

Proposed Coal Projects: Australia and India



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Analysis
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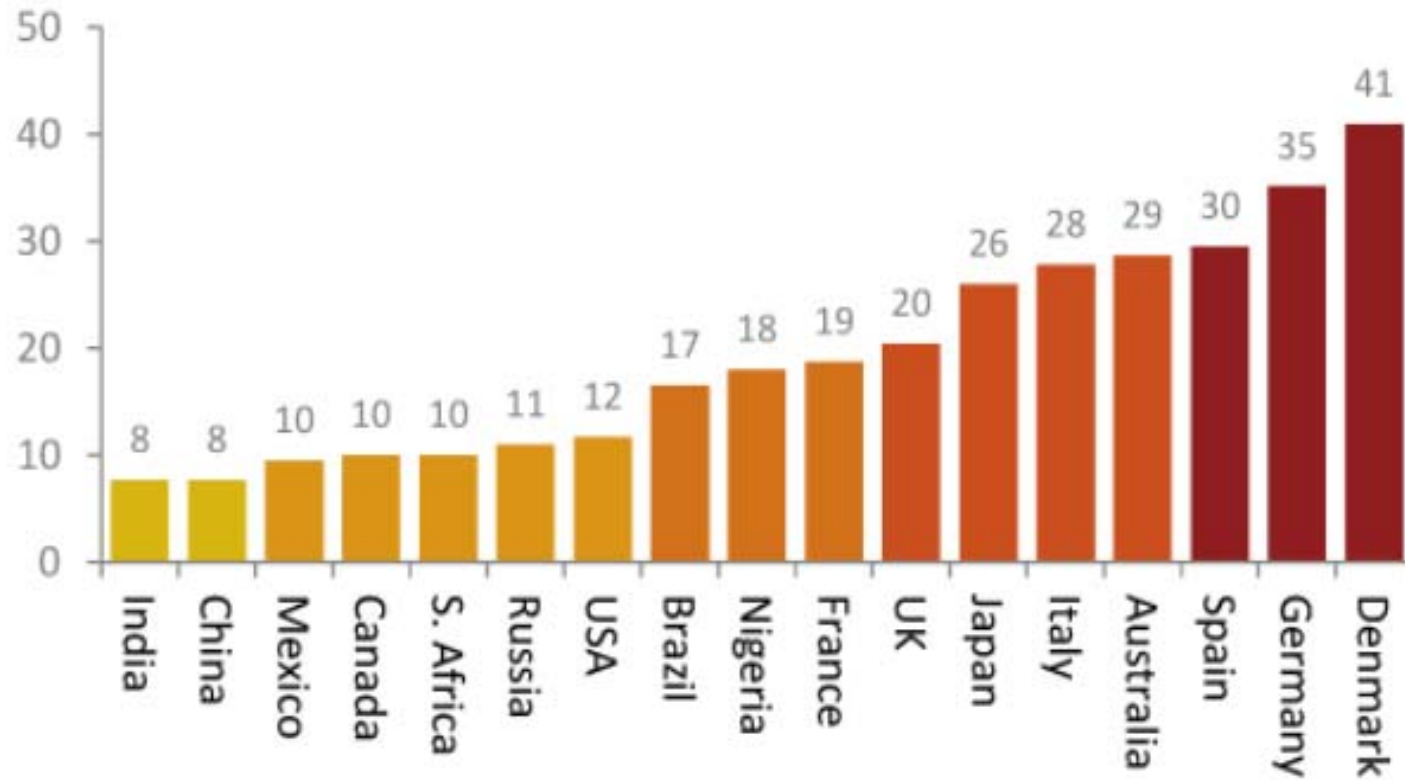
Agenda

- Australian Electricity Market
- Australian Gas Market
- Australian Coal Industry
- Indian Firms Investing in Australia
- Indian Economic Challenges
- India's Plan B: Energy Efficiency and RE

Australian Electricity Market

- Electricity demand continues to decline
- Electricity capacity continues to rise
- Record high retail electricity prices despite weak wholesale electricity prices
- Policy lacks TLC

Retail Electricity Prices



Data: average prices from 2011 converted at mean exchange rate for that year

Source: IEA, EIA, National Electricity Boards, OANDA¹

¹ <http://cleantechnica.com/2013/09/30/average-electricity-prices-around-world/>

Australian Gas Market

- Massive US\$70bn investment in LNG Export Facilities
- Gas production to double this decade
- Domestic Gas Price to treble to Export Price Parity
- Reverse of American gas position and impact

Australian Coal Industry

- Coal Price down 40% from 2011 peak
- A\$/US\$ down 15% from peak
- Construction + operating costs blew out 2010-2013
- Revenues down, but production up due to ToP

