Country Report (Pakistan)

Presented by:

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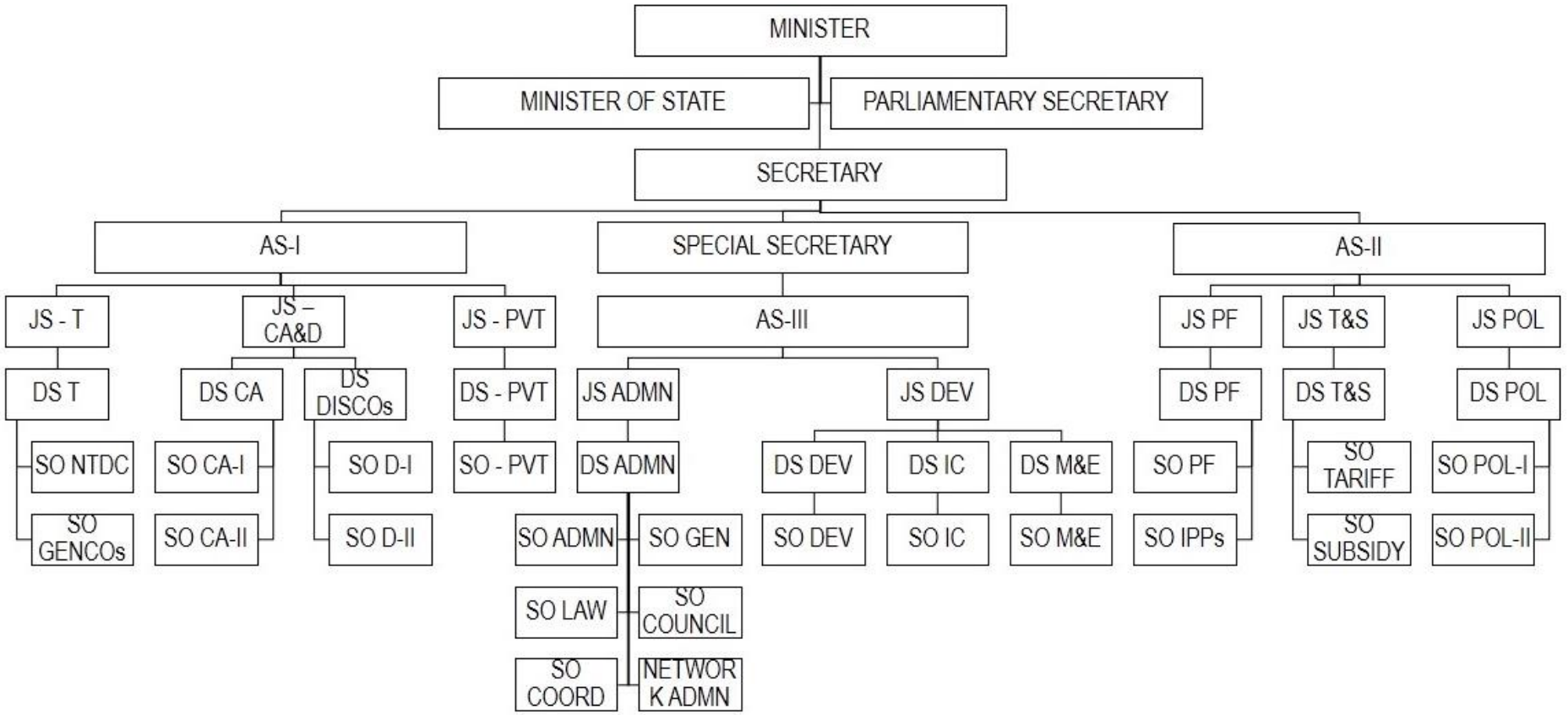
Ministry of Energy (Power Division)

