

# Changing Dynamics in the Global Seaborne Thermal Coal Markets & Stranded Asset Risk

*“Climate Change poses risks to which financial market regulators and company boards have, to-date, given little attention.”*

Dr Martin Parkinson, August 2015

Tim Buckley, Director of Energy Finance Studies,  
Australasia to the Investor Group on Climate Change



Institute for Energy Economics  
and Financial Analysis  
IEEFA.org

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# 1. Shareholder Wealth Destruction

	Coal India Ltd	Peabody	Alpha Natural Resources	Whitehaven	Glencore	China Shenhua Energy
2014 year start	283	18.80	7.04	1.94	308	24.20
Today	328	1.32	-	0.90	92	11.84
Decline	16%	-93%	-100%	-54%	-70%	-51%
Issued capital (m)	6,317	261	223	1026	13151	19,257
Equity cap. (US\$bn) 2014 year start	27.1	4.9	1.6	1.4	61.6	60.1
Today	31.4	0.3	0.0	0.6	18.3	29.4
Equity wealth destruction (US\$bn)	4.3	-4.6	-1.6	-0.8	-43.3	-30.7
Net debt (US\$bn)	-8.0	6.0	3.0	0.7	30.0	8.3
Net debt to Market Cap.	-25%	1742%	Infinite	101%	164%	28%



# 2. China's Electricity Sector Transformation

Coal's share of China's electricity generation mix is set for a steep decline



Year to June 2015:  
China GDP +7.0%  
Electricity +1.3%  
Domestic coal -5.8%  
Coal imports -38%

China added 23GW new wind in 2014, giving a 115GW cumulative installed total, up 15% yoy



Source: Citi Commodities, Tony Yuen, June 2014; "Energy Markets in Transformation"  
<http://uk.reuters.com/article/2015/07/15/china-economy-output-coal-idUKL4N0ZV1FX20150715>



## 3. India

India's Energy Minister Goyal stated November 2014:

1. *Plans to transformation of the entire Indian electricity system with 175GW of renewable energy installs by 2021. This involves a trebling of wind installs to 6-8GW and lifting solar installs tenfold to 10GW pa.*
2. *A plan for a US\$50bn national grid upgrade to drive grid efficiency.*
3. *Plans to more than double India's domestic coal production to 1.5Bn tpa by 2019, requiring a massive investment in rail infrastructure, coal handling and preparation plants plus major new mine development.*
4. *Goyal: "I'm very confident of achieving these targets and am very confident that India's current account deficit will not be burdened with the amount of money we lose for imports of coal. Possibly in the next two or three years we should be able to stop imports of thermal coal."*

<http://in.reuters.com/article/2014/11/12/india-coal-imports-idINL3N0T234F20141112> and  
<http://www.livemint.com/Politics/1n7MyaiV54dSmIOTWg4SYN/250-billion-opportunity-to-invest-in-renewables-Piyush-Goy.html>

# 1.4 Thermal Coal Export Price Collapse

Forwards out to October 2021 have thermal coal under US\$51/t

Newcastle Export 6,000kcal Thermal US\$/t



<http://www.indexmundi.com/commodities/?commodity=coal-australian&months=60>

<http://quotes.esignal.com/esignalprod/quote.action?symbol=NCFQ-ICE>

# 1.5 International Thermal Coal – Key Markets

A 32% decline  
in global  
demand

Calendar Year	----- Actuals -----				Estimate	----- Forecasts -----						
	1990	2000	2010	2013	2014	2015	2016	2017	2018	2019	2020	2021
<b>COUNTRY</b>												
China	11	8	126	264	240	168	134	108	86	65	45	29
India	0	10	81	142	152	192	167	139	108	72	36	0
Japan	42	93	128	142	145	142	137	133	129	125	122	118
Korea	12	45	90	96	98	100	102	104	106	108	111	112
Taiwan	14	40	58	61	63	63	65	66	67	69	70	71
South East Asia (1)	4	14	53	60	63	73	79	84	90	96	103	111
Western Europe (2)	48	80	98	128	114	102	99	95	91	87	83	79
Rest of world	191	150	172	179	181	184	188	192	196	199	203	208
<b>Total World</b>	<b>322</b>	<b>441</b>	<b>806</b>	<b>1,072</b>	<b>1,055</b>	<b>1,025</b>	<b>970</b>	<b>921</b>	<b>874</b>	<b>822</b>	<b>774</b>	<b>729</b>
United States	2	10	16	7	7	9	9	10	10	10	10	10
Russia	53	25	24	23	23	21	19	19	19	19	19	19
<b>Net World Imports</b>	<b>267</b>	<b>406</b>	<b>766</b>	<b>1,042</b>	<b>1,025</b>	<b>996</b>	<b>942</b>	<b>892</b>	<b>845</b>	<b>793</b>	<b>745</b>	<b>700</b>

