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STATUS OF INDUSTRIAL ENERGY CONSERVATION
AND
MANAGEMENT IN ZAMBIA*

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* The views expressed in this paper are those of the author and do not necessarily reflect the views of the Secretariat of UNIDO. This document has not been edited.

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1. INTRODUCTION

Energy Conservation in Zambia started in 1983 when the Department of Energy in the Ministry of Power Transport and Communications became fully operational. This paper gives a brief outline of the activities that have been undertaken since then. It presents a few typical results of the programme in addition to the overall national policies as well as the barriers to energy conservation.

2. INSTITUTIONAL FRAMEWORK

2.1 Government Policy on Energy Conservation

Over the years, imports of petroleum products alone accounted for about 25% of the value of total imports into the country. It, therefore, became necessary for Government to establish some mechanism whose ultimate objective would be to reduce the current oil import levels from 25% to about 10% to the total value of imports.

It is in this light that the current policy of Government on energy conservation is directed at identifying and implementing all practical energy conservation opportunities wherever they exist. This is more so as outlined in the Fourth National Development Plan in which it is clearly stated that the national energy sector objectives are to:-

- a. ensure that supplies of energy meet demand;
- b. promote the efficient use of energy in the economy;
- c. conserve energy particularly oil wherever practical and economical;
- d. substitute imported forms of energy particularly petroleum products by hydro-electricity and coal wherever practical and economical;
- e. allocate resources within the energy sector to areas yielding the greatest social and economic benefits;
- f. exploit opportunities for inter-change of energy with neighbouring countries for mutual benefit;
- g. improve the supply and utilization of woodfuels both for industrial and domestic use; and
- h. minimize environmental damage of energy production and consumption particularly woodfuels.

The above objectives in so far as they apply to energy conservation will be met through the general strategy of intensifying all efforts to identify opportunities to increase the efficiency of Petroleum use in industry and to promote the replacement of oil with electricity as well as allowing appropriate prices for energy products and promoting Research and Development in the local manufacture of materials, equipment and appliances used in the energy sector.

2.2 Energy Conservation Centre

In 1982 the Government of Zambia established the Department of Energy, in the Ministry of Power, Transport and Communications to primarily provide technical expertise in the interpretation and in implementation of national energy policy. The DOE is currently the focal point for the development, co-ordination and implementation of the on-going national energy conservation and management programme. All the other institutions involved in energy conservation issues work very closely with the DOE. The major energy users and suppliers provide all the data necessary for the on-going development of a computerized energy data bank/base.

3. ECONOMIC FRAMEWORK

3.1 Electricity and Fuel Pricing

For a long time the pricing of electricity did not reflect the actual cost of production. It has all along been heavily subsidized. With the current economic policies that have been adopted by Government it is expected that the distortions that are brought about by subsidies will diminish. However, in effecting price adjustments, the changes would have to be structured in very gradual sequence since any excessive price increases would have a negative effect on the utility.

The pricing of petroleum products on the other hand is based on the recovery of acquisition and transformation costs plus a certain profit mark-up. The recent price decontrol measures that are in effect now, have not brought about any severe fuel price adjustments. It is expected that the situation will stabilize at certain levels which will be beneficial to both the consumer and supplier.

4. LEGAL FRAMEWORK

4.1 Laws and Regulations

All the existing energy legislation is primarily associated with the establishment of energy supply institutions. For instance the Electricity Act, CAP 811 of the Laws of Zambia deals mostly with rules and regulations governing the production and supply of electric power to consumers. It spells out the requirements that an electricity undertaker would have to comply with before he can be authorized to generate, distribute or sell his electricity.

It is, therefore, fair to say that as of now there are no punitive pieces of legislation designed to control the use of various forms of energy. At the same time it is important to mention that steps have now been taken to establish a mechanism through which all the energy related legislation as it exists now will undergo a thorough review aimed at making major changes to introduce sufficient scope in order for the law to adequately cover the energy sector.

4.2 Tax Incentives

At the moment there are no special tax incentives aimed at promoting energy conservation per se. Here again it is expected that after the completion of the current phase of the energy conservation programme, sufficient details upon which major tax incentives could be developed, will become available. The exact scope of the package, will to a large extent be based on the overall impact an energy conservation programme would have on the national economy.