The Sampur Saga - II
The insanity of adding any more Coal Power Plants

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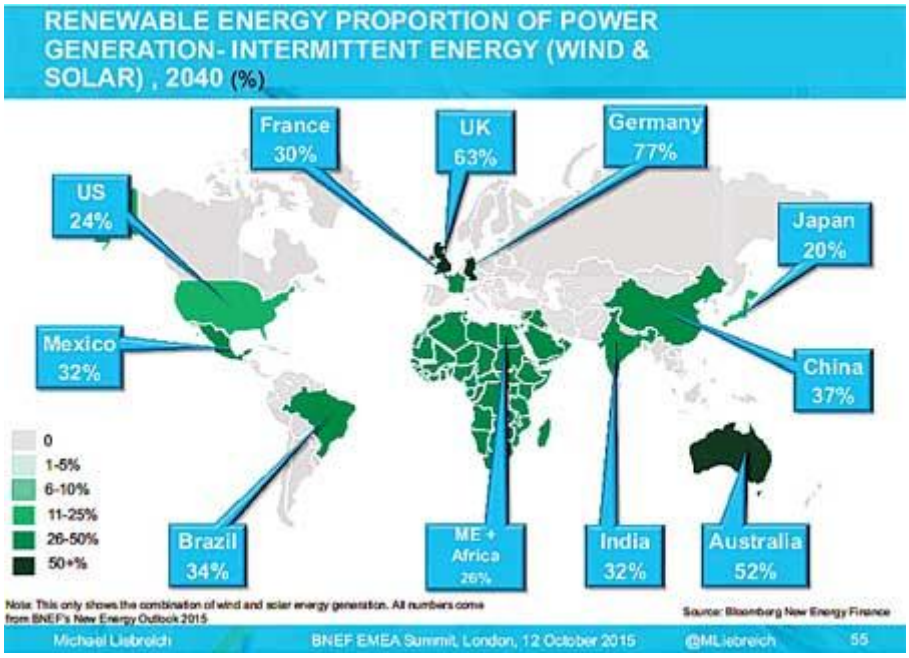
(Part I of this article appeared yesterday)

The Alternatives available

While there are many renewable energy plants by the private developers have been approved and should come on line shortly, the CEB itself is planning to install 100 MW of wind power in Mannar Island which is a step in the right direction. The balance potential in Mannar alone is reported as a further 275 MW. All these would add muscle to the National Grid instead of bringing in any more coal power plants. The roof top solar installations are rapidly growing.



In addition, recent developments have provided a most attractive means by which the peak demand can be managed, with much benefits to the Country as well as to CEB. The net metering system introduced several years ago has had the salutary effect of making roof top solar power installations financially viable as well as building up the confidence of a diverse group of consumers to adopt solar power. At present over 1000 such installations have been commissioned with 9 MW of cumulative capacity and the demand is growing. Even the ardent supporters of the coal option agree, that every unit of power form Solar PV replaces the same from oil based power and saves the equivalent amount of water in the major reservoirs. Same is true for Wind and other renewable resources. Thus the CEB has the attractive option of retaining the water in the major hydro reservoirs for use during the peak hours as well as to mange any sudden fluctuations in demand. Hydro power plants are as nimble as a ballerina and are the chosen means of system control due to their quick responses. Sri Lanka is very well placed in this regard with

some 1361 MW of CEB owned hydro power capacity. The question remains why this facility is not being used. Is there some impediment that we don't know? If so it is high time that the CEB exerts its full capacity to optimize this option.

While this trend may not be found very attractive to the CEB due to the fact that it is the high end consumers who install these units, a recent development has opened a new avenue by which the interest on roof top solar can be converted to a win - win situation. That is the introduction of the "Power Wall" battery storage system by Tesla Motors of USA. While there are many other manufacturers in the market with perhaps even cheaper options, the entry in to the market by this highly recognized company who manufacturers the Tesla Electric Car, reported as the world's best motor car, would create a quantum jump in the acceptation of solar and wind power storage. This will iron out for good, the often repeated lament by the utilities over world, that solar and wind power are not firm and therefore cannot be depended upon as a major component in the energy mix for a national grid. This has been proven as a false claim in many countries some of which have already reached 100% renewable energy status, while many have concrete plans to do so in the next decade.

