Mock July

DATE: 11-7-2024 Hajra Sarfraz DAY: Thursday

Qno 6

Load shedding and ballooning electricity prices badly hit the Economy. Critically evaluate the statement and give some recommendations.

(1) Introduction

Energy sector serves as a backbone of a country's economy and industrial sector. Electricity flows like blood in the viens of industrial machines to make them functioning. Unfortunately, Pakistan's energy sector has been suffering from load shedding and high electricity. The reasons behind these problems include dependence on hydrocarbons for electricity production, old and outdated agreements with IPPs, and loss of electricity through outdated transmission lines and electricity theft. Rising electricity prices and load shedding have serious implications on the economy of Pakistan by reducing industrial production, increasing imports & decreasing exports, and results in trade

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deficit. However, Pakistan can overcome the problems of loadshedding and high electricity generation cost by taking rapid and serious measures such as renegotiating IPPs, revamping transmission liner, considering renewable sources of electricity generation, and strengthening the writ of the state against electricity thieves and those who do not pay bill. The future of Pakistan can only be prosperous if the govt. take this issue seriously and bring reforms in the energy sector.

(2) Loadshedding as a Problem.

Pakistan has been from severe loadshedding for the last two or more decades. In summer 2023, the loadshedding in urban areas was 4-5 hours, while in rural areas it was 10-12 hours. The overall electricity shortage was 7000 MW in the year 2023. In summer 2022,

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the electricity shortfall was 10000 MW while the loadshedding hours were 6-8 hours in urban areas and 14-18 hours for rural areas.

There are various factors that contribute to the loadshedding. Previously the major reason was less installed capacity. However, the majors factors are include, the IPPs are not producing electricity according to the demand because government is unable to pay them. Moreover, the electricity production requires import of diesel, LNG and gas, but Pakistan has lower dollars reserves and is unable to import these hydrocarbons.

(3) High Electricity Generation Cost

PM of Pakistan said that Pakistan is the only Asian country which produces electricity at such a higher rate. In a recent annoucement, per unit electricity price has surged up to 60 to 72 rp, which is much higher than the per

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unit electricity price in the last year. However, PM of Pakistan has announced a relief for domestic users with less or equal to 200 units electricity consumption

(4) Causes behind Loadshedding and High Electricity Prices

There are various reasons behind loadshedding and high electricity prices including the following:

(i) Overdependency on Hydrocarbons:

Pakistan's energy sector highly depends upon hydrocarbons. There is 12000MW installed capacity of diesel, 6000 MW installed capacity of LNG, and 6700 MW installed capacity of Coal. Diesel, Coal, and LNG are the most expensive sources of electricity generation. Pakistan's almost 60% electricity is generated from the top 3 expensive hydrocarbons, which are imported from other countries. In year 2023, per day diesel requirement was

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588 000 barrels, only 83000 barrels produced locally and the rest was imported. The 63% of required LNG was produced locally and only 2500 MW out 6700 MW of coal-based electricity was generated from local coal. The problem is the prices of these hydrocarbons are very high in international market.

(iii) Outdated Agreements with IPPs:

IPPs from US, UK, China, UAE and some local were installed in 1994, 2005, 2011 and 2015. The IPPs installed in 1994, 2005 and 2011 all are diesel based, and IPPs installed in 2015 are LNG and coal based. The serious concern in this regard are capacity payments. The state of the government pays these IPPs for minimum required capacity either this electricity consumed or not. The problem is the electricity requirement in summer and winter differs. Thus, government pays these IPPs for the electricity which is not even used. Moreover, Pakistan's government

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these IPPs in dollars.

(iii) Problems in Transmission and Distribution as major contributer to High electricity Price:

The transmission line or National Transmission Dispatch company losses 17% of produced electricity, which means 17MW out of generated 100 MW electricity losses during transmission. The figure is 12% for Afghanistan, 9% for Bangladesh and India and 3% for China. Moreover, a lot of electricity is lost through theft during distribution. The loss in distribution is caused by theft (10%), non-payment of bills (2%), and exemption on bill (4%). Thus 33% of total electricity generated is lost whose price is to be paid by the government and consumers.

