CHAPTER

12

INTEGRATED ENERGY POLICY (2031–32)

12.1 IMPORTANCE

The importance of this policy lies in the fact that for the first time the entire energy sector is brought together in one policy and developing a long term vision. Energy is a key requirement and as investment is scaled up so do energy needs of an economy. Today every sector needs energy be it agriculture, industrial activities or even service sector. The policy gives out energy needs, their sources and the way going forward. Its other importance lies in the fact it is bold in accepting realities and the challenges for the government in future.

12.2 THE POLICY

In terms of the policy, power demand is likely to be a mammoth 8,00,000 MW by 2031-32 as against an existing capacity of 2,00,000 MW (actual generation is only around 1,50,000 MW), requiring an investment of over ₹2,50,000 crore in the power sector only. There has to be exponential increase in additions to the power generation capacity. India has taken 66 years to build its present capacity and it will have to add over 6,00,000 MW in the next 20 years, over more than 1.5 lac MW in each of the nest 4 five year plans, beginning with the twelfth five year plan.

Besides the huge resources required there are structural issues like, one of the highest Aggregate Transmission and Distribution (AT&D) losses of 25 per cent the highest in the world. There are other issues like power thefts which along with distribution losses result in losses to the State Electricity Boards (SEBs), under pricing, mounting losses of the State Electricity Boards and concept of free power.

The Policy has mentioned dependence on coal based thermal energy. 'Coal' would the '*primary*' source of energy accounting for 60 per cent even by 2031-32 and thermal power generation alone accounting for 47 per cent. The proven reserves are not an issue for the present, but quality is a matter of concern. Our present coal reserves are not that which is required in the power plants.

The other issue around coal is complete monopoly of Government in mining and thus the policy favoured reforms in the coal sector opening to private and foreign participation, pricing to be market determined so that scarcity value of coal gets reflected and there is

optimization and efficient use. There was a need to step up 'coal forecasting' as it is widely believed that 'coal potential' in India is over 100 years.

The other source to meet the energy requirement is petroleum which would account for 25 per cent. But the problem here is that it is also non renewable. Besides there is heavy import dependence of presently 70 per cent which is likely to go up to 90 per cent by 2030 making India the third largest importer of crude petroleum after US and China. This would make the economy extremely vulnerable to global price fluctuations besides supply factors in the wake of adverse developments in West Asia.

There is an urgent need to free up pricing of retail petroleum goods in the domestic market so that their scarcity value gets reflected. The government should spread awareness on the need for energy conservation, increasing energy efficiency and lowering energy intensity. There was a need to step up efforts at developing viable alternatives to the growing dependence on oil through R & D. The government should set up a National Energy Fund by levying a cess of 1 per cent on turnover of all companies in the energy sector. Many countries in Europe have already announced a zero dependence on crude petroleum in a given time frame. India needs to do the same. Given the volatility in the international crude petroleum prices the policy has suggested creating strategic reserves of crude petroleum of at least 90 days.

With respect of Hydro power, the policy cautioned on its high cost of power generation and should be promoted after evaluating its impact on ecological imbalances, habitation etc. In any case the full potential is limited to only 1,50,000 MW about 20 per cent of the energy requirement by 2031-32.

Nuclear energy was the source for the future but given the long gestation period in commissioning of such plants, availability of nuclear fuels from other countries and uncertainties in inking nuclear deals, one can expect optimistically any change in the energy mix only beyond 2050. But one should also be aware of its high capital intensity and high cost of power generated, besides the potential dangers of radiation leakages, nuclear waste and their long term impact. It will not be able to meet more than 5 per cent of the energy requirements by 2031-32.

There is a lot of focus on renewable sources of energy like fuel wood plantation, bio-gas, bio-mass, ethanol as they can meet local agricultural and domestic needs cheaply. Wind energy and solar energy are capital intensive with high per unit power cost and would require additional resources. But again they would be able to meet only local requirements, their promotion is precisely for this reason, besides it will promote local entrepreneurs, create local employment and are environment benign. But at the same time their large scale integration in the broader energy requirement framework may not be possible for a foreseeable long time in the future.

12.3 GOVERNMENT INITIATIVES

Planning Commission has been aware of the of this impending need and has begun to give as decisive thrust for increasing power generation capacity since the ninth five year plan. Each subsequent plan has only scaled up planned expenditure for creation of power generation capacities. But unfortunately the targets set out were never achieved. The Ninth

five year plan could achieve only 47 per cent of the targeted level of power addition. The later plans including the eleventh five year plan could not go beyond meeting 50 per cent of the targets. The twelfth five year plan is highly ambitious of adding 88,000 MW in the next five years.

The Government at its level has shown some urgency by announcing setting up of Ultra Mega Power Plants (UMPPs), by the private sector each with a capacity of 4000 MW.

Realizing the importance of coal as a raw material for thermal power plants, it has asked Coal India Limited (CIL), the sole authority to do mining of coal to sign Fuel Supply Agreements (FSA) with power plants to ensure steady supply of coal to them.

The Government has also focused on solar energy, besides exploring the prospects of shale gas as a potential source in the future.

12.4 STRUCTURAL BOTTLENECKS

Thermal power generation, as mentioned earlier, has a major structural problem. The relatively larger role of the State governments through their respective State Electricity Boards (SEBs) where generation, transmission and distribution are all bundled together. Power sector needs unbundling these as separate, distinct and independent activities. There also a need to have market related pricing and a strict power discipline. Power sector has to be kept at arm's length distance from both the State and Central government.

Coal mining has to be opened up to private and even foreign investors to get the state of the art technology, improving mining skills besides moving into a market determined pricing for coal.

Increasing dependence on imported crude oil, needs to be reduced. Amongst the larger economies of US, China and others, India is the most vulnerable to supply shocks and price volatility. What makes it worse is their direct transmission on domestic prices.

Another worrisome factor for India is the low level of awareness of energy conservation and preservation resulting in their excessive use only compounding the problem of growing dependence.

The energy sector has to be viewed seriously by the Government. As and when growth accelerates, energy constraints would become binding. On the whole the policy has sounded pessimistic but then that is the ground reality of the seriousness of the energy sector and would require the government to introspect of the possible solutions to the likely 'energy crisis' of the future.