Australian Coal Industry - Exports

- Coal firms are still thinking this is cyclical
=> Cyclical means now is a better time to invest?
- A few coal projects are being cancelled (*Wandoan*), more delayed (*Galilee, Arckaringa C-T-L*), financing difficult
- Rail and Port Infrastructure has seen serious cancellations (*Abbot Point (T2, AP-X), Dungeon Point*) and delays (*WICET II*)
- CCS not even being considered

Australian Coal Industry - Domestic

- Pending repeal of Carbon Tax – makes domestic brown coal fired power generation low cost provider
- Trebling of wholesale gas price => gas fired power generation uncommercial, being mothballed after 5 years of expansion
- Heavy incumbent industry lobby effort to diminish Renewable Energy Target (*RET*) and undermine distributed solar
- Electricity Retail Oligopoly vertically integrating upstream into coal fired power generation, buying State coal-fired power plants (*regulatory dilemma – state owned assets, state regulated*)

India & Australia

- Historically Australia has not had a lot of investment in India (*ANZ Bank's Grindlay experience*), nor has India invested in Australia.
- However, Australia's history – waves of investment from UK, then the US, then Japan, followed by Korea and now China. No major cultural or regulatory barrier. Just learning!

Indian firms in Australia

- In 2010 **Adani Enterprises** paid A\$525m in Carmichael Coal proposal & 2011 **GVK** invested US\$1.26bn in Alpha Coal proposal (*both Galilee Basin, Qld*)
- 2011 **Lanco Infratech** invested A\$750m in Griffin Coal (*WA*)
- **Gujarat NRE Coking Coal** acquired a coking coal firm in Wollongong (*NSW - bailed out by Jindal Steel in 2013*).
- **Commonalities** – limited coal mining experience, heavy financial gearing, no prior knowledge of doing business in Australia, conglomerates (*no core business*).

