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Expand renewable electricity supply: WB

ISLAMABAD: The World Bank has advised Pakistan to go for urgent expansion of renewable electricity supply by giving it preference over all other fuel sources — including domestic and imported coal — for energy cost savings and environmental benefits.

The WB has promised to support such an initiative through its own funding and garner strong international support through "climate finance" to facilitate transition from fossil fuels to renewable energy, particularly solar followed by wind.

This is part of a new 'Variable Renewable Energy (VRE) Integration and Planning Study' launched by the World Bank asking Pakistan to "quickly implement a major scale-up of solar and wind generation" to achieve a share of at least 30 per cent of total capacity by 2030.

This would help lower the cost of power, achieve greater energy security, and reduce greenhouse gas (GHG) emissions. The move would save Pakistan $5bn billion costs over the next 20 years mainly from reduced fuel consumption.

"We stand ready to support Pakistan in achieving the goal of affordable, reliable power for all by 2030," said Najy Benhassine, World Bank's Country Director for Pakistan at the launch of the study.

"A large and sustained expansion of solar photovoltaic and wind power, alongside hydropower and substantial investments in the grid, is both achievable and desirable," he said adding this would lead to immediate and long-term economic and environmental benefits, enhance security of supply and position Pakistan at the forefront of the global energy transition.

According to the study, many sources of fossil fuel generation were no longer competitive and should be retired or their use significantly reduced. This includes domestic and imported coal, which is not economical over the next 10 years compared to VRE and has the additional downsides of GHG emissions, air pollution, and use of scarce water resources.

The study, based on an hour-by-hour analysis of all generation options, finds that a substantial and immediate scaling up of VRE capacity represents a "least-cost" strategy for expanding capacity in Pakistan, including consideration of the costs of integrating the variable supply from solar and wind.

Short term reductions in demand growth — even a stagnation in demand as a result of the ongoing Covid-19 pandemic — does not impact this finding, and the country's energy policy needs to be considered over much longer time horizons. Even allowing for the relatively short development and construction times associated with solar photovoltaics (PV) and wind projects, competitive bidding for new VRE capacity and associated investments in the transmission system should start immediately if Pakistan wanted to reap the cost, energy security, and environmental benefits outlined in the study.

Managing Director, National Transmission & Despatch Company Dr Khawaja Riffat Hassan said sufficient investments were needed in the transmission system, including modern automation and control systems and a reliable forecasting system to achieve VRE targets set through Alternative and Renewable Energy Policy (AREP) 2019.

The study said achieving a least cost electricity mix in Pakistan would require a rapid expansion of VRE, reaching at least 20pc of installed capacity by 2025, and at least 30pc by 2030 as targeted under AREP. It said at least 6,700 MW of wind and 17,500 MW of solar PV should be added by 2030 to achieve the government targets in a least cost way.

The optimum electricity mix would require even greater additions: a total of 27,400 MW of VRE by 2030. If this were achieved, the VRE share would represent 30–33pc of a total installed capacity of 85,000 to 88,000 MW by 2030. These results remain true even under a scenario where there is lower electricity demand due to Covid-19 and weaker economic growth for other reasons, the study noted.