

QUESTION 2

INCREASING CAPACITY PAYMENT TO IPPS : A CATALYST FOR INFLATED ELECTRICITY PRICES.

INTRODUCTION:

The escalating capacity payment to Independent Power Producers (IPPs) have been a primary driver of exorbitant electricity prices in Pakistan. Pakistan energy sector has long been entangled in flawed contractual arrangement with Independent power producers (IPPs). These contracts dating back to power policy of 1994, were intended to resolve energy crises. However, these agreement have led to spiraling circular debt reaching to 2.64 trillion as in Feb 2024. Pakistan operate on take-or-pay energy contract where fixed capacity must be purchased regardless of actual demand. This can lead to higher per unit cost.

STATISTICS OF CAPACITY PAYMENT TO IPPS:

The capacity payment of Rs 8.34 trillion have been made to IPPs during last 10 years. Now, the capacity payments of 2.1 trillion will be paid to IPPs during FY 2024-25

Last 10 years capacity payment = 8.34 trillion
FY 2024-25 = 2.1 trillion

HOW CAPACITY PAYMENT TO IPPS LEADS TO EXORBITANT ELECTRICITY PRICES

1. FLAWED ENERGY CONTRACT

Due to contractual obligations the government must pay for entire installed capacity year-round, regardless of utilization - Pakistan operate on flawed energy contract with IPPs.

TYPES OF ENERGY CONTRACT

Take-or-Pay

Take-and-pay

Pakistan operate on Take-or-pay -

IMPLICATIONS OF UNFAVORABLE TAKE-OR-PAY CONTRACT

Pakistan's "take-or-pay" contract system with IPPs requires the government to pay for a fixed percentage of contracted electricity capacity, regardless of whether it is used or not. This has significant financial implication

a- INSTALLED CAPACITY VS DEMAND

INSTALLED CAPACITY

Approximately 44,943 MW

BASE LOAD DEMAND

Around 12,1500 MW

Summer Peak Load Demand = 30,000 MW

The government must pay for up to 44,943 MW of capacity through-out-year even though actual demand may vary significantly, especially in off-peak periods when demand could be as low as 12500 MW - This leads to significant under utilization of capacity, resulting in higher-per unit cost

b- Annual Capacity Payment

Rs = 2.1 trillion

These payments are made irrespective of electricity consumed. Even if demand is low government must pay for idle capacity, leading to overall increase in cost passed onto consumers

EXORBITANT TARIFFS IN IPPS CONTRACT

The electricity prices charged by IPP are significantly above market rates or the cost of generating electricity.

1990s	1.37 / unit
2024	34.31 / unit

From 1990 - 2024, the increase in tariff upto 25-fold. These inflated prices directly contribute to the higher cost of electricity for consumer.

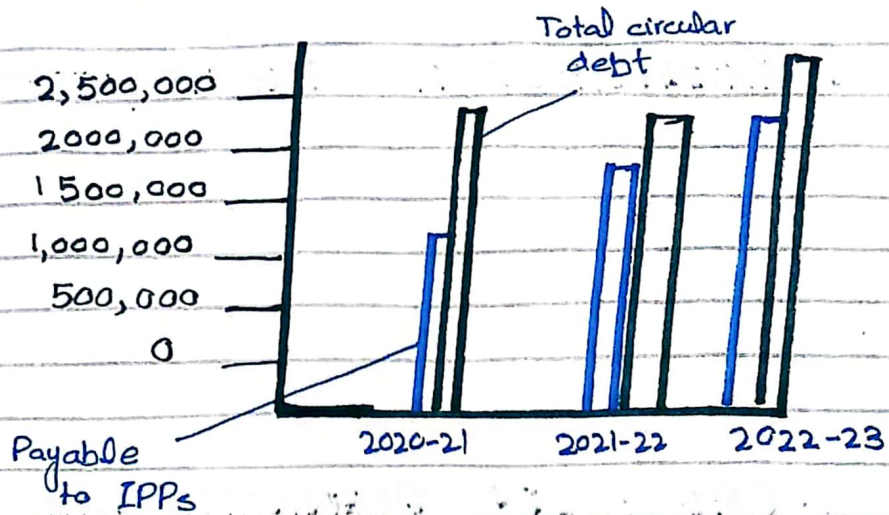
DOLLARIZATION IN IPPS CONTRACT

Payment for electricity is made in US dollars rather than local currency. Fluctuation in dollar rate impact the cost of electricity for consumer.

2- CIRCULAR DEBT:

The accumulation of unpaid dues to IPPs has exacerbated the circular debt crises, leading to vicious cycle of financial instability and load shedding.

January 2024
Circular debt = 2.5 Trillion.



EXCESS CAPACITY:

Pakistan power generation capacity often exceeds demand, resulting in unnecessary capacity payments and increased cost.

INEFFICIENT DISTRIBUTION AND TRANSMISSION LOSSES

Due to outdated infrastructure and the power sector has to face electricity loss which further increases cost.

RECOMMENDATIONS:

1- CONTRACTUAL RE-NEGOTIATION

Prioritize renegotiation of unfavorable IPP contracts to reduce tariffs; shift to rupee-denominated payments, and introduce performance-based incentives

2- CAPACITY PLANNING AND MANAGEMENT

Conduct thorough assessment of electricity demand to avoid overcapacity - Implement a merit order dispatch system to prioritize efficient power plants. Introduce capacity payments based on actual generation or load served

3- ENERGY - MIX DIVERSIFICATION: EXPANDING RENEWABLE ENERGY SOURCES

Prioritizing renewable energy projects can reduce dependence on expensive thermal power plants. Renewables typically do not require capacity payments, or these payments are significantly lower, reducing the overall cost of electricity

4. **STRENGTHENING POWER SECTOR**

Invest in modernizing the transmission and distribution infrastructure to reduce losses - Implement strict measures to curb electricity theft

5. **CONSUMER DISCIPLINE**

Prioritizing reducing circular debt through efficient collection and timely payments - Implement targeted subsidies for vulnerable consumers
Improve transparency in billing and tariff structures.