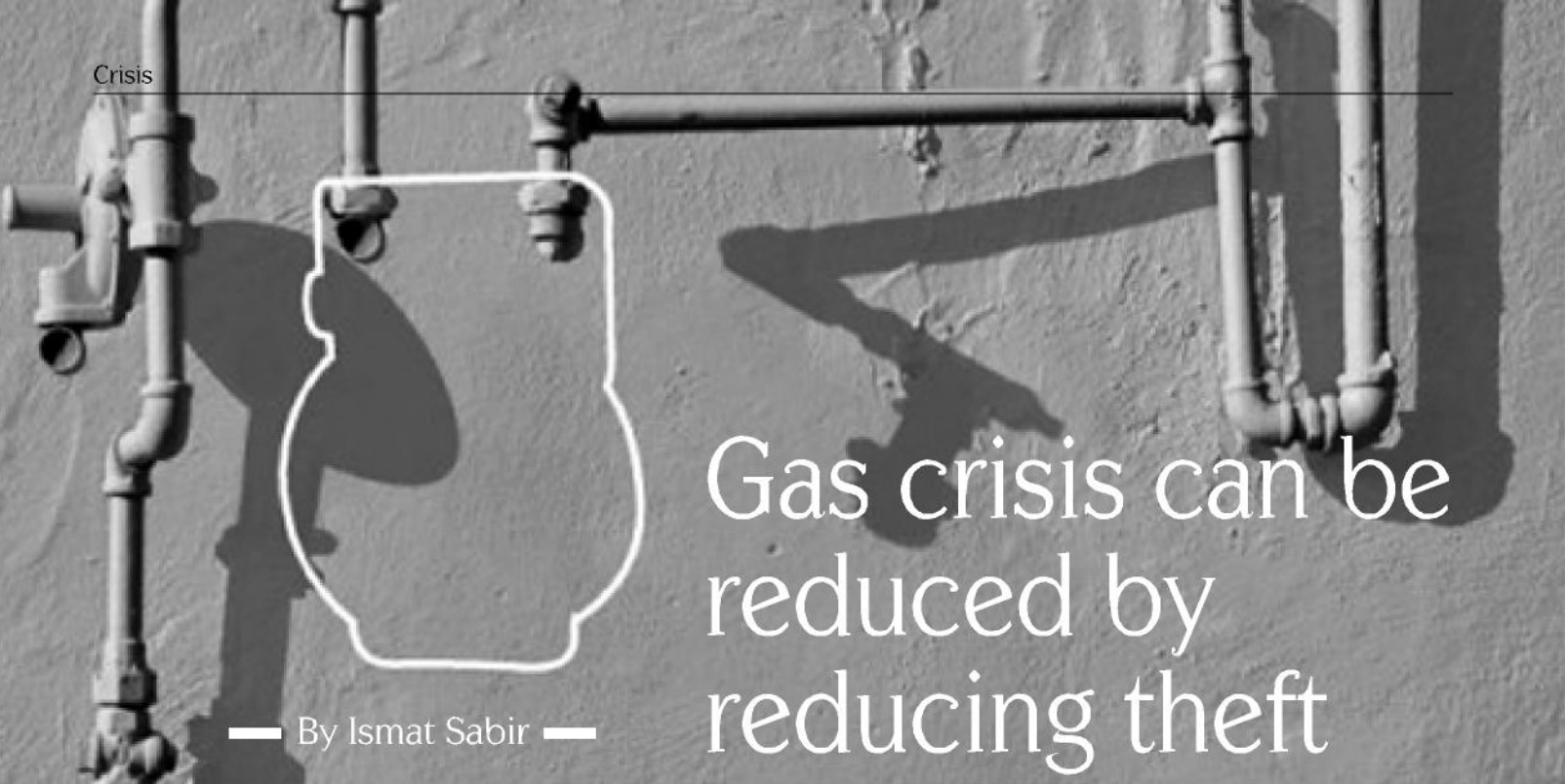
can be very helpful in this regard. Even if the country doesn't need any new power generation or energy efficiency initiatives at the moment, the research and design work must start from now.

**Step 3:** The relevant bodies (such as relevant ministries, AEDB, ENERCON, etc) must evaluate and identify the most suitable drivers for the country for a green economy, whether it is taxation, or incentivising scheme, or emissions trading scheme, or a combination, and then implement it. Also, opportunities in UN's CDM and other emissions trading schemes must be made available to the existing and new businesses, which can then benefit financially for their renewable energy and energy efficiency initiatives.

It is suggested to set up an autonomous body (under protection of UN and monitoring by Transparency International, may be), which should ensure that correct path is followed, avoiding monetary corruption, red-tape, political influences etc. to get the country out of this energy crisis and to bring a green economic revolution to this country. ■

Dr Sheikh Muhammad Ali graduated from NED University Karachi in Jan 2007 in Mechanical Engineering. Dr Ali is now a Chartered Energy Manager and Member of Energy Institute, currently helping British businesses in Aggregates, Waste Management and Construction sectors to improve their energy performance.

He could be contacted via (email: alishahkhji@hotmail.com,



— By Ismat Sabir —

# Gas crisis can be reduced by reducing theft

Pakistan is the largest consumer of natural gas in South Asia but its gas reserves are depleting very fast because of the unplanned use of gas. Its pipeline system is causing to highest theft in the Third World countries as nearly 40 percent of gas being consumed in households and at gas pumps is subject to this loss, which puts further pressure on gas prices for consumers.

Gas is consumed not only by the transport, but by households, electricity, industry, especially in the fertiliser sector. Its share in the energy supplied was 48.03 percent and accounting for 34.3 percent of the electricity generated. Pakistan has the world's highest number of vehicles running on CNG.

During the last 5 years, the gas consumption in power sector has decreased from 25 percent, 2006, to 20 percent in 2011, but could not reduce gas crisis, while the reverse was required to produce cheap electricity. Government has already increased 30 to 70 percent tariff for domestic and industry consumers and more is to come in. There are plans for a total removal of CNG from the other uses like vehicles and generators.

The CNG consumption has increased at the rate of 16 percent per annum, doubling its consumption over the last 5 years. The consumption increased from 56 BCft (1.5 MTOE) to 119 BCft (2.895 MTOE). One MTOE (million ton oil equivalent) in petrol would cost almost 1 billion dollar. Its share in transports consumption increased from 12 percent in 2006-07 to 23 percent in 2012. Power sector's consumption of gas has gone down from 8.64 MTOE to 6.483 MTOE during this period.

It was suggested that to reduce gas crisis, the Government should eliminate the Unaccounted for Gas (UFG), i.e. gas theft, which is about 12 percent of the total 4.3 billion cubic feet (BCFD) gas production. If this is controlled, the current gas crisis can be brought to a minimum level and there will be no need of reducing supplies to any sector. The system inefficiencies in SNGPL and SSGC distribution networks are the main cause of the gas crisis.

Fertilizer industry is the 'most energy efficient in comparison to others which include power sector, including Government operated Power Generation Companies, IPPs etc., industries and CNG sector. The Government should focus on cost benefit analysis of using gas for different sectors.

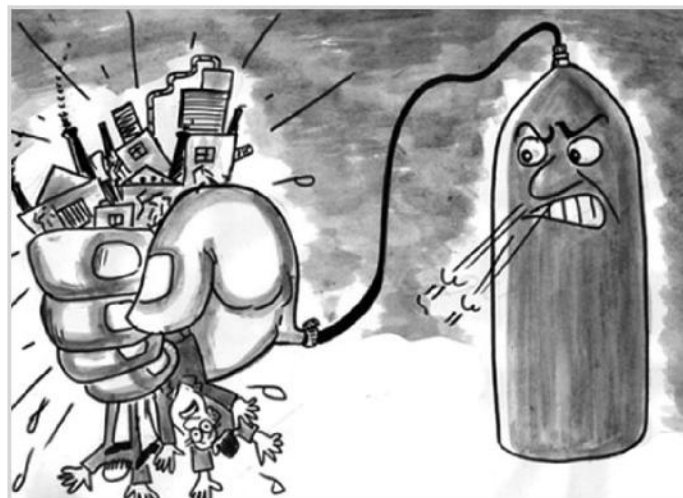
Results of a comprehensive research report prepared by International Resources Group for the Asian Development Bank

and the Ministry of Planning and Development Government of Pakistan, indicated that reducing gas to the fertilizer sector costs the economy Rs196 million per mmscfd, while increasing gas to the power sector would cost Rs98 million per mmscfd. The comparison between fertilizer and power plants shows that using 100 mmscfd for fertilizer saves Rs29.4 billion compared to fertilizer imports, while replacing 100 mmscfd for power saves Rs6.4 billion compared to oil imports. Thus, using natural gas for fertilizer has a higher saving relative to using it for power generation by Rs23 billion. Thus, for use of 100 mmscfd in the fertilizer sector gives a net benefit of Rs19.6 billion.

The energy systems analysis showed that reducing gas to fertilizer and increasing gas to power both increase energy system costs. However, importing fertilizer has a greater cost than that of importing oil for power generation.

Fertilizer sector claims that it is the only sector which has zero percent of UFG and it never defaults on its payment obligations to gas utilities which positively help for cash flow of SNGPL and the private sector.

Without increasing supply of gas no improvement can be imagined, however, no immediate prospects of improvement in supplies are seen. i.e. Iran Pipeline, local gas discoveries or even



LNG imports. Even if CNG use is curtailed, petrol imports will increase; thus it has the same effects, whether one imports LNG or petrol or furnace oil.

It would be very difficult for a political Government to deny a cheap fuel to the masses and profits to the CNG pump owners. People want affordable CNG and affordable electricity too. However, till now the full impact of expensive electricity was not felt by the people, because Government subsidized it. Now the Government became so much indebted under the load of this subsidy that it had to pay off the accumulated circular debt of more than 500 billion rupees while she is scared that the same debt does not accumulate again. Thus it has to enhance power tariff.

However, the new gas (Shale) prospects are bright in Sindh and already more gas is coming out of Sindh than from Balochistan.

If gas remains discontinued to fertilizer plants in 2013 too, Pakistan would have to import more urea which may cost \$450 million and a subsidy of Rs21 billion to match the imported urea price to domestic urea prices. Fertilizer Manufacturers Pakistan Advisory Council (FMPAC) has demanded judicious distribution of natural resources to keep all the sectors of the economy running properly.

Due to the gas curtailment to fertilizer sector during the last 3 years the country spent foreign exchange of \$1.5 billion and also paid a subsidy, the differential between local in international prices was more than Rs1000 per bag, and about Rs80 billion on the imports of 3.4 million ton during 2010-12 only.

Gas theft and high UfG in gas utilities are the main problems, while appointments on different positions on political basis have also caused huge losses to the economy. Many agreements in OGDCL in the past few years were signed on political basis, besides hundreds of people were recruited in this largest oil and gas producing company. Therefore, now it was decided to audit all these matters, the ministry official said.

### Gas sharing formula opposed

Minister for Petroleum and Natural Resources Shahid Khaqan Abbasi, said a change in the gas sharing formula is being prepared that was opposition in the National Assembly by Syed Khurshid Ahmed Shah. He said it was not justified that CNG was available for vehicles in a gas producing province while fertilizer plants were closed in another province due to non availability of gas, even though the former might be the major consumer of fertilizer

produced in that province.

To deal with the power and gas theft the Ministry of Petroleum and Natural Resources and Ministry of Water and Power have drafted ordinances and sent to the Council of Common Interests (CCI).

According to the draft, the petroleum ministry has proposed 2 to 3 years imprisonment to gas thieves besides a fine of Rs3 million to Rs10 million. The ministry has also proposed a two percent reward for the informer. The new drafts ordinances have been prepared keeping in mind shortcomings in the present laws dealing with the power and gas theft related issues.

Under the proposed law the government has indicated to set up Utility Courts to deal with the gas and power theft issues and the decisions of the Utility Courts could only be challenged in the high courts. The amount of fine for power stealers is to be increased from Rs5,000 to Rs5 million. An officer of grade 17 or above of Disco will be authorized to lodge an FIR against the accused. The government has also decided to continue power subsidy only to those consumers who will use up to 200 units per month.

The gas utility companies would be allowed to seize belongings of the persons or organizations found guilty of gas theft. At present about 425 Million Cubic Feet per Day (MMCFD) of gas is being lost on account of UfG. This amount of gas is sufficient to produce about 2,200MW of electricity or can fully make functional all the CNG stations in the country along with making operational four fertilizer plants on the system of SNGPL, which at present are running at only 20 percent of their capacity.

According to ministry, the draft ordinance to deal with the power theft has also been forwarded to the CCI. The Ministry said due to the power theft during the last financial year the country suffered a loss of Rs90 billion. They said that in 2012-13 about 2 million power theft cases were detected but due to complex nature of the law only 23,000 FIRs were registered against the thieves, with recovery of only Rs1.3 billion.

The OGRA also recommended to the government to take up the issue of UfG in CCI, saying that the CCI is the only body to issue directives to the regulator to pass on the gas theft bill to consumers under section 144, which would result in increase in gas price. OGRA officials said that the increase in gas price would also affect consumers in provinces, and it was essential to take them on board. After getting approval from the CCI the draft ordinances will be forwarded to the President for promulgation.