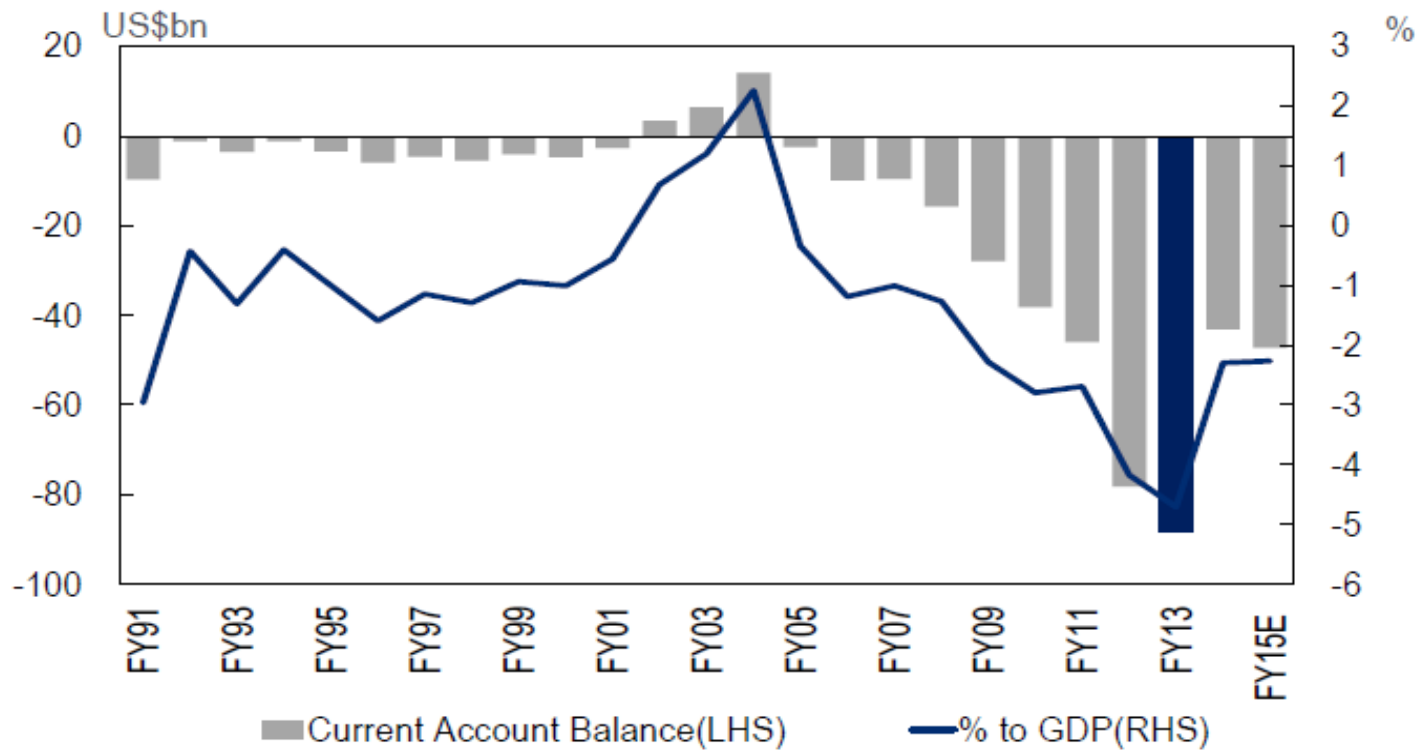
India's Coal Sector

- 5th largest stated coal resource in world (Ashish will contest this!)
- Expansion stymied by lack of regulatory clarity
- Issues with access to land (traditional owners, forest reserves)
- Insufficient railway capacity
- Domestic coal US\$23/t – half global traded price, gas US\$4/unit, a third of the global traded price, electricity price half global rate.
- Imports of coal doubled from 10% to 20% of total in last 3 years.

India's Electricity Sector

- Very low retail electricity prices (*heavily subsidised*)
- State Distribution Companies generally loss-making
- Grid Transmission and Distribution losses / theft extreme (24%)
- Listed firms: invested heavily, excessive gearing, project delays, lower than expected utilisation rates, loss-making
- Bank Sector Distress – 10% average NPL, under-capitalised, almost no ability to put firms into administration
- India imports 80% of oil, 40% of gas and 20% of coal – huge current account deficit driving up inflation and driving the Rupee devaluation.

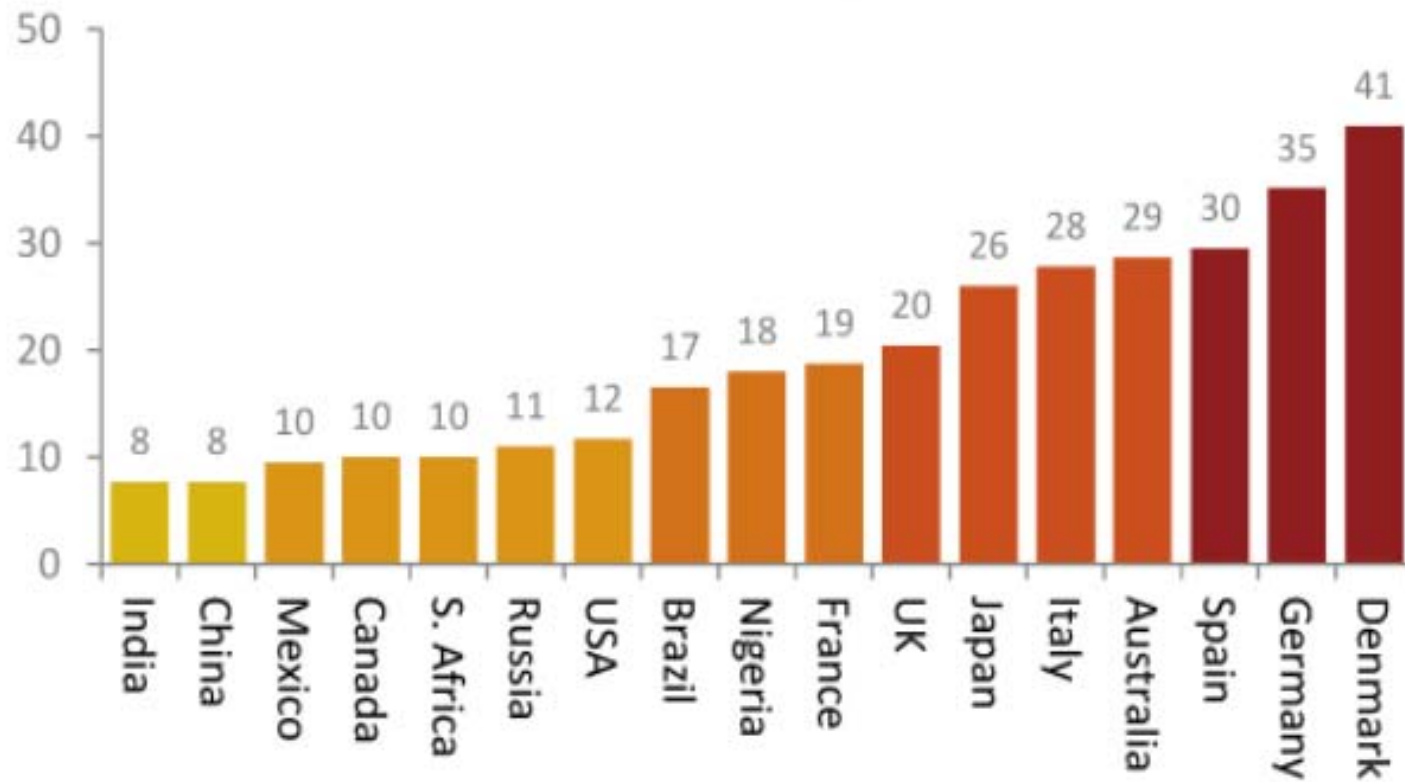
India's Current Account Deficit



Source: RBI, Citi Research

Rohini Malkani, Citi Research, 6 Feb'2014, "India Macro Flash: Savings Rate falls at Nine Year Low in FY2013"

