

ASPIRATIONS FOR THE NEXT 50 YEARS

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Energy security and our future

CONTINUED FROM PAGE 9

Of course, these innovative ideas will not give cheap power, but it must be clearly understood that once Bangladesh has opted for import dependent power generation, cheap power is no longer possible. Electricity in Bangladesh will always be 25-50 percent more expensive than that of the world average. If we accept that reality, then renewable electricity can be a viable option for Bangladesh. If we focus on conservation and energy efficiency, then the high cost of electricity can be offset to the extent that Bangladesh can compete in the international marketplace with products made using renewable electricity.

With respect to renewable electricity, Bangladesh can also explore wind and



innovative models, up to 1,000 MW should be possible. Similarly, biomass energy should also be able to give Bangladesh 1,000 MW of electricity. As the rural population shift to modern fuels such as kerosene and LPG for cooking, significant quantities of biomass will be available for energy projects. These may not be much in terms of the government's planned 40,000+ MW by 2030, but these are domestic resources, and hence, tremendously enhance energy security.

If we analyse the performance from the point of view of constructing facilities for fuels import and improving the internal fuels handling and transportation infrastructure, the government has done a good job. By opting for two FSRUs and a land-based regasification plant for gas import and three sea channels (at Matharbari, Payra and Ramphal) for coal import, the government is ensuring the future smooth supply of gas and coal. The rate at which oil handling and transportation infrastructure was developed to supply furnace oil and diesel to power plants all

over the country is truly commendable. Building power plants to get rid of load shedding and take the generation capacity from 6,500 MW to over 20,000 MW was also a great success. Probably the biggest success of this government is the power import from India. If this can be augmented with hydropower import from Nepal and Bhutan, then we would certainly achieve greater energy security. The addition of nuclear power will no doubt bring fuel diversification to the future energy mix for power generation giving greater energy security, but concerns over accidents, fuels supply security and disruption and radioactive waste disposal will continue to plague us for a long time.

SUSTAINABILITY

The robustness of the economy and the energy system determines the sustainability of energy security. In terms of economic growth, Bangladesh has achieved a GDP growth of over 8 percent last year. If such growth can be continued, then energy security will be ensured because what is important is whether the government

has enough funds to import fuels and maintain their supply. In terms of energy infrastructure, the assessment is mixed. While the electricity generation facilities are excellent, the transmission and distribution infrastructure are below par. The gas network is also not up to the mark. The full quantity of contracted LNG that can be supplied from the two FSRUs cannot be brought to the demand centres because a much-needed pipeline has not been completed. If industrialisation is to spread throughout the country, gas infrastructure must be expanded and improved. The economic growth that we are experiencing is principally public sector infrastructure construction driven boosted by remittance and the growth of the agriculture sector. There can be no doubt that for growth of the economy industrialisation is essential. Recent data shows that industrialisation has dramatically slowed down, the banking sector and the share market are both under great stress. These must be rectified if sustainability of energy security is to be achieved.

AFFORDABILITY

In terms of affordability, the situation is far from being desirable. The prices of both electricity and gas have increased several times in the last 4-5 years. If this trend continues then the prices of gas and electricity will hurt industrial growth. The government however must be praised for providing a lifeline tariff for electricity to the poorer customers. The grid has surplus capacity, but industries continue to use captive generation, and have no eagerness to buy from the grid. Large industries, those that have captive generation, have categorically told BPDB that they are not interested in purchasing unreliable electricity. Thus, the best customers are outside the grid. This has serious financial implications for BPDB.

ACCESSIBILITY

The efforts of the government to provide electricity to 100 percent of the population has a very positive implication for accessibility. Today, in any corner of Bangladesh, people can get electricity, diesel/kerosene and LPG. These are great success stories for the government. Even though the drive for 100 percent electrification has caused diversion of funds from projects to improve the transmission and distribution network for electricity, it is still praiseworthy because providing electricity to rural people has a huge impact on improving accessibility to energy services, which is a big issue in developing countries.

In the final analysis, Bangladesh's energy security is a mixed bag—some achievements have been made but large gaps still exist. The future scenario will depend on how well Bangladesh tackles the threats. The probable issues that may pose as threats are: i) international prices of LNG and coal; ii) the stability of supply which in turn will depend on world stability especially that of the Middle East; iii) economic growth of the country; and iv) good governance both of the country and the energy sector. A very important aspect of governance of the energy sector is manpower development for the nuclear and the supercritical coal power plants.

Bangladesh has opted for a predominantly import based energy sector. The proponents of this strategy cite examples of South Korea and Japan. To what extent such comparisons are justified is highly debatable, but one thing is certain, if we falter in achieving economic growth, our ability to import fuels will be greatly hampered leading to diminished energy security.

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biomass. Even though the prospect of wind energy does not appear to be promising, there are ways to harness wind energy even at difficult locations. Novel design turbines placed high enough can harness wind energy even under the low wind speed conditions. It is difficult to put a number on the capacity that may be developed but with incentivised pricing and using



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