

Q

What are energy crisis in Pakistan? Why there is expensive and excessive loadshedding in Pakistan? How it can be structurally reformed?

Ans
1-

Introduction

"There is no energy crisis, there is crisis of negligences."
(~ R buckminster Fuller)

Pakistan has been facing serious energy crisis since 2007.

It is due to expensive source of energy generation.

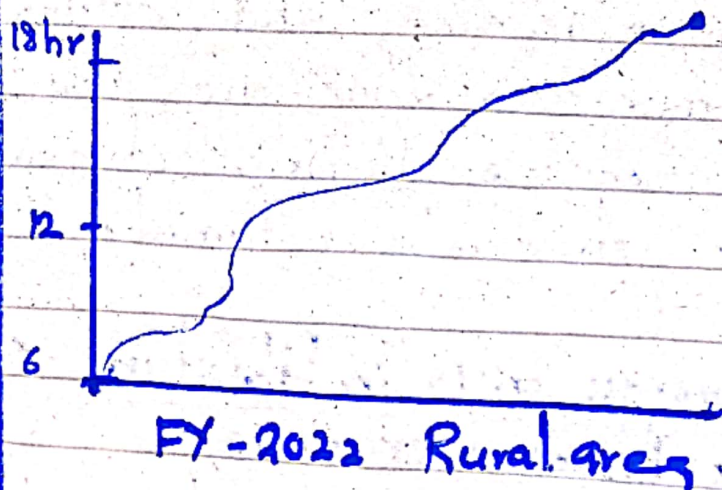
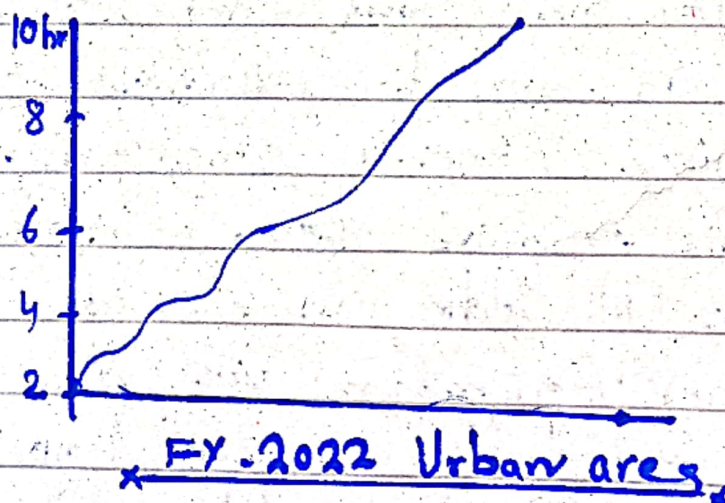
This expensive source of generation is along with certain other phenomenon, such as energy theft, corruption, tamper meter reading, and outdated transmission lines are also responsible. However, it can be structurally reformed.

2-

Energy crisis in Pakistan ~ a brief overview

Pakistan has been

facing an excessive loadshedding.
Fiscal Year (FY) 2022, the cost of domestic per unit was 34 PKR, whereas the cost of commercial unit was 68 PKR. This further resulted expensive loadshedding. In rural areas, it was 16 to 18 hours loadshedding, while in urban areas, it was 8 to 10 hours. The same situation was remained from 2008-2016.



3-

Causes of expensive and

excessive load shedding

Following are main causes of excessive and expensive electricity.

a) Expensive electricity generation

Pakistan's 60pc electricity production is cost effective. It even contributes 25pc in budget deficit. Following is the cost generative electricity details:

Hydrocarbon	Megawatt
oil	6,000-12,000
gas	6,000
fuel	5,800

b) Imported LNG (gas) production

Pakistan's all source of LNG is imported. In FY, 2022, Pakistan needs 40pc. However, it used 58,800 MW, while generated only 83,000 MW from local source. This resulted expensive electricity generation.

c) Devaluation of PKR

Devaluation of PKR is another major reason of excessive loadshedding.

FY 2022, January; the rupee was 178 PKR VS 1 \$, while, in January 2023, it rose to 270 PKR. This resulted expensive import.

d) Outdated transmission lines

Pakistan's transmission lines are of 1970s, outdated now. Pakistan's 17pc electricity is wasted in outdated lines. In fact, Pakistan is the highest transmission loss country in Asia, whereas Afghanistan is 12pc; India, 9pc; and China only 3pc.

e) Energy theft ~ a major cause

In Pakistan, "Kunda system" is ongoing problem. Mainly Sindh, Karachi and Balochistan are responsible

for electricity theft. As a result cost is paid by state and legal payers.

f)

Tamper meter reading

Along with energy thefts another major cause is tamper meter reading.