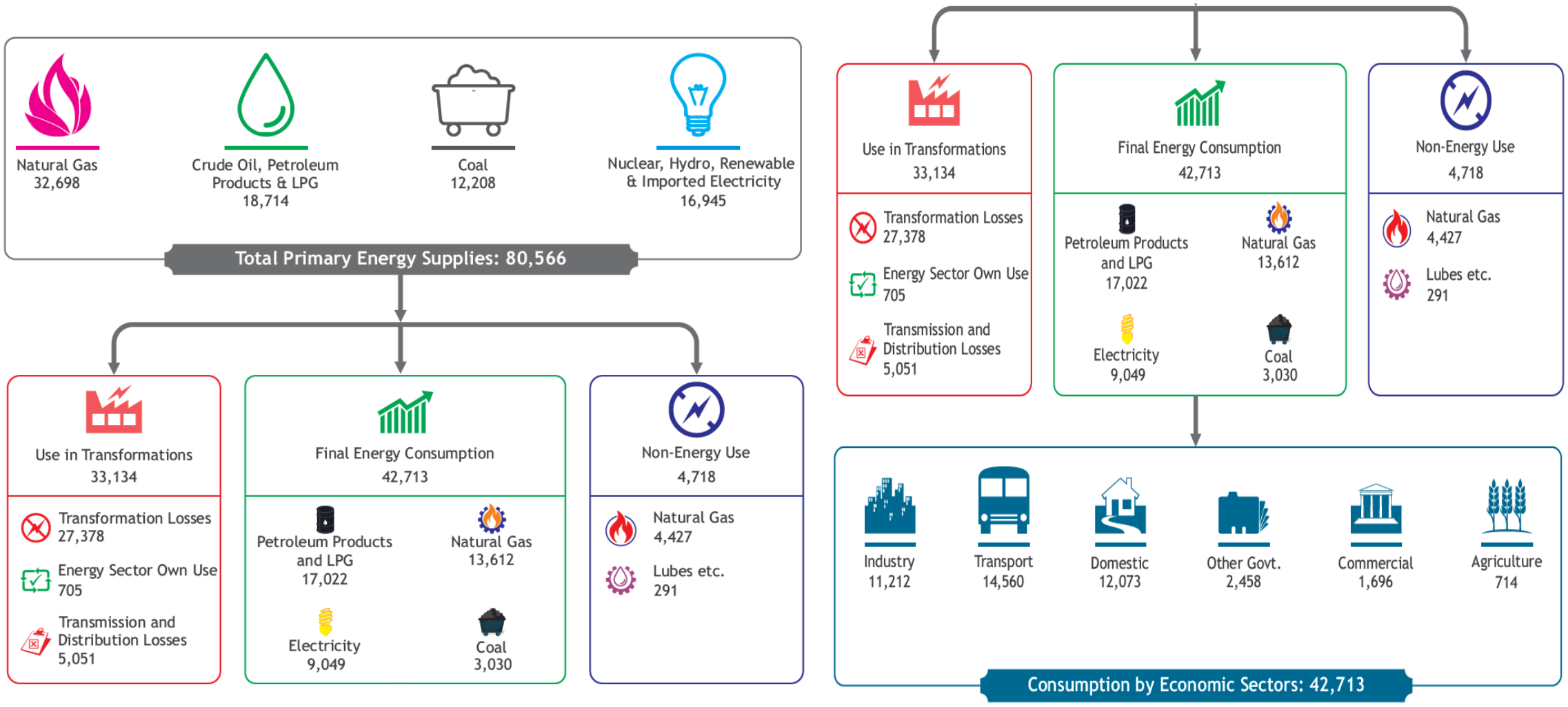
Country's Profile: Pakistan

Indicators	Values
Population	243 million (Est. 2024)
GDP (Nominal)	USD 374 billion (Est.2024)
GDP (Per capita)	USD 1538
GDP growth rate	2.3%
Number of households	38.28 million
Main Economic Sectors	Agriculture, Industry, Services
Top trading partners	China, UAE, USA, Saudi Arabia, UK
Electricity Generation Capacity	42,131 (MW)
Electricity Demand	21,000 (MW)
Generation Mix	Fossil (46–58%), Hydro(31%), Nuclear (18%), Renewables (4–5%)