Moreover, gas consumers of both SNG-

PL and SSGCL will have to paying Rs3,000 more in the form of security deposit in the next six months, according to the latest decision by the oil and gas regulatory authority (OGRA). OGRA has agreed to plea of both state owned utility companies to raise the security deposits for both existing and new consumers to Rs4,500 owing to increase in the risk of default. As a result, both gas companies would collect Rs14 billion from domestic consumers in the next six months. The gas regulator has also approved imposition of reconnection fee of Rs371 on domestic gas meter connection.

The companies had pleaded to the OGRA that gas prices had increased manifold since 1996 when the government had set Rs1, 500 as a security deposit for domestic consumers of Sui gas. Therefore the gas companies had requested the regulator to allow a revision in security deposits to Rs4,500. ■

### Comparative and suggested fuel Prices and tariff

	August 2013	Price Suggested
LPG	20.4	20.4
Gasoline	27.4	27.4
Diesel	25.7	27.4
CNG(etail)	13.1	20.4
	(Rs 75/kg)	(Rs 100/kg)
NG(ind)	5.6	10
NG(comm)	6.36	10
NG(domestic)	2.5	5
LNG(CNG)	6.56	15
	(Rs 37/kg)	(Rs 70/kg)
NG(fertiliser)	3	10
LNG		4-15

Table - 2

#### Natural Gas Monthly Price

	Rupee per Million Metric British Thermal Unit	
Month	Price	Change
Jan 2013	324.88	-
Feb 2013	326.47	0.49 %
Mar 2013	372.96	14.24 %
Apr 2013	410.29	10.01 %
May 2013	397.78	-3.05 %
Jun 2013	377.94	-4.99 %
Jul 2013	364.55	-3.54 %

Source: Indexmundi

### Value of a moment

To realize the value of:  
-One year- Ask one who failed in an exam;  
-One month-  
Ask one who has not received his salary;  
-One week-  
Ask one who is hospitalised;  
-One day-  
ask one who is on fasting;  
-One hour-  
Ask one who is waiting for his beloved;  
-One minute-  
Ask one who missed his train;  
-One second-  
Ask one who just escape from an accident;  
Every moment is a treasure.  
Yesterday is history,  
Tomorrow is mystery,  
Today is a gift... :) :) :

### Fankariyan

Ek din ek larki ne larkay se sawaal kiya :- "Tum mera saath kab tak chahte ho" ? ?  
Larka ro diya aur apne aansu ka ek qatra samandar main gira diya,  
Aur Bola :- "jab tak tum is aansu ke qatray ko dhoond na lo."  
Is par samandar bhi ro diya,  
Aur kehne laga :- Ae Pakistanio...  
"Tum loog itni "Fankariyan" seekhte kahan se ho" ? ? ?  
Larkay ne muskura kar kaha :-  
"Amir Liaquat se."

### Engineer Girl

Computer engineering field ki girl ko kisi boy ne cherra, to us ka ghusa asia nikla:  
Pedaishi Error,  
Virus k Bachay,  
Excel ki corrupt file,  
Aik click marun gi to zameen se delete ho kr qabar myn install ho jae ga..!!!

### Maafi

Pakistani mard sub se ziyada Maafi kis sy mangtay hen?  
Socho.. Thora or socho..?  
Nahi pata  
FaQeeRon se.\*  
Aap soch rahy thy k bivi se..aap b apni jga suchay ho....

### Millat ka Pasbaan

India Me Quaid-e Azam Or Gandhi ki Pictures Lagi Thi  
Jo Aata Jinnah ki Picture Pr Phool Chrhata Or Salute krta.  
Logon Ne Poocha Yar Hamara Leader To Gandhi Tha Tum Sb Jinnah Pr Phool Q Charha Rahy Ho?  
Jawab Mila. Ye Wo Azeem Hasti Hy Jis Ne Humen Tamam  
Cheaters, Currupt, BeEman, BeGhairat, Jaali Degree Waly, kaminy, buzdil or Bhatta khoron Se Nijaat Dilayee Or Un Sab ko Pakistan Ly Gya.  
Millat ka pasbaan  
Muhammad Ali Jinnah

### Calcium

How we loose CALCIUM in our body By Drinks  
Ham Jitna calcium 6 glass milk pee kar Haasil karte haen Wohi calcium ham sirf ek glass pepsi , coca-cola pi kr zaaya kar dete haen.

Isi tarah ham jitna calcium 3 glass milk pee kar Haasil karte haen Wohi calcium ham sirf ek glass 7-up , Dew pee kar zaaya kar dete haen.

Please remember that carbonated water (pepsi, sting ,coca-cola, Dew ) are calcium killers.  
Do not have tea soon after having meals as it would suck the IRON content from your food.  
Especially not good for children

### Old man quote

"I am not 60... I am 16 with 44 years of EXPERIENCE"  
Think Different, Problems common to all but Attitude makes Difference.

### Police wala

Police wala apne bache se: Beta tumhara result achha nahi aya aj se tumhara khelna tv dekhna band

Son: Ye 50 Rs pakro or is bat ko yahien daba do":-



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# Fertilizer sector ensure food security: Ruhail

— By Yasir Ameen —

The fertilizer industry has sought the support of the new government to provide all installed plants with the natural gas of its requirement to produce urea and DAP for the local agriculture industry and enhancing food security of the country.

The fertilizer industry consumes 10 percent of overall gas production but it saves \$ 3 billion per annum against the import substitution of imported fertilizer. The government will save another Rs100 to 120 billion per annum that it spends as subsidy to farmers on expensive imported fertilizer. On the other hand, it delivers timely feed for agriculture industry, which is crucial part of the national economy in terms of productions and exports.

Talking to Energy Update in the meeting, Ruhail Muhammad, CEO, Engro Fertilizer Limited said that Engro Fertilizer Limited is playing pivotal role in providing the needs of urea and DAP to agriculture sector as it alone saves \$ 1 billion of the country but lack of natural gas supplies have reduced its contribution in the economy.

Engro Fertilizer has incurred a loss of about Rs50 billion in the last three years due to short availability of gas since its new plant of Dharki started commercial production sometime in 2011. The losses were booked since the previous government of Pakistan Peoples Party did not fulfill its commitment of providing an agreed quota of natural gas to the company.

The recently installed government of Pakistan Muslim League (Nawaz) in the centre has, however, promised us to try its level best to supply the agreed gas quota very soon.

The government has restored supplies of 60 MFCD to maintain the contract between Engro and Sui Northern Gas Pipeline Project, but it was disconnected in the meanwhile to connect gas supplies to Guddu Power Plant.

But the company is looking forward



towards permanent solutions and enhanced gas supplies as per needs of fertilizer's plants installed capacity. In this regard, the government has been conveyed that gas supplies should be given from Thatta gas fields. This will increase the gas supplies to Engro from 130 MFCD to 250 MFCD.

Engro Fertilizers suffered huge losses on the non-supplies of the government for a big period which was bridge of the contract and sovereign guarantee but hopes have been rekindled with the new government which is likely to resolve the issue of fertilizer company for the economic and legal reason.

The company, which generated Rs 60 billion on the account of taxes to national exchequer, is planning to invest

Rs 100 million along with other companies to expand its business provided that the new government ensures uninterrupted supplies of gas to the fertilizer producers.

The utility of locally produced urea and DAP is better than from imported product because it saves time and cost of the country as well hence the local farmers could have access towards affordable fertilizer products.

One ton of imported urea cost is \$317 whereas locally produced urea costs \$280 per ton excluding the expense of CNF.

However the recent upsurge of fertilizer prices was seen due to hike in GST, imposition of GIDC and uninterrupted supplies of gas to the production plants, which translated into high cost of production.

The supplies of gas to fertilizer units are conducive for the government as it is win-win situation for national exchequer and the fertilizer units which invested heavily on their plants. It will also be proven as honor of the commitment as part of the government which the previous political leadership violated and gave negative signals to foreign investors.

The fertilizer sector of Pakistan cumulatively witnessed 36 percent yearly increase in profitability during first half of 2013 as the collective profit after tax (PAT) of the whole sector stood at Rs 16.2 billion as against Rs 11.8 billion in the same period of 2012.

The fertilizer sector has reported cumulative monetary sales of Rs 90.87 billion, showing a massive 25 percent yearly growth as against the sales of Rs 72.84 billion in the first half of 2012. Fauji Fertiliser Bin Qasim Limited (FFBL) dominated the sector with the highest growth of 78 percent in sales followed by Engro Fertilizer and Fa-

tima Fertilizer with yearly growths in sales of 60 percent and 25 percent, respectively. Fauji Fertilizer Company (FFC) stood as the only urea producer whose sales plunged by 5.0 percent.

Average prices of urea and Di-Amonium Phosphate (DAP) were lower by 4.0 percent and 3.0 percent, respectively in the first half of 2013. Moreover, DAP and urea prices in the international market are substantially lower as currently urea is being sold at the rate of \$315 per tonne and DAP prices are hovering around \$428 per tonne. Due to persistent pressure on the urea and DAP prices in international market local fertilizer producers are not in a position to increase prices of the DAP and urea, Abbasi added.

Total financial cost of the sector recorded 24 percent decline, similarly, other income of the sector has also declined by 19 percent due to lower dividend income and return on deposits.

After tax earnings of the sector went up sharply by 36 percent, FFBL reported highest growth in earnings of 182 percent followed by Fatima Fertilizer whose after tax earnings were higher by 30 percent, FFC reported decline in earnings of 8.0 percent while Engro Fertilizer came out of losses with PAT of Rs 1.42 billion.

Production remained at the higher side especially after diversion of gas from Gaddu power plant to Engro while offtake was slightly lower during the first half of 2013.

Meanwhile, total sales of the sector climbed by 36 percent in the first half of 2013. The fertilizer sector, which was facing horrible gas shortage in the previous year has experienced some improvement in the first half of 2013 due to which urea production witnessed an increase of 3.0 percent

to 2.21 million tonnes. Similarly DAP production, which was quite lower in the first half of 2012 witnessed an upsurge of 31.2 percent to 347,000 tonnes during the first half of 2013. On the other hand, urea offtake remained lower by 1.48 percent to 2.71 million tonnes in the first half of 2013 as against 2.75 million tonnes in the same period last year. Conversely, DAP offtake witnessed an upsurge of 58 percent to 423.14k tonnes as compared to 268.40k tonnes in first half 2012.

However, it is interesting to see that the urea volumetric sales as well as average prices of urea and DAP were lower by 4.0 percent and 3.0 percent, respectively in the first half of 2013.

The total gross profit of the listed companies has increased by 20 percent to Rs 38.86 billion in the first half of 2013 in comparison to gross profit of Rs 32.46 billion in the corresponding period of 2012. Even though operating expenses of the sector have increased sharply by 25 percent to Rs 7.80 billion in the first half of 2013, but the sector has reported a rise of 19 percent to Rs 31.05 billion in its operating profit. The sector has shown a massive decline in its other income by 19 percent to Rs 2.63 billion as compared to the other income of Rs 3.26 billion in the first half of 2012.

Consequently, the cumulative profit before tax (PBT) of the sector reached Rs 23.64 billion as against PBT of Rs 17.64 billion recorded in the first half of 2012. The fertilizer sector has paid an amount of Rs 7.53 billion in tax at an effective tax rate of 32 percent in the first half of 2013 as against the tax of Rs 7.02 billion the sector had paid in the first half of 2012 at an effective tax rate of 40 percent. ■



# Aquaculture can reduce food insecurity in Pakistan

— By Amar Guriro —

Oceanologists and fishery experts are of the view that climate change coupled with increasing level of water pollution is making way for a decrease in fish population, and in such conditions, aquaculture can be a great source to fulfil the fish requirements of the country.

They were speaking at the two-day Pakistan Aquaculture and Fisheries Society (PAFS) annual conference "Aquaculture and Fisheries Development: Opportunities and Challenges" organised by Karachi University Office of Research, Innovation and Commercialisation (KU-ORIC) at the National Institute of Oceanography. It was in collaboration with US Department of Agriculture Foreign Agriculture Service, Federation of Chambers of Commerce and Industry (FPCCI - R&D Committee), Fisheries Development Board-Pakistan.

The experts said that aquaculture could lead to a rich supply of protein in Pakistan, as it is already suffering from malnutrition. It could also be a potential source to earn foreign exchange.

They added that Pakistan has great potential for aquaculture, but due to a lack of knowledge, scientific research in the sector, water pollution, and unsustainable fisheries this sector is neglected.

Coastal area developers, individuals from the public and private sectors, academic and research institutions attended the two-day conference having key interest in promoting and improving fisheries and aquaculture. They highlighted opportunities and discussed the problems being faced by this important sector of our economy. Two technical scientific sessions were conducted after the inaugural, and important issues related to marketing, sustainability, health and regulatory issues were discussed.

Dr Hina Baig moderated the inaugural session, in which Director KU-HEC-ORIC Professor Shahana Urooj Kazmi, while introducing the conference theme highlighted the enormous opportunities and challenges. She talked about the activities of Karachi University KU-ORAC for encouraging young researchers in getting the required funding for research to solve the stated problem. She further elaborated on the importance of the conference in developing collaboration between the industry, researchers and academia.

Professor Gleyne Bledsoe, University of Idaho (USA) emphasised that aquaculture and fishery society should

be made self-sufficient, and a yearly conference should be organised to bring industry and researchers together.

Director General National Centre for Maritime Policy Research Vice Admiral Asaf Humayun was the Chief Guest of the conference. He acknowledged the importance of aquaculture in Pakistan, and urged to bridge the gap between industry and researchers.

"Pakistan being the 5th or 6th largest populated country feeds many people, and therefore, food security in this sector is very important for creating jobs," he said.

