

The Pakistan Development Review
47 : 4 Part II (Winter 2008) pp. 1029–1033

Demand and Supply Issue (2008-2009)

RAZA HAMEED

Total demand (peak season) = 22,000 MW

Today's power generation peak season

Hydel / 6000 MW + IPP's/10,000 MW + Wapda thermal stations/3,000 MW = 19,000 MW.

In 1994 our major source of power was hydel. Cost of hydel is only in the beginning which includes construction of dam and water reservoir. It is the cheapest source with no input cost and very low administrative cost. It is the best natural way of producing energy. No noise, no pollution and many associated benefits. This source cost Wapda less than Rs1 per unit. In 1994 IPPs came into action using thermal power generators running on diesel. After purchasing electricity from IPPs the purchase price of Wapda increased up to Rs 6 and 12 per unit depending on the deals with different IPPs. This method proved to be very costly and full of pollution. Due to price hike of diesel in the past, the input cost (cost of diesel) increased by many fold. So the economy was hit and the balance of payment was disturbed badly. Actually this method was meant for short term solution. But due to political instability we lost our sight from the real scene and based our future energy plan on a very costly method. Why? Answer is, as a nation including politicians, bureaucrats, policy makers and everybody enjoy their present leaving and passing these queries, fears and problems to the next generation hoping that all will be well. More than 35 years past away and no concrete solution appeared. But the people of Pakistan specially our new generation are facing this bitter truth i.e., load shedding

We have lost rather wasted our precious 35 years. We cannot makeup this gap. Whenever we will try to make a deal with the foreign investors regarding any power generation project, it will always be unfair. unfair why? Because, when somebody knows that you are dying for what he has, he will blackmail you and make u go his way. This is called business. We have lost both the time and competitiveness. If we go on making deals with IPPs now known as "Rental power houses" which will provide us electricity as high as Rs19 per unit. We will lose a lot in all fields. Such as:

- (1) Government will have to subsidise more and thus budget deficit will increase.
- (2) Cost of production will be increased therefore our exports will decrease.

Raza Hameed is Specialist, Small Cottage Industries, Gujranwala.

- (3) Cost of living will increase.
- (4) The above three points will lead to poverty, black marketing, labour lay off and ultimately to corruption, bribery, electricity theft, gas theft etc.

HOW TO OVERCOME THE IMPACT OF INSUFFICIENT POWER

There are two measures to overcome the energy crises i.e. “load shedding”.

- (1) Long term measures.
- (2) Short term or prompt measures.

1(a) New Dams Should Be Build

This is the only way to get the cheapest electricity .Moreover, only dams can reverse the ratio to 60 percent hydel and 40 percent (thermal, coal and others).

1(b) Coal Power Generation

Pakistan has sufficient coal reserves. The share of coal power generation in the total energy used by America and China is more than 50 percent. It is cheaper than the thermal power generation.

1(c) Solar Energy

The climate of Pakistan fully supports this source of producing energy. But it is very costly. This method has no input cost but high maintenance cost.

1(d) Wind Energy

In some areas this is also workable. This is also cheap energy with no input cost depending upon nature.

2 (a) Education Through Electronic Media

Media can play a vital role in educating people to save energy. People should be educated to use energy for convenience but without wasting it. Hotels, CNG Stations, Commercial plazas can be educated to use 50 percent energy for lighting .In this was gap of supply and demand of electricity can be narrowed and people will save a lot of money.

2(b) Increase the Electricity Rates

If people don't respond to the slogan “save electricity and save your money and future”. Then, rates of electricity should be increased to make people think seriously to save energy. In this way government expenses regarding subsidizing the people will decrease.

2 (c) Measures to Stop Leakages and Electricity Theft

Strict measures should be taken to stop leakages and theft of electricity and gas as well. Line loses of electricity power companies vary from 15 percent to 25 percent which

is actually electricity theft. Saving of energy is equalant to any source that can generate energy. More over saved energy is free energy. Because no cost of installation and production is required to save energy. Only good policies and good people can make this happen. Sincere and continuous efforts can save us energy more than produced by Tarbaila or Mangla Dam.

IMPACT OF POWER CRISES

Due to power shortage both the civic life and industrial sector of Pakistan are badly disturbed. In 2007, due to unscheduled load shedding all sectors such as hospitals, schools, colleges, homes were effected. Efficiency of the institutions reduced by 40 percent. More over, more time was wasted for little works. Tension and depression spread wide over which weakened the social values of the people.

In case of industry, the first thing is loss of production and decrease in quality standards. Due to unscheduled Load Shedding the tempo of production is not achieved and there is higher ratio of rejected goods. This loss of quality and quantity lead to delay in export orders. Secondly, low productions leads to higher cost of production. So during Load Shedding, goods produced will be more costly and thus competitiveness in the international market will be lost. Exports will decrease and country will be earning less foreign exchange.

