

International Coal Conference 2011

22nd October 2011

Coal – the Way to achieve energy security for Pakistan

By

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Secretary Coal & Energy



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Development
Department**



**Thar Coal
& Energy
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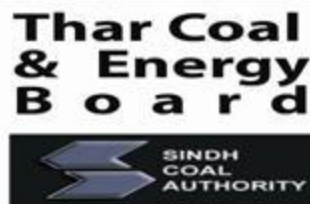


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Conference Objectives

- To market the country's Coal resources as the way to achieve energy security for Pakistan
- To bring to the fore all the myths, misconceptions and FAQs
- To sift facts from fiction, clarify misconceptions and answer questions
- To bring clarity to all the stakeholders including the government
- To demonstrate the commitment of the Federal and the Provincial Governments for this important national task

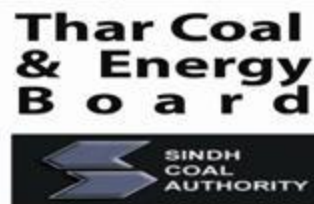
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Strategy

- To involve :
 - International and Local Experts – those who have studied our coal resources especially Thar Coal
 - Investors and developers who are spending millions in preparing their projects on Coal mining, Power Generation and other uses of coal
 - Prospective investors to enhance their interest in early initiation of their proposed projects
 - The highest level of the Federal and Provincial Governments to show government's seriousness

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Misconceptions about Thar Coal

- *It is buried too deep under the sand that it is not feasible to mine it*

Dr Marcos Leontidis, Mining Expert from Greece:

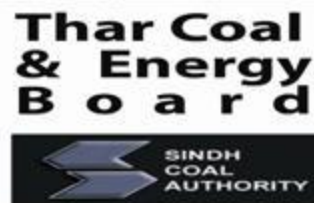
“The stripping ratio in Thar is around 6.6:1, much better than many lignite mines in the world including Greece”

- *It has a very high Sulphur content, unacceptable for use as per international standards*

Dr Larry Thomas, Coal Expert from United Kingdom:

“Sulphur content in Thar is acceptable being at 0.7%, which is lower than found in many other lignite resources already being used in the world”

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Misconceptions about Thar Coal

- *It has a very high moisture content, making it unfeasible for commercial use*

Dr Larry Thomas, Coal Expert from United Kingdom:

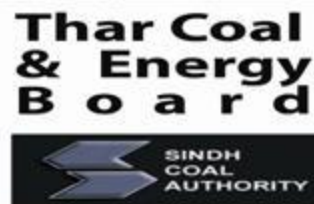
“Similar moisture levels are found in most of the lignite mines in the world”

- *It cannot be transported to a distance for utilization in other parts of the country*

Dr Larry Thomas, Coal Expert from United Kingdom:

“It may not be exportable to other countries but can be transported to be used in other parts of the province after drying”

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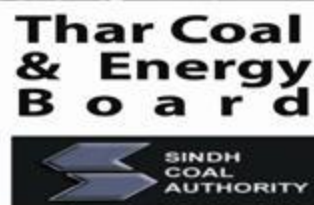


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Misconceptions about Thar Coal

- *It is generally of a very poor quality not commercially feasible for power generation*
- *Due to multiple issues with Thar coal, its mining is too costly and the electricity generated will be as costly as that using imported oil*
 - Five project developers / sponsors denied:
 - ✓ CEO – Oracle Coalfields of United Kingdom – 300 MW
 - ✓ CEO – Sindh Engro Coal Mining Co. – 1200 MW
 - ✓ Rep – UCG Project in Thar – 150 MW
 - ✓ MD – AustalAsian Continental Energy Pty Ltd – 900 MW
 - ✓ Rep – CMC / Three Gorges of China for Sonda -400 MW

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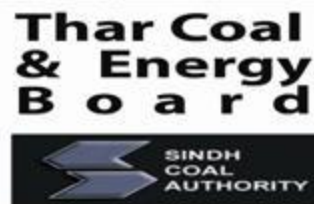


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Myths about Coal

- The world is moving away from Coal and finances are no more available for Coal based projects
- Financial Institutions are no more financing the Coal Projects

