

# What does Doha mean for the future of coal?

## Coal Market Update: December 2012

*This Coal Market Update summarizes general developments from October to December 2012 that raise the risks of investing in the global coal industry. Greenpeace International tracks coal market developments worldwide through specialists located in the 28 national and regional offices, including the United States, China, India, Australia, South Africa and Indonesia. This update is prepared in collaboration with BankTrack. All prices are in USD unless noted.*

### Key points:

- Thermal coal spot prices remain subdued towards year's end, down by double-digit percentages from a year earlier.
- The UN climate negotiations concluded in Doha, Qatar, failing overall to match the pace of climate change but achieving some progress towards a deal in 2015. Significant regulatory risks remain for coal markets.
- The International Energy Agency has highlighted divergent paths for coal markets in its World Energy Outlook 2012. The IEA has projected coal use could grow by 54% or shrink by 35% by 2035 under different scenarios, largely depending on climate and energy policies.
- China's new "12th Five-Year" air pollution reduction plan released on 5 December is likely to further soften coal demand.
- An estimated 8,572 premature deaths occurred in four major Chinese cities in 2012, due to high levels of PM2.5 pollution, a joint study by Greenpeace East Asia and Peking University's School of Public Health has concluded. Coal use is a major contributor to PM2.5.
- A BHP Billiton executive has said he sees coal use declining in coming decades due to its carbon dioxide intensity, adding "And frankly it should".
- Conservation groups filed a lawsuit against the US Export-Import Bank over funding for a liquefied natural gas facility in the Great Barrier Reef World Heritage Area.
- More irrigation areas in India are threatened by the water needs of planned coal-fired power plants, a study released by Greenpeace shows.
- Power project developers in India routinely cooked accounts when seeking loans, according to industry sources cited in a LiveMint report.
- The head of the Indian School for Mines has warned that Coal India Limited's production could stagnate by 2020 due to neglect of underground mining activities.
- Coal export opponents have turned out in the thousands in the Pacific North West of the United States as scoping hearings for projects began.

### Companies mentioned include:

BHP Billiton (LSE: BLT, NYSE: BHP, NYSE: BBL, ASX: BHP, JSE: BIL)

Coal India Limited (CIL) (BSE: 533278, NSE: COALINDIA)

Ambre Energy (unlisted, planning IPO)

SSA Marine, Carrix (unlisted)

Peabody Energy Corp (NYSE: BTU)

Cloud Peak Energy Inc. (NYSE: CLD)

## Global

### Coal prices remain subdued towards year's end

Thermal coal spot prices have remained subdued heading into the end of 2012. Prices for November at Newcastle (6700 kcal FOB) were down 21% compared to a year earlier, 25% at Qinhuangdao (6000 kcal FOB) and 12% at Richard's Bay (6000 kcal FOB).

### UN Climate negotiations limp on, regulatory risks remain for coal markets

The UN Climate talks in Doha, always likely to be a modest affair, failed to match up to the pace at which the climate is now changing. Greenpeace [condemned](#) the outcome as inadequate to the scale of the problem. After a year of devastating floods, droughts, storms and heat waves that have caused significant loss of life in the US, China, India, Africa and Europe, the alarm bells about the effects of global warming have started ringing. The impacts of climate change are increasing and pressure will intensify for a serious global deal in 2015. The World Bank, the IEA, UNEP, the CIA and some of the biggest consultancies in business, such as PricewaterhouseCoopers, have issued warnings about the potential impact of climate change in recent weeks.

Greenpeace expects that as the impacts intensify over the coming years, so too will political pressures for a solution. For example, the Dominican Republic committed in Doha to a 2030 emission cap of 25% below 1990 levels, which it will implement unconditionally, and with its own money. At the same time the damaging local impacts of the coal industry and the rise of renewable energy are raising questions for the future of the coal industry, and inviting further action by governments.

"The signals to business are that we are still heading, slowly, towards some sort of global agreement on climate action," wrote [Yvo de Boer](#) special global adviser at KPMG and former Executive Secretary of the UNFCCC.