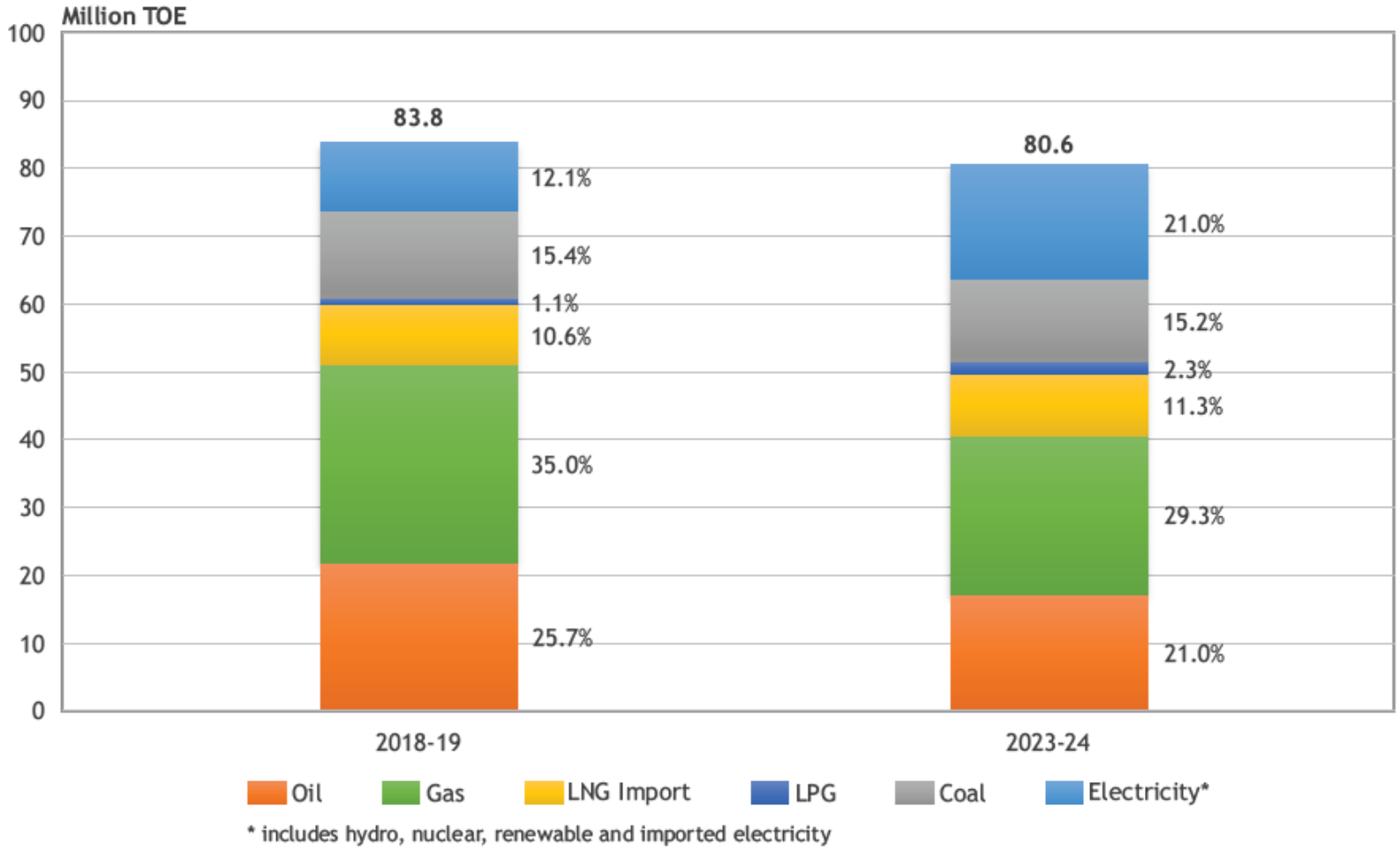
Organizational structure related to Ministry of Energy (Power Division):



