

Report of the Institution of Engineers of Sri Lanka —

No alternative to coal for bulk power generation

The Institution of Engineers Sri Lanka (IESL) is of the view that there is NO FEASIBLE ALTERNATIVE to coal for bulk power generation, in the short to medium term (i.e. over the next 10 years).

In the longer term, other economic options are very likely to emerge. IESL strongly recommends that the Government and Ceylon Electricity Board continue to review the economics, environmental impacts/trade-offs and socio-economic benefits of other technologies, and the experiences of other countries in bulk power generation.

The Most Appropriate Source for Power Generation in Sri Lanka

Coal-fired power plants provide the largest share of baseload power requirements in most countries in the world. A coal power plant can generate electricity at an estimated all-inclusive life-cycle cost of 4 UScts/kWh. Coal prices are stable, and proven coal reserves are available for a further period of some 300 years.

All other fossil fuel options (Diesel, natural gas, etc.) for electricity generation cost more; estimated to be higher than 5.6 UScts/kWh, and their fuel prices fluctuate widely.

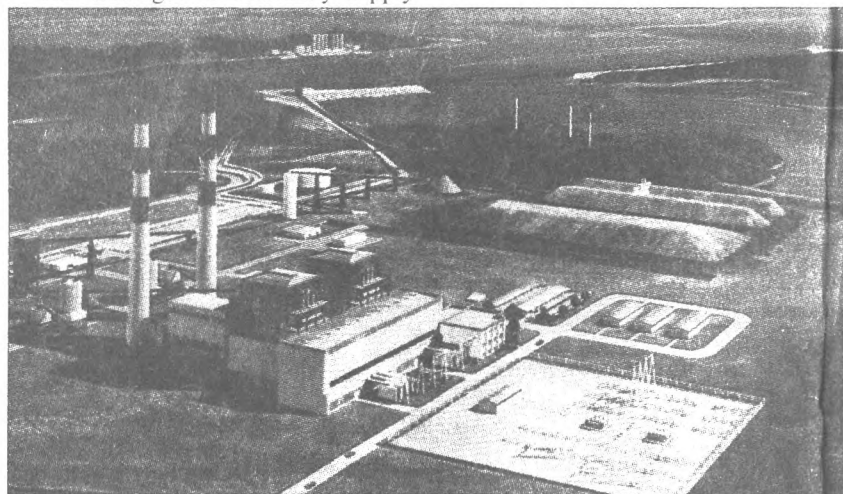
The entire growth in demand for electricity in Sri Lanka in the future would have to be provided from non-hydroelectric power plants. Therefore, the fuel and technology of new thermal power plants should ensure a reliable, low-cost electricity supply.

IESL strongly recommends the immediate development of coal-fired power plants to provide a reliable elec-

tricity supply at a competitive price, so that our households will be able to afford their electricity bills and our industries and commercial buildings can provide competitive products and services.

The Urgent Need to Commence Construction

The shortages of electricity supply



A coal-fired power plant

experienced by our country from time to time, including the present crisis in year 2001, is attributed to the delay in implementing projects to build power plants to satisfy the fast-growing demand.

Plans published by Ceylon Electricity Board (CEB) initially specified that the Trincomalee Coal Power Plant should be operational by year 1995. In spite of the full-scale feasibility study conducted, this project never materialised, owing to a mix of reasons, which included the reluctance of the Bankers to back the project based on perceived security

constraints.

CEB plans then specified that Mawella in the South should be the location of the first coal-fired power plant, to be operational by year 1999. This project, even before a full-scale feasibility study was conducted, was suspended in 1992 by the then President of Sri Lanka presumably as a result of protests from

of the National Environment Act have been obtained for this site. CEB has also announced that the Japanese Government has offered a concessionary loan to build the first 300 MW stage of the power plant.

In view of the urgency to meet the fast-growing demand for electricity at the lowest possible cost, IESL strongly recommends the implementation of the coal-fired power plant at Norochcholai without further delay. CEB has already predicted a power crisis in year 2004, owing to its inability to commence construction of the Norochcholai power plant in 1999.

Other Sites for Coal-fired Power Generation

IESL accepts the view that there may be other sites in the country that can accommodate future coal-fired power plants, particularly sites with a shorter jetty than at Norochcholai to unload coal.

While recommending that Norochcholai should be developed immediately owing to the urgent need for the country to commission a coal-fired power plant, IESL strongly supports the view that other sites including Mawella should be immediately re-examined through full-scale feasibility studies. It is understood that the CEB projections indicate that a second coal-fired power plant must become operational by year 2011.

The IESL strongly stresses that unless very early action is taken to increase the availability of electrical energy, the socio-economic impact on the country will be disastrous.

20th June 2001 Island