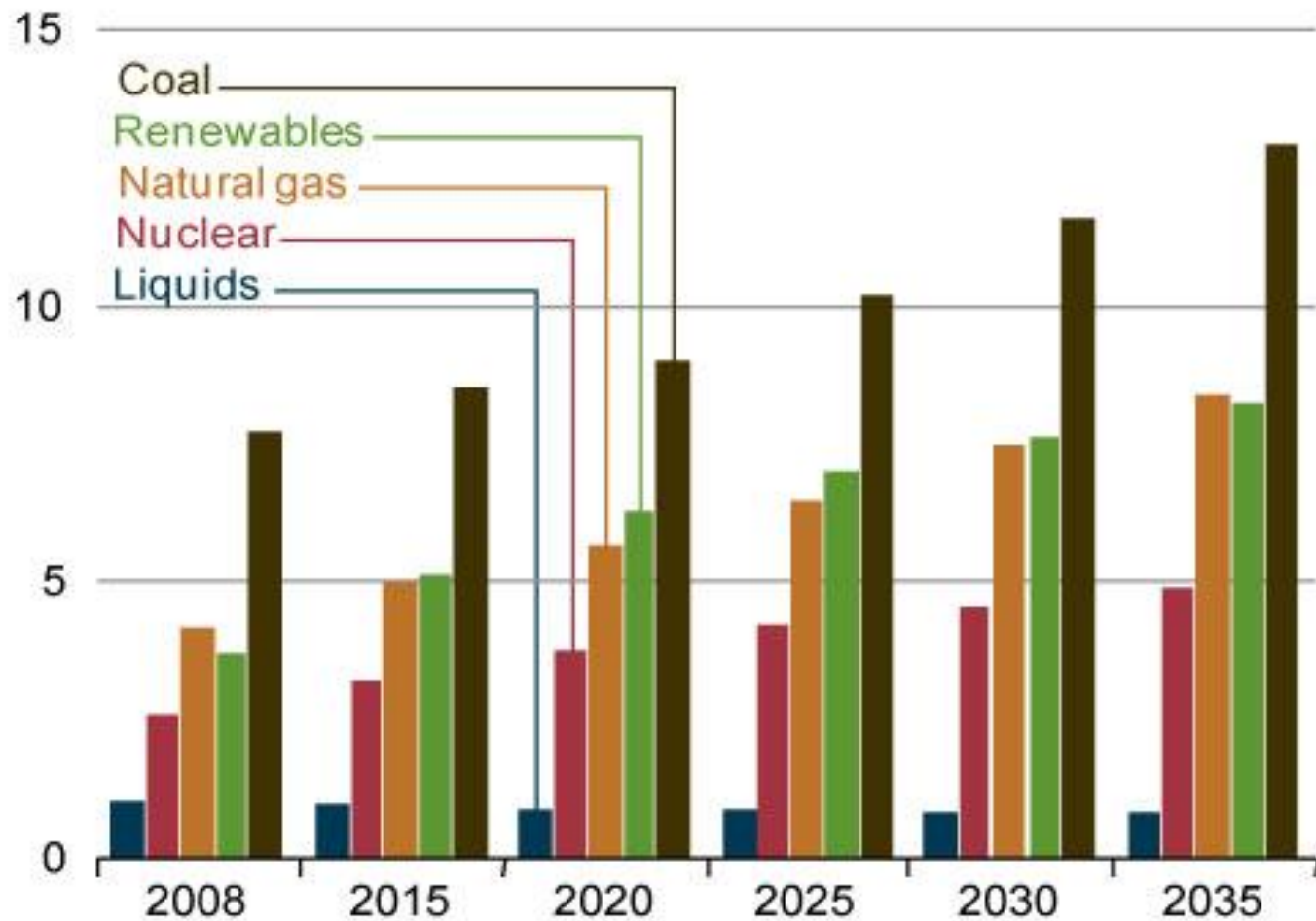
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Figure 75. World net electricity generation by fuel, 2008-2035

(trillion kilowatthours)



Source: US Energy Information Administration

POST BUSINESS

Japan tsunami spares major economic zones

World Bank approves loan for coal-fired power plant in South Africa

By Reuters
Friday, April 9, 2010

The World Bank on Thursday approved a [controversial \\$3 billion loan](#) for the development of a coal-fired power plant by the South African state utility Eskom despite lack of support from major shareholder countries.