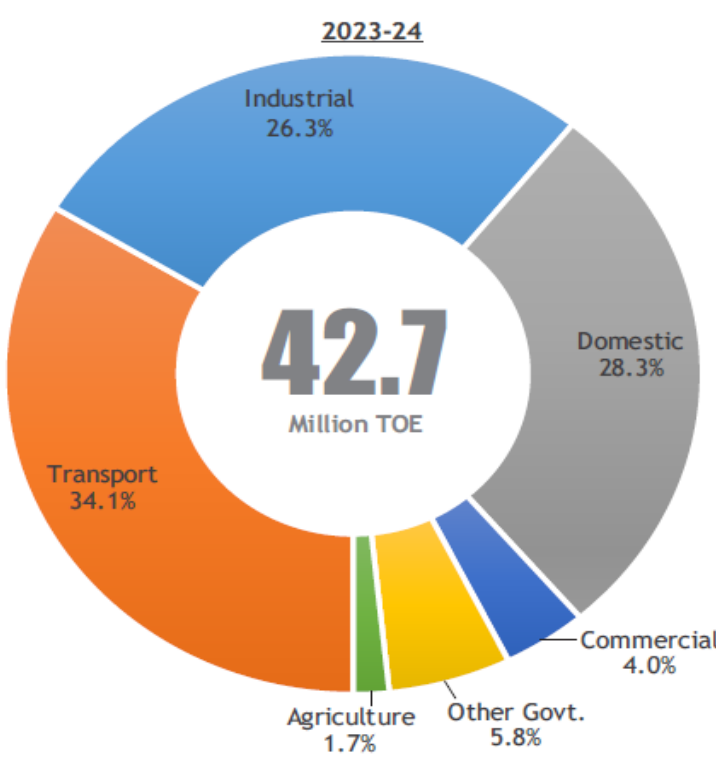
Pakistan's Energy supply and consumption, 2023-24 (Thousand Tons of Oil Equivalent)

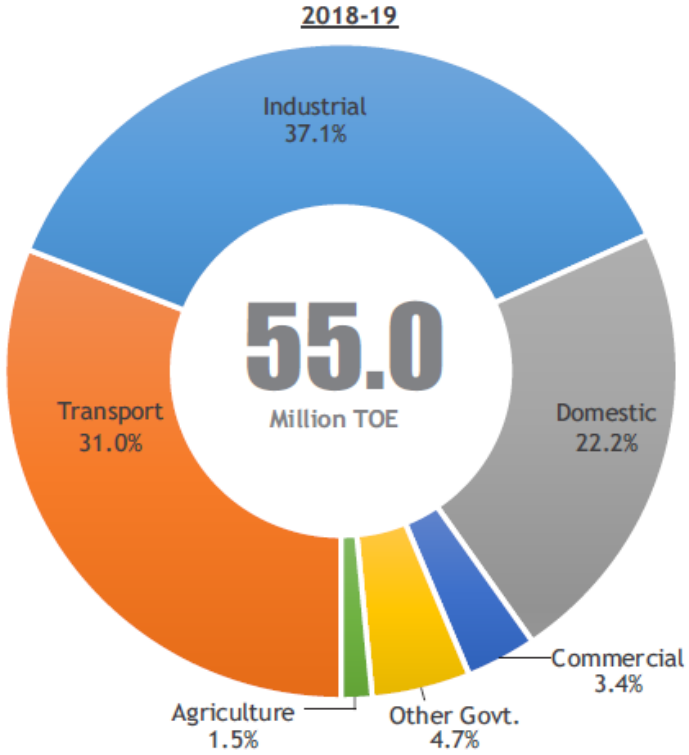


Energy Supply by source:



