



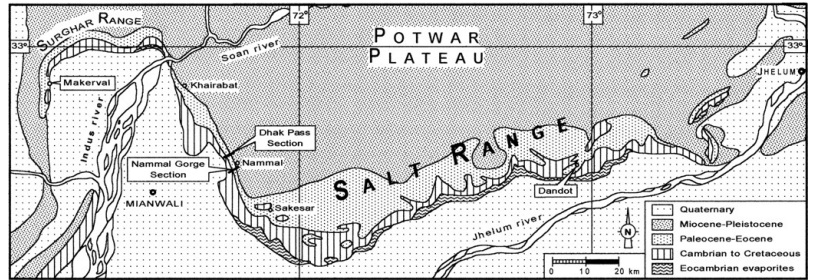
150-300 MW Local Coal Fired Power Plants on Mine Mouth Model

Economy/Industry/Sector

Country	Pakistan
GDP	US\$ 269 billion (Rs.27,384 billion)
GDP Growth	Actual 4.24 % (2014-15), Projected 4.3%-4.6%
Inflation	1.3% (September 2015)
SBP Policy Rate	6%
KSE (Market Capitalization)	US\$ 67.83 billion (Rs.7,054 billion)
Electricity generation (sub sector): Growth Rate	1.7% (2014-15)
Mining & Quarrying Sector: GDP Share/ Growth Rate	1.9% (2014-15) / 3.8% (2014-15)
Est. CPEC Investment	US\$ 45 billion (Including US\$ 15.5 billion in energy sector)

Project Background

Punjab has 600 million tons of Bituminous Coal Resources estimated on JORC standard by M/s Snowden of Australia, in Salt Range & Surghar Range. It also has 400 million tons of Lignite Coal. The coal quality is suitable for power production and quantity is sufficient to support multiple 150-300 MW Projects on integrated mine mouth model.



Proposed Project

Establishment of Local Coal Fired Power Plants on integrated Mine Mouth Model.



Project Objective

Use of Mineral Resources of the province for the betterment of the people of the country and rise in Per Capita Income & GDP.

Proposed Transaction Structure

Ownership	Private sector, Public sector, Public-Private Partnership
Legal Entity	SPV registered with SECP
Location	Salt range Punjab
Project Period	30 Years (Extendable)
Government Role	Facilitator, Partner, Regulator

Executing Agency

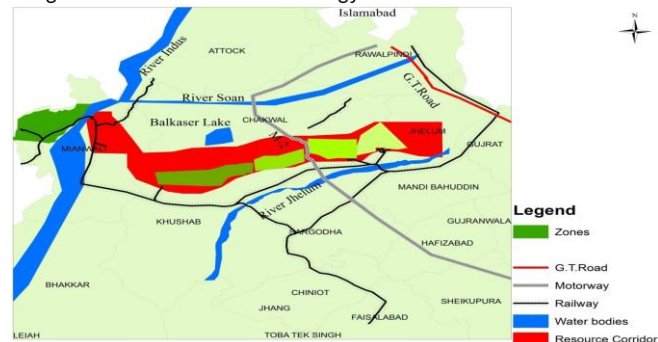
Mines & Minerals Department, Government of the Punjab is responsible for surveys, exploration, development & promotion of mineral resources, grant of licenses/leases, collection of rents, royalties & fees, infrastructure development in mining areas and providing health, safety & welfare facilities to mine workers.

Project Assumptions

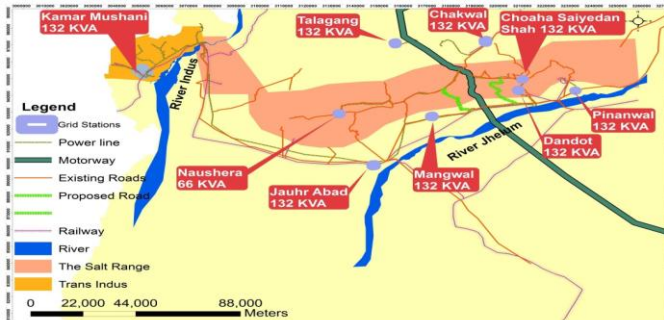
Power plant capacity	300MW coal fired power plants
Coal Requirement	4000-4500 ton/day
Local Coal Quality	Average GCV 3500Kcal/Kg Sulphur ranges 3% to 8%, Moisture 4% to 7% Ash ranges 30% to 40%
Coal transportation distance	5KM to 30KM
Technology	CFBC/PC Technology with or without coal pre-treatment
Coal Supply	40% coal supply from new mining zone & 60% from private sector
Infrastructure	Public sector funded improvement in transmission network, road infrastructure & labor logistics

Punjab Energy Corridor

Integrated Coal Zones Within Energy Corridor



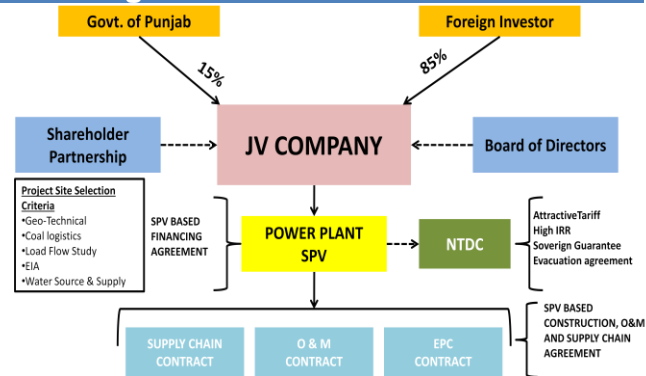
Composite Infrastructure in Energy Corridor



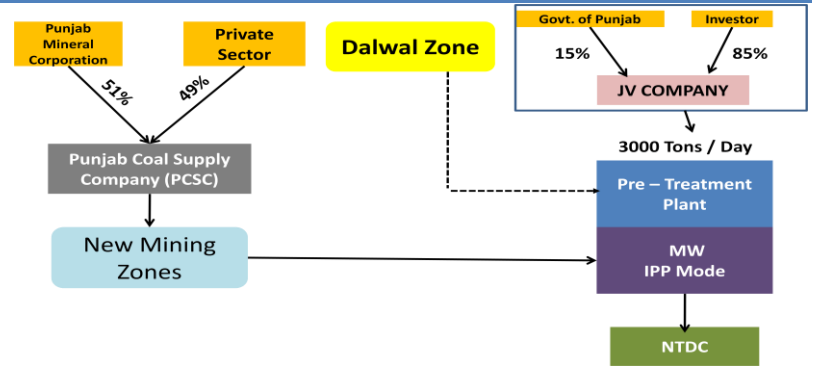


150-300 MW Local Coal Fired Power Plants on Mine Mouth Model

Proposed Project Ownership, Financial & Management Model



Proposed Project Business Model



Way Forward

The proposed Project presents a great opportunity to invest in an integrated business model by developing local coal mines and establishing coal fired power plants at mine mouth model ensuring high IRR with no supply chain risks, no foreign currency volatility risk and increased demand for electricity. In addition, Government of Punjab will ensure facilitation to Investors through Fast track Grant of Large Scale Mining Leases, Legal protection & facilitation under Public Private Partnership Act and development of essential infrastructure in the zone.

The way forward for the proposed Project includes:

- Feasibility study by Investor
- Approvals and agreements with Federal Government Institutions
- Grant of Lease by DG Mines & Minerals, Punjab
- Project Implementation by Investor
- Provision of Essential Infrastructure in the Zone during Project implementation phase

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