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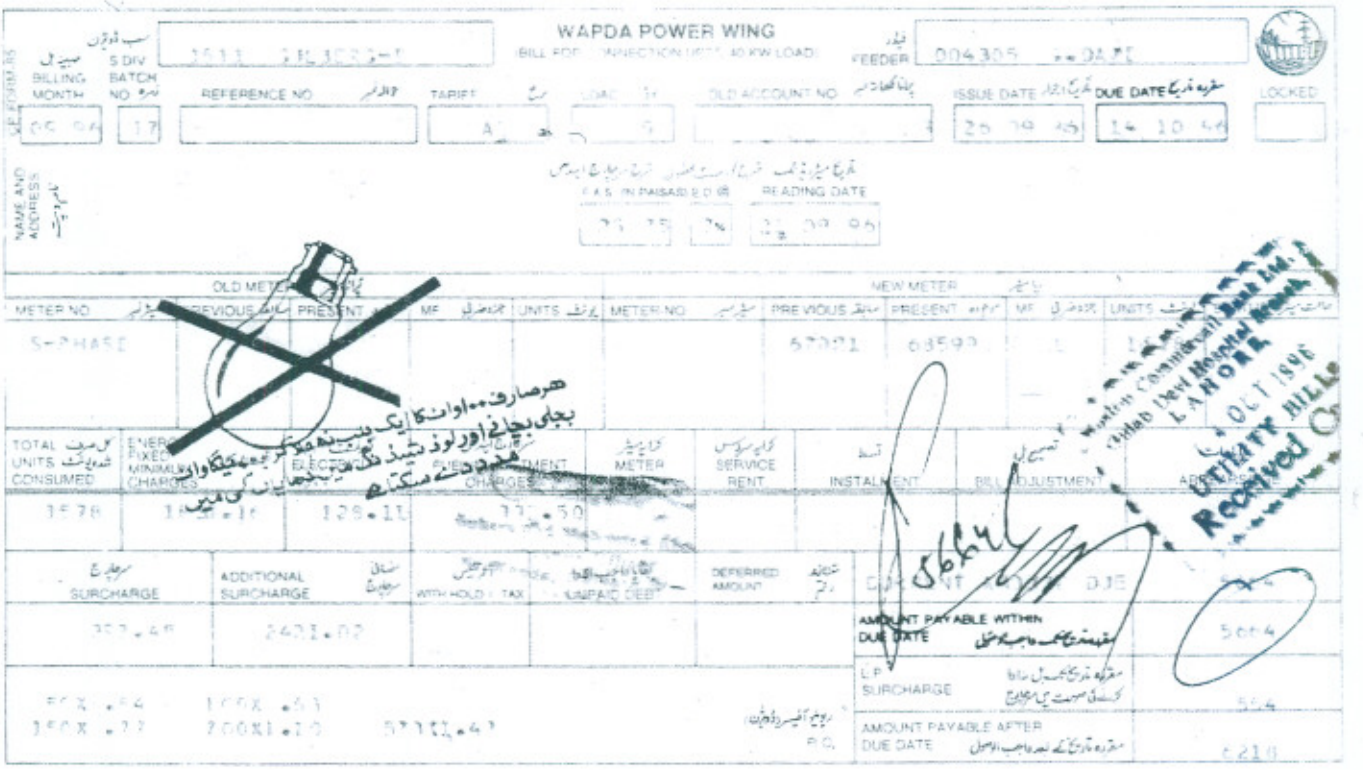
SYMPOSIUM
ON
IMPACT OF POWER POLICIES
ON
SOCIAL AND PRODUCTIVE SECTORS

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The Pakistan Engineering Congress as a body does not hold itself responsible for the opinions expressed by different authors in this Volume

Compiled and Edited

By

Engr. Ch. Ikram Ullah

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KEY NOTE ADDRESS FOR SYMPOSIUM
ON
IMPACT OF POWER POLICIES ON THE SOCIAL AND PRODUCTIVE SECTOR
BY
Engr. Ch. Ikram Ullah(*)

The Power Sector is the back bone of the Country's infra-structure. Without Power neither agriculture nor industry can develop. Therefore a healthy power sector which can supply electricity at reasonable cost is a pre-requisite to the country's development.

Pakistan power sector has had a tremendous growth in the last four decades, starting from a base of 422 MW in 1960 the current installed capacity is 12,778 MW. yet at international standard we rank as one of the World's poorest country regarding per capita consumption of electricity.

During the year 1992-93, however severe Load Shedding of the order 0f 2,300 MW was experienced and this created a fear in the Government Circles, that if adequate measures are taken now load shedding would increase so much as to cripple the National economy. According to World Bank estimates, the load shedding and black outs costs the Pakistan economy almost one billion US $ per year. Furthermore, only a half of the population has access to power and the per capita consumption remains very low at 300 KWH. It was therefore assumed that on the Supply Demand Scenario Pakistan will be facing continued supply inadequacies for several years.