(5) Economic Implications of Loadshedding & High Electricity Prices

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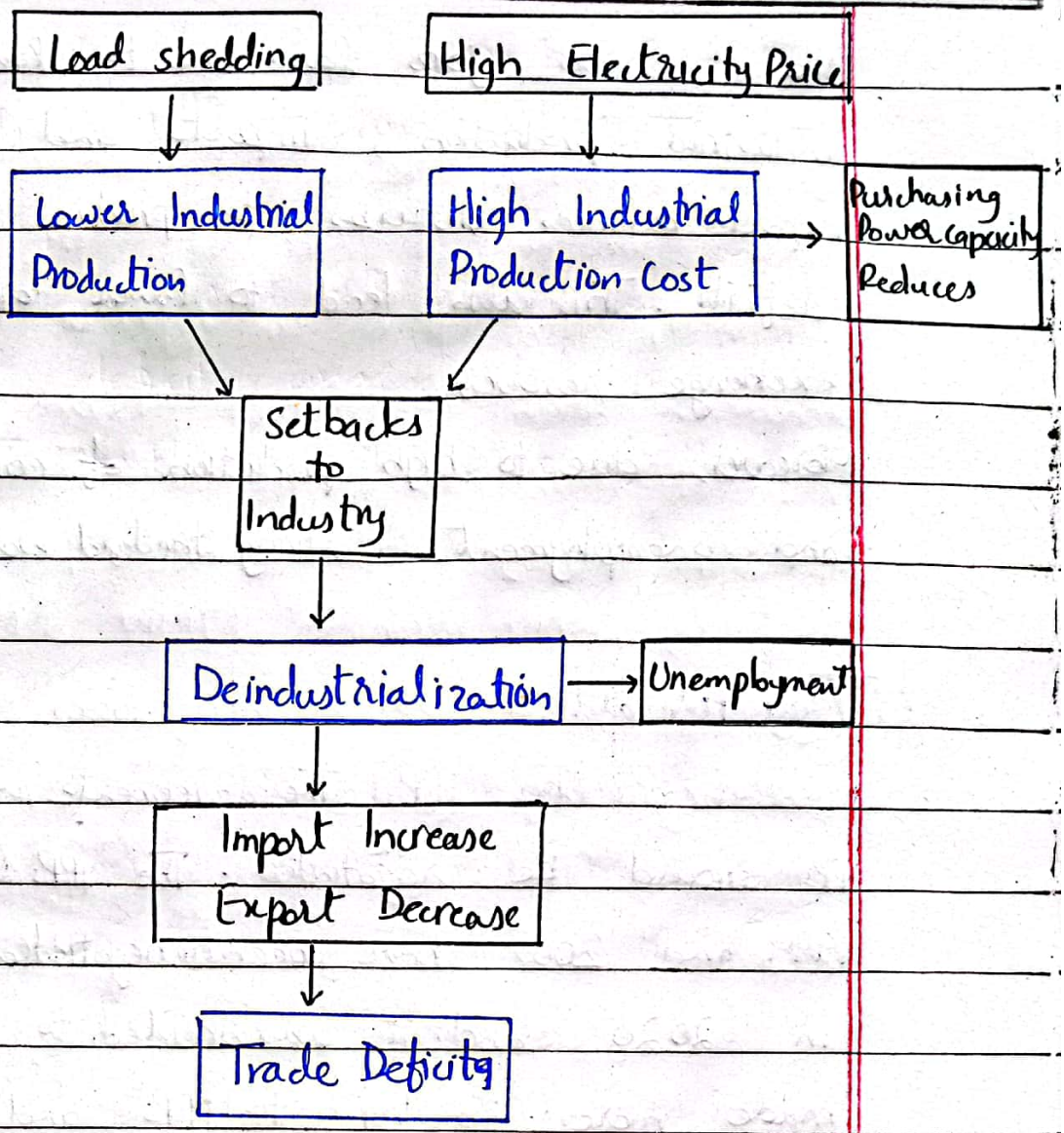

Industrial sector is the worst hit of loadshedding and higher electricity cost. Due to higher loadshedding, the industrial production reduces and higher electricity price increases the cost of industrial production. These problems lead to the deindustrialization ultimately. In Pakistan, 200 industries have been closed which resulted in

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the 400000 jobs loss. Due to lower industrial production, imports and export balances disturbs to produce trade deficit. This also lead to lower foreign exchange reserves.

Moreover, due to high production cost and unemployment living standard worsens

(6) Way Forward

(a) Re-negotiating IPPs: The agreements with IPPs should be renegotiated. The IPPs of 1994 and 2005 have been negotiated in 2020 and it was decided to not made more capacities to IPPs and local IPPs would be paid off in Pkr. But 65% of electricity generation is done by IPPs of 2011 and 2015 which can be renegotiated before 2027-28.

(b) Converting to Renewable Sources for Electricity production:

Electricity production from renewable sources will help Pakistan to reduce its dependence of highly expensive hydrocarbons.

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(c) Revamping Transmission Line:

By revamping the outdated transmission lines, Pakistan get rid of the 17% electricity loss. It is an expensive phenomenon which would cost 45bn dollar, but it can recover the expenses within 4-5 years.

(d) Strengthening Writ of the State against theft and Nonpayment of Bills:

Government should strengthen its writ against electricity theft and nonpayment of electricity bills. By doing so, the cost of electricity bills will be reduced for consumers.

(7) Conclusion:

The prosperity of Pakistan's future is overwhelmingly depends upon the reforms in energy sector. The energy sector should undergo reforms to reduce the loadshedding and cost of electricity generation. This will ultimately boost the industrial sector of Pakistan.

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Affluent industry leads to the affluent country.