For us in Sri Lanka , the requirement is as much smaller battery system than the 10 kWh unit introduced by Tesla, to manage the peak load in a typical house hold. I understand that even those with a monthly consumption of 180 kWh could find a solar PV system with such storage economically viable. Tesla has predicted that with the commissioning of their Mega Factory the prices of the battery system could drop by 50%.

Thus if we can encourage the installation of such systems by the high end customers with the provision to get off the grid during the peak hours using the battery storage, they would be making a great contribution to the CEB and the nation. The recent action to introduce the Time of Day metering system for the house hold sector, although implemented with different motives by the CEB, would make this option even more attractive to such customers.

The Human Factor

A recent Supreme Court ruling has banned the implementation of a 10 MW dendro power project in the south on grounds that it is located too close to the Yala national Park and would hinder the movement of elephants and other wild animals. How come that the well being of human beings does not come into the picture, when installing coal power plants? We have already sacrificed the health and well being of thousands in the vicinity of Norochcholai and are now attempting to do the same for not thousands more but the whole country, with the proposed Sampur project as the two locations combined would most effectively spread the toxins throughout the country well supported by the two monsoons. This was vividly illustrated during the public hearing on the LTGP and the presentation is available on the PUCSL Web. www.pucsl.gov.lk

What is the extent of this impact?

The 900 MW Puttalam Plants and the 1000 MW of Trincomalee Plants when in full operation will generate annually 6,300 GWh and 7,000 GWh of electricity, respectively. Therefore these two plants will jointly release annually.

• 1.6 t of mercury,

• 1.5 t of nickel,

• 1.5 t of chromium,

• 2.9 t of lead,

• 4.3 t of zinc,

• 1.0 t of arsenic,

• 0.4 t of cobalt and

• 0.07 t of cadmium to the soil, all of which are health hazards.

Plus of course the oxides of sulfur and nitrogen released to the atmosphere and the 1844 tons of ash collected (288 tonnes per day or 78.8 kt annually from each of the 300 MW plant (Puttalam Coal Power Plant - El A Report, 1997). with no ready means of disposal The impact of releasing these quantities of heavy metals to the environment needs to be studied and the possible, nay the certain impact on human health and environment has to be included in the Environmental Impact Assessment studies most diligently. Will this ever be done in the unholy haste with which the Sampur coal power plant is being pushed for no earthly reasons, as shown above? Sri Lanka certainly does not need it, and the only reason one can fathom is that we are once more being bulldozed by India, so that they can get the power and we can keep the pollution.

It is evident that none of these toxins were considered when the Norochcholai plant was approved by the North West Province Environmental Authority who were called upon to issue the environmental licenses instead of the Central Environmental Authority, and the public are kept in the dark even on the amount of emissions from the plant, and whether any mitigation measures imposed by the EIA if any, are being followed by the plant operators. It must be considered a basic human right of the people around the plant at least to be kept informed of these data.

The World Trends

The whole world is moving away from fossil fuels and a recent study has published the following scenario

This is in the backdrop of the COP 21 of the UNFCCC due to be held in Paris in December. The writing is on the wall that no country will be allowed to emit GHG gases at will, even if they are developing countries like us. Each country was required to submit its own projections for mitigation of emissions which would be debated at the meeting. As both

India and China have offered very substantial reduction of the order of 30% or more, we can be certain that Sri Lanka too will have to accept some commitment for reduction, and not for large scale additions to the current levels which would happen if the proposed coal power plants are implemented.

Sri Lanka should at least wait until the outcome of the Paris conference is known before taking any steps with regard to Sampur. We might find that we are not allowed to implement it due to international pressure, even though the very rational reasons to abandon same are ignored by the local electricity authorities who have been misleading the policy makers for many years now.

Therefore it is high time that the Ministry of Power and Energy insist that the CEB should go back to the drawing board before it is too late, and avoid the national disaster of installing any more coal power plants including the Sampur plant, which appears to be driven by a political agenda rather than by a real need.

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