



Fact Sheet

Establishing a replicable coal retirement model for Pakistan



There is a clear, bankable case for the early retirement of Pakistan's imported coal-fired assets, such as the 1,320-megawatt (MW) Sahiwal Coal-Fired Power Plant (CFPP), which can be structured as a fiscally prudent, investor-neutral, and climate-positive transaction when project debt is largely amortized and utilization remains chronically low.

Background of the Sahiwal CFPP

Commercial operations achieved:	Power Purchase Agreement (PPA) term:	Return on equity (ROE):	Minimum off-take:	Fuel type:	Average utilization (FY2023–FY2024):	Accumulated receivables pending impacting liquidity (December 2024):
October 2017	30 years (8 elapsed)	27.2%	50% (underpinned by sovereign guarantees)	Imported coal from South Africa or Indonesia	22.6%	PKR82.7 billion

Benefits of early retirement



Up to USD5 billion avoided in capacity payments over plant lifetime



Up to 38 million tonnes of avoided carbon emissions annually



Political and diplomatic advantages to be achieved by demonstrating Pakistan's resolve to honor contracts while pursuing fiscal consolidation and a clean energy transition



Project sponsors could pivot from coal to renewables, with the ability to access transition finance and philanthropic support from international climate initiatives



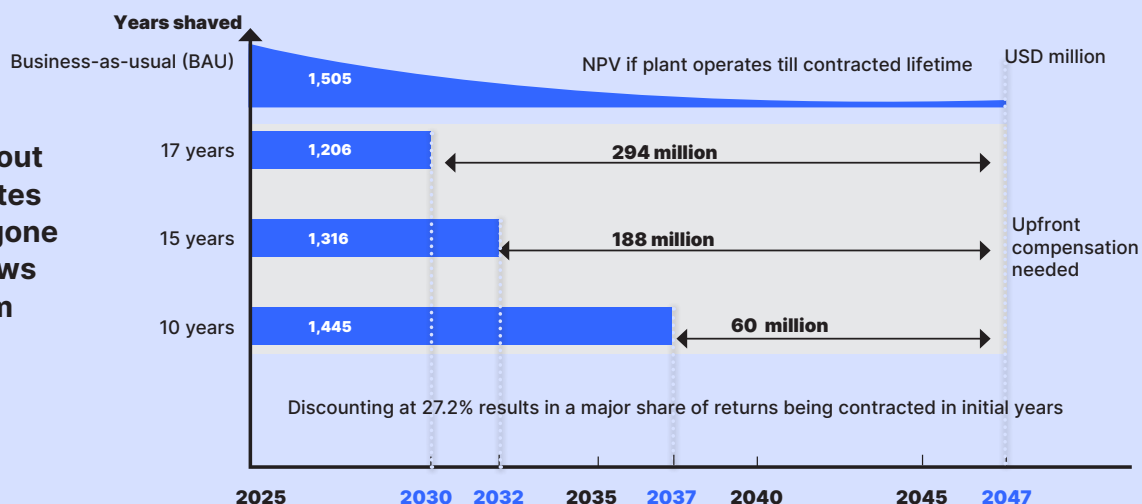
Public-private structures through energy transition facilities such as the Just Energy Transition Partnership (JETP) and the Energy Transition Mechanism (ETM) focus on replicable deals addressing individual assets, but are highly complex, requiring multiple financing sources and parties' agreements. The financial difficulties facing Pakistan's current fossil fuel fleet, particularly the government-to-government arrangements that helped create these assets, make implementing such mechanisms challenging. A focused, asset-level approach to retirement, using direct negotiations, is likely the most feasible path forward."



Feasible pathways for early retirement

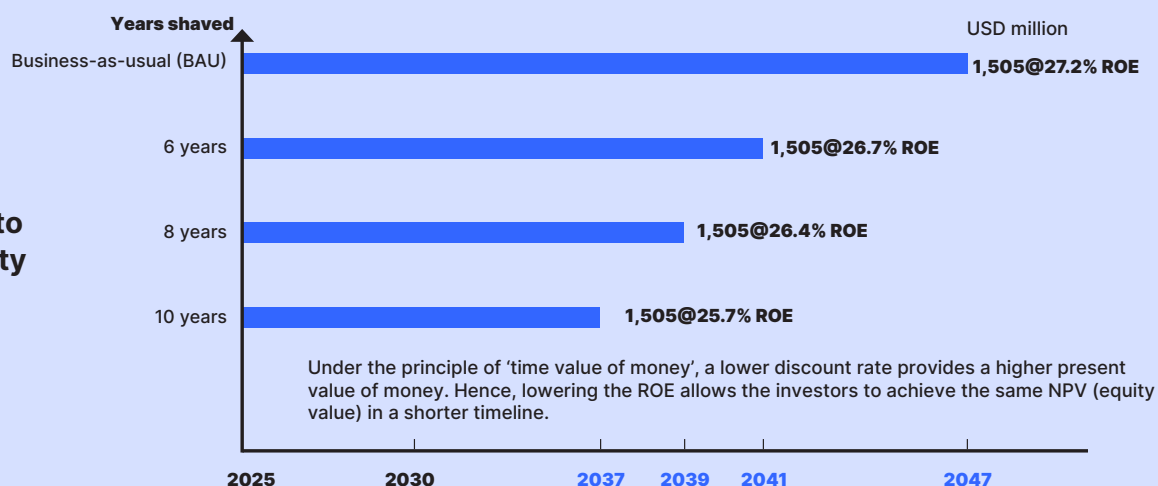
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An upfront buyout that compensates owners for foregone future cash flows in a lump-sum settlement