Thirdly due to loss of production prices of commodities in the local markets will increase. Black marketing is other phenomena that occur due to this price increase. Artificial shortage is produced and people are forced to buy the essential goods at very high rates. Many businessmen earn high profits under the umbrella of artificial shortage. These entire factors push the economy to high inflation era. Then it is very difficult to control the economy of the country by using any fiscal or monetary policy measures.

GENERATORS: THE ONLY PRIVATE SOLUTION TO POWER SHORTAGE

Government of Pakistan has allowed great industries to build their own power houses and generate energy by using diesel and gas. This is short term solution for private and industrial sector. The cost of electricity produced is high and varying all the time.

In 2007-2008 every big and small industry, CNG stations, petrol pumps, hospitals and hotels, banks and commercial plazas, offices and homes etc installed generators for smooth running of their businesses, services, and works. Actually people of Pakistan were compelled to buy the generators and thus country's precious foreign exchange worth millions of dollars was wasted for nothing. Generator industry is becoming another big private industry of Pakistan. Hundreds of families are earning their livelihoods from this industry. This industry has emerged only due to worst planning. How it happened? When government of Pakistan showed no interest to pay long awaited dues to IPPs, they stopped generating power at full capacity. As a result people of Pakistan suffered alot. They faced social problems and also suffered losses in their businesses. Pakistanis waited and then suddenly started buying generators for private power generation. Question is who is responsible for this change?

To run these generators purchased privately by the people of Pakistan, more gas more petrol and more diesel is required .So import of diesel increased. The petrol pumps which were running in losses started earning profits by selling diesel and petrol to the users of generators.

It was better to pay to the IPPs to have energy at full capacity rather forcing the people of Pakistan to work out their own power plans. Our country could have saved millions of dollars in this regard if better planning was done.

Benefits of Generators

- (a) No more loss of production.
- (b) Quality of production is maintained.
- (c) Exports are not delayed.
- (d) Efficiency is maintained.
- (e) Trained labour never quit.

Cost of Using Generators

Decrease in Profits

A recent survey of 150 CNGs in Gujranwala city clearly showed that the use of generators increased the earnings of the CNG owner's. Secondly it is also clear that by using generators 5 percent of total cost is increased as compare to the period when station was running only on electricity. It also showed that use of generator decreases the net profit of CNG owner by 25 percent.

In another survey of 30 units of power looms industry in Gujranwala showed approximately the same results. A very interesting feature was found. Because this is a small cottage industry, entrepreneurs hesitate to buy generators. They prefer to install more machinery. More machinery in lesser period of time maintain the same level of production. But the labour is not happy their wages are based on per piece or per yard formula .So they quit that industry and go to the one which has generator. Moreover in order to maintain production labour is forced to work 7 days a week.

Increase in Pollution

Use of generators in factories, homes, shops etc. will pollutes our atmosphere and there will be noise of engines and smoke everywhere.

DEMAND AND SUPPLY ISSUES

Causes of Demand Increase?

(1) Rise in Agricultural Demand

The upward trend of diesel prices motivated the farmers to use electric motors in their tube wells rather using peter engines. Agriculture demand increased from percent to 7 percent of the total usage in the last 5 years.

CNG Industry (New Arrival)

In the last 10 years CNG industry has emerged as an important industry of energy sector. It has reduced country's reliance on petrol which had a major share in import bill. More than 2800 CNG stations are in service to provide fuel to more than 80 percent of private vehicles in Pakistan public vehicles like Toyotas are also converting to CNG rapidly. On average one CNG station use 40000 units of electricity per month as compare to a petrol pump of double size which consumes only 4000 units per month.

Social Impact

In the past people of Pakistan lived in the form of big families. Now trend is changing. One home and one family is the common slogan. More houses, colonies are being built. More people love to go for shopping so new shops and shopping malls can be seen in all parts of big cities. People like to eat food in restaurants at least once a month, so we can see many kinds of food chains, restaurants and hotels .All need electricity so usage is increased in commercial areas as well.

Luxurious Life Style

Today, Families like to have separate bed rooms for each member. More air conditioners are being installed. In the past, one family had only one big room where all family members used to sleep. That was economical and loving .But now every family member runs AC in his separate room. That trend has created a big demand for electricity.

Increase in Population

Although it is first case of increase in the demand of electricity. But actually the use of electricity is mostly governed by the life style of the people. On the basis of population, 10 percent per anum increase of new electricity connections was observed.

Lack of Peace and Security

In Pakistan people don't feel secure even when they are in their homes. In the past, all rich and poor families use to sleep outside in the courtyard or lawn of the house with one or two fans working. But due to the risk of being looted or killed, people prefer to sleep in their locker rooms where air conditioners are necessary. This trend has also led to very high usage of electricity.

Bank Financing

People dream and want to live a luxurious life. Banks made it possible for everybody by financing houses, cars, households and other accessories. The slogan "Every thing for everyone" created a big economic activity. Use of electricity, petrol and diesel increased by many folds .But in the end, people lost everything in this chase.