



# Asia-Pacific Partnership on Clean Development and Climate

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## e-Newsletter

*Volume 1, Issue 3 – September 2008*

### About the Asia-Pacific Partnership

The Asia-Pacific Partnership on Clean Development and Climate (APP), an innovative public-private partnership that brings together the governments and private sectors of Australia, Canada, China, India, Japan, Korea, and the United States, facilitates investment in clean technologies, goods, and services; accelerates the sharing of energy-efficient best practices; and identifies policy barriers to the diffusion of clean energy technologies. To accomplish its work, the APP created a Policy and Implementation Committee (PIC) and eight public-private Task Forces. The purpose of this newsletter is to share information and news about the Partnership's activities. For further information on the APP and its activities, please see our website at: [www.asiapacificpartnership.org](http://www.asiapacificpartnership.org). We welcome feedback on this newsletter and suggestions for future articles at: [APP\\_ASG@state.gov](mailto:APP_ASG@state.gov).

### Aluminium Task Force

#### **Management of PFC Emissions**

From July-September 2008, the Aluminium Task Force completed perfluorocarbon (PFC) smelter emissions measurements of primary aluminium production facilities in China as part of the Aluminum Task Force's PFC Management Flagship Project, ATF-06-02. A key component of the Flagship Project is to complete facility specific PFC measurements at primary facilities of participating Partner countries. Measurements were performed in China from 18-23 July 2008 at the Yichuan Henan Yuganglongquan Aluminum Company in Luoyang City, Henan; 29 July – 4 August 2008 at the Shanxi Huasheng Aluminum Company in Yongji City, Shanxi; and 15-18 September 2008 at the Shandong Nanshan Aluminum Company in Longkou City, Shandong. PFCs are not generated during normal smelting operating conditions – they are only produced during brief upset conditions known as "anode effects." These conditions occur when the level of the dissolved aluminium oxide (the raw material for primary aluminium) in the cell drops too low and the electrolytic bath itself begins to undergo electrolysis. The difficulty to control the stability of alumina content of the electrolyte in smelter pots allows for the formation of

PFCs. Measures to reduce the frequency and duration of anode effects not only reduce greenhouse gas emissions but also benefit the producer by improving energy and process efficiency. This project enables all primary production facilities in each of the Partner countries to identify and implement cost effective, technically feasible opportunities to reduce the occurrence of anode effects in electrolytic cells, the primary source of PFCs during aluminium production.

For more information on the Aluminium Task Force please visit:

[http://www.asiapacificpartnership.org/tf\\_aluminium.aspx](http://www.asiapacificpartnership.org/tf_aluminium.aspx)

### Buildings and Appliances Task Force

#### **Sustainable Buildings 2008**

The Sixth Building and Appliances Task Force meeting was held in Melbourne, Australia 22-24 September 2008, to coincide with the Sustainable Buildings 2008 (SB08) Conference and Exhibition. BATF meeting participants attended SB08 sessions including the APP plenary at SB08, during which a panel of international speakers highlighted the work of the BATF and APP. Ms. Harinder Sidhu, Assistant Secretary of the Global and Strategic Issues Branch at the Australian Department of Climate Change opened the APP plenary session and gave the welcoming address.



**APP booth at SB08 exhibition.**

For more information on SB08, please visit:  
<http://www.sb08.org>.

To visit the APP Buildings and Appliances Task Force webpage, please go to:  
[http://www.asiapacificpartnership.org/tf\\_buildings\\_appliances.aspx](http://www.asiapacificpartnership.org/tf_buildings_appliances.aspx).

### Cement Task Force

#### **Benchmarking and Energy Savings Tool (BEST)**

The Benchmarking and Energy Savings Tool (BEST) for Cement in China is a deliverable of the APP Cement Task Force project CMT-06-02, Benchmarking. BEST-Cement is a process-based tool based on all commercially available efficiency technologies worldwide that are applicable to the cement industry, and tailored for use in China.

Recognizing that not all technologies are applicable in all sites, the benchmarking tool nonetheless provides a reasonable standard to allow for a comparative analysis of cement energy efficiency standards. The tool allows the user to adapt the model to operational variables specific to a given facility and offers the user the opportunity to do a quick assessment or a more detailed assessment – this choice will determine the level of detail of the energy input.

In addition to benchmarking a cement plant's performance, the BEST-Cement can be used to evaluate the impact of selected energy efficiency measures. BEST-Cement for China provides information on approximately 50 energy efficiency measures including energy savings, simple payback time and carbon dioxide emissions reduction. The user selects the degree or share of implementation for each of the measures in the tool, and the BEST-Cement then calculates the overall cost to implement the chosen measures along with the related energy and emissions savings, cost savings, payback period and a re-calculated benchmark. In July 2008, three training workshops were held on the use of BEST-Cement in Shandong, Hebei, and Shanxi Provinces in which 140 cement plant staff from 109 cement facilities participated.