Retail Electricity Prices

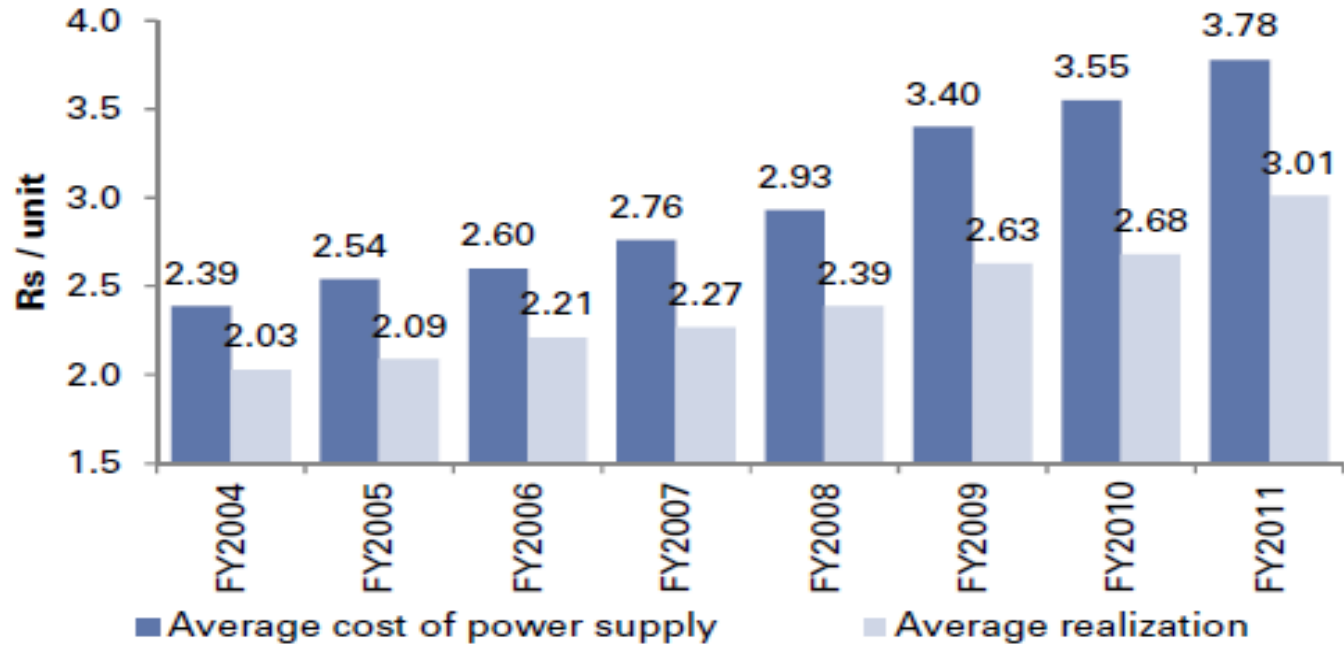


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State Discoms: loss-making



Source: CEA, Goldman Sachs Global Investment Research^[1]

^[1] Goldman Sachs Global Equity Research, Pulkit Patni & Mohit Soni, "Energizing India: Reforms the bright spark, but regular tariff hikes key", 19 January 2014.

Electricity Sector – Plan A

- The current system is not working
- GDP growth was 7-9% pa 2007-2011, slowing to 4-6% 2012-2014 as unsustainable stresses have emerged
- The Coal sector presumes India will be the next China
 - India's 12th FYP assumes coal imports by 2017 rise to 240Mtpa
- India cant afford imported coal at US\$100/t (*landed*)

Electricity Sector – Plan B?

India has huge plans, scope and/or capacity for renewables & EE

- A massive lift in hydro - 41GW currently, scope for 150GW (renewable?)
 - Plans to import 10GW from Bhutan hydro by 2020
- Wind power - 20GW currently, scope for 100GW
- Solar - 2GW currently, a plan for 22GW by 2022, scope for 44GW?
- Grid transmission losses - 24% currently, 8-9% global average
- Nuclear - 6GW currently, plans to treble this
- Gas - 20GW installed, 10GW idle

Plan A or Plan B?

“The choice for law and policy makers is whether to usher in and prepare for these technological changes or resist them for as long as vainly possible so that incumbent industries can squeeze out as much profit as they can before consumers snip the wire and leave energy network companies and their assets stranded.”

Australian Senator Christine Milne, March 2014

<http://reneweconomy.com.au/2014/milne-regulatory-protection-last-refuge-incumbent-utilities-22010>



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