



Current Status of National Energy Sector of Pakistan and Overcoming the Energy Crisis in Future: An Overview

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Abstract—Pakistan is facing a severe energy crisis from the last two decades due to its greater dependency on fossil fuel based thermal power generation. Most of the power is generated from natural gas, re-gasified natural gas, and high furnace oil. Pakistan has limited oil and gas reserves and is insufficient to meet the demands of industries, thermal power plants, cooking, heating, oil. About 63% power of the total energy mix is generated from thermal power plants while only 23% from hydroelectric powerhouses. The share of renewable energies was negligible up to the year 2016 while in developed countries like the United State of America, Japan, Germany, and China. most of the power is contributed to renewable sources. Unfortunately, in Pakistan energy policies have been made several times but have not been implemented fully. Many types of research have discussed the energy scenario of already operational power plants. In this paper, an overview of the current national energy scenario of power sector of Pakistan has been highlighted. Enhancement due to newly operational power projects, commissioned under the umbrella of China Pakistan Economic Corridor (CPEC) is also presented. The energy mix for the year 2018 is compared with last few years to investigate the trend of dependency of the energy sector on renewable sources. Performances of transmission and distribution companies are also evaluated. In the last reforms, and suggestions are recommended to overcome the energy crisis of Pakistan.

Keywords—energy crisis, thermal power, renewable energies, energy policy, energy mix, hydroelectricity