Mohammad Moazzam Khan, Ex-Director MFD, WWF-Pakistan also spoke on the occasion and said that similar to livestock and poultry, aquaculture is an important source for food. "Eating fish is still taken as a luxury in Pakistan, and is not included in the stable, daily diet.

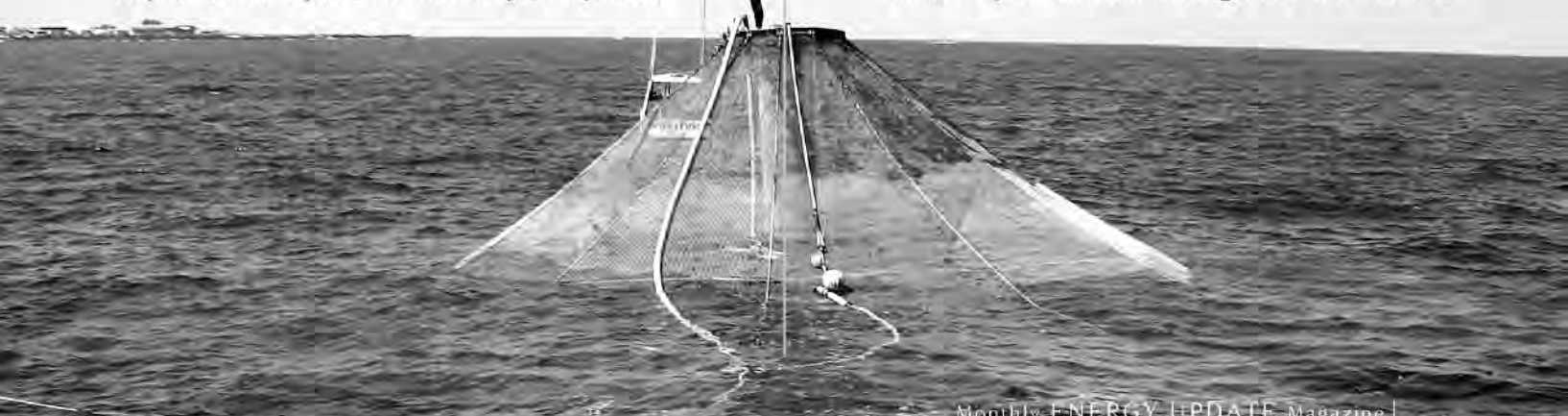
We need to change this, and aquaculture can be a great source for that," said Khan. He added that many fish varieties could have gone extinct in Pakistan; but due to aquaculture, this isn't the case. "If there wasn't aquaculture, we couldn't have even imagined buying fish here; but thanks to fish farming, the fish price is less compared to the international market."

However, there are some adverse impacts too of fish farming on the general ecology and water resources. On contact, Khan admitted the same. "Usually, in fish farms, special food is given to the fish, along with medicines and other chemicals to treat different diseases, and keep them healthy.

But when the water is removed from the farm, it has all those chemicals and excess food, causing eutrophication (water bodies receive excess nutrients that stimulate excessive plant growth) in the water sources where farm water is thrown," he said.

Other speakers included R S Janjua, Country Representative American Soya bean Association who talked about "Feeding Pakistan, Promoting Aquaculture Sector", while Professor Ejaz Rasool, Deputy Director, KU-OREC shared his views on "Aquaculture: Trends - Opportunities and Challenges with Reference to Pakistan".

Many distinguished academics such as Dr Shahid Amjad, Dr Faiz Mohammad, Professor Naureen Aziz Qureshi, and Dr Ehsan Elahi Valeem from Institute of Marine Science, University of Karachi also graced the event. ■



Pakistan lost one more opportunity to minimize one of the neglected and alarmingly rising pollution elements in the society through quitting the use of plastic bags while adopting habit to have alternative bags of paper and clothes.

The shopping spree witnessed at the peak throughout the country in the holy month of Ramadan and pre-Eid days as masses did excessive shopping of their needs from groceries items to fruits, clothes to footwear but unfortunately the use of plastic shopping bags reached massively despite of its health hazards for human beings and environment.

Scores of shopping bags had been produced to meet the demand of customers for purchasing of different goods and these bags must have combusted in the air either or dumped in suburbs of the metropolises.

The combustion of these plastic bags in the air causes widespread pollution in the air and affected human beings man and animal alike. Similarly, these bags function to chock the sewerage lines at large scale normally in the rainy season collapsing lives in the cities.

According to a survey conducted by Pakistan Environment Protection Agency (Pak-Epa) in 2010, as many as

12 billion plastic bags were used in Pakistan in 1990-91. In 2005-06, the consumption rose to 43 billion and in 2007-08 up to 55 billion. With 15 per cent growth annually in production of plastic bags, the estimated use of plastic bags in the country by 2014-15 would be 112 billion.

There are over 8,000 manufacturers of plastic bags in the country, mostly located in Lahore, Karachi and Peshawar.

The new regulation began in 2009 when the National Assembly unanimously passed a resolution to ban plastic bags and promote biodegradable ones.

Approved by the Ministry of Climate Change and after obtaining consent from the Law and Justice Division, the Prohibition of Non-biodegradable Plastic Products (Manufacture, Sale and Usage) Regulations 2013 has been enforced in Capital.

Initially, Pakistan Environment Protection Agency (Pak-EPA) banned on production, sale and used of plastic bags in the Islamabad capital territory from April 1, 2013. Instead paper bags will be used as alternative way of carrying out goods which are not only environmental friendly but could be re-produced after proper recycling.

The agency, in this regard, the manufacturers have been given three months to replace non-degradable plastic items - bags, glasses and bottles - with biodegradable ones. The new regulation will prohibit im-

**Scores of shopping bags had been produced to meet the demand of customers for purchasing of different goods and these bags must have combusted in the air either or dumped in suburbs of the metropolises.**



port, manufacturing, stockpiling, trade, supply, distribution, sale and use of any non-degradable plastic product.

A few months ago, several meetings held among ministries concerned that decided to promote biodegradable plastic products like in other countries without affecting the local industry.

According to the environment watchdog, several options were considered, including banning plastic bags across the board such as in Bangladesh or introducing plastic bags made from starch like in Japan.

The government decided to introduce oxo-biodegradable bags that oxo-biodegradable bags degraded after reactions with oxygen and ultraviolet rays from the sun within three months (that could be shortened or extended).

The oxo-biodegradable bags do not require technology change but a mixture of small quantity of Olifin-based additive (petroleum waste product). The price would increase by five per cent or Rs3 to Rs4 on Rs85 per kilogramme of plastic bags.

The ban on plastic ban in Islamabad and its successful implementation should be replicate into different cities particularly Karachi, Rawalpindi Lahore, Multan, Faisalabad, Quetta and different big cities at a time, they said. In this way, massive change on climate will be possible easily with awareness in masses.

These big cities have huge population of people who will be habitual of not using plastic bags and will realize the benefits of paper bags in their life directly and indirectly, they further added.

Experts said that the government should take all provinces, where plastic products are manufactured, on board to help implement the ban on the production of non-biodegradable items to conserve environment.

The government should devise a strategy to convert all pro-

duction units of plastic bags into paper or alternative bags though the pressure of unemployment will not be exerted on it.

A good number of factories are already producing paper bags for commercial usage and they owners of the plastic bags factories could invest money by own with the implementation of its strict laws though easy loans from commercial banks should be provided to them for purchasing machinery.

The investment of the government is fruitful for itself in the long-run as its annual expenses on health and environment will reduce significantly with the allocation of funds for replacing plastic bags from alternative or paper bags, secondly it will save its expenditures of dumping garbage and restoring choked sewerage in big cities particularly.

Expert said that the government should imposed ban on the use of plastic bags from metropolis of the country to small cities, towns and village in order to prevent country from hazardous affects on environment and human health.

The Ministry for Environment has taken a number of steps to improve the environmental condition in the country. Seven air monitoring stations have been established in Islamabad, Karachi, Peshawar and Quetta to check pollution level, besides three mobile monitoring stations are also working in Islamabad, Lahore and Karachi.

The ministry has finalized a draft bill for imposing ban on production of non- biodegradable plastic bag, however the working seemingly came to halt with the change of the governments in federal particularly and now the new leadership has to face challenge and opportunity to work on legislation and its implementation for the purpose of environmental safety, reduction in pollution and healthy living climate for the masses. ■

## MFF programme contributing to address environment issues in Pakistan

Tenth meeting of the National Coordinating Body (NCB) of Mangroves for the Future Programme (MFF) was held at Pearl Continental Hotel, Karachi under the Chairmanship of Syed Mahmood Nasir, Inspector General Forest, Climate Change Division, Islamabad. The National Coordination Body (NCB) is representative forum consisting of federal, provincial, civil society, private sector and academic organizations working in coastal areas of Pakistan. The National Coordination Body (NCB) reviewed the progress made of implementation of MFF Programme in coastal areas Pakistan through its small, medium and regional projects.

Speaking on behalf of NCB Chair, Syed Mahmood Nasir applauded the contribution of NCB members and MFF Programme to the sustainable management of coastal resources in Pakistan and reiterated commitment and continued support of the Climate Change Division to its successful implementation in Pakistan. He praised that the programme has gradually enhanced its scale to the implementation of regional projects project with MFF countries. He appraised the forum that United Nations Environment Programme (UNEP) will soon start implementation of a two-year regional project jointly in Pakistan and Thailand to address coastal issues related to sea level rise and coastal erosion. Climate Change Division and IUCN Pakistan are the National Partner Institutions for the implementation of project activities in Pakistan.

Speaking on the occasion Mr. Mahmood Akhtar Cheema, Country Representative, IUCN Pakistan appreciated the support and contribution of NCB members to the sustainable management of coastal resources. He praised the efforts of Sindh Forest Department in setting the Guinness World Record on 22 July



2013 by planting 8,47, 257 saplings with the team of 300 coastal community volunteers, breaking an earlier record set by India. IUCN collaborated with the department to ensure wide coverage of the event through national and international print and electronic media. He also apprised that both IUCN and Sindh Forest Department will soon initiate implementation of a collaborative project on mangrove plantation in the Indus Delta to check sea intrusion in coastal areas of Sindh.

Speaking on the occasion, Mr. Ejaz Ahmad Nizamani, Additional Secretary, Sindh Forest Department stressed upon NCB to focus on critical macro level issues to address threats facing coastal ecosystems and livelihoods of local communities.

Others who spoke on the occasion included Mr. Khudai Raheem Ejebani, Secretary Forest Department, Balochistan, Mr. Noor Ahmad Samoo, Additional Secretary Fisheries, Balochistan and representatives from other government department of Sindh and Balochistan provinces, representative of FAO, UNDP and civil society organizations. ■

## Three astronauts back on Earth from ISS



MOSCOW: Three astronauts returned to Earth on board a Russian Soyuz capsule after a half-year mission on the International Space Station (ISS), landing in Kazakhstan, mission control in Moscow announced. Russians Pavel Vinogradov and Alexander Misurkin landed on schedule at 8:58 am Kazakh time (0258 GMT) in the Kazakh steppes, along with American Chris Cassidy.

## Bill Gates, 5 scientists win \$250,000



NEW YORK: Two scientists who illuminated how brain cells communicate, three researchers who developed implants that let deaf people hear and philanthropists Bill and Melinda Gates have won prestigious Lasker Awards for medical research and contributions to public health.

The Albert and Mary Lasker Foundation announced the recipients of the \$250,000 prizes on Monday. The awards will be presented Sept. 20 in New York City.

The Gateses won the public service award "for leading a historic transformation in the way we view the globe's most pressing health concerns and improving the lives of millions of the world's most vulnerable," the Lasker foundation said.

## Dead Taiwan songstress returns for 'virtual' show

TAIPEI: Pop diva Teresa Teng may not exactly have come back from the dead to perform in a widely hyped concert in her native Taiwan, but a computer-generated likeness of the legendary singer sure left that impression among many of the 15,000 fans packing a Taipei arena.

Teng, who died 18 years ago, "appeared" onstage Friday night with local crooner and movie actor Jay Chou to perform three duets that enraptured the crowd. Her virtual presence was the result of a detailed recreation of Teng's mannerisms and expressions, painstakingly put together by Digital Domain 3.0, a California company specializing in digital imagery for the entertainment industry. Dressed in an ethereal looking white gown, the virtual Teng joined Chou in her own wildly popular "What Have You to Say," along with two well-known Chou standards — "Red Tavern" and "Thousand Miles Away."



## Japan's robo-astronaut takes 'one small step...'

TOKYO: A pint-sized android has uttered the first robotic words in space, showcasing Japan's drive to combine cutting-edge technology with cuteness. The wide-eyed and bootie-wearing "Kirobo" -- roughly the size of a chihuahua -- broadcast a message from inside the International Space Station, greeting citizens of Earth and paying cheeky tribute to Neil Armstrong. recently, a robot took one small step toward a brighter future for all," Kirobo said in a video that showed the humanoid creation drifting weightlessly on-board the ISS, as it moved its legs in the air.

The images made their global debut on Wednesday as part of Tokyo's bid for the 2020 Games during a presentation ahead of a meeting of the International Olympic Committee in Buenos Aires which will decide the host city.

"Good morning to everyone on Earth. This is Kirobo. I am the world's first talking robot astronaut. Nice to meet you," it said in Japanese.



# Sun and Solar Power in Pakistan

By Ms. Mubarik Khan

In 1931, the same year he died, Thomas Alva Edison told his friends Henry Ford and Harvey Firestone: "I'd put my money on the sun and solar energy. What a source of power! I hope we don't have to wait until oil and coal run out before we tackle that."