(1) This includes only Thailand, Philippines, Malaysia, Pakistan and Vietnam

(2) This includes only United Kingdom, France, Germany, Spain and Italy

(3) Note - This is global traded thermal coal including lignite, and inclusive of non-seaborne trade.



# 4. Structural decline?

USA: Peabody, Arch Coal, Alpha Natural Resources

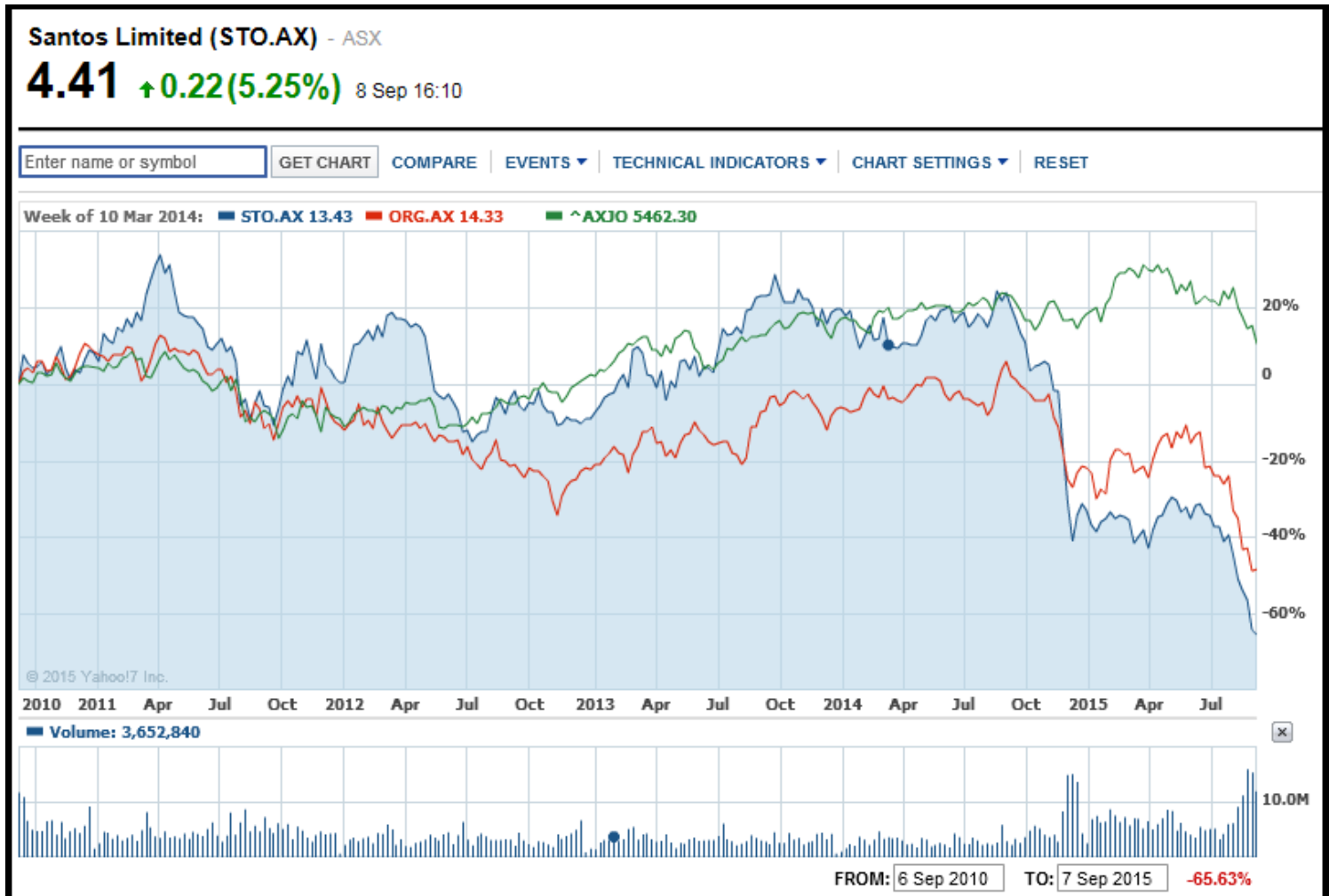