The United States, the Netherlands and Britain said they abstained from supporting the loan because of environmental and other concerns about the project.

Eskom has defended the development of the 4,800-megawatt Medupi plant in the northern Limpopo region, saying it is critical to ease the country's chronic power shortages as well as to ensure electricity flows to neighboring states.

The [World Bank said](#) the loan would help "South Africa achieve a reliable electricity supply." In addition to the \$3 billion loan for the coal plant, the World Bank approved \$750 million in financing for renewables and energy-efficiency projects.

"Without an increased energy supply, South Africans will face

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The Nobel winner's fearful choice in Afghanistan

"A must-read for politicians, celebrities and CEOs."

Bloomberg Businessweek

Pakistan's Energy Mix – Is it viable ?

- Renewable (Hydro, Wind, Other) :

Pakistan: 30.3% World: 18%

- Nuclear & Thermal (Oil, Gas & Coal) :

Pakistan: 69.7% World: 82%

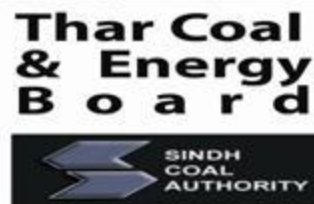
- Oil Based Thermal :

Pakistan: 35.3% World: 7%

- Coal Based Thermal :

Pakistan: 0.1% World: 40%

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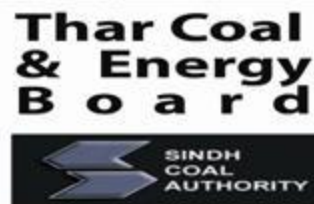


Energy Mix

Mr Nigel Pickett from SRK-UK and others:

- Renewable Energy cannot provide Pakistan reliable energy supplies due to its seasonal and cyclic nature. It has to be part of our energy mix to meet the peak demands and reduce fossil fuel consumption
- Base load of Energy mix has to come from thermal resources
 - Imported fuels cannot provide energy security to the country
 - Volatility of Oil prices in 2007 brought heavy stress on the economy
- Indigenous Coal provides the only option to achieve energy security for the country

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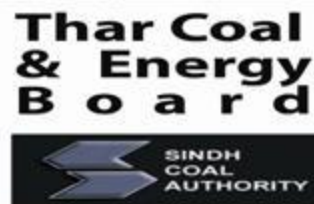


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Questions that are asked

- *If the electricity generated on coal is cheaper than that on oil, shouldn't we reduce the high proportion of Oil based power generation (more than 35%) in our energy mix?*
 - Minister W&P and MD PPIB: The government has started working on the policy of retrofitting 5300 MW of RO based plants to Coal based initially on imported coal and technically compatible to use indigenous coal when available

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Infrastructure Development

Sr No	Project	Estimated Cost	Target Completion Date
1	Improvement of Road Network (3 Schemes)	Rs. 9.6 bn	Dec 2012
2	Effluent Disposal System	Rs. 4.0 bn	Dec 2012
3	Thar Lodges in Islamkot – 30 Bedded	Completed	
4	Reverse Osmosis Plants for Potable Water	Completed	
5	Water Supply from Makhi Farsh	Rs. 27 bn	Dec 2013
6	Alternate Supply – Waste water from LBOD	Rs. 9.0 bn	Jun 2013
7	Transmission Line from Matiari to Thar CF	Rs. 21 bn	Jun 2014
8	Thar Airport	Rs. 808 m	Dec 2012
9	Rescue Station	Completed	

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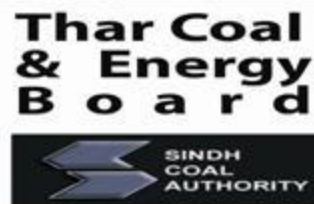
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Way Forward

- Pursuing policy to replace Oil with Indigenous Coal in power generation to provide –
 - Fuel Security
 - Foreign exchange savings
 - Lower electricity tariffs for consumers
 - Way to eliminate power shortages
 - Greater viability for Coal Projects on local coal
- Timely completion of critical infrastructure projects for Thar Coalfield

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Way Forward

- Announcement of attractive upfront tariff
- Pakistan with almost zero carbon footprint and very high proportion of renewable energy (30% as compared to world's 18%) can pursue its case for financing its coal projects

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Thanks

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