To confirm Edison's fears it's time we paid heed to his words. It's best to let the numbers do the talking. Fossil fuels continue to dominate the global energy consumption and account for a market share of a staggering 87% while renewable energy accounts for a mere 2%.

Pakistan reflects such global trends, oil and gas remain the two key components of the energy mix in 2012 accounting for 65% (oil 15% and gas 50%). Approximately one third of our energy requirements are being met through imports and almost \$14.5 billion worth of oil is imported each year.

Pakistan's energy sector is plagued with a myriad of issues ranging from circular debt to a crippling dependence on expensive oil. All this coupled with lack of exploitation of economical alternatives in the renewable energy sector has culminated in an energy shortfall that has surpassed 7000 MW this year, while the Water and Power Development Authority (WAPDA) forecasts that the country's electricity demand will increase to around 40,000 megawatts by 2020.

To meet the shortfall and the forecasted increase in demand we should, as Edison said, put our money and efforts in exploiting the sun, along with other renewable resources, as an energy source rather than continue our reliance on increasingly expensive and depleting energy resources such as oil and gas.

Pakistan with its plentiful sunshine has immense potential for solar power. Solar energy is available at a rate of 1000 watts per square meter in Pakistan. Remote and rural areas in Pakistan, particularly provinces of Sindh and Balochistan, stand to gain from developing solar power. In Balochistan, 77% of the population lives in rural areas and 90% of villages are yet to be electrified. Given that these villages are at a distance from each other, laying down of transmission lines would be quite expensive in the area. On the other hand, Balochistan is particularly suited for exploitation of solar energy, it has an average daily global insolation of 19-20 MJ/m<sup>2</sup> per day with annual mean sunshine duration of 8 to 8.5 hours a day and these values are amongst the highest in the world.

'Insolation' means exposure to sun rays and is a measure of the solar radiation energy received on a given surface area.

Harnessing solar energy in such remote areas would provide the people with access to electricity for their houses and businesses and thereby improve living standards and contribute towards poverty alleviation.

Ongoing efforts demonstrate all that stands to be gained with projects like 'Lighting a Million Lives' which has provided solar electricity for six villages in Sahiwal, Punjab and aims to reach 4,000 villages in the next four years and a solar tube well installed, in Ahmadwala, a village near Lahore, by Rural Community Development Society (RCDS) is operational for around 12 hours a day and irrigates some 40 acres of land.

The initial investment in setting up solar power is considerably high, which has deterred its widespread acceptance as an alternative to fossil fuel. But in a few years the initial investment is recovered and thereafter the only cost is that of maintenance while the resource i.e. sunlight is free. Furthermore with technological improvements, economies of mass production and an exemption of all taxes/duties by the government on import of photovoltaic (PV) modules and related components there has been a decline in cost of importing photovoltaic cells as a result of which the cost of generating photovoltaic (PV) solar power has gone down to approximately Rs14.40 per kilowatt-hour so that it is actually cheaper than diesel-fired generators that can cost as much as Rs32 per kilowatt-hour and thereby making it a viable option. While gas-fired generators may provide cheaper electricity, natural gas is not a renewable resource and Pakistan is rapidly depleting its natural gas reserves without investing in other indigenous resources which would help reduce its import bill. To sum up, oil fired generators will continue to provide expensive electricity, our natural gas resources are not infinite and will be exhausted one day, therefore, like Edison said, we must focus on the development of alternative sources of energy, such as solar power which is a cheap, inexhaustible, indigenous and pollution free alternative for meeting the energy needs of a developing economy like Pakistan, in the long run, lest the future generations pay for our consumption of such fossil fuels. ■

The author is a lawyer working at Haidermota & Co.

# RSPN's Pakistan Domestic Biogas Programme makes life easier for rural Punjab

With installation of 3000+ biogas plants, it becomes country's largest biogas programme

Pakistan Domestic Biogas Programme is part of the Rural Support Programmes Network which took the initiative in 2009 with financial support of "the Embassy of the Kingdom of the Netherlands" (EKN) to improve the living standards of people in rural area. PDBP's vision is to foster and support the creation of a commercially sustainable domestic biogas sector in Pakistan.

To achieve this goal PDBP is equipped with international quality standards, technical support in the form of International Advisors "SNV and Winrock International", a unique mechanism of training and quality control, to ensure construction of quality biogas plants. Quality control centres have also been set up at each district to provide maintenance requirements to people having biogas plants. These biogas plants also helped the families save Rs. 30,000 to Rs. 60,000 annually by substituting fuel wood, liquid petroleum gas and replacement of diesel for pater engine.

PDBP has now trained over 350 individuals and has helped in development of 40 Biogas Construction Companies (BCCs) as local level entrepreneurs. The Programme has completed the construction of over 3000 biogas plants in 12 districts of central



Punjab with a total of 24,000 beneficiaries.

From January, 2013 PDBP has started construction of medium sized biogas plants, to fulfill desperate need of the farmer in the current situation of electricity crisis; for tube well running. R&D on large sized biogas plants for electricity generation along with design modification for cheaper plants and different feeding materials is underway.

In February, 2013 the PDBP has been registered as a CDM Programme of Activity (PoA) with UNFCCC (United Nations Framework Convention on Climate Change). This will allow RSPN to sell Certified Emission Reductions (CERs) to European market and hence enabling PDBP to become sustainable.

To exploring the benefits of the bio-slurry usage along with chemical fertilizer, PDBP has completed a two year research with Ayub Agriculture Research Institute (AARI) and University of Agriculture Faisalabad. And now is transferring the results to the farmers through demonstration plots at

farmer's level with assistance of AARI.

Government is working on different projects to overcome energy crises. But it is very important to give priority to poor rural households and farmers in this regard. This can help reduce the load on the national grid. ■

## Tracks, Trenches & Towers Construction (Pvt.) Limited

The Company Tracks, Trenches & Towers Construction (Pvt.) Limited, formerly known as Super Depth Intl. Corp. The Company was founded in the year 1997 by Shuaib Ahmed Qureshi and established its head offices situated primarily in Islamabad later on expended and opened branch office in Kuala Lumpur - Malaysia as Super Depth SDN BHD. Reg. No.44702 A.

From its humble beginning, the Company started with construction of various small private facilities such as earth work for roads construction and laying & Installation of Fiber Optic Cables. To extend its services Country wide, Tracks, Trenches & Towers Construction ( Pvt. ) Limited decided to move its head office to Karachi City, while maintaining key branches in Islamabad, Lahore and Gawadar.

With a pool of highly qualified and professional managers, engineers and staff , and applying the latest technologies in business management and engineering techniques, Tracks, Trenches & Towers Construction ( Pvt. ) Limited was able to provide its client services in the fields of:

### 1. Telecommunications,

- ¢ Survey, Design & Installation of Fiber Optic Cable



Network for GPON Network, NGN Network, Access route, Junction route & Long Distance Node.

- ¢ Design & Implementation of Secondary & Primary Network.
- ¢ Erection of GSM Towers & Site Preparation.
- ¢ LAN & WAN / Maintenance.
- 2. Construction of Buildings
- 3. Roads Construction
- 4. Electrical Work
- 5. Water Distribution Networks
- 6. Sewage Networks . ■

# Byco eyes to enhance its operations in Pakistan

With the establishment of Pakistan's largest refinery, Byco Oil Pakistan Limited (BOPL) is all set to increase its market share in Pakistan through tapping all potential of local markets through its enhance refinery units and spreading retail points.

The new refinery plant that has been started its test production of petroleum products in March is likely to start its commercial operational soon. The new refinery plant has a capacity of 120,000bpd would yield synergies for BYCO in addition to old plant having capacity is 35,000 bpd.

This new refinery will greatly enhance the domestic refining capacity, taking the current capacity of ~ 12.5 million metric tons per annum to ~ 18.5 million metric tons per annum and based on full throughput is expected to produce on an annual basis about 1.6 million tons HSFO, 2.4 million tons HSD, 1.1 million tons of MS and 0.8 million tons of LPG.

It is very important to note that as all of these products are deficit and therefore, imported, the refinery will substitute imports by providing locally refined petroleum products. This will substantially help save foreign exchange for the Country and help move towards self sufficiency in refining capacity.

The management highlighted that one of the key issues faced by BYCO was higher working capital cycle.

The minimum quantity of crude import ship is 600,000bbls. Thus, for old refinery, process cycle of one ship was close to nearly 20 days. With new refinery expected to commence its operations, both refineries will import crude collectively. From one ship of 600,000 barrels, 420,000 barrels will be taken up by new refinery while BYCO's refinery will take up 180,000.

The management said the working capital needs would substantially reduce after the commencement of new refinery. Having 5 days inventory process cycle, BYCO's exposure to inventory gains/losses will be limited as price revision cycle is of 30 days and the company will carry 2-3 days stock.

BYCO has worked to shift its supply source from imported to domestically produced crude oil. The management has already completed contract with OGDCL for purchase of 5,500bpd oil. Isomerisation plant to support MS volumes BYCO refinery also has isomerisation plant with its refinery which converts Naphtha to motor gasoline (MS).

It will start production with new refinery commencement and will have capacity of 12,500bpd. Naphtha is a low margin product and all of its domestic production is exported for consumption of Naphtha crackers. However, MS has a higher demand domestically and its product margins for oil marketing are also higher.

The unit will be able to process external Naphtha also and may procure Naphtha from other refineries also which is currently being exported.

## BYCO Marketing Business

Byco Petroleum Pakistan Limited (BYCO) operating in two business segments, Oil Refinery Business and Petroleum Marketing Business. It has benefit of owning both oil marketing and refinery business as oil marketing business gets credit from other refineries which can be used to fund working capital of the refinery.

By Naeem Quershi



refineries. BYCO refinery will also get 30 day credit period from domestic and foreign suppliers.

With new refinery supplies, other strategic sale agreements and 40 new outlets addition expected in FY14, management is eyeing a market share of 3.68% next year. The company will add outlets on highways mostly which has higher share of HSD sales.

during the last few years. The company currently has ~230 retail outlets and a market share of 0.79%.

The management is also focusing on improving brand image and presence in market by focusing on non-fuel businesses and other services. Margins are expected to stay at current levels or increase further.

Desulphurization unit of associated refinery to increase deemed duty whereas the government has recently offered an incentive of 1.5% incremental deemed duty to refineries for producing Euro-II compliant HSD.

BOPL refinery also has desulphurization unit, which will also process diesel produced from BYCO's refinery (old refinery). The benefit of incremental deemed duty would thus be shared between BOPL and BYCO on diesel supplies from BYCO.

The management suggested that they require a total of PKR25-27bn of working capital for operating both refineries. Rs 15 billion is required for old refinery (BYCO) and is available from banks while incremental Rs 12 billion is required for new refinery which shall be available over the next months weeks.

## Terminal Operations

Byco Terminal Pakistan Limited (BTPL) is wholly owned subsidiary of BYCO. The company's operations include management of port and transportation facilities. The company will provide terminal services to both group refineries and charge fee which would be equivalent to the amount of gains from the terminal. With this facility, the company will have an edge over other refineries as crude transfer process from SPM to tanks will reduce to 2 day process as crude will flow through a ~15km pipeline. PARCO, another refinery gets crude to its refinery through a 700km pipeline while Pakistan Refinery Limited has to use bowlers.

BTPL would help reduce transportation cost and thus government has agreed to provide returns for the project through IFEM. BTPL would thus get some share from IFEM pool which is built in pricing of POL products. Increase in gasoline volumes would increase gains for BTPL. ■



# OGDCL makes solid efforts for development of local communities

The public sector company-Oil and Gas Development Company Limited (OGDCL) has taken effective steps for the development of local communities living around its oilfields.

As part of such efforts, the company installed 75 pressure pumps in Nashpa, Khyber Pakhtunkhwa at a cost of Rs 6.750 million to provide clean drinking water to people of the area during 2012.

"The installation of pressure pumps at Nashpa has not only increased OGDCL's asset value, but has also enhanced access to water for the local community," says an official source. Similarly, the company also undertook flood relief activities during the last year and OGDCL has always been the first to come to the rescue of affected communities in times of national emergencies.

The source added that OGDCL has always given priority to the development of communities residing in and around the Company's area of operations. "OGDCL management understands that there is a

need to strike a balance between the overall objectives of achieving corporate excellence vis-a-vis social responsibility towards the community," the source further added. It is our belief that "businesses cannot succeed in societies that fail" and this twin objective of business and social commitment has prompted OGDCL to embark upon massive programs of education, health and infrastructure development.

On exploration front, the source said the company spudded as many as 14 new wells including three (3) exploratory wells namely Raja-1, Multan North-1 & Tando Kaiser-1, one (1) appraisal well Chak Naurang South-2 and ten (10) development wells namely Nashpa-4, Qadirpur-46, 48 & 49, Bahu-5, 6, 7 & 8, Rajian-7 and Bobi-10. Subsequently, two (2) exploratory wells namely Kurram-1 & Soghri X-1 and one development well namely Mela-4 were also spudded during the month of April 2013 making a total of seventeen (17) wells during financial year 2012-13. ■



# OGDC Reports Rs91bn Profit

Oil and Gas Development Company (OGDC), the biggest listed company on the KSE with market capitalisation of \$10 billion, posted profit of Rs90.8bn for financial year ended June 30.

