

Proposals for implementing the energy policy

We are very pleased that the 'National energy policy and strategies of Sri Lanka', published by the Ministry of Power and Energy of the Government of Sri Lanka in February 2006 addresses most issues that are of concern in the energy sector.

In particular, it emphasises that almost half of the total energy requirements of the country are presently met by biomass, while the rest including electricity generation, is mostly met by imported fossil fuel sources.

It goes on to discuss, among other matters, equity in energy supply, energy security and indigenous resources, efficiency and conservation and the protection of the environment.

In this context, we are concerned about the apparent contradictions between the declared energy policy as stated above and some of the decisions that have been announced recently by the Government. One such example is the announcement of the commissioning of a 300 MW coal based power plant at Norochcholai, as the first stage of a 900 MW plant. We do not propose to argue the merits or otherwise of this proposal at this stage, but would like to point out that a similar proposal made a few years ago was withdrawn by the Government in the face of strong public objections. In fact, a court case against the project was settled after the Court of Appeal noted that the Government had decided not to proceed with the project. In any event, the new proposal will need a new Environment Impact Assessment to be produced and made available for public comment before it can proceed, as the parameters defining the project have been considerably changed from those of the previous proposal.

We note that the Government has, in the meantime, approved very generous concessions for another new coal based power plant at Trincomalee. We expect a comprehensive EIA to be presented in respect of the project. We are not aware of the details of the new proposals.

In any event, we are concerned that these are, apart from the proposed generation of 100MW of electrical energy using fuel wood, the only visible plans for the energy sector. They are directly in contradiction with the declared policies of recognising that energy is a much wider subject than electricity, enhancing energy security and energy sovereignty, concern for the environment etc.

We propose that the energy policy as enunciated by the Government be given more credence by a commitment to move towards a totally renewable energy scenario by a defined date. Sweden has already declared that it will totally phase out all fossil fuel based energy sources in fifteen years, and that all energy, including that for transportation, will be from renewable sources. We suggest that in the case of Sri Lanka, the Government sets a deadline of (say) twenty-five years as the timeframe in which there shall be a transformation to totally renewable energy. This should be much more feasible than in the case of a country like Sweden, as Sri Lanka is a tropical country with much more renewable resources and much less need for energy for applications such as space heating.

Such a commitment to move towards a totally renewable scenario can be made achievable by setting interim goals, starting with the (accepted) present use of 50% renewable energy:

2006	50% renewable energy
2011	60% renewable energy
2016	70% renewable energy
2021	80% renewable energy
2026	90% renewable energy
2031	100% renewable energy

This would set the necessary background for any interim commitments to other sources, as they will be understood to be phased out within twenty-five years.

The Government has already accepted in principle a role for Dendro power for electricity generation. This is to be commended. Bio-fuels for transportation is another that needs to be

factored into any plan for energy sustainability. There are other sources that should be considered, including some with a shorter time span for implementation than coal. Wind energy for electricity generation is one such. One estimate of the total on-shore wind energy potential in Sri Lanka is a high 24,000 MW! We need to have an active R & D programme for the development of local capacity in wind turbine design and construction. Solar thermal and solar photovoltaic for specific applications are other options.

If the Government is keen to have a fossil fuel based option to meet base electricity demand for the short term, we strongly suggest that Natural Gas too be considered as an option. Even though it is more expensive than coal, there are other advantages, especially in cleanliness, that might outweigh this disadvantage. If NG is to be considered as an option, we would also suggest that a publicly owned utility be established to operate a gas pipeline that can distribute gas to industrial centres where electricity generation (using the more energy efficient combined cycle can be used) as well as thermal heat recovery can be implemented. This can improve the energy efficiency to about twice that of a large coal burning power plant, thus partially offsetting the price difference. Although private parties may carry out the importation and supply of gas and the operation of electricity generating plant, it is important that the common facility (the pipeline) be publicly owned to ensure that no monopoly conditions arise and that there will be a level playing field for all operators. A gas pipeline from Hambanthota to Katunayake and beyond would be a distinct possibility. Any gas pipeline should be designed to be compatible for conversion to use with biomass-generated compressed gas during its lifetime, as imported Natural Gas will be phased out within twenty-five years.

There is one other option that needs to be pursued before any fossil fuel based generation is considered, even as a stop-gap measure. It is estimated that a considerable amount of electrical energy (equivalent to a substantial installed capacity) may be saved by energy conservation, especially in the hospitality industry. Hotels operate much longer hours than office buildings, have many more services like spa, health club, discos, food outlets, conference facilities etc which are good for doing energy retrofits, compared to office buildings which run 5 days a week for 9 hours a day. A case study is presented on the Singapore govt. web site on the Grand Hyatt hotel retrofit. It is being used as a case study and good example of what has been done. The capital required is reasonable, and the pay-back period is very short. If the Government co-ordinates this activity as major project, it will qualify for carbon credit, and even the modest investment required may be forthcoming through the CDM scheme.

When considering different options, it is necessary to use a multi-criterion strategy giving consideration to all the factors; financial, ecological and social costs, utility, logistics, and form (quality) are all important. Decisions made on financial costs alone are not even financially viable.

In accordance with the Government's declared energy policy, we urge the Government to:

- i Declare the intension of totally phasing out all non-renewable sources of energy within (say) twenty-five years.
- ii Immediately institute a major energy saving strategy as a means of overcoming the immediate problems of the electricity industry.
- iii Stop the implementation of the Norochcholai coal power project.
- iv Review all other fossil fuel based projects, with a view to making them compatible with phasing out fossil fuels in twenty-five years.
- v No subsidies of any sort be given to fossil fuels, instead any subsidies that may be available should be directed to renewable energy sources and their development.
- vi Consider major investments in a mix of all non-renewable sources.
- vii Use a multi-criterion approach to project evaluation.