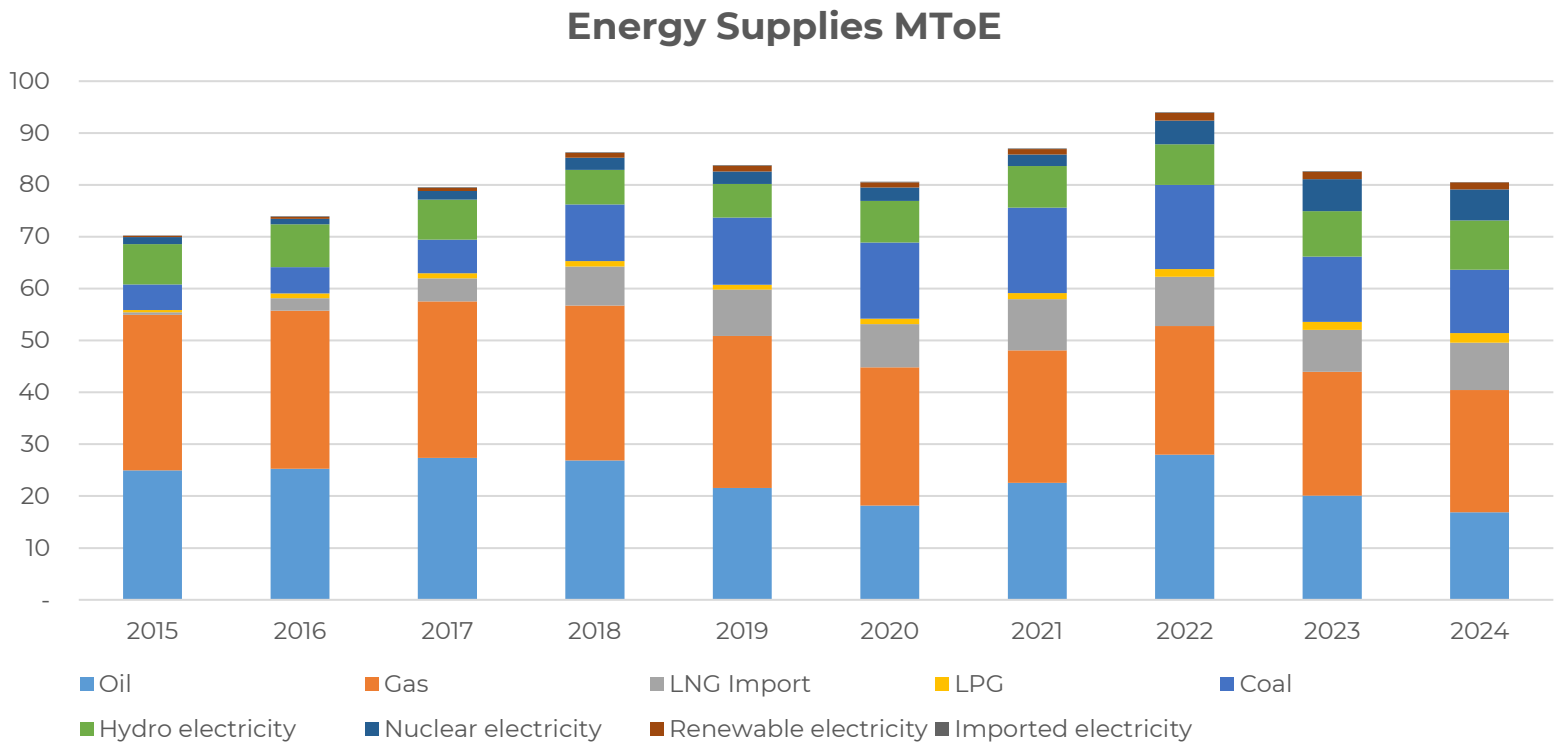
Energy Consumption by Sector:





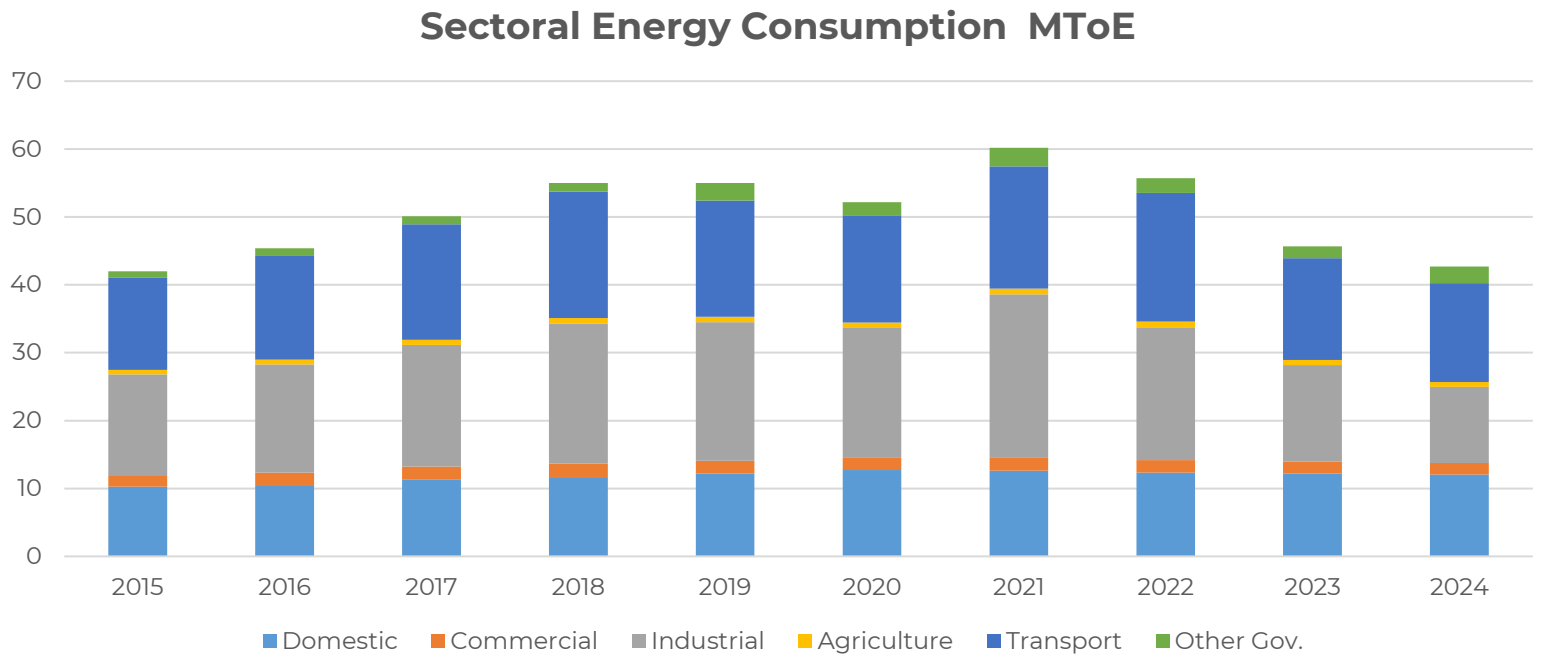
Historical Energy Supplies (2015 – 2024)