It translated into earning per share (eps) at Rs21.11, down 6 per cent from eps at Rs22.53 earned in the corresponding period of the previous year.

The board of directors announced final cash dividend at Rs2.75 per share.

The earnings of the oil and gas giant fell short of most analysts' forecast of eps between Rs23.7 and Rs24.0.

The downside earnings added pressure on the stock market where the OGDC stock declined by Rs5.63 to Rs239.29. Analyst Asad I. Siddiqui commented that about three-fold increase in exploration and prospecting cost, amounting to Rs15bn was the major culprit in the fall of profit.

It was thought to be due to increase in exploration and prospecting costs.

Topline of the company grew by 13pc on account of higher oil production by 7pc; depreciation in value of rupee by 8pc and decline in international oil prices by 2pc during the period under review.

On the oil front, production from non-operated fields increased by 13pc backed by production up tick from Makori east, which diluted the adverse impact of decline from other ageing fields.

For 4QFY13, company reported eps at Rs3.51 which was down by 42pc from earlier quarter on account of rise in exploration costs by 76pc to Rs6bn and higher taxation (effective rate at 54pc in 4QFY13). ■

# Smile Again Foundation conducts an innovative workshop for burnt victims



Depilex Smileagain Foundation (DSF) arranged a two day Psycho-social Support Workshop for Acid and Kerosene oil burn survivors. The workshop was designed to provide the participants with recreational tools of expression. The workshop arranged by DSF in collaboration with MyPlace, a consultancy firm with expertise in behavioral sciences, headed by Saddaf Sohail, Behavioral consultant, who designed

and executed the entire seminar. The workshop provided the participants, an opportunity to express their feelings by drawing and painting and convey their feelings, thoughts and emotions with the use of various colors. While sharing her views Saddaf Sohail, workshop consultant said "The main purpose of this workshop is to provide the participants an easy tool of expression so that they can express their

feelings and gain confidence. She also added, the credit goes to Depilex Smileagain Foundation for recognizing the need of such workshops and the donor Philip Morris (Pakistan) Limited (PMPKL) for supporting initiatives fighting domestic violence." The paintings made by the workshop participants will be exhibited for sale in an event to be arranged in December 2013. This will further encourage the survivors. DSF is registered with 12 hospitals across Pakistan for OPDs, referrals and surgeries: Jinnah Hospital Lahore, General Hospital Lahore, Mayo Hospital Lahore, National Hospital Lahore, Patel hospital Karachi, Indus Hospital Karachi, Civil Hospital Karachi, CMH Rawalpindi, PIMS Islamabad, Khyber Hospital Peshawar, Allied hospital Faisalabad, Bolan Hospital Quetta. ■

# Scope of investment vibrant in energy sector

How do you see the importance of organizing event on energy sector?

We are committed to help the energy sector of Pakistan after the success of (Energy, Oil Gas & Power) Exhibition and Conference 2012, the event has become the benchmark event in the energy and power sector. The event brings the resources and decision makers on one platform. Apart from the conventional sources of energy generation, the exhibition would capitalize on the non-conventional renewable energy sources that are abundantly available in Pakistan like wind, solar, biomass, and coal.

The exhibition would showcase latest technologies in energy conservation and alternative energy. Major Energy and power companies from the local and international market will be participating at the event.

EGO Pakistan 2013 will also be featuring a two day conference titled "Energize Pakistan". Local and international speakers ranging from public and private sector will present an in-depth analysis of key developments and challenges

facing today's global and domestic energy markets and the steps needed to "Energize Pakistan".

We aspire to act as a means for cultural and economic growth of Pakistan through events catering to established as well as untapped Industries. On one hand exhibition industry provides employment opportunities giving a boost to the economy, on the other hand when the content participants go back they spread positive message globally regarding the warm hospitality extended by nice people and also about the investment opportunities available here.

How unique is EGO compared with different exhibitions related to energy sector?

EGO and all exhibitions organized by FAKT Exhibitions are unique of its kind because genuine buyers and investors including foreign partake in the trade fair and launch their products and solutions for local markets.

It keeps FAKT different from exhibition of energy sector organized by different companies because I personally believe that showcasing products and services for local markets investors and buyers are secondary objective but to initiate business through our platform through launching of different products and services are real aim of EGO and all exhibition of FAKTS in Pakistan.

This year, I assure you that a number of foreign companies will come up with their products which will appeal to local industrialists and government as well to enter into a business deal and find a problem of energy and power crisis through our platform.

We are very committed to bring companies in Pakistan which are serious to invest in Pakistan and provide unique and out-of-box solutions to local companies for addressing a long issue of energy crisis in the country.

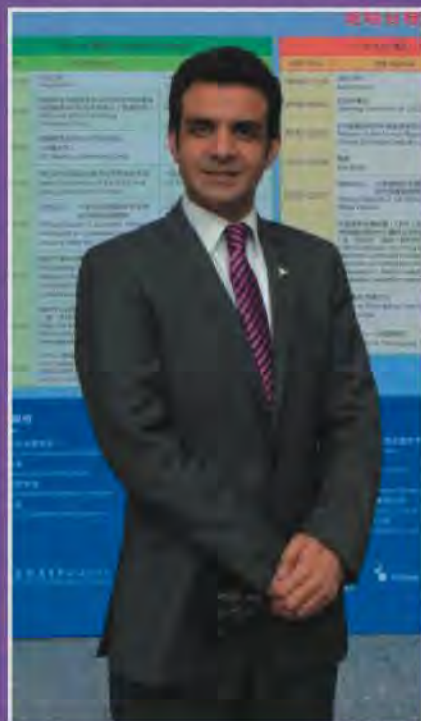
And when governments and local companies sign MoUs with foreign exhibitors in our exhibition we think our objective completes.



Saleem Khan Tanoli, C.E.O. FAKT Exhibitions PVT (Ltd), holds a realm of success, accomplishments and worth exploring experiences. Consecutively organizing profitable exhibitions, the man possesses pioneer skills and unbeatable aptitude to conduct well administered trade events.

The young entrepreneur believes in diversification, retaining cosmopolitan relationships and broad based infrastructure to contribute positively in the economic growth of Pakistan. Saleem Khan Tanoli affirms the partnership of Pakistan with the global village to work for the betterment of the entire sphere. He considers tradeshows, conferences and exhibitions play a fundamental role in the reinforcement of the perception of a developing nation. Undeniably, it is true that FAKT Exhibitions (PVT) Ltd has always been a partner in success and growth of Pakistan and its well being.

Saleem Khan Tanoli, deems to provide his utmost efforts to enhance the positivity by organizing successful conventions of international and local business to business entities. Reaching the heights of success at this stage; this enterprising individual dreams and envisions a prosperous Pakistan by exploring the resources to the uncharted prospects.



How do you attract foreign companies to participate in the trade show?

Being an envoy of Pakistan, I first market my country before promoting and selling my exhibitions abroad. It is a challenging task but the business potential and investment opportunities attract investors to actively participate in the event.

As far as my experience is concerned, I am quite successful in this field and in presenting my country and myself therefore majority of businessmen who happened to come with me in Pakistan first time in three or two year ago, are now a regular visitors of Pakistan and of my exhibition.

FAKT Exhibitions assures success to its clients by offering them: Corporate Business Profile; better market value, right target audience, effective networking, business growth, finest return of time and money. If the exhibitors say that they would like to come again, it means the exhibition was successful and the number of visitors too endorses the achievement.

But this is not so easy it is said because you have to do a lot of study and research on business opportunities for foreign companies whereas you have to facilitate them through arranging meet-ups with targeted and potential partners of local industry.

What are the secrets behind running a successful exhibition company?

First of all, I try my level best to deliver 100 percent myself and win the confidence of my business partners. Secondly, I do believe in my team members because these are part of the company and the success depends on their performance.

I believe in the chemistry of young people who bring new ideas and perspectives and professionals who possess industry expertise to mold the ideas into the required framework of exhibition industry. I give equal importance to employee recognition programs for their high quality work and occasional events like cricket matches where everyone from top to bottom is treated in a same manner unlike the office hierarchy.

My company holds various events throughout the year and it has been increasing every day since we have started our business.

We are the pioneers in organizing exhibitions in Lahore as a matter of fact IGATEX 2010 was a trendsetting event. After that I organized 3P -Plas, Print, Pack Pakistan and FT - Food + Technology Pakistan in 2011 and 2012 along with Build Pakistan 2012. These exhibitions again proved to be the largest in Pakistan.

It makes me feel fortunate to have FAKT

EXHIBITIONS (PVT) LTD. as the only company in Pakistan's Event Management Industry which has associate offices in China, Singapore, Taiwan, Germany and Turkey.

I have a global perspective and a visionary approach of finding new ways to promote trade through exhibitions and conferences. I have been quite successful in attracting domestic and foreign investments for the country. I really enjoy being involved in the creation of events surrounding huge foreign and domestic investments in Pakistan.

earned an award from The Federation of Pakistan Chamber of Commerce and Industry (FPCCI). The accomplishment of FAKT Exhibitions is categorized as an "Achievement Award for organizing Trade events in Pakistan."

The future strategy involves opening new gateways and creating new opportunities for the prevailing market, also, to expand the networking circle which will attract new segments of the industry worldwide. I foresee several new and successful exhibitions being organized by FAKT Exhi-



We aspire to act as a means for cultural and economic growth of Pakistan through events catering to established as well as untapped Industries. On one hand exhibition industry provides employment opportunities giving a boost to the economy, on the other hand when the content participants go back they spread positive message globally regarding the warm hospitality extended by nice people and also about the investment opportunities available here.



What are the achievements of FAKT in Pakistan and overseas?

FAKT Exhibitions (PVT) Ltd. has been welcomed into UFI- the Global Association of the Exhibition Industry as a full member in the category of "Exhibition organizers". FAKT renowned event 3P-Plas Print Pack earned the coveted label of 'UFI approved event', a stamp of authority that attests to their high quality and standard. FAKT is also corporate members of Asian Federation of Exhibition and Convention Association (AFECA).

Moreover, in the current year FAKT has

bitions in the future. I believe in execution and hence, whatever I dream, I start working on its implementation the same instant.

I visited China this year to attend AFCEA business mission and FAKT Exhibitions was the only corporate member from Pakistan in Asian Federation of Exhibitions and Conferences Associations (AFCEA). I represented Pakistan to the top stream of Exhibitions and Trade Industry from all over the world. Projecting Pakistan as a growing and rewarding market establishment for various industries, I always invite delegates of diverse regions to explore the productive segments. ■

## Weltec biopower develops 1.6 MW of green energy in France

Biogas plant manufacturer **WELTEC BIOPOWER GmbH** has made the next step in its successful export strategy: Together with the partner **Domaix Energie in Alsace**, the company from Germany has started rolling out four agricultural biogas plant projects in France.



Apart from agricultural substrates, the biogas plants, whose construction has already started, will use sludge and food leftovers. This documents the trend that French biogas plants are increasingly fermenting industrial leftovers. Since the introduction of the separation and utilisation of kitchen waste from large catering establishments in France at the end of 2011, organic waste from schools and company cafeterias must be used for the production of energy.

Accordingly, **WELTEC** will integrate hygienisation units in order to utilise the substances of category 3 according to the EU directive. Another common feature concerns the use of the heat: In all four biogas plants, the residual heat will be used in a digestate dryer in order to reduce the amount of liquid manure and market the dried digestate. ■

## Australia keen to invest in Pakistan energy sector

Australian government along with private sector is keen to invest in Pakistan energy sector having wide scope and potential, this was stated by **Peter Heyward**, High Commissioner Commonwealth of Australia on the occasion of first exports shipment of Pakistani mangoes to Australia.



He said that Australian power producing companies have gained tremendous scope in the development of coal-based power projects as two private companies are working in Pakistan already with the ambition to expand their business at local level.

There are semi-engineering companies related to power and energy sector which have been engaged in Pakistan for various projects.

I am hopeful that Australian investors are very optimistic to tap opportunities in Pakistan and will come up with their technologies and investment in near future. ■



**View online:**  
[energyupdatemag.blogspot.com](http://energyupdatemag.blogspot.com)

## TRL to build major oil refinery in Pakistan

**Trans-Asia Refinery Ltd (TRL)** has made a major announcement expressing its 'total commitment' to building the most complex refinery in Pakistan, producing more than 100,000 barrels a day and 4.0



million tonnes of petroleum products every year. The refinery will be located at Port Qasim, Karachi.

In a major boost to the country's economy, TRL signalled the end of previous delays with an undertaking that 'the investors have decided to push the project forward in the interests of all parties and the people of Pakistan'.

TRL's determination to see the project through to completion is demonstrated by two important initiatives announced yesterday. First is the appointment of **Descon** to undertake a complete 'health check' inspection of the TRL refining equipment. The second is a newly-completed restructuring of TRL management to ensure the project proceeds with all possible haste.

TRL CEO **Sultan Al Ghurair** said he was delighted to have **Descon** on board in order to develop the project further. **Descon** is the leading engineering and construction company of Pakistan. The company said that, since the refinery had been delayed for some time, they will perform a health check of critical equipment before the EPC contractor is finalised.

