

Q:- Expensive agreements with IPPs, overwhelming dependency on hydrocarbons, line and other losses in the transmission and distribution sector have caused massive hike in electricity prices having far reaching implications on industry, domestic and other crucial sectors. Analyze the statement giving possible recommendations.

1- Introduction:

Pakistan heavily depends on Independent Power Producers (IPPs) for its electricity generation to overcome energy crisis. Since 1999, ~~the~~ 40 different companies are assigned this task. These privately owned companies generate electricity and sell it to the national grid or other consumers. They ^{are} dependent on hydrocarbons for electricity production. However, the purchase power agreements and price hike of dollar have caused downfall to the economic sphere of Pakistan. Reforms are crucial in this regard.

2- Role of IPPs and their Importance for Pakistan:

IPPs play significant role in country's energy sector by supplementing the power generated by public utilities. They utilize a variety of energy sources including thermal (natural gas, oil and coal), hydroelectric, and renewable sources (wind and solar). IPPs attract private investment into energy sector, reducing the financial burden on the government and promoting economic growth. They also bring in expertise and advanced tech.

Use headings relevant to the statement

3- Problems of IPPs in Pakistan:

1- Expensive electricity:

IPPs make expensive electricity. According to the power ^{division} sector:

"The rate of electricity is Rs 60 for residential and Rs 80 for commercial use, where it costs only Rs 33 to produce.

Pakistan is paying Rs 200 trillion in capacity charges.

This aspect makes electricity expensive in Pakistan.

2. Thermal power generation:

IPPs, accounting for 30% of national power generation, are entirely thermal. The electricity is made from furnace oil, which is the most expensive

source of electricity production at present. According to Nepra's 2022

report: Pakistan's total installed capacity is was 43775 MW, with 59%

thermal, 25% hydel, 7% renewable,

9% nuclear. This factor accounts for an increase in electricity prices in Pakistan.

3. Use of Imported hydrocarbons:

The use of imported hydrocarbons i.e. coal, oil and gas for electricity generation is the biggest hurdle.

Due to global power crisis because of

Relate your headings and arguments to the qs statement

Date: _____

Day: _____

crises in Middle East, Russia Ukraine war and Covid-19 pandemic, the internal price hikes of hydrocarbons further exacerbated ~~the crises~~ of problems of electricity production for Pakistan.

4. Transmission and distribution failures:

The transmission lines in Pakistan are outdated, which contribute to adequate line losses. This leads to the inability to evacuate power from all IPPs due to grid capacity constraints. According to Nepra's Fiscal Year 2022-23 report: "Actual transmission and distribution losses were 16.38%, higher than the weighted average of 12.21% allowed in tariff."

5. 'Dollar' as the currency of payment:

"Payments to be made in dollars" was the ~~the~~ hard-handed decision made at that time. This caused a burden on the economy, as the dollar continues to strengthen every other day against

Pakistani Rupee. The billing in Rupees and payments to IPPs in dollars have caused the energy crisis in Pakistan.

6. The pre-determined tariffs and capacity payments:

Repeatedly, the policies were made in 1994, 2002, 2005 but ^{notable} no change was evident. 13 IPPs were given licenses with cost plus tariffs, where ~~generators~~ regulators calculated the entire cost before setting tariffs. The currency, fuel, capacity payments, ~~Take or Pay~~ mode retained in all agreements, but losses were not addressed due to these conditions.

7. The "Take or Pay" clause as a barrier:

The Take or Pay clause in policy ensured capacity payments for IPPs, guaranteeing their ~~revenue~~ revenue regardless of actual ~~electricity~~ electricity in Pakistan.

4. Implications of agreements on Industry and domestic sectors

The agreements with IPPs posed great burden on industrial, ~~and~~ domestic and other sectors in Pakistan. The circular debt in Pakistan is sky high, leading to ~~the~~ crippling economy.

Moreover, the capacity payments alone have reached Rs 2 trillion by 2024, and are expected to rise Rs 2.8 tn by the end of the year.

This ~~the~~ ultimately increases inflation, brain drain, lack of subsidies and many other problems for the country. The debt burden causes increasing prices of fuels, commodities and in short, ruining the financial state of country.

5. Recommendations for comprehensive Reforms:

1- Renegotiating power purchase agreements:

Renegotiating power purchase agreements to overcome the economic ~~haul~~ in the country is crucial. Bringing them to the terms and conditions that are suitable

for Pakistan is the need of the hour.

2- Terminate Contracts with diesel and RFO-based IPPs:

The imported hydrocarbons such as diesel and residual furnace oil ~~cost~~ pose a great burden. Such contracts need to be terminated in order to produce ^{economic} sustainable growth.

Add and highlight references/examples against these arguments

3- Revamp the Transmission lines:

In order to reduce the distribution and transmission ~~lines~~ ^{losses}, revamping lines is necessary. This would reduce line losses and would pave way for ^{increased} ~~more~~ attainment of power to the grids.

4. Shift to renewable Energy sources:

A shift to Renewable energy sources like wind and solar need to be done in place of coal and oil. This would be cost-effective and environment-friendly as well.

5. Forensic Audit to determine excess profits earned:

A forensic audit of those IPPs who earned more instead of more power generation should be done to determine excess profits earned. This excess money should then be returned to government.

6- Conclusion:

IPPs are significant for power generation in Pakistan. Despite being an a beneficial support to the power-engine of Pakistan, they ~~are~~ have plagued the power sector due to multiple problems. These include expensive agreements, reliance on imported hydrocarbons and many others. In order to reform the sector and ~~IPPs~~ agreements with IPPs, effective measures regarding renegotiations and auditing must be carried out.