Total primary commercial energy supplies from 2015 till 2024

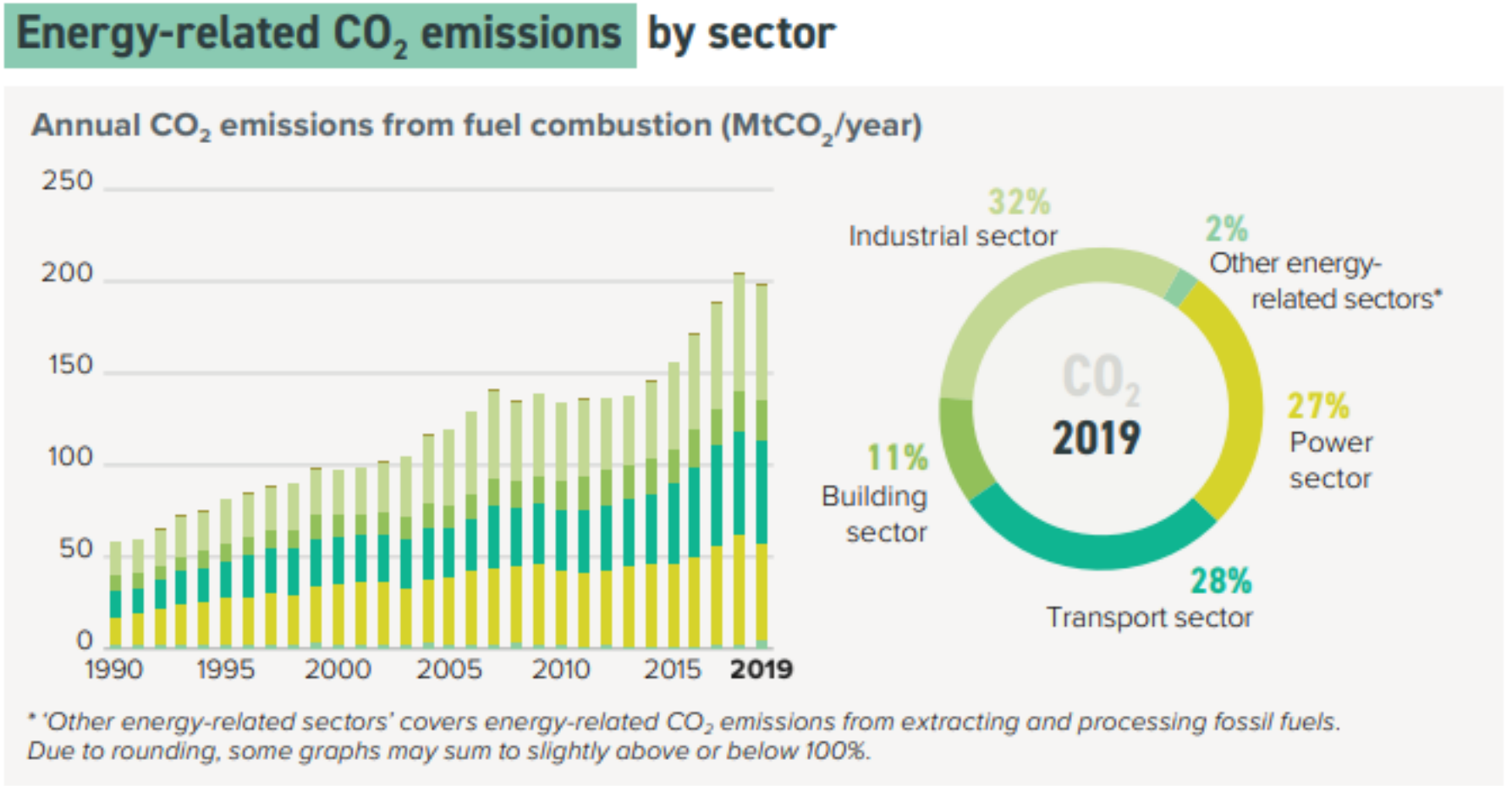


Historical Energy Consumption in economic sectors (2015 – 2024)

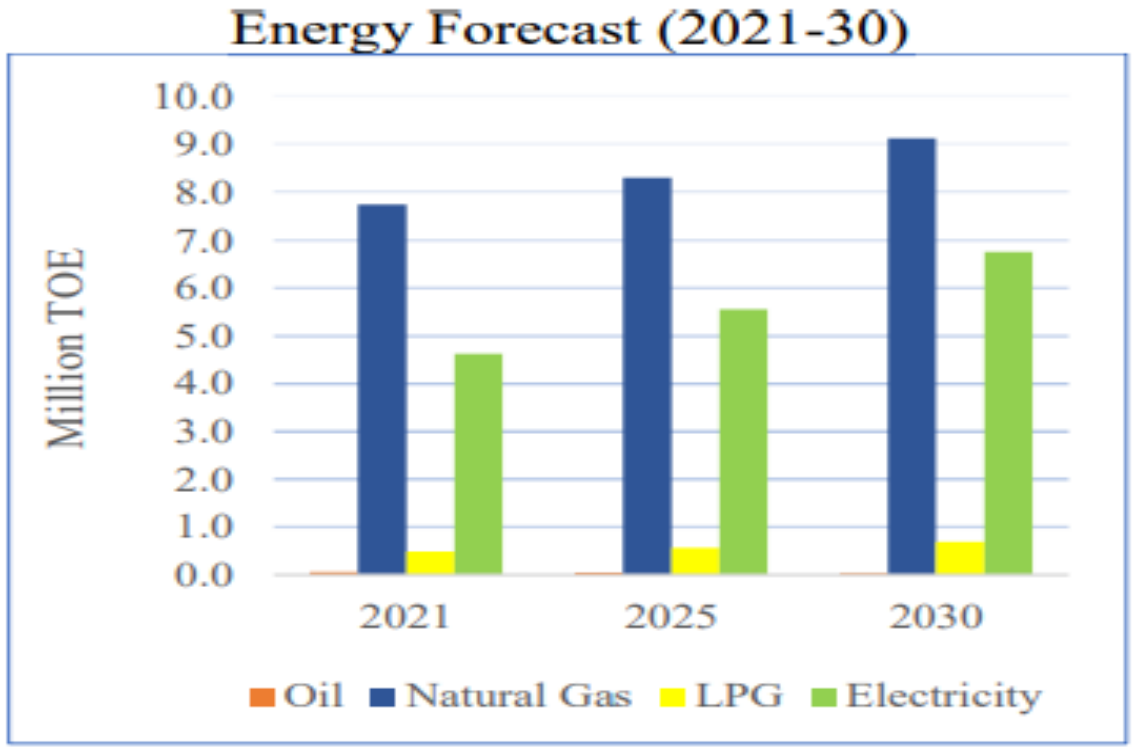
Total final energy consumption in economic sectors from 2015 till 2024