The TRL project is a direct investment of **Al-Ghurair Investment LLC**, a UAE-based family conglomerate and one of the most diverse industrial groups in the Middle East. As the majority shareholder, **Al Ghurair** will play an important role in the future supply of fuel to the nation of Pakistan. When completed, the TRL Refinery will annually produce 80,000 tonnes of LPG, 455,000 tonnes of Naphtha, 410,000 tonnes of motor gasoline, 422,000 tonnes of jet fuel, 1,000,000 tonnes of gas oil - from which 630,000 tonnes will be treated diesel - 1,050,000 tonnes of fuel oil and 200,000 tonnes of bitumen. All the products of the refinery are in high demand in Pakistan. ■



The consul general of the federal Republic of Germany Karachi **Dr. Tilo Klinner** & the director **Goethe Institute Pakistan Dr Manuel Negwer** briefing to announce the upcoming events of German Weeks 2013 In Karachi

# Govt seems reluctant to launch LNG import plan

EU Report



Amid controversies over the import of liquefied natural gas (LNG) and available facilities by the Engro-Vopak Terminal Limited (EVTL) at the city's largest port, it seems the authorities at federal capital are reluctant to do away with all paper work, permissions etc in one go-up even after an expenditure of \$5 billion in additional oil imports.

Moreover, if the project of much importance, which aims at overcoming the energy shortfall in the country, is delayed, the people will be left without electricity in the years to come.

The LNG import is considered as the shortest solution to cater to the needs of energy crisis, however it is beyond one's imagination why were the authorities' concerned showing reluctance to materialise the project.

Besides, the LNG import could also save billions of rupees being spent under the head of oil import for the power sector.

In a move to brief the media about the Green Field area the available facilities of the Engro-Vopak Terminal Limited at the PQA, the Xenith Public Relations (Pvt) Ltd arranged a day-long visit the sites.

While giving short briefing to the media persons in the waters, Engro Chemical Engineer Ammar Shah apprised about the short-term solutions for the energy crisis resolution.

Later, while briefing at the Engro-Vopak Terminal, PQA, Engro Vopak Terminal Limited

Chief Executive Officer Sheikh Imranul Haq said his firm was the only state-of-the-art integrated bulk liquid terminal in Pakistan established in 1997 with an investment of \$65m designed to handle

75,000 DWT vessel.

The EVTL was the first to construct and commission LPG storage in 1999 and cryogenic facility of Ethylene (-103oc) in 2009 in Pakistan with 30.3 million cbm storage capacity for oils, chemicals, LPG, LNG and edible oil in 2012 vs 28.3m cbm in 2011, he said.

The CEO said if the work on Pak-Iran gas pipeline starts, it will take more than four years to complete, other proposals too are time gaining, however, the LNG import was the easiest way to resolve energy crisis in the country. "It just takes around six days to import in LNG from Qatar and put it in the supply lines of the SSGCL.

Sheikh Iman said the government had approved the site and the PQA signed IA with one party without conducting a QRA. However, "We proposed infrastructure for import of LNG at existing EVTL site, gave proposal to construct new jetty in adjacent basin utilizing FSRU and recommended QRA study by all Developers to Energy Task Force.

Besides, we also submitted two proposals for greenfield site at Khiprianwala in 2013, and the ECC approved fast track project in July-October 2012.

Furthermore, the chief executive officer said the tender for 1.5 MTPA in year 1 and 3MTPA+ from 2nd year onwards under fast track project for 10 years was recently issued and the due date is October 1. It aims 400 mmscf vs 500 mmscf injection and at Pakland SMS vs near KESC while the EVTL could provide services to handle 1.5MTPA LNG by Nov 2014. And, the LNG import will also increase the PQA revenue up to \$3 mn/year. ■

## Energy supply and tariff - I Gas imperatives

Gas consumption in power sector has come down from a share of 25% last year in total electricity generation to 20%, while the reverse is required to bring down the cost of generation of electricity.

Government has slapped a 30-70% increase in tariff already for industry and more is to come in for domestic sector. There are extreme views on CNG varying from a total removal of CNG from the scene to the other extreme of further promoting and expanding it, irrespective of the needs of other sectors and the gas supply situation. The argument being, it is good for the consumer and even better for the CNG pump-owners. In this article, we would attempt to develop a mid-of-the-road, practical and viable approach to bring about a sustainable solution.

Pakistan Energy Yearbook 2012, a credible HDIP publication, gives following interesting data on CNG, petrol and diesel (HSD) consumption and its trend:

1) CNG consumption has grown at a phenomenal rate of 16 %p.a., doubling its consumption over the last 5 years. Its consumption increased from a level of 56 BCFt (1.5 MTOE) to 119 BCFt (2.895 MTOE). One MTOE (million tons oil equivalent) in petrol would cost almost 1 billion USD. Its share in transports consumption increased from 12% in 2006-7 to 23% in 2012.

2) Petrol consumption over the last five years also doubled growing at a rate of 19.3% per year. Petrol consumption now stands at 2.893 MTOE, almost equal to CNG.

3) HSD consumption has stagnated and even has been going down at a rate of 1.3% per year, and stands at 6.367 MTOE, almost twice that of petrol.

4) Power sector's consumption of gas has gone down from 8.64 MTOE to 6.483 MTOE over the last five years.

When a resource is short, people should feel a pinch so that they adjust their consumption pattern. At today's rates, there is a lot of wasteful CNG consumption that is going on. Let us tell the people that the known and cheap gas resources are going to end in a decade's time finally. The new gas, local or imported, LNG or piped gas from Iran or Turkmenistan is going to cost a lot more. Government does not have money and will not have money to buy expensive and sell cheap. ■

## SSGC holds a meetup with media fraternity

7th September 2013 keeping its tradition alive SSGC hosted a lunch for media fraternity in an effort to promote SSGC's transparency and smooth relationship with the important element of society in today's world that is media. The main aim of the event was to promote smooth communications and build stronger relationship with media fraternity. Such an event is a symbol of pride for SSGC as very few companies conduct it on such a scale.

The lunch was held at crystal ball room Marriott hotel Karachi which started with greetings from corporate communications department personnel light introductory conversations. The host of the event was the MD Mr. Zuhair Siddiqui himself along with the corporate communications department who arranged the get together. The event had a staggering attendance filled with anchors journalists bureau chiefs and important individuals who play a crucial role in media fraternity structure.

After initial greets the guests were



directed to their designated seats which were pre-arranged for smooth coordination at the event. The event formally started with a brief statement and Q/A session by press at the venue where the MD answered various questions raised by the media. The MD specially thanked all who managed to take out time and come to the event and discussed various issues particularly about the recent positive development of SSGC in which SSGC managed to reduce its UFG

losses by 2 percent minimum, similarly the MD also shed light on the factors contributing to UFG and differentiated between theft and other causes of losses suffered by SSGC and how SSGC is tackling the issues. On one occasion responding to a question the MD also clarified how theft is calculated and what factors contribute to it in various situations. The media representatives were very satisfied by the MD's responses to various questions including comment from one of the journalists who lauded MD's concern to interact with media and give a good briefing to them.

This was followed by a formal address to the audience by MD SSGC which was again followed up by relevant question answer session in which the audience took a lot of interest. The event included lucky draws in which lucky winners from the audience received a gift bag from SSGC. The event ended with light hearted chats between media fraternity and SSGC management present on location along with the vigilant CCD department personnel and was topped up with a modest yet wonderful lunch. ■



## Gadani Power Park not possible without peace

The announcement of an energy park in Gadani in Hub, Balochistan, with a capacity of 6600MW of energy seems like a daring project, one that will not only provide economic benefits but also create jobs and will help in overcoming energy shortage problem all at once. However, as things aren't mostly as simple as they seem to be, so is the case with this announcement. Balochistan is a resource rich province; it is also the one most strife-driven.

The province is being pulled in multiple directions by separatists, extremists, sectarian militants, Taliban, Al-Qaeda and by some counts, security agencies. The new political dispensation hasn't yet been able to resonate with the public sentiment. Devoid of their rights, the public wants to get rid of all who create problems in the way of peace. In this background, government's announcement of Gadani Power Park sounds like a good one though its implementation is not going to be a walk in the park. For this to happen there needs to be peace in the province, all the more important considering Pakistan and China have agreed to build an economic corridor between Gwadar and Kashgar. Iran-Pakistan gas pipeline and a proposal envisaging Hong Kong like status for Gwadar are also dependent on peace in the restive province, without which these projects would have no chance of being completed, much less getting operational. The issue isn't just a lack of economic activity or security in the province, it is more than that. It is about the perception that prohibits international investors to come to the country and invest in projects. It is this perception of an unstable country that needs to be addressed first, which is not possible by denying the Baloch people of their rights. When their grievances are addressed and peace returns to the province, the groundwork for mega projects will automatically be laid, convincing international investors and IFIs to invest in projects such as Gadani Power Park. ■



# Pakistani & Chinese companies sign MoU to set up 6,000 MW Power Plants

A Memorandum of Understanding (MoU) was signed between Sindh Engro Coal Mining Company Ltd (SECMC), China Power International Holding Ltd (CPIH), and Sino Sindh Resources (Pvt) Ltd (SSR) to develop 6000 MW of Thar coal based power plants in Sindh.

CPIH is a wholly-owned core enterprise of China Power Investment Corporation, one of five State Power Corporations in the People's Republic of China. The principal business of CPIH is to develop, construct, own, operate and manage large power plants. Currently, the company is managing power plants with a generation capacity of more than 23,000 MW. SSR and SECMC are the developers of Thar Coal Mining Blocks-I and Block-II, respectively.

According to the MoU, the parties have reached an intention of jointly developing, within the next 10 years, coal-fired power projects with a total installed net capacity of 6000 MWs in Sindh, Pakistan, which will be expected to use lignite coal mined from Block and Block 2 in the Thar Coalfields. CPIH will be the majority shareholder and will be responsible for implementation and execution of the power projects subject to the signing of the formal agreement and the approval of Pakistan Government. The power projects will be developed in five (5) phases of 1200 MWs each with a configuration of 2 x 600MW. Coal mining will be independently developed by



SSR and SECMC for Block 1 and Block 2, respectively, who will supply coal based on the coal demand created by the power projects developed by CPIH.

It is to be noted that Thar coalfields contain the world's 7th largest coal reserves - estimated at 175 Billion Tons, capable to produce 100,000 MW for the next 200 years. Thar lignite is indigenous, abundantly available, and ideally suited to produce electricity giving it distinct advantage over imported coal. Price of Thar Coal is set on a "cost plus" basis and is not linked to international energy price movements, thereby, insulating the end consumer of electricity in Pakistan from the vagaries of international coal price movements. Thar coal also has the advantage of economies of scale, which will result in a progressively lower coal price and predictable electricity price as the mining operation scales up and more power plants are added. Most importantly, utilization of Thar coal for power generation will result in huge foreign exchange savings versus any other imported energy resource. ■

## 1,000 LPG auto gas stations to be set up countrywide



The Cress LPG Private Company Limited has finalised a plan to establish as many as 1,000 Liquefied Petroleum Gas (LPG) auto gas stations across the country. We are going to introduce 1,000 countrywide LPG auto gas stations by 2015 and the first one will be inaugurated in Mandra Rawalpindi this month in order to provide environment-friendly and safe fuel to consumers, the Company's Director Khalid Naeem said. The Company had obtained license from the Oil and Gas Regulatory Authority (OGRA) to construct the facility, which would be replicated in all main cities of the country within two years. The initiative would be encouraged at government level as it could not afford for long to supply CNG due to its shortage and the LPG could be conveniently imported or locally produced to meet its shortage. ■

## Malik Khuda Baksh, appointed as chairman of FPCCI standing committee on "petroleum products"

President FPCCI Mr. Zubair Ahmed Malik has appointed Malik Khuda Baksh, as the Chairman of FPCCI Standing Committee on Petroleum Products for the year 2013.

Malik Khuda Baksh is fully involved in Petroleum and Gas Industries. He is Chairman & Chief Executive of Malik Group of Industries. He is the International Director of International Association of Lions Clubs ISAAME Area & Pakistan.

International Director Malik Khuda Baksh is active in numerous professional and community organizations. He has served as President of National Education Society of Pakistan, Senior Vice Chairperson of the Pakistan Petroleum Dealers Association, Chairman of CNG Station Owners Association of Pakistan, Chairman of FPCCI Standing Committee on Petroleum Products and Liquefied Petroleum Gas (LPG). ■



## Linde Pakistan Limited appoints new Chief Executive

The Board of Directors of Linde Pakistan Limited (formerly known as BOC Pakistan Limited), a member of The Linde Group, today announced that Muhammad Ashraf Bawany has been appointed as Chief Executive and Managing Director of the company with effect from 2 August 2013, succeeding Yousuf Husaín Mirza who has left the company to pursue other opportunities. Mr Bawany is currently the Deputy Managing Director and Chief Financial Officer, and has worked in the company for nearly 28 years, holding various leadership roles.

Chairman of the Board of Directors of Linde Pakistan, Mr Munnawar Hamid, said, "The Board is pleased to appoint Muhammad Ashraf Bawany as Chief Executive of the company, given his extensive experience and strong track record built over his long and successful career. We are confident that Ashraf will be able to further advance Linde Pakistan along its profitable growth path." ■



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# EGO Pakistan 2013 from 19th

Lahore-A three-day 2nd International Energy, Oil, Gas and Power Exhibition and Conference - EGO Pakistan 2013 is being held at Expo centre, Lahore from September 19 to 21.

A large number of leading international and local companies belonging to energy sector particularly renewable energy from countries like China, Italy, Iran, India, Netherlands, Japan and USA are participating in the exhibition being organized by FAKT Exhibitions, Pakistan.

EGO Pakistan 2013, Pakistan's premier Energy Exhibition, originates the power generation with the use of renewable energy resources which are cheap and substantially available in the country. The event incorporates



a conference on the second day of the event.