**Thank you.**





# 6. Australia: Santos and Origin

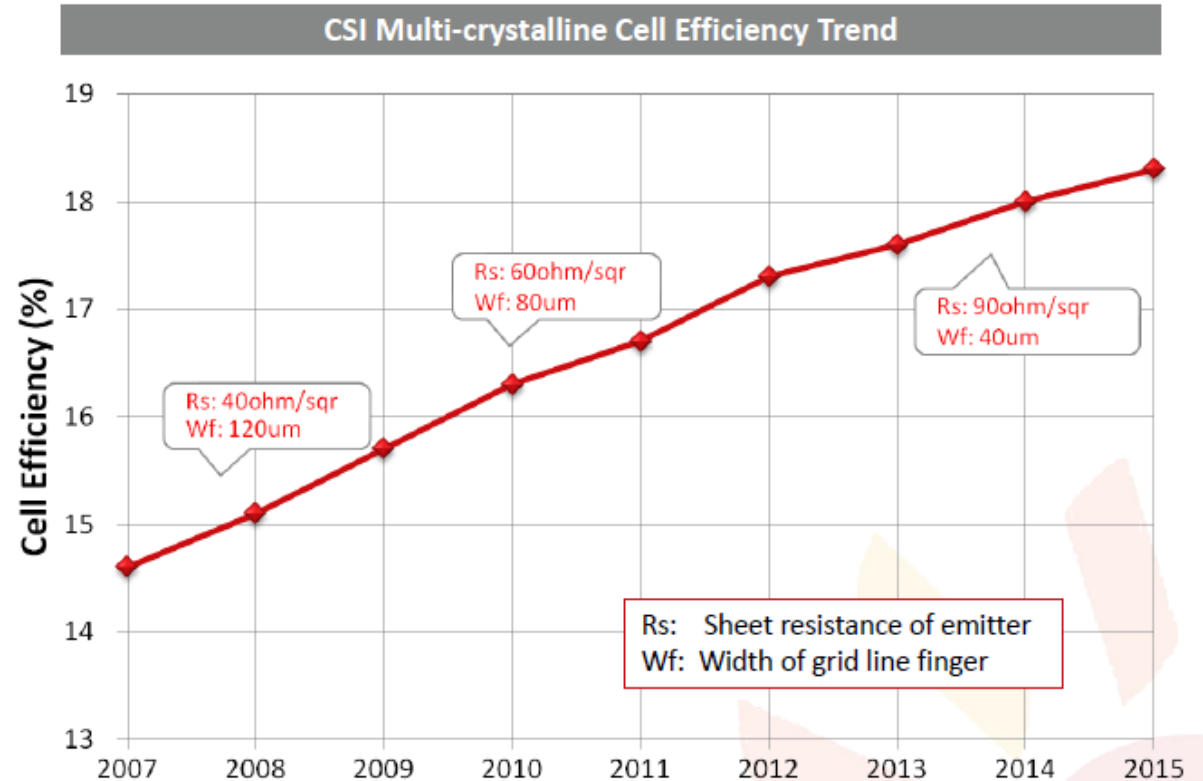


# 7. UK: Glencore, Anglo vs BHP Billiton



# 3 Renewable Energy is deflationary

## Canadian Solar Multi-cell efficiency progress



Solar technology gains are continuing to build: unstoppable.

☀️ Cell efficiency improved at a rate of 0.5% (absolute) each year



Source: Canadian Solar, [May 2015](#)