For coal markets and energy investors the Doha outcome, while far from conclusive, creates and extends several risk factors that could suppress coal demand and should be evaluated:

- Governments agreed to a work plan to close the pre-2020 mitigation ambition gap which will take the form of roundtables, workshops and technical papers in 2013. Kyoto Protocol parties also have to review their emissions targets by April 2013 with a view to the IPCC range of 25-40% by 2020. The Kyoto 2 targets currently stand at an aggregate 18% below 1990. This leaves open the possibility of increases in 2020 targets.
- Governments agreed to a work plan for a new agreement, including a timeline for developing draft negotiating text (elements of a text by 2014 and a full negotiating text by mid-2015) and the adoption of an agreement by COP21 (2015). This could see a new international legal framework in place in three years' time.
- Despite many weaknesses, adoption of the second commitment period of the Kyoto Protocol is a signal of the continued importance of a multilateral, legally binding, rules-based regime, and this continuity will provide some influence on the evolution of the 2015 deal. This could translate into binding national targets and policy responses such as increased carbon pricing.
- With Poland intransigent, the deal failed to get rid of the 'hot air' in the Kyoto system (left over credits from the first period). However, several countries declared that they would not buy such credits. This will limit the role of 'hot air' and may raise the level of domestic action that needs to be taken by Kyoto parties, including moving to lower-emission sources of electricity.

Further details are in [Greenpeace's Q&A](#) on the Doha outcome.

Greenpeace also held a well-attended side event in the first week of the negotiation, [highlighting](#) coal's contribution to climate change, the risk in expansion of US coal exports and the increasing constraints on coal in China due to air pollution and water availability.

### International Energy Agency highlights divergent paths for coal markets

The International Energy Agency (IEA) highlighted the divergent paths that could lie ahead for coal markets in its [World Energy Outlook](#) 2012, released on 12 November. The IEA has projected

coal use could grow by 54% or shrink by 35% by 2035 under different scenarios, largely depending on climate and energy policies.

Although the IEA's current policies scenario sees coal production grow by 54% from 2010 to 2035, under its new policies scenario, where countries cautiously implement existing and announced climate and energy policies, coal production grows by only 18%.

If policies are brought in that are consistent with a 50% chance of meeting the target of limiting global warming to just 2 degrees Celsius — a target adopted at the UN Climate talks in Cancun in 2011 — coal production would shrink by 35%.

In Greenpeace's Energy [R]evolution 2012 scenario, which sets out a blueprint for a more rapid transition to renewable energy without nuclear power, coal-fired electricity production would shrink by 36% between 2009 and 2035.

It can't be said that the world is taking enough action to put us on a pathway to 2 degrees or lower, however the high growth in coal-use scenarios are not consistent with current commitments and trends. The probability of a scenario materialising with a substantial drop in coal demand is significant, based on government commitments to the 2 degree target, and should be evaluated in investment decisions.

In the 2012 World Energy Outlook, the International Energy Agency (IEA) recognised that “no more than [one-third of proven reserves](#) of fossil fuels can be consumed prior to 2050 if the world is to achieve the 2°C goal”.

However, they added the caveat: “unless carbon capture and storage (CCS) technology is widely deployed.” Greenpeace sees statements like this as giving false hope to the fossil-fuel industry. Despite substantial public funding (\$52bn according to Bloomberg New Energy Finance), CCS technology has largely failed to deliver as a climate solution due to technical and economic reasons. With numerous project cancellations and only eight demonstration projects in operation globally, CCS is falling far short of the IEA's CCS roadmap of 100 plants by 2020 and 3,000 plants by 2050.

The IEA's Medium Term Coal Market Report, [released](#) on 17 December, assumes CCS technology will not be available by 2017. Even though coal demand growth is slowing and there is potential for divergent pathways for coal markets to 2035, the report sees global coal consumption growing to 2017. IEA Executive Director Maria van der Hoeven noted that “without progress in CCS, and if other countries cannot replicate the US experience and reduce coal demand, coal faces the risk of a potential climate policy backlash.”