EGO Pakistan 2013 is highly informative, rewarding and provides lucrative business solutions to the associated industry leads.

The comprehensive analysis of the renewable sources will offer a new dimension for businesses to look into and make the most of the

opportunity.

EGO Pakistan gauged splendid feedback and phenomenal acknowledgement from the renowned associations and decision makers of the industry in its first edition.

Corporations from different sectors of the industry, will exhibit their high tech machines to revolutionize the energy production. ■

## Khaqan Abbasi visits Gambat South to mark PPL discoveries

Federal Minister for Petroleum and Natural Resources Shahid Khaqan Abbasi visited Gambat South Block in District Sanghar, Sindh on August 26 to mark recent discoveries made by Pakistan Petroleum Limited (PPL), the operator of the block.

The visit reiterates the government's stake in promoting oil and gas exploration to plug the energy deficit faced by the country on the one hand and the importance of the discovery by PPL on the other.

PPL, that has 65 percent working interest in the block along with its joint venture partners Government Holdings (Private) Limited and Asia Resources Oil Limited, with 25 percent and 10 percent interests, respectively, made two back-to-back gas-condensate discoveries at exploration wells Wafiq X-1 and Shahdad X-1 within a span of approximately one month.

Welcoming the minister and other guests, which comprised representatives of the Ministry of Petroleum and Natural Resources (MP&NR), provincial government, local administration and media besides PPL management and staff, MD and CEO Asim Murtaza Khan highlighted the importance of the discoveries, particularly in light of the prevailing energy crisis, adding that PPL is striving to fast track production from the two wells through Extended Well Testing. "As a key public sector E&P company, we are cognizant of our responsibility to optimize production and reserves replacement of hydrocarbons to decrease reliance on oil imports and secure a safe energy future for the country." ■

## PAK-CAMEROON FRIENDSHIP SOCIETY AWARDED ISHTIAQ BAIG

Pakistan-Cameroon Friendship Society presented Award to Ishtiaq Baig, Founding President Make-A-Wish Foundation Pakistan in recognition of his social welfare services through Make-A-Wish Foundation Pakistan.

The Chief Guest of the ceremony Prof. Dr. Abdul Wahab, Chancellor Muhammad Ali Jinnah University along with S. A. Bari Jelani, Hon. Consul General of Cameroon and Meer Nawaz Khan Marwat, President Pak-Cameroon Friendship Society presented the award to Ishtiaq Baig who thanked the Pak-Cameroon Friendship Society and said that its an honour for him and Make-A-Wish Foundation Pakistan for receiving this prestigious award. Others who also attended were Abdul Sami Khan, Chairman Pakistan Petroleum Dealers Association, Justice (R) Ghous Muhammad, Shamim A. Firpo Sr. Vice President Karachi Chamber and other dignitaries. ■



Ibrahim Ihsan Khan receiving 10 Annual Environment Excellence Award 2013 from Mir Hazar Khan Bijaarani, Minister for Housing and works on his community services in rural areas. He is the ever youngest environment Award winner of this award in last 10 years. Naeem Qureshi, President National forum for Environment & Health (NFEH), Mehmood Tareen, Nadeem Sheikh & Saleem Michael also seen in the picture.



Prominent Industrialist and Hon. Consul General of Morocco Ishtiaq Baig called on President Mamnoon Hussain at State Guest House and presented him his book "Aaj ki Dunya"



A delegation from Karachi Chamber of Commerce & Industry, headed by Mr. Siraj Kassam Teli, S.I., Chairman, Businessmen Group (BMG) & former President-KCCI called on Mr. Mamnoon Hussain, President, Islamic Republic of Pakistan, at Karachi (State Guest House).



Prominent Industrialist and Hon. Consul General of Morocco Ishtiaq Baig hosted a reception in honour of Governor Punjab Ch. Mohammad Sarwar at his residence on his visit to Karachi.



21st century club hosts a reception in honour of newly elected president OICC Mr Kimihide Ando at a local hotel.



Vice President FPCCI Gulzar Feroze speaking at the meeting of Standing Committee on Petroleum at Federation House. Chairman Standing Committee on Petroleum Malik Khuda Buksh, Abdul Sami Khan, Abdul Hadi Khan and others also seen in the picture



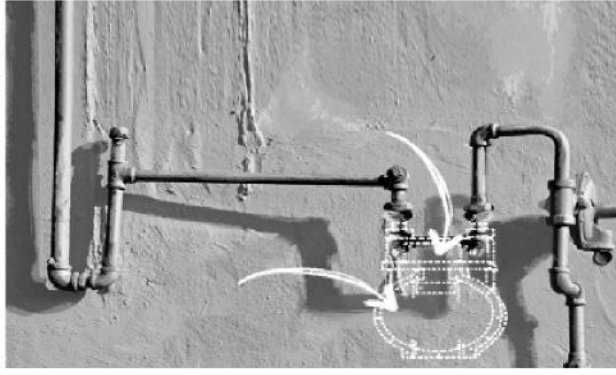
Students participated in a seminar organized by Power & Energy Society of NED University in Karachi



## بجلی گیس چوری میں پنجاب پہلے نمبر پر 1926 مقدمات درج

سندھ دوسرے، خیبر پختونخوا تیسرے اور بلوچستان چوتھے نمبر، سندھ کے شہری علاقوں میں 350 مقدمات درج

اسلام آباد: ملک بھر میں جاری گیس اور بجلی چوری کے خلاف آپریشن میں پنجاب بالترتیب پہلے نمبر پر آگیا اور سندھ دوسرے، خیبر پختونخوا تیسرے اور بلوچستان چوتھے نمبر پر ہے۔ پنجاب میں بجلی چوری کے 1600 اور گیس چوری کے 326 مقدمات درج کر لئے گئے جبکہ جن کو جرم مانے کے ہیں۔ ان کی مالیت 8 ارب 66 کروڑ روپے



سے زائد ہے۔ جن میں سب سے زیادہ سر یا بنانے والی فیکٹریاں، ٹیکنیکل یونٹ، ماربل، فیکٹریاں اور باقی چھوٹی گھریلو صنعتوں کے لوگ شامل ہیں۔ سب سے زیادہ ان کیسوں میں کمرشل کنکشن کو ڈومیسٹک کے طور پر چلایا جا رہا ہے۔ یہ وہ صنعتیں ہیں جو بجلی اور گیس چوری میں ملوث ہیں۔ کنڈے لگا کر بجلی چوری کرنے اور بجلی گیس کنکشن اس کے علاوہ ہیں۔ سندھ دوسرے نمبر پر ہے جہاں پر سب سے زیادہ ایسے کنکشن ہیں جو سیاسی جماعتوں اور بہت سی کالعدم تنظیموں کے ہیں جن کا کراچی کے شہری علاقوں حیدرآباد اور اندرون سندھ سے تعلق ہے۔

لیکن بجلی گیس چوری کے ابھی تک صرف ساڑھے تین سو کے قریب مقدمات درج کئے گئے ہیں۔ دونوں ٹھکوں کے افسران اور اہلکار اصلی بجلی اور گیس چوری کرنے والوں کو نظر انداز کر رکھا ہے اور خوف کے باعث ان کے خلاف کارروائی کرنے سے گریزاں ہیں۔ خیبر پختونخوا میں سب سے زیادہ بجلی چوری کنڈے لگا کر مل جاتی ہے لیکن ان کے خلاف ابھی تک کوئی کارروائی نہیں کی گئی۔ صرف بجلی چوری کے 113 اور گیس چوری میں ملوث 26 افراد کے خلاف مقدمات درج کئے گئے ہیں۔

## گیس کی درآمد سے قبل قیمت پر نظر ثانی کا فیصلہ

امریکی پابندیوں کے باعث چین سرمایہ کاری سے گریزاں ہے۔ شاہد خاقان کا انٹرویو ایرانی حکام سے بات چیت میں عدم درآمد پر ہونیوالے جرمانے پر بھی فیصلہ متوقع ہے

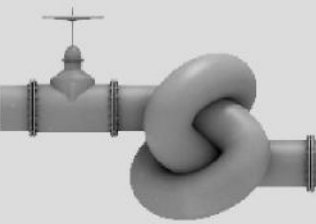
پابندیوں کے باعث چینی کمپنی منصوبے میں سرمایہ کاری سے گریزاں ہے جس کے بعد پاکستان، گیس پائپ لائن کی تعمیر کیلئے ایران سے مکمل مالی تعاون کی درخواست پر غور کر رہا ہے جبکہ ایران بھی 50 کروڑ ڈالر سرمایہ کاری کی پیشکش کر چکا ہے۔ وزیر پٹرولیم نے کہا کہ جنوری 2015ء تک ایران سے گیس کی درآمد



اسلام آباد: دفاعی وزیر پٹرولیم و قدرتی وسائل شاہد خاقان عباسی نے کہا ہے کہ پاکستان نے ایران سے گیس کی درآمد سے قبل قیمت پر نظر ثانی کیلئے ایرانی حکام سے جلد بات چیت کا فیصلہ کیا ہے۔ حل ای میں ایک انٹرویو میں انہوں نے کہا کہ ایران سے گیس کے نرخ کے حوالے سے دوبارہ بات چیت کی جائے گی۔ انہوں نے کہا کہ معاہدے کے تحت گیس کی قیمت پر

شروع نہ ہونے پر یومیہ 30 لاکھ ڈالر جرمانے کے خاتمے سے متعلق بھی وزارت خارجہ سے بات کی ہے جس پر جلد مناسب وقت ہے۔ شاہد خاقان عباسی نے کہا کہ امریکی کوئی فیصلہ متوقع ہے۔

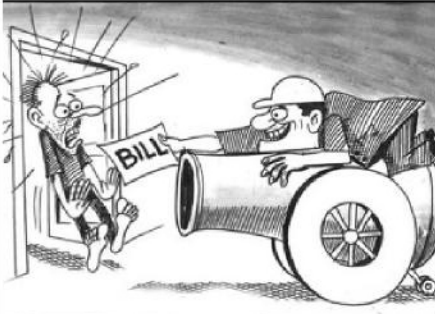
## گیس پائپ لائن منصوبہ، بھارت کی سردمہری پاکستان کا چین کو شامل کرنے پر غور



اسلام آباد: ایران سے گیس پائپ لائن کے منصوبہ پر بھارت کی سردمہری کے بعد پاکستان نے اس منصوبہ میں چین کو شامل کرنے پر شروع کر دیا ہے، پاکستانی حکام چین کو ایران گیس پائپ لائن منصوبے میں شامل ہونے پر آمادہ کرنے میں مصروف ہیں اور حکومت پاکستان نے چین کے ساتھ اس سلسلے میں معاہدے کا سہو بھی تیار کر لیا ہے، چین کی آمدنی پر مجوزہ روٹ کو تھریل کیا جاسکتا ہے، ایرانی میڈیا کی رپورٹ کے مطابق جرمنی قائم ایک سٹیلنس فرم ای ایل ایف پائپ لائن کے مجوزہ روٹ بارے سروسے میں مصروف ہے ورجلڈاٹا کام مکمل کر لے گی۔ ذرائع کے مطابق اس فرم نے تصدیق کی ہے کہ ایران پاکستان گیس پائپ لائن کو چین تک بڑھایا جاسکتا ہے۔ رپورٹ کے مطابق پاکستانی حکام نے اس بات پر آمادگی ظاہر کر دی کہ اگر چین نے اس منصوبے میں شامل ہونے کا فیصلہ کیا تو گیس پائپ لائن کے مجوزہ روٹ کو تھریل کیا جاسکتا ہے۔

## گھریلو صارفین کیلئے بجلی 15 اور صنعتوں کیلئے 56 فیصد مہنگی

وزارت پانی و بجلی نے کراچی، اسلام آباد سمیت دیگر شہروں کیلئے نئے نرخوں کا شیڈول جاری کر دیا



اسلام آباد: وزارت پانی و بجلی نے کراچی، کوئٹہ، یصل آباد، اسلام آباد اور لاہور سمیت دیگر شہروں کیلئے بجلی کے نئے نرخوں کا شیڈول جاری کر دیا۔ گھریلو صارفین کیلئے بجلی اوسط 15 فیصد جبکہ صنعتوں کیلئے 56 فیصد مہنگی ہو جائے گی۔ وزارت پانی و بجلی حکام کے مطابق نرخوں کے نئے شیڈول کے مطابق 50 یونٹ استعمال کرنے والے گھریلو صارفین کیلئے بجلی کے نرخ ایک روپے

87 پیسے بڑھا کر 2 روپے 30 پیسے کر دیئے گئے ہیں، اس کے علاوہ 101 سے 300 یونٹ ماہانہ بجلی خرچ کرنے والے گھریلو صارفین کیلئے نرخ 6 روپے 86 پیسے سے بڑھا کر 8 روپے 11 پیسے کر دیئے گئے۔ 301 سے 700 یونٹ استعمال کرنے والوں کیلئے بجلی کا نرخ 11 روپے 8 پیسے سے بڑھا کر 12 روپے 33 پیسے ہو گئے۔ 700 یونٹ سے زائد بجلی خرچ کرنے والے گھریلو صارفین کیلئے نرخ 13 روپے 82 پیسے سے بڑھا کر 15 روپے 7 پیسے فی یونٹ کرنے کا فیصلہ کیا گیا۔ اس کے علاوہ کمرشل صارفین کیلئے بجلی کے نرخ 13 روپے 52 پیسے سے بڑھا کر 18 روپے 7 پیسے ہو گئے جبکہ صنعتوں کیلئے بجلی کے نرخ 9 روپے 26 پیسے بڑھا کر 14 روپے 50 پیسے فی یونٹ کر دیئے گئے۔ حکام کے مطابق نئے نرخوں کا نفاذ صنعتی اور تجارتی صارفین کیلئے کم از کم سے کم کر دیا گیا ہے جبکہ گھریلو صارفین کیلئے کم از کم سے کم کر دیا گیا ہے۔