To access the Benchmarking and Energy Savings Tool (BEST) for Cement in China, please visit:  
[http://www.asiapacificpartnership.org/cement\\_tf\\_best.aspx](http://www.asiapacificpartnership.org/cement_tf_best.aspx).

For more information on the activities of the Cement Task Force, please visit:  
[http://www.asiapacificpartnership.org/tf\\_cement.aspx](http://www.asiapacificpartnership.org/tf_cement.aspx).

### Cleaner Fossil Energy Task Force

#### **Post-Combustion Capture Technologies**

The post-combustion capture (PCC) pilot plant at Tarong Power Station in Queensland, Australia is an integral part of the Cleaner Fossil Energy's Flagship Project, CFE-06-06 and is one of the project's three pilot plants. The Australian Government announced the launching of the project in September 2008.

This project will progress the development of PCC as a technology that can be retrofitted to existing coal power stations to achieve major improvements in environmental performance by capturing SO<sub>x</sub>, NO<sub>x</sub> and CO<sub>2</sub> emissions, establish a post combustion capture pilot plant demonstration and laboratory research program in Australia, and support technology transfer to other Partner countries.



**Tarong Power Station in Queensland, Australia, where the post-combustion capture (PCC) pilot plant will be built. (Tarong Energy).**

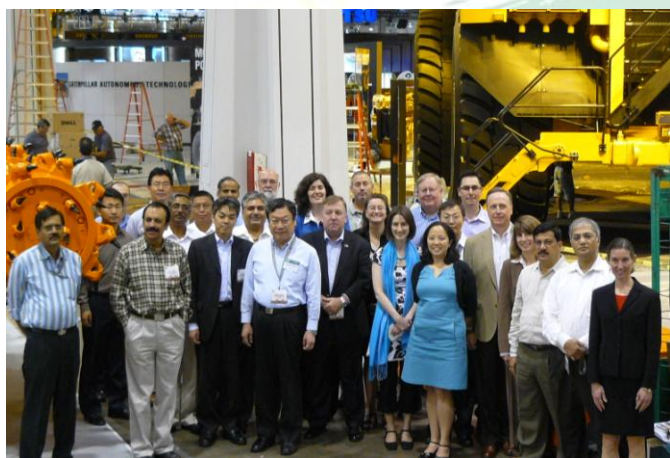
The PCC pilot plant at Tarong Power Station is designed to capture 1500 tons per year of CO<sub>2</sub> from the power station and is part of a broader research program to identify ways to reduce greenhouse gas emissions from the energy sector. The two-year project is anticipated to start immediately, with the pilot plant projected to be operational in the first half of 2009, with the related research activities expected to be completed in 2011.

For more information on the Cleaner Fossil Task Force and their activities, please visit:  
[http://www.asiapacificpartnership.org/tf\\_fossil\\_energy.aspx](http://www.asiapacificpartnership.org/tf_fossil_energy.aspx).

## Coal Mining Task Force

### **MINExpo International 2008**

The Coal Mining Task Force held its Fifth Task Force Meeting, 20-24 September, 2008 in Las Vegas, Nevada, USA, in conjunction with MINExpo International 2008. Task Force Meeting participants attended MINExpo educational sessions on topics including mining safety, processing and technological developments, and visited many of the over 1,100 international exhibits at the event, which included builders of heavy machinery, manufacturers of safety equipment, producers of machine components, mining and exploration companies, international and national-focused industry associations, governments and universities, and which drew some 40,000 participants. MINExpo is sponsored by the National Mining Association (NMA), is held every four years and features the latest innovative developments in mining sector equipment and practices.



**Participants of the Coal Task Force Meeting on the MINExpo exhibition floor.**

The motto of this year's expo was "the world's richest deposit of mining technology, services and products," with a key focus on addressing the record global demand for the coal, minerals and equipment needed to sustain growing economies and populations. Improving clean coal extraction and combustion is critical to reducing overall emissions.

For more information on MINExpo International 2008, please visit: <http://www.minexpo.com>.