## China

### China's new “12th Five-Year” air pollution reduction plan will affect coal use

The Chinese Ministry of Environmental Protection (MEP) announced a 350 billion yuan (\$56 billion US dollars) plan to reduce air pollution during the 2011-2015 period on 5 December. Termed the '[12th Five-Year Air Pollution Control Plan](#)', emissions cuts will occur in 117 cities covering 13 geographical regions, including the major economic hub regions of Beijing-Tianjin-Hebei, Yangtze River Delta and Pearl River Delta. Pilot controls on coal consumption are being introduced in the three hub regions as well as in Shandong province.

The MEP's plan requires, by 2015, a reduction in:

- PM2.5 levels (fine particulate matter 2.5 microns or less in diameter) of between 4% and 15%;
- PM10 levels of between 8% and 15%;
- Sulfur dioxide levels of between 6% and 14%; and
- Nitrogen dioxide levels of between 4% and 10%.

These reductions are significant because coal consumption has been shown to contribute, for example, up to 40% of total PM2.5 pollution in some Eastern megacities such as [Beijing](#), [Guangzhou](#) and [Shanghai](#). Efforts to control air pollution could lead to a significant softening of coal demand.

The MEP's plan complements the tougher air quality standards introduced by the State Council earlier this year —which include limits on PM2.5 and other pollutants in cities— by setting

reduction targets not only for cities, but for entire regions. Regional targets better address the risk caused by pollution that simply migrates from cities into rural areas.

The MEP's announcement is also likely to have knock-on impacts for coal consumption, which, alongside motor vehicle emissions, have long been identified by the MEP as being the primary contributors to China's air pollution problem. Regional governments have already begun to act. For example:

- in May 2012, Beijing announced a coal-consumption cap of 15 million tonnes by 2015;
- in August 2012, Tianjin followed suit by placing an absolute cap on coal consumption of 63 million tonnes by 2015; and
- in December 2012, Guangzhou, China's third largest city, will cap coal consumption at 2010 levels by 2016.

Other measures set out in the MEP's plan also likely to impact coal use include production capacity caps on heavy industries such as iron, steel and cement in certain industrial regions.

### **Study on premature deaths reveals health impact of PM2.5 in China**

An estimated 8,572 premature deaths occurred in four major Chinese cities in 2012, due to high levels of PM2.5 pollution, a [joint study](#) by Greenpeace East Asia and Peking University's School of Public Health has concluded. The report also estimates PM2.5 pollution caused the cities of Shanghai, Guangzhou, Xi'an and Beijing to suffer a combined total of US\$1.08 billion in economic losses over the past year. Greenpeace is calling for an urgent policy adjustment, including capping regional coal consumption, De-NOx retrofitting for existing coal-fired power plants, and shutting down inefficient coal-fired industrial boilers.

## **Australia**

### **BHP Billiton sees coal use declining, "And frankly it should"**

BHP Billiton's Chief Executive Ferrous and Coal, Marcus Randolph, told reporters that he sees the use of coal declining in the coming decades.

The [Australian Financial Review](#) quoted Mr Randolph as saying in November:

*"In a carbon constrained world where energy coal is the biggest contributor to a carbon problem, how do you think this is going to evolve over a 30- to 40-year time horizon? You'd have to look at that and say on balance, I suspect, the usage of thermal coal is going to decline. And frankly it should."*

In December, Mr Randolph revealed that a reason for BHP Billiton's decision to rebuild a coal export facility at Hay Point, Australia was "[to be more durable to climate change](#)". The decision followed analysis undertaken following Cyclone Yasi in February 2011 and was "a recognition that as these cyclones become more severe, we need to have facilities that are more able to withstand them."

Figures compiled by [Bloomberg](#) showed BHP earned 8.4% of its revenue from thermal coal in the year ended June 30, 2012, producing 71 million metric tons compared with 70 million tons a year earlier.

### **Lawsuit filed against US Export-Import Bank over funding for fossil fuel project in the Great Barrier Reef**

Conservation groups filed a [lawsuit](#) on 13 December challenging the U.S. Export-Import Bank's nearly \$3 billion in financing for a Liquefied Natural Gas (LNG) export facility in the Great Barrier Reef World Heritage Area.

