



**Institute for Energy Economics  
and Financial Analysis**

# Pakistan's energy choices

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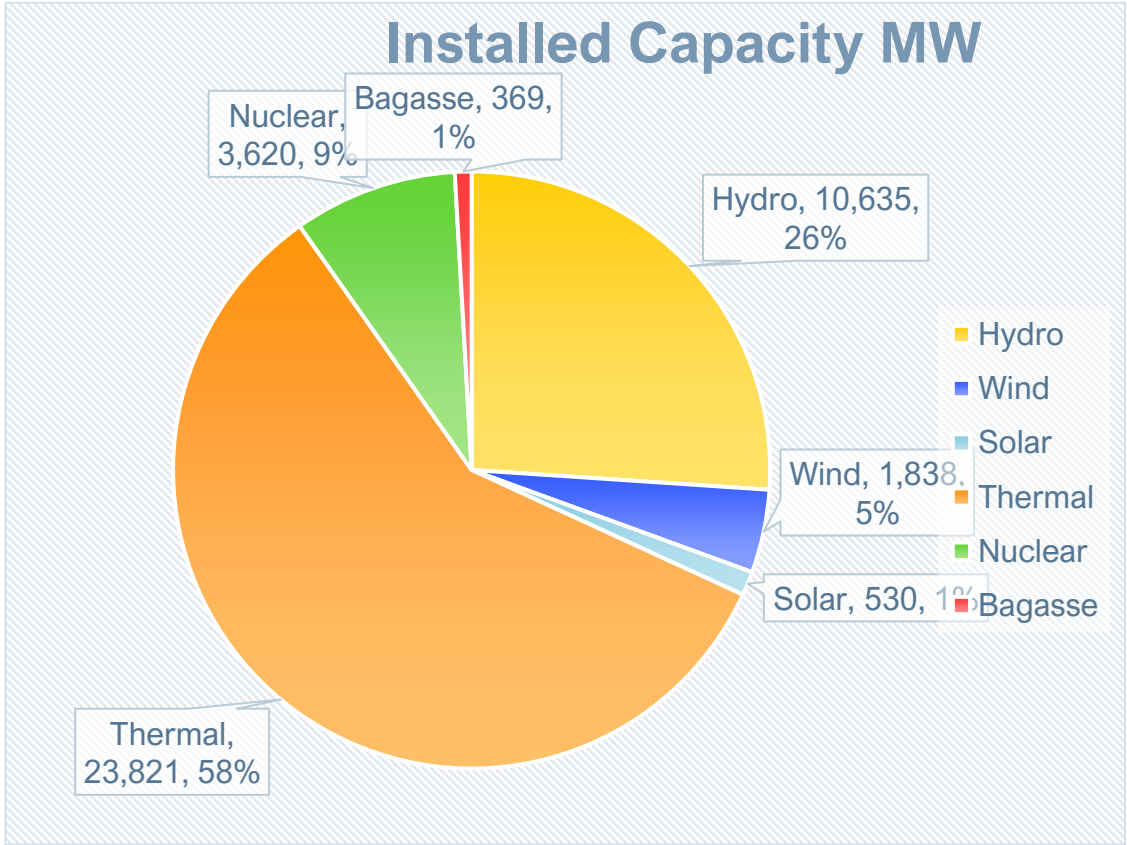
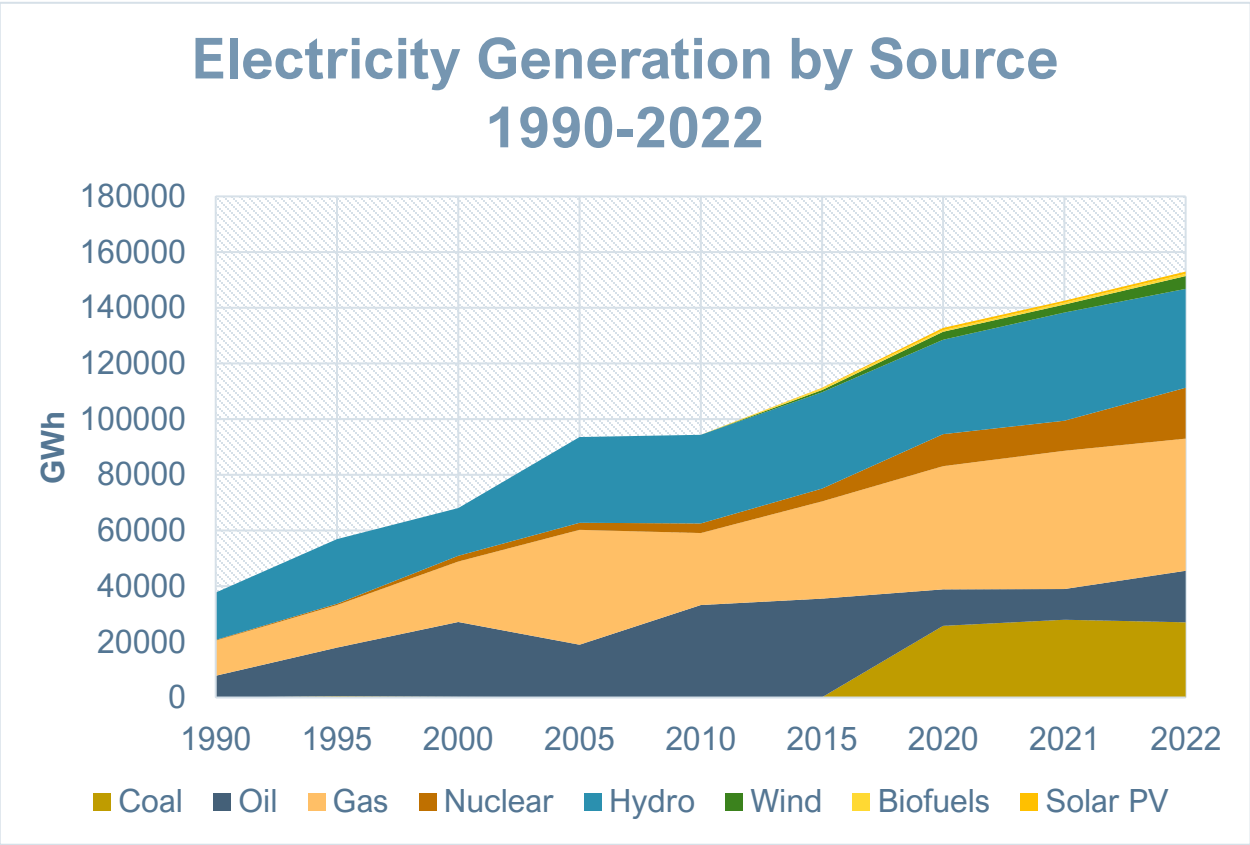
New policy debates and challenges