80pc tamper reading is common in Sindh. (Pakistan Bureau of Statics)

g)

Corruption in WAPDA

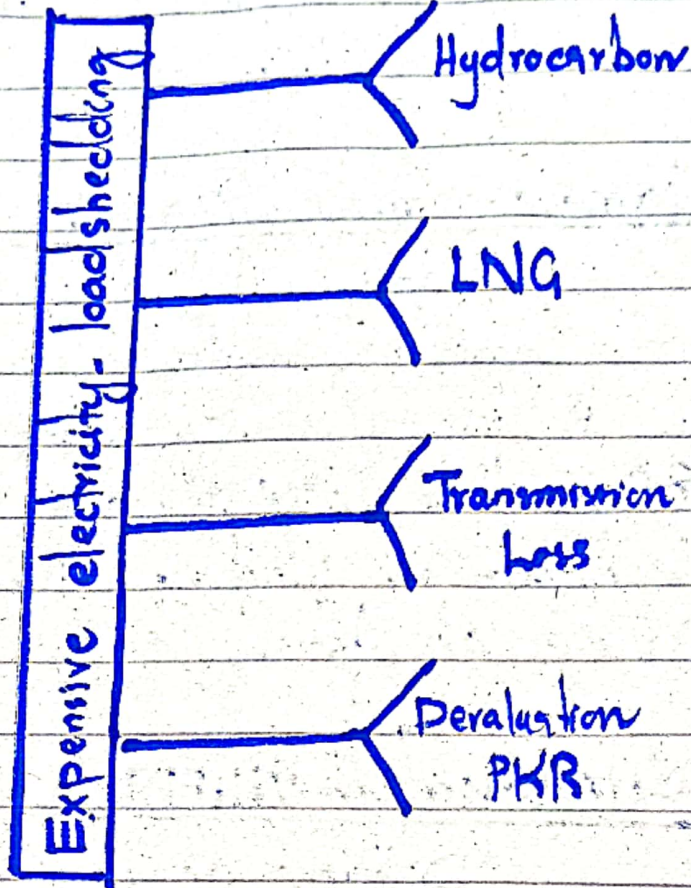
Different departments receive subsidy and corruption in WAPDA is also responsible for illegal activities. Resultantly, country faces crisis of energy.

g)

No bill system in FATA

Pakistan is also coupled with excessive loadshedding. Because no bill system in FATA results expensive generation and less production. Hence, electricity loadshedding is a

major outcome.



• Top four major causes

4-

Structural reforms in
in electricity sector

Following measures
Pakistan needs to take
in order to reform energy
structure.

a)

Renegotiate agreements
with IPPs

Pakistan needed to renegotiate agreements with IPPs, but unfortunately, it could not due to successive governments, illegal activities, and kickbacks. PTI government in 2020, renegotiate in following conditions:

- i) No capacity payment
- ii) No rental payment

Resultantly, Pakistan saved 100 to 150 billion PKR.

b) Local electricity generation

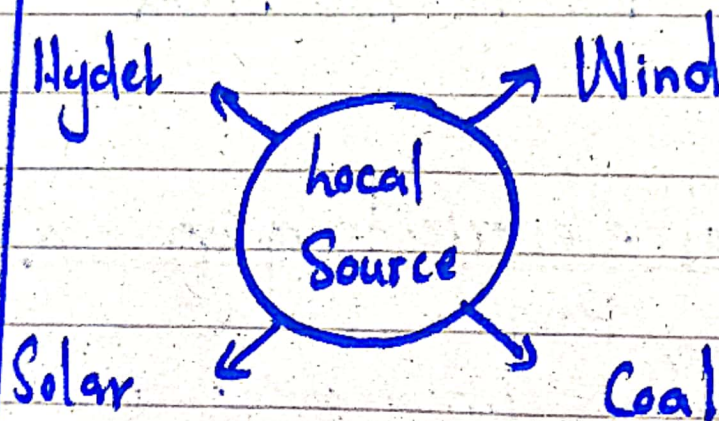
Pakistan needs to shift from imported source to local source: Following is main detail of local electricity generation:

<u>Hydel source</u>	
<u>Dams</u>	<u>electricity generation</u>
Karrote	730 MW
Sukhi kumre	883 MW
Dasu	4300 MW
Diamer basha	4500 MW

ii) Wind: Especially Thameer, Sindh and Balochistan. It produces 450 MW electricity.

iii) Solar: 3000 MW energy is solar capacity in Pakistan.

iv) Coal: 1280 MW energy is already generated. (Further, its capacity is 5000 MW from 'Thar coal').



• Cheaper energy production

c) Civil Nuclear plant projects

Pakistan has capacity to generate cheaper electricity from nuclear project.

Chasma (C₁), C₂, C₃, C₄
capacity 340 of each

can reduce enough burden of expensive loadshedding. Furthermore, K₁ and K₂ plants capacity is 11000 MW energy. This will produce cheaper electricity costs, only 14PKR as compared 34PKR.

d) Remamp transmission lines

Pakistan needs to change, new, effective lines to save energy being loss. e.g. local energy from Lahore to Multan should be black coated, underground, and hence, transmission loss would not be more than 3-4 pc.

e) Privatization of electricity and digital metering

“The job of government is not to run business rather to regulate system.”

Pakistan needs to change its system. It further needs to make it digital meter recording in order to save energy from loss.

5- Conclusion

"Save energy before it gets too late."

Pakistan is developing country and has been facing severe energy crisis since 2 decades. Many factors, such as energy theft, corruption, and hydrocarbon is responsible for it. However, it can easily curb by changing structure. Therefore, this will be favourable to Pakistan.