Government of Pakistan therefore took notice of this extremely serious situation, and constituted a task force for energy to suggest measures and prepare incentive package for attracting private sector investment in the power sector so as to increase the installed capacity rapidly by adding at least 3,000 MW in the private sector With this back-ground

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(*) Managing Director (Power), Pakistan Water and Power Development Authority.

adding at least 3,000 MW in the private sector With this back-ground Private Power Policy (For Thermal Generation) was announced in March 1994 giving very liberal incentives to the investors.

Introduction of Private investment in the power development sector though a well come step, also created doubts and fears in the minds of general consumers / organizations as it was feared that the package when put to practice will cause considerable increase in electricity tariffs and will force inflation.

Pakistan Engineering Congress therefore picked up this vital subject of National Importance as their topics for its annual symposium and invited papers to study the impact of Power policies on social and productive sectors.

Six papers from eminant Professionals representing various groups have been included in the proceedings of this symposium. The papers listed will place on record the features of the policy package, its critical appraisal, analysis and impact on the social and productive sectors.

The Private Power Policy has resulted in issuance of letter of support for about 7,500 MW of Thermal Power using imported oil. Furthermore an MOU was signed with M/s CEPA for 5,700 MW of Power at Keti Bunder in Thatta, using coal, where a sea port is also to be developed. This plant consists of 8 Units, the first two units will use imported coal and will be commissioned in 1999-2000. The other six units are expected to use local Thar coal and will be commissioned at the rate of 2 units every year. Of the projects using oil as fuel, 16 are claimed to have attained financial close, and are expected to be commissioned in 1997-98. They represent a total capacity of 3,523 MW of which 660 MW is located in KESC area and the balance will supply power to WAPDA.

As most of the Private Sector Power Plants are based on imported oil, the fact is that as the power production goes up we will need for more foreign exchange not only to import more oil but also to pay the profit sent home by the investors. In addition effective steps will have to be taken to prevent increase in pollution and threat to the environment

ENERGY CONSERVATION

The country's energy imports are likely to continue, making energy conservation and exploration of alternative energy sources imperative for both economic and environmental reasons. Energy conservation is therefore the quickest and least costly way to cut the energy costs, stretch energy supplies and save foreign exchange. It is basically an increase in the efficiency of energy use through waste reduction, fuel switching and Cogeneration. It promotes economic efficiency by improving the engineering and management capabilities of energy using facilities and increasing their profitability and competitiveness. Hence energy conservation means using energy wisely so that we are able to stretch our national resources over a longer period of time. The recent increase in the price of Electricity / energy have spurred interest in energy conservation. Effective policies for saving energy have been adopted and with the implementation of these policies energy consumption in many industrial plants have been drastically reduced.

EFFECT ON CONSUMER TARIFF

The tariff for sale to consumers have been increasing rapidly over the last five years in real terms and this seems to be accelerating. Over the last 3 years total increase of 75 % of the average tariff has taken place. This has resulted in consumer complaints and the tariff has become a matter of concern for the Government. Currently the average tariff stands at Rs. 2.35 / KWH. In the power purchase agreements a general tariff of 6.5 cents / KWH have been agreed to be paid in US $ and risk of devaluation is passed on the WAPDA / KESC, this will cause further increases in tariff.

DEVELOPMENT OF MULTI-PURPOSE HYDEL PROJECTS

We all are fully aware that water is the main resource of our country but unfortunately, we are not making optimum use of this abundant natural resource and 38 million acre feet of this precious commodity is following into the sea unutilized. We claim to be an agricultural country but

unfortunately, per acre yield in our country is far less than most of other countries. Besides this, we have a soaring population growth rate of 3.1 % per annum because of which our population is going to touch the 15 crore mark by the turn of this century. We need to bring more area under cultivation otherwise the import bill of food is going to rise enormously. We should ensure that water from our rivers should go to our fields for irrigation which are going barren because of lack of water rather than letting it flow to the sea unused.

We believe that the construction of storage dam is imperative for the cheap generation of power as well as additional storage of water which has decreased by approximately 3 million acre feet over the years because of silting in Warsak, Tarbela and Mangla dams. The availability of cheaper sources of power is also necessary for the industry because only in this way it can counter the competition from all over the world which we have to face due to the implementation of GATT / WTO. Additional irrigation water is also required for intensive and extensive cultivation in Punjab and other areas of Pakistan.

CANAL BASED SMALL HYDRO PLANTS

There is a huge potential of electricity generation through small canal based hydro plants. Similarly non-traditional avenues of power should be explored. As Pakistan is an Agricultural country, agricultural waste should be utilized as an energy source. Furthermore, bio-gas, solar energy, wind and tidal energy may be tapped and exploited.

A large number of industries are wasting fossil fuel to generate low pressure steam or hot water for their industrial requirements. All such industries like textile, sugar etc. can generate power together with hot water. We have not been able to co-generate electric power so far but we should explore this source of energy. The units, which have potential to co-generate electric power, should be given incentives to install power generation plants at their premises.