



Thar Coal & Energy Board

Government of Sindh

CONCEPT PAPER

Scaling up Thar Coal for Pakistan's Economic Development & Energy Independence

Introduction:

Thar coal is one of the largest coal resources in the world and is located in the Thar Desert of Pakistan. Thar has more than 175 billion tons of coal deposits, and it has the potential to significantly impact Pakistan's energy sector, and overall economic development. Currently, Thar coal is mainly used for mine-mouth power generation. As infrastructure has developed over the last decade, it has been demonstrated that it is possible to extract coal from the Thar Desert, thereby considerably reducing execution risk.

Scaling up the Thar Coalfields would be critical in reducing cost of production, as the marginal cost of producing incremental coal would continue to decline as economies of scale kick in. The recent commodity super-cycle has exhibited that energy net importers like Pakistan remain exposed to vagaries of the international commodity market, making it imperative that there is a transition towards indigenous energy resources on a priority basis, and on war footing. As execution risk has reduced, it is entirely possible that Thar coal can be used in areas other than mine-mouth power, and can also be utilized in other industries, such as cement, fertilizer, etc.

This concept paper will examine the benefits of using Thar coal in these industries, the potential savings that can be extracted, and the importance of establishing a new pricing mechanism to support these use cases, and the challenges that must be overcome to make this a reality.

Advantages of Using Thar Coal in Other Industries:

- **Cost-effective:** Using Thar coal in industries such as cement, fertilizer, and other production units can result in considerable cost savings compared to using furnace oil, imported LNG, diesel, and other fuels. It is essential to note here that as indigenous gas supplies dwindle, the marginal cost of natural gas would start mimicking the international LNG prices. Thar coal is abundant in Pakistan and its domestic production eliminates the need for expensive imports. These cost savings can enable expansion of margins, while also making industries competitive in terms of energy cost.
- **Decreased Dependence on Imported Fuels:** Pakistan's reliance on imported fuels has been a long-standing concern, and using Thar coal in industries beyond power generation can help reduce this dependence. This will enhance energy security and reduce the trade deficit, freeing up resources for other economic needs. Additionally, relying on domestic energy sources will reduce Pakistan's vulnerability to international energy market fluctuations and make the country less reliant on foreign sources of energy. This will also preserve precious foreign currency reserves, while making local economic activity less susceptible to volatility in the international commodity markets. This will also induce stability in energy costs, which is critical for long term project and strategic planning.



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- **Boost to Economic Activity:** Developing new industrial uses for Thar coal can result in increased economic activity in the region, including job creation and local economic growth. This will drive the development of supporting industries, such as transportation and infrastructure, further boosting the local economy. Additionally, the development of new industries and the increase in demand for Thar coal can drive the expansion of the existing coal mining sector and create new employment opportunities in the region.

The Importance of a Revised Pricing Mechanism for Non Mine-Mouth Power Uses:

- **Encouraging Investment:** A revised pricing mechanism for Thar coal is crucial to encourage investment in new industrial uses by providing a predictable and stable pricing structure. This will give investors the confidence that Thar coal prices will remain consistent, making investment in these industries more attractive. The establishment of a clear and stable pricing mechanism can also help to attract private investment in the coal mining sector, which is critical to the expansion of the Thar coal. The eventual goal would be to move towards a thriving spot market for Thar coal, enabling evolution of competitive prices.
- **Promoting Efficient Resource Use:** A revised pricing mechanism can encourage efficient use of Thar coal by ensuring that it is used in the most economically feasible manner possible. This can include measures such as pricing based on quality, promoting the use of best practices, and encouraging energy efficiency. A revised pricing mechanism can also help to minimize waste and promote sustainable resource use, ensuring that the benefits of Thar coal are available for future generations.

Policy Discussion:

A critical step in this process is to engage stakeholders in a policy discussion to address the challenges and opportunities presented by using Thar coal in these industries. This discussion should involve all relevant parties, including government agencies, private sector companies, and local communities, to ensure that the perspectives of all stakeholders are considered. The policy discussion should focus on developing a comprehensive and integrated approach to the development of Thar coal that takes into account the needs and interests of all stakeholders.

The policy discussion should aim to build a consensus among stakeholders on the best approach to using Thar coal in these industries. This consensus should consider the needs and interests of all stakeholders, including the government, private sector companies, and local communities. The outcome of the policy discussion should be a clear and comprehensive plan for the development of Thar coal that is supported by all stakeholders and that provides a framework for action.

Conclusion:

The utilization of Thar coal in new industrial applications has the capacity to significantly shape Pakistan's energy industry and contribute to the country's overall economic growth. To realize this potential, it is crucial to involve stakeholders in an effective and efficient manner and arrive at a common understanding on the most suitable approach to utilizing Thar coal in these industries. By fostering a policy discussion that prioritizes transparency, stakeholder engagement, and consensus-building, it is possible to increase confidence among stakeholders and drive the development of Thar coal in a way that benefits all parties involved.