## پاکستانیوں کوئی اور خدمت ہو تو بتاؤ؟؟



منجانب: وزارت بجلی و پانی



# قوم لوڈ شیڈنگ سے مرتی رہی واپڈ الاکھڑا پاور پلانٹ جیسے معاملات دبائے بیٹھا رہا۔ سپریم کورٹ

واپڈا نے انتہائی لا پرواہی کا مظاہرہ کیا، پاور پلانٹ پرائیویٹائز کرنے کے بعد 20 سال کیلئے لیز پر دینے کے باوجود کمپنی کے سپرد نہیں کیا گیا۔ سالانہ صرف 25 میگا واٹ بجلی پیدا کی جاتی رہی، ریماکس

چین کا اگر تمام صنعتوں کا یہی حال رہا تو اللہ ہی حافظ ہے۔ کل کو تمام صنعتیں اپنے اپنے طور پر خود مختار ہو کر خود ہی اپنی چمکاری شروع کر دیں گی۔ پوزیشن یہ ہے کہ بجلی کی پیداوار کے حصول کیلئے بھی عدالت کے ساتھ ساتھ پاور پلانٹ بھی چلا رہے ہیں، جسٹس جواد ایس خواجہ نے ریماکس دیے کہ کتنی اندھر نگری ہے کہ پانچ سال سے بغیر تعمیرات کے پاور پلانٹ بند پڑا ہے اور کسی کے کان پر جو تک نہیں رہتی۔ واپڈا ورکرز یونین کے وکیل طارق محمود نے عدالت کو بتایا کہ لاکھڑا پاور پراجیکٹ کی لیز کا معاملہ اقبال ٹریڈ احمد اور سیف اللہ پانچہ کے درمیان ایک لڑائی تھی جس کو فیصلہ اللہ پر چھوڑ دینا چاہیے۔



دیگر میوز انجینئرز کے مطابق سپریم کورٹ نے بجلی کی پیداوار حاصل نہ ہونے اور لاکھڑا پلانٹ کی بندش پر واپڈا سے جواب طلب کر لیا ہے جبکہ تین دن کی بجٹ کے سربراہ اور چیف جسٹس پاکستان افتخار محمد چوہدری نے ریماکس دیے

اسلام آباد: سپریم کورٹ نے لاکھڑا پاور پلانٹ کیس کی سماعت تک ملتوی کرتے ہوئے واپڈا کی کارکردگی پر عدم اطمینان کا اظہار کر دیا۔ جسٹس جواد ایس خواجہ نے ریماکس دیتے ہوئے کہا کہ قوم لوڈ شیڈنگ سے مرتی رہی لیکن واپڈا لاکھڑا پاور پلانٹ جیسے معاملات کو دبائے بیٹھا رہا، پاور پلانٹ کو پرائیویٹائز کرنے کے بعد 20 سال کیلئے لیز پر دینے کے باوجود کمپنی کے سپرد نہ کیا گیا۔ سالانہ 150 میگا واٹ بجلی پیدا کرنے کی استعداد کے باوجود صرف 25 میگا واٹ بجلی پیدا کی جاتی رہی۔ چیف جسٹس افتخار محمد چوہدری کی سربراہی میں جسٹس جواد ایس خواجہ اور جسٹس عفت سید شیخ پر مشتمل 3 رکنی بنچ نے مقدمہ کی سماعت

دھواں چھوڑنے والی گاڑیوں کے خلاف کارروائی کی جائے۔ ہائی کورٹ کا حکم

Getting Exhausted?



کراچی: سندھ ہائی کورٹ کے جسٹس عفت احمد عباسی کی سربراہی میں دور کی بنچ نے سیکریٹری ٹرانسپورٹ اور ڈی، ای، جی ٹریفک کو حکم دیا ہے کہ دھواں چھوڑنے والی گاڑیوں کے خلاف قانون کے مطابق کارروائی کریں اور ماحول کا تحفظ یقینی بنایا جائے۔ حال ہی میں یو این وائس ویلفیئر ایسوسی ایشن کی جانب سے دائر کی گئی درخواست کی سماعت ہوئی اس موقع پر پرائیویٹ ایلو کیٹ جنرل محمد رفیع جوہری پیش ہوئے اور عدالت کو بتایا کہ مدعا علیہان کی جانب سے جواب داخل کر دیا گیا ہے۔ جس میں ماحولیاتی تحفظ سے متعلق اقدامات کی تفصیلات تحریر ہے۔ درخواست گزار نے سیکریٹری ٹرانسپورٹ، ڈائریکٹر ایسٹن ٹیکسیشن موٹر ویزیشن وگ، ڈی آئی جی ٹریفک، کراچی رکشہ اور ٹیکسی اور ایسوسی ایشن کو فریق بناتے ہوئے موقف اختیار کیا ہے کہ تقریباً 60 ہزار سے زائد آٹو رکشہ اور تقریباً 15 ہزار ٹیکسی ہیں جو صرف کراچی شہر میں شل رہی ہیں اور ان گاڑیوں کے مالکان کو ٹیکس سہولیات ڈائریکٹر ایکسائز ویکسیشن اور ڈی آئی جی ٹریفک سے حاصل کریں تاکہ ہر گاڑی قانونی طور پر چلنے کیلئے اہل قرار دی جائے، درخواست گزار نے مزید کہا کہ قانون کے مطابق آٹو رکشہ اور ٹیکسی میں میٹر بھی نصب ہونا لازمی ہے تاکہ وہ حکومت کا مقرر کردہ کرایہ چارج کر سکیں لیکن اس عمل کے برعکس شریک پبلک ٹرانسپورٹ میں شامل آٹو رکشہ اور ٹیکسی 20 فیصد گاڑیوں بغیر میٹر کے سڑکوں پر رواں دواں ہیں اور ڈرائیور نہ صرف شہریوں سے من پیندا اپنی مرضی کے مطابق کرایہ چارج کر رہے ہیں بلکہ مذکورہ تمام گاڑیوں سڑکوں پر چلنے کیلئے اہل بھی نہیں ہیں کیونکہ گاڑیوں کی حالت زار اور مناسب مرمت نہ ہونے کی وجہ سے تمام گاڑیاں کثیر مقدار میں دھواں چھوڑتی ہیں جس کی وجہ سے شہر میں ماحولیاتی آلودگی بھی بڑھ گئی ہے۔

## شوہر برائے فروخت



اس دکان میں کوئی بھی عورت بالکل صرف ایک وقت ہی داخل ہو سکتی ہے۔ پھر بیچے ہدایت دی گئی تھیں۔۔۔ اس دکان کی چھ منزلیں ہیں ہر منزل پر اس منزل کے شوہروں کے بارے میں لکھا ہوگا، جیسے جیسے منزل بڑھتی جائے گی شوہر کے اوصاف میں اضافہ ہوتا جائے گا، غریب لڑکی یا عورت کی بھی منزل پر کوئی پسند نہ آئے تو اپری کی منزل کو چاکتی ہے مگر ایک بار اوپر جانے کے بعد پھر سے نیچے نہیں آ سکتی سوائے کہ پہلے جانے کے۔ ایک خوبصورت لڑکی کو ایک دن اس دکان میں سب سے پہلے داخل ہونے کا موقع ملا پہلی منزل کے دروازے پر لکھا تھا: اس منزل کے شوہر ہر روز گار ہیں اور اللہ والے ہیں۔ لڑکی یہ پڑھ کر آگے بڑھ گئی۔ دوسری منزل کے دروازے پر لکھا تھا: اس منزل کے شوہر ہر روز گار ہیں، اللہ والے ہیں اور بچوں کو پسند کرتے ہیں۔ لڑکی پھر آگے بڑھ گئی۔ تیسری منزل کے دروازے پر لکھا تھا: اس منزل کے شوہر ہر روز گار ہیں، اللہ والے ہیں، بچوں کو پسند کرتے ہیں اور خوبصورت ہیں۔ یہ پڑھ کر لڑکی کچھ دیر کیلئے رک گئی پھر یہ سوچ کر چلا ایک منزل اور جا کر دیکھتے ہیں اور وہ اوپر چلی گئی۔ چوتھی منزل کے دروازے پر لکھا تھا: اس منزل کے شوہر ہر روز گار ہیں، اللہ والے ہیں، بچوں کو پسند کرتے ہیں خوبصورت ہیں اور گھر کے کاموں میں مدد بھی کرتے ہیں۔ یہ پڑھ کر اس کو شش آئے لگے (کیا ایسے بھی مرد ہیں دنیا میں؟ وہ سوچنے لگی کہ شوہر خرید لے اور گھر چلی جائے مگر دل نہ مانا وہ ایک منزل اور اوپر چل دی وہاں دروازہ پر لکھا تھا: اس منزل کے شوہر ہر روز گار ہیں، اللہ والے ہیں، بچوں کو پسند کرتے ہیں، بچہ خوبصورت ہیں، گھر کے کاموں میں مدد کرتے ہیں اور رومانٹک بھی ہیں۔ اب اس عورت کے اصرار جواب دینے لگے وہ خیال کرنے لگی کہ ایسے مرد سے بہتر بھلا اور کیا ہو سکتا ہے مگر اس کا دل پھر بھی نہ مانا اور وہ اگلی منزل پر چلی آئی۔ یہاں بورڈ پر لکھا تھا۔ آپ اس منزل پر آئے والے 44444444 ہیں خاتون ہیں، اس منزل پر کوئی شوہر نہیں ہے! یہ منزل صرف اس لئے بنائی گئی ہے تاکہ اس بات کا ثبوت دیا جاسکے کہ عورت کو مطمئن کرنا ناممکن ہے! ہمارے اسٹور پر آنے کا شکریہ یہ میٹر یہاں باہر کی طرف جاتی ہیں!!

ایک لوکل گھنٹی کو اپنے دفتر کے لیے ایک اسٹنٹ کی ضرورت تھی۔ انہوں نے اپنے آفس سے باہر نکلتے ہی اس قسم کا اشتہار پچکا دیا "اسٹنٹ درکار ہے! ٹائپنگ سے واقفیت، کمپیوٹر کا بہترین استعمال آنا ضروری ہے اور دو لسانی Lingual-Bi تو ابھی شرط ہے۔ اندر آمد میں تشریف لائیں، ہم ایک Employee Opportunity Equal ہیں۔" دوسرے ہی دن آفس میں ایک نیا داخل ہوا۔ آئی اس نے سیکریٹری کو دیکھ کر دم بلاتا شروع کر دی، اشتہار تک گیا اور اس کی طرف اشارہ کر کے وائس میکر ٹی کے سامنے جا پہنچا۔ سیکریٹری نے بڑی حیرت سے اسے دیکھا اور یہ دیکھ کر کہتا تھا تو کڑی سے پکڑ میں آیا ہے پریشانی کے عالم میں اس کمرے سے اس کو بلا لاؤ۔ پاس بھی حیرت کے عالم میں کمرے میں پہنچا تو دیکھا کہ کتا کرسی پر بیٹھا اس کی طرف دیکھ رہا ہے۔ پاس نے کہا کہ میں تمہیں نوکری نہیں دے سکتا کیوں کہ اس کے لیے ٹائپنگ ضروری ہے۔ کتے نے اپنی سیٹ سے جھپ ماری اور سیدھا ٹائپ رائٹر کے پاس جا کر بیٹھا اور ایک بہت اچھا سا خط ٹائپ کر کے پاس کے سامنے رکھ دیا۔ پاس نے پریشان ہو کر اس کی طرف دیکھا اور کہا کہ یہ تو ٹھیک ہے مگر کمپیوٹر۔ اس کا جملہ فٹ ہونے سے پہلے ہی کتا کمپیوٹر کی جانب چلا اور مختلف پروگرامز پر اپنی مہارت آزماتے ہوئے ایک ورک شیٹ بنا کر پاس کے سامنے رکھ دی۔ پاس اب مکمل ہوش و ہواس کو چھوٹا تھا اس کی سمجھ نہیں آئی کہ یہ کیا چیز ہے۔ اس نے انتہاء سہمیلی سے کہا کہ "میں دیکھ رہا ہوں کہ تم ایک بہت ہی ذہین کتے ہو، مگر پھر بھی میں تمہیں نوکری نہیں دے سکتا کیونکہ تم ایک جانور ہو یہ سن کر کتا دوڑ کر اشتہار کی طرف گیا Employer Opportunity are Equal والے جتنی کی طرف اشارہ کرنے لگا۔ پاس کے مزید پریشان ہونے کی باری تھی، اس نے سوچا کہ کس طرح اس کتے کو ٹیکسٹ کروں پھر اس کے ذہن میں نوکری کے لیے آخری شرط آئی کہ دو زبانوں کا آنا ضروری ہے۔ اس نے کہا کہ یہ تو ٹھیک ہے مگر نوکری کی ایک اور شرط تھی کہ تین Bi-Lingual ہونا چاہیے " کتے نے سین کر پاس کی آنکھوں میں لگا دیں ڈال کر کہا۔۔۔۔۔ "میاں!"

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