The Center for Biological Diversity, Pacific Environment and Turtle Island Restoration Network argue that construction and operation of the liquefied natural gas facility will threaten sea turtles, dugongs and many other protected marine species, as well as the Great Barrier Reef itself. The expansion of the LNG industry will involve thousands of coal-seam gas wells in interior Queensland using controversial "fracking" techniques, nearly 300 miles of gas pipelines, construction of the natural-gas processing facility and export terminal, dredging the adjacent

harbour and its seagrass beds, and increased tanker traffic. The case raises the unresolved legal issue of whether the U.S. Endangered Species Act applies to U.S. agency actions taken outside of U.S. borders.

The case is Center for Biological Diversity v. Export- Import Bank, 12-6325, U.S. District Court, Northern District of California (San Francisco).

## India

### More irrigation areas threatened by the water use of coal-fired power plants

Following the Endangered Waters report published in August, Greenpeace India released a further study showing [water availability](#) will be threatened by a planned expansion of coal-fired power plants in the Central Indian region of Vidarbha. The two reports from the Indian Institute of Technology, New Delhi, show the future water availability for irrigation and other uses could be reduced by as much as 40% in Wardha River and about 17 % in Wainganga River.

The second report comes amid [controversy](#) over allegations of far-reaching improprieties in water allocation in the region.

### Power-project developers cooked accounts, threatening banking sector

LiveMint, a partner of the Wall Street Journal, [reports](#) that power-project developers in India routinely inflate capital expenditure when approaching banks for funding to lower their own equity burden. Some also placed equipment orders with manufacturers that quote inflated order values and later transferred the balance back to the developers. The article quotes confidential sources in the power industry as deeming the practices widespread. This comes even as banks face a growing threat of defaults by power companies. The non-performing assets, or bad loans, of Indian banks were up 46% in fiscal 2012 to reach Rs.1.37 trillion (\$25 billion US dollars). The proportion of bad assets to loans in the Indian banking system has risen from 2.4% in 2008 to 2.94% in 2012.

### Coal India production could stagnate by 2020: mining expert

The head of the Indian School for Mines [has warned that](#) Coal India Limited's neglect of underground mining expertise could see the company's production stagnate by 2020, as available locations for open-pit mining shrink. CIL is the world's largest coal miner and currently produces 10% of its output from loss-making underground mines, and plans to reduce that percentage. The company's reliance on open-pit mining with its larger land requirement is also facing increased opposition from communities threatened with displacement, and from environmental groups concerned about the loss of forests.

## United States

### Coal export opponents turn out in the Pacific Northwest

Thousands of people have been turning out to public hearings to voice opposition to coal export proposals in the Pacific Northwest. In Washington state, a three agency process is underway to determine the scope of the Environmental Impact Statement for the Cherry Point Terminal proposed by SSA Marine and Peabody Energy. Public officials and health and environmental professionals have joined concerned citizens to call on county, state, and federal agencies to study the regional and global impacts of opening new export terminals on the west coast.

The Mayor of Vancouver, WA spoke in opposition to coal terminals at the Vancouver scoping hearing, attended by near 700 people.

Activists and concerned citizens from Montana, home to many existing and proposed coal mines, [travelled over 1000 miles](#) by bus to testify in opposition to the Cherry Point Terminal at the Spokane, WA scoping hearing. Spokane residents could see as many as 60 coal trains a day if export proposals succeed.

The final hearing was held in Seattle, WA, where an estimated [3000 people attended](#) (see slideshow at link), the vast majority in opposition to new coal terminals.

While citizens were speaking out against coal in WA, the Oregon Department of Environmental Quality was holding public hearings about a state permit for Ambre Energy's Morrow Pacific Project. Again, public attendance was unprecedented, with [800 people](#) showing up to the Portland hearing alone. Greenpeace campaigner, Kelly Mitchell, blogs on Ambre's recent purchase of the loss-making Decker coal mine from Cloud Peak Energy and the growing public opposition [here](#).

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