CO2 Emissions



Pakistan's Energy Outlook:



Current Energy Policies and measures

National Electricity Policy 2021

The national electricity policy 2021 key guiding principles:

Alternative Renewable Energy Policy 2019

Policy measures:

- The on-grid generation capacity will be at least 20% by 2025 and at least 30% by 2030.
- Procurement of Alternative Renewable Energy Projects (AREPs) will be done through auctions, preferably on annual basis
- IGCEP outputs will form the basis of all on-grid capacity procurements (except net-metering).
- AREPs' induction in the system will also be driven by the objective of displacement of more expensive electricity of thermal plants where such displacement enables lowering the average system generation cost, as determined by the IGCEP outputs.
- Tariffs will be denominated in Rupees. Upfront or cost-plus tariffs for mature technologies will be discontinued.

Bottlenecks in formulating energy policies

Weak Policy Implementation Mechanisms:
Major gaps exist between policy formulation and on-ground execution due to absence of effective institutional processes, clear accountability structures, and operational capacity.

Lack of Monitoring and Oversight:
Lack of robust, transparent monitoring systems prevents timely tracking of policy outcomes and hinders corrective interventions.

Inter-agency Coordination:
Weak inter-agency coordination and overlapping mandates among federal, provincial, and sectoral entities undermine cohesive and integrated policy implementation.

Governance and Institutional Delivery Constraints:
Persistent governance challenges and institutional inefficiencies continue to impede the effective translation of policy directives into operational action.

Absence of Structured Risk Assessment in Policy Execution:
Policy implementation frameworks often fail to incorporate mechanisms for managing local, global, and political uncertainties, resulting in reactive, ad hoc adjustments.

Subjects I would like to learn:

- Japan’s energy policy, planning and transition strategies
- Integration of renewables and energy efficiency measures
- Regulatory frameworks and institutional coordination
- Innovative financing and private sector models

Expectations of my superior:

- Apply global best practices to national energy policy reforms
- Support implementation of the National Electricity Plan & IEP
- Share learnings with colleagues to build institutional capacity
- Contribute to evidence-based, sustainable energy initiatives

Appendices:

- 📚 **Authentic Sources / Appendices**
- **World Bank – Pakistan Overview**
  🔗 https://data.worldbank.org/country/pakistan
- **IMF – World Economic Outlook (April 2024)**
  🔗 https://www.imf.org/en/Publications/WEO
- **Pakistan Bureau of Statistics (PBS)**
  🔗 https://www.pbs.gov.pk
- **State Bank of Pakistan (SBP)** – Economic Data
  🔗 https://www.sbp.org.pk
- https://power.gov.pk/SiteImage/Policy/1-NationalElectricityPolicy2021.pdf
- https://power.gov.pk/SiteImage/Policy/National%20Electricity%20Plan%202023-27.pdf
- https://power.gov.pk/SiteImage/Publication/YEARBOOK%202023-2024%20final.pdf
- https://www.hdip.gov.pk/
- Pakistan Energy Year book 2023-2024

Energy Prices in Pakistan (Mid-2025)

Consumer Category	Tariff per Unit (PKR/kWh)
Residential (1–100 units)	PKR 21–23
Residential (101–200 units)	PKR 30–36
Residential (201–300 units)	PKR 34–39
Residential (301–400 units)	PKR 39–41
Residential (401–500 units)	PKR 41–47
Residential (501–600 units)	PKR 44–49
Residential (601–700 units)	PKR 44–52
Residential (700+ units)	PKR 49–65
Average residential (post-cut)	PKR 34.37
Commercial / Industrial	PKR 40.60 (industry) / ~45–65 (commercial)

Energy-Related Investments (Domestic & International)

Project / Investment
Dasu Hydropower (Phase I)
Suki Kinari Hydropower
Karot Hydropower
Dasu Dam Stage I (stage cost)
CPEC Energy Portfolio (coal, solar, wind, hydro)
Lower Spat Gah Hydropower (PPP)

Thank you!