**Hanea Isaad**

04-07-2023



# Pakistan's current energy mix skewed towards thermal



# Fuel mix guided by political choices

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- Legacy GENCOs and thermal IPPs in operation since the 1990s
- Addition of LNG to fuel mix by PMLN government in 2015 through Power Generation Policy 2015
- Initiation of CPEC, bringing on addition of 6.9 GW of imported and domestic coal to the grid (6.6 GW already operational)
- Mega hydropower projects/dams supported by MDBs (Irrigation/Power Generation)
- RE policies introduced in 2006 and 2019 but policy hurdles prevent widespread off-take (Current share only 7%)

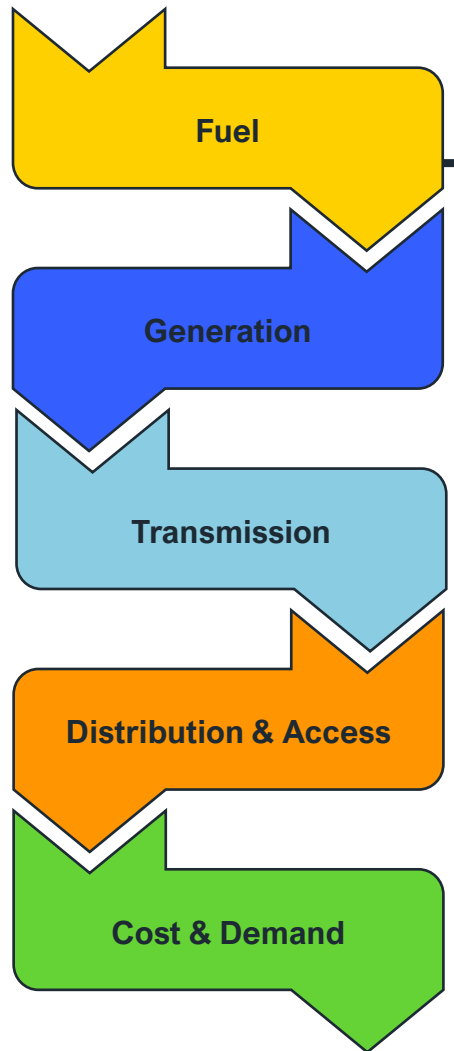


Overarching theme of energy security and the need for baseload capacity



Focus on generation based planning- not in tandem with transmission expansion and grid upgrades

# Power Sector challenges in Pakistan



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**Forex Drain:** Total energy import bill was USD 23.3 bn in 2022 , power sector fuel imports have a major share in the total (Oil-17 bn USD, LNG bill 5bn USD)

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**Excess Capacity:** Mismatch between Summer and Winter demand results in excess capacity, resultantly increasing capacity payments- (Current Available Capacity 27 GW vs. Installed Capacity of 43 GW)

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**Weak Grid:** Limited capacity to integrate renewable energy, connected RE projects face forced shutdowns and curtailment

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**Circular Debt:** CD currently stands at PKR 2.3 trn (USD 8 bn) is approximately ~45% of annual tax GDP

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**Electricity Access:** Low electrification, frequent and long outages

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**High Cost:** Electricity cost has become unaffordable, by 2026, Almost up by 50% since last year owing to fuel price volatility and dependence on oil imports

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**Low Demand:** Electricity prices are among the highest in regional benchmarks (PKR 32 highest tariff average in FY 22-23- 40% higher than that of INDIA and BANGLADESH)

# Current Government recognizes challenges

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- Increased focus on 'Indigenization' of fuel mix
- New policy shift towards local coal, hydro and solar energy
  - New ARE targets- 60% of RE in fuel mix by 2030 inclusive of hydro power (IGCEP realizes this through 38% hydro share and an 11 GW hydro pipeline)
  - Recent announcement to shift imported coal based fleet to Thar coal
  - Announcement to replace LNG with local coal
  - Announcement of Fast Track Solar PV Scheme 2022-envisioned the addition of 10 GW of solar PV to the grid through various programs

## Pakistan's forex reserves with SBP drop to 9-year-low of \$3.09bn

Dawn.com | Reuters | Published February 2, 2023



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Pakistan's foreign exchange reserves held by the central bank decreased by 16.1 per cent to \$3.09 billion in the week ending Jan 27, the State Bank of Pakistan (SBP) said on Thursday, which analysts said covers less than three weeks of imports.

# Crisis-hit Pakistan strikes \$3bn IMF bailout deal

1, 2023

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## Pakistan receives no bid for six LNG cargoes

Sources say no companies responded to Pakistan LNG Ltd's tender to purchase six shipments for Oct-to-Dec delivery

By Khalid Mustafa | June 21, 2023

# However economic woes continue

- Low Forex reserves and a widening current account deficit leave little room for further energy imports (reserves hit to year low to USD 3 bn only)
- Credit downgrades create high-risk investment environment
- Extremely high policy lending environment- Domestic Interest Rates as high as 22%
- IMF program has resulted in repeated increase in energy tariffs
- No bids received for flagship initiative under the Fast track Solar PV scheme
- No bids received for six LNG cargoes tender floated after almost a year

# How can China help?

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- Investments in RE by China have been limited ( Only 300 MW of Wind and 400 MW of Solar)
- Shift of financing from thermal/hydro to VRE
- Participation in solar tenders and setting up of local RE value/supply chains



# Thank you!

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## Contact

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