

Q1

Increasing capacity payments to IPPs has made electricity hyper expensive. Critically evaluate the statement and give recommendations.

(1)

Introduction:-

Energy is required by human to fulfil his needs and to utilize it to get the country towards prosperity. However, energy remains a hot topic for every government and the circular debt is mounting heavily which affects the citizens. Short term measures had led the country where it is right now. Independent power producers has been introduced in Pakistan with the absence of any regulatory authority at that time that leaves the loopholes in policy and agreements formation. Capacity payments are a worst of nightmare that country is handling. Lack of reforms and purchase agreements remained the capacity payments ~~at~~ ^{on} unaltered. The miscalculation has led the privately owned companies put favorable conditions to themselves that sabotages the country's national interest. The side lighting of national interest is now resulted in high tariffs and payments to IPPs.

(2)

What are IPPs:-

IPP's are the Independent power producer company that generate the country's electricity with the terms and conditions signed by them and the government. IPPs are privately

owned companies that are first introduced in 1994 and after that few more have entered with their own terms and conditions. These companies spent heavily in the country by building power plants and investing in the other sectors of the country. They are liable of producing electricity to meet the needs of end user.

③ Understanding the term capacity payments:-

The capacity payments are made by a user of an energy asset to the owner of that asset in return of the right to utilize the asset capacity. Capacity payments are the terms and conditions signed in an agreement. Alternatively, In Pakistan Capacity payments are made to power plants that remain idle, and unproductive and receiving payments without generating a single unit due to vague and faulty agreements.

④ How Increasing Capacity payments has made electricity hyper expensive:-

Capacity payments without proper utilization of generation has created a havoc for the people of Pakistan to bear the burden of malfunctioning and defective agreements. A few of the causes are discussed

hereunder.

(4.1)

Policies and purchasing remained Unaltered:-

IPPs introduced in 1994 with goal to generate the electricity to fulfil the country's demand. However, country's policy makers always remain hand tied in negotiating the agreements with IPPs. Pakistan encourage them with "Take or pay" policy that increases the burden on government by paying for what they have not utilized. According to a recent report Pakistan had paid around two billion in just for capacity payments. The personal interest of the politicians and institutions always shadowed the national interest of the country.

(4.2)

Miscalculated and Misguided Shift:-

Power purchasing agreements (PPA) signed on miscalculation of the gap between demand and supply. Policy makers must have calculated the industrial boom due to electricity generation, which did not result in the estimated pattern. Bureaucratic and political collusion resulted in rigid contract with guaranteed profits and capacity payments.

(4.3)

Heavily reliance on Imported oil (RFO) and gas:

Having been blessed with natural resources Pakistan heavily rely on imported oil and gas for electricity generation. Pakistan generates 59% of thermal, 25% fuel, 7% renewable and 3% nuclear. Oil and gas are not found in the country and this is why Pakistan has to import its oil from the countries like Ukraine, Russia and KSA. Oil itself is an expensive commodity but adding fuel to fire the wars and disruption in the world heavily affect the countries like Pakistan.

(4.4)

Hydel projects remains elusive:-

Pakistan Only generates 7% of its electricity from hydro projects. According to water resource specialist Raza Faruqi Pakistan's water storage capacity is only 15 days, while India can store it for 90 days. Polarization of politics take out the essence of building consensus and Kalabagh is its one of the best example because country's interest are futile in front of personal.

(4.5)

Absence of Competitive Markets:-

Privatising the distribution companies and transitioning the power sector from single buyer's market to a

Competitive multiple buyers markets will foster efficiency and effectiveness.

(5)

Recommendations to mitigate the age old dominance of Capacity payments and IPPs:-

Key problem has a solution and Pakistan's are no exception. Some of the solutions are discussed below.

(5.1)

Renegotiation of the purchasing agreements:-

Purchasing agreements with IPPs needs to be revisit and renegotiate by finding the middle ground. Alternatively, the circular debt will mount up more rapidly due to heavy capacity payments. Country needs to make real agreement with proper demand and supply schedule.

(5.2)

Dedollarization needs to be implemented:-

Pakistan is a developing country and nowadays facing an economic meltdown that leads to the depreciation of currency. Currency devaluation increase the rate of dollar and due to faulty agreements the payments to them are paid in dollar. That not only create a gap but banned the bank of a country. Strategies needs

to be looked especially in the domestically owned IPPs.

(5.3) Reducing Transmission and Distribution Losses:-

Transmission and distribution losses further aggravate the situation due to inefficient and outdated energy infrastructure. According to research report Pakistan has a high rate of T and D losses they range from 9.5 to 35.2% in different DISCOs. This needs to be addressed by updating the infrastructure or shutting down the outdated ones.

(5.4) Shifting towards Renewable:-

Depending on coal and oil not only affect the country financially but also invite environmental hazards. Politicians can build consensus on completing Kalabagh dam and investing in wind and solar should be its top priority. Pakistan signed agreement with IPPs in 2015 to generate electricity through renewables, but no progress has done on holistic approach is a need of the hour.

(5.5) Shifting all Import based Coal to them:-

There has approximately

176 tonnes of coals that if harnessed properly can remove the burden of import from country's current account. Pakistan coal is high in sulphur but mixing it with other coal that can lead the desired outcomes.

Along with it Pakistan needs to eliminate or shift its contracts from RFO based IPPs.

④ Conclusion:-

Capacity payments are the real threat to the electricity generation because of the unreal expectation and agreements. IPPs need to be visit their policies with the government or else the circular debt and payments will pile up. Take or pay policy approach needs to be change towards demand and supply schedule. Dedollarisation and reducing the dependence on imported fuel and gas will be the step in the right direction. Renegotiation of capacity payments can curtail down the high tariffs and charges. To conclude, change needs to be made from the beginning of process to address the ongoing crises.