2

A negotiated ROE reduction to accelerate equity value



Evaluation outcome

- ▶ Retirement is feasible if investors receive compensation that meets the benchmark value without removing benefits reaped from avoided fixed charges
- ▶ The range for retirement negotiations under an upfront compensation-based scenario is between USD0.4 billion and USD1.5 billion
- ▶ Alternatively, a 0.5%–2.5% reduction in the agreed ROE could achieve business-as-usual (BAU) equivalent equity returns 6–10 years earlier than the contracted PPA term
- ▶ Combining staggered payment structures with renewable reinvestment provisions aligns Pakistan's fiscal constraints with climate objectives while providing sufficient incentives for voluntary participation by plant sponsors



Retirement scenario	Financial implications	Access to finance	Investor likelihood to agree to deal	Government inclination for deal
Staggered payments across remaining plant lifetime	1. A 10-year early shutdown: ▶ USD17 million annually at 50% plant utilization ▶ USD14 million annually at a 35% utilization rate 2. A 17-year early shutdown: ▶ USD114 million at 50% utilization ▶ USD99 million at a 35% utilization rate	▶ Government financing through low-cost sovereign borrowing e.g. green/transition bonds, Islamic financing (sukuk), policy lending by multilateral development banks (MDBs), or budgetary allocations under the Public Sector Development Programme (PDSP). ▶ Dedicated funds/reserve accounts which earn interest. Interest payments serve as annual installments to coal plant sponsors.	Medium ● ▶ Investor appetite for a deal might be present given the large volume of arrears owed to these plants	Medium ● ▶ Avoided fixed capacity payments and high energy tariffs for unutilized plant capacity is a motivational factor for the government. However, political and legal hurdles may exist.
Remaining investor equity or upfront payout is invested as equity in a new distributed or utility-scale renewable energy/storage project with fresh (additional) debt	▶ USD59 million as anchor equity to be restructured into a 280MW hybrid array — 51MW solar, 197MW wind, and 31MW battery storage — at a total cost of USD 300million. ▶ The facility could produce 1 terawatt-hour (TWh) a year at approximately USD6.2 cents per kilowatt-hour (¢/kWh) for industrial consumption.	1. Credit enhancement support and guarantee facilities from MDBs under a JETP/ETM deal which packages grants, concessional loans, and private capital together 2. Transition credits 3. Possibility of CFPP parent company, China Huaneng Group, establishing a clean energy special purpose vehicle (SPV) under its renewable energy arm - Huaneng Renewables	High ● ▶ Steady equity returns and cash flows guaranteed over a long-term	High ● ▶ Allows government to pursue climate/transition finance and meet clean energy targets, while avoiding paying for expensive imported coal-based plants, reduces surplus grid capacity
Renegotiating the return on equity (ROE) rate to achieve business-as-usual (BAU) equivalent equity value earlier	▶ A 0.5%-2.5% reduction can deliver BAU equivalent equity returns under a 6-10 year accelerated closure timeframe	▶ Renegotiated PPAs with off-taking utility providing revenues, public funds for resolution of financial arrears	Low ● ▶ Incumbent plant owners may not be ready to take a haircut on outstanding dues or agree to lower returns. Forcing deals could lead to international arbitration.	Medium ● ▶ Avoided fixed capacity payments and high energy tariffs for unutilized plant capacity is a motivational factor for the government. However, political and legal hurdles may exist.

Recommendations



Mapping similar plants: The Sahiwal CFPP could serve as a pilot for accelerated retirement, as debt amortization is nearly complete, equity profits dominate, and ongoing payments impose rising fiscal stress without proportional public benefit.



Capacity building: While transition credits could provide a complementary revenue stream, they entail stringent credibility requirements. Regulatory amendments will also be required to ensure replacement projects secure priority connection and streamlined approvals.



Bilateral engagement: In addition to facilitating access to green technologies and products, China can establish an Asian-led model for phasing out coal in the region.



Parallel measures: Plant retirements should align with grid planning. Removing the Sahiwal CFPP will not create immediate headroom for utility-scale renewables unless there is industrial demand revival, time-of-day tariffs, storage procurement, and distribution-loss reduction.

About IEEFA

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