For more information on APP Coal Task Force projects, please visit: [http://www.asiapacificpartnership.org/tf\\_coal\\_mining.asp](http://www.asiapacificpartnership.org/tf_coal_mining.asp)

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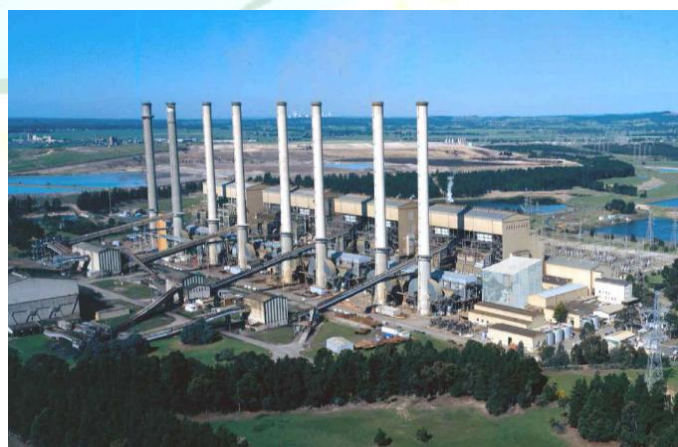
## Power Generation & Transmission Task Force

### **Brown Coal (Lignite) Best Practice Workshop**

Australia's Department of Resources, Energy, and Tourism and the National Generators Forum hosted a Brown Coal (Lignite) Best Practice Workshop in Melbourne, Australia from 23-27 June 2008. The project had two components – an information exchange workshop held in Melbourne and a site visit to two power plants in the Latrobe Valley. The workshop participants included plant engineers and representatives from power generators in Partner countries.

The technical workshop provided a forum for Partners to openly discuss the challenges of brown coal efficiency improvements, and identify ways to reduce overall emissions. A peer review was also conducted as part of the workshop and aimed to benefit personnel directly responsible for the daily monitoring, operation maintenance, and plant efficiency of brown coal plants. During the peer review, Partner country representatives continued the process of learning "best of kind" operation, maintenance, and management practices.

In the Latrobe Valley portion of the event, Hazelwood and Loy Yang, two of Australia's leading brown coal power generators, hosted site visits so participants could see innovative practices in use, and provided opportunities for discussions at the practitioner level on technology achievements in this specialized area.



**Hazelwood Power Station, Victoria, Australia.**

For more information on the Power Generation and Transmission Task Force, please visit: [http://www.asiapacificpartnership.org/tf\\_powergeneration\\_transmission.aspx](http://www.asiapacificpartnership.org/tf_powergeneration_transmission.aspx).

## Renewable Energy & Distributed Generation Task Force

### **Clean Energy Business in India**

The *Pursuing Clean Energy Business in India* report, led by Clean Technology AustralAsia, in partnership with The Energy and Resources Institute (TERI) in India, has been released and represents the culmination of the Renewable Energy and Distribution Generation Task Force project RDG-06-10. The report identifies the market and policy barriers to enhanced collaboration between Australia and India in the investment, development and deployment of clean technologies. The report includes a Strategic Action Plan which seeks to expand the potential for exporting renewable technologies to India, foster transfer of clean technologies and accelerate bilateral business and investment opportunities, including R&D collaboration.

This report is aimed at accelerating the development and deployment of clean technologies and building bridges between public and private sector to help overcome barriers within the Indian renewable energy sector. The report identifies these challenges and potential solutions that the governments can implement to accelerate private sector activity in India.



To access the *Pursuing Clean Energy Business in India* report, please visit:  
[http://www.asiapacificpartnership.org/renewable\\_energy\\_docs.aspx](http://www.asiapacificpartnership.org/renewable_energy_docs.aspx).

For more information on the Renewable Energy & Distributed Generation Task Force, please visit:  
[http://www.asiapacificpartnership.org/tf\\_renewable\\_energy.aspx](http://www.asiapacificpartnership.org/tf_renewable_energy.aspx).

## Steel Task Force

### **Steel Industry Indicators for Energy Saving**

The Steel Task Force's project STF-06-02, Status Review of Steel Industry Related Indicators for Energy Saving, reached a significant milestone in August 2008 in its efforts to undertake work on data collection and analysis to establish energy and environmental baselines in the Chinese steel industry, as new funding was announced to help the project progress through a critical phase.

The objectives of this project are to establish a baseline of energy and environmental performance data of the steel industry in China and the other APP Partner countries, and identify energy and environmental improvement opportunities that can be practically implemented in each country based on baseline data gathered. This work will provide both a benchmarking of Chinese steel industry performance as related to that of other APP countries, and propose possible feasible improvements based on potential application of clean technologies. The Task Force will use the information gathered to calculate carbon dioxide, nitrogen oxide, and sulfur oxide emission reduction potentials; identify opportunities to promote recycling and environmental protection; and utilize shared information to improve steel production and use in each Partner country.

For more information on the Steel Task Force, visit:  
[http://www.asiapacificpartnership.org/tf\\_steel.aspx](http://www.asiapacificpartnership.org/tf_steel.aspx).



**Rolling mill at an iron and steel plant in China. (Greenhill/Black Star.)**