

'Vision for the Future' vs. the Power Generation Plan

by Asoka Abeygunawardana

'Mahinda Chintana - Vision for the Future', aiming to use Sri Lanka's strategic geographical location effectively to develop the country has emphasized the Energy Hub as one of the 'Pancha Bala Kendra's of Sri Lanka. For developing Sri Lanka as the energy hub "we are seeking to develop our own energy resources" the vision statement says. What are our own energy resources? Those are the potential for oil and gas reserves and renewable energy. There are two planned targets stated in it for tapping our own indigenous energy resources. The first target is "The first ever oil well in Sri Lanka, will be dredged this year. Further, during the next decade, we will harness our own oil, gas and mineral sand resources which could be used to generate nuclear power as well. New oil refineries will be built at Hambantota and Sapugaskanda." The second target is renewable energy where it is stated "The contribution to electricity generation from non conventional renewable energy sources in Sri Lanka will be raised to 10% of total electricity production by the year 2016."

We need to understand Sri Lanka's strategic geographic location in energy terms if we are to tap our real energy potential. Firstly, it is a tropical island located closer to the equator and as such, enjoys year round sunshine. Secondly, there is no land mass south of Sri Lanka until the Antarctic is reached. We need to capitalize on these strengths if we are planning to be the energy hub.

The most prominent energy source for Sri Lanka as a tropical country is the primary renewable energy source the earth has - the sun. From the sun comes solar light and heat. Solar potential is unlimited. However, it is scattered in nature and costly to gather. If we are to think of being the energy hub of the Asia then we need to invest in manufacturing and fabricating sophisticated solar technologies.

The other option for Sri Lanka is to use photosynthesis to generate biomass instead of photo voltaic processes to harness the energy of the sun. "Grow our own energy" as Vidya Jothi Dr. Ray Wijewardana and Mr. P. G. Joseph say. The potential for dendro power is more than 900 MW in Sri Lanka if a proper plan is implemented for growing Gliricidia and other recommended species. In the previous version of the Mahinda Chintana there was a special reference to this resource "Dendro energy projects will be developed in the dry zone as a rural industry." Thinking from a rural industry perspective, capital costs can be drastically reduced if proven technologies for biomass combustion and biogas generation are transferred to Sri Lanka.

More than a half of the hydro potential in Sri Lanka is already tapped and there are government plans to tap the rest in a reasonable time frame. The vision statement says the following: "The 150 MW Upper Kotmale Hydro Power Station will start generating by June 2011. Plans have already been completed to start the construction work on the 120 MW Uma Oya Hydro Power Station and 35 MW Broadlands Hydro Power Station with the next 3 months. Further, the Moragolla Hydro Power Station (35 MW) and Gin Ganga Hydro Power Station (45 MW) will be started within this year."

Wind power is also an unlimited resource. Since the return on investment takes a relatively longer time due to its seasonal nature, a gradual increase of wind power plants for a capacity of 300 MW would be realistic and appropriate. The off shore energy potential of Sri Lanka is enormous. Mahinda Chintana- Vision for the future says: "I believe that we can now lay claim to a sea area 23 times larger than the total land area of our country. The resources arising from this vast ocean area will benefit our future generations, and I am proud to have been able to achieve such as outcome." The energy in the ocean includes oil and gas reserves, wind, wave, OTEC, ocean currents and other energy potentials. Wave energy is a stable source and its plant factor is more than double when

compared with wind power. Stable wave power exists as there is no land south of Sri Lanka and is an excellent way of using Sri Lanka's strategic geographical location effectively. It is possible to be a world leader on this front if proper attention is paid to this resource.

The Energy Policy of Mahinda Rajapaksa regime also emphasizes the need of depending on indigenous energy resources. It says "indigenous energy resources will be developed to optimum levels to minimize dependence on non-indigenous resources, subject to resolving economic, environmental and social constraints. Minimum dependence on non-indigenous resources and optimum development of local energy resources will minimize the vulnerability of energy supplies to external factors such as the international socio-political environment. Further, it also eases pressure on the country's balance of payments."

For ensuring energy security the policy document goes on to say "The use of biomass will be promoted by elevating its status to a modern, convenient energy source. Fuel diversity in electricity generation will be ensured through diversifying into generation technologies that do not use oil or fuels for which the price is indexed to oil prices."

Despite all these principles, policies and strategies of Mahinda Chintana; due to constant pressure of a few narrow minded energy experts, the government has artificially included coal power in its future plans. Coal power violates all the above mentioned principles, policies and strategies. We have no coal reserves on Sri Lankan territory. Coal is not one of our own energy resources. Sri Lanka cannot be a true energy hub if we are to establish 3300 MW of coal power plants in Sri Lanka by 2020. Fuel diversification is not there if we implement the coal dominated power generation expansion plan of the utility. The recent fluctuations in coal prices clearly show that coal price is indexed to oil prices. It is also the dirtiest power generation on earth polluting the environment in numerous ways and contributes to global warming. Coal will maximize the vulnerability of energy supplies to external factors such as the international socio-political environment. Further, it also increases pressure on the country's balance of payments.

Why do we go for coal power then? Only one reason: the pressure of the coal lobby. The coal lobby during the last two decade has cooked figures to show that coal is cheaper than our own energy resources. The concept of cheap clean coal is a myth propagated by certain energy experts with vested interests. Those experts are pretending to be the only energy experts in Sri Lanka for everything and anything to do with energy: fossil fuels, renewable energy, energy efficiency, regulation, and financial modeling. They do the studies both for the utility and for multi lateral agencies operating in Sri Lanka for reviewing and cross examining such studies. This whole process has become a joke now and is not entirely unlike getting a wolf to guard the chickens.

It is the time for politicians to recheck whether the generation expansion plan is in line with the principles of the Mahinda Chintana program. The government should prioritize getting the services of honest energy experts who love the country to review the existing plans and not the services of so-called experts with vested interests who love money. If this does not happen soon, the government will get caught in the usual traps of the well organized coal lobby operating heavily in Sri Lanka. Once the Norochcholai coal power plant phase 1 is commissioned in the coming months the true cost and quality of imported coal, the cost of environmental standards to be maintained and the cost of unloading coal in rough sea will be revealed. Hence it is advisable for the government not to rush into implementing the next phases of the west-coast coal power plant and the 500 MW east-coast coal power plant and adopt a "wait and see" attitude before taking a decision on the future coal projects.