



# Asia-Pacific Partnership on Clean Development and Climate

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## e-Newsletter

*Volume 2, Issue 1 – March 2009*

### 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

#### **Aluminium Bauxite**

The Aluminium Task Force's two bauxite related projects, ATF-06-03, *Management of Bauxite Residue (Red Mud)* and ATF-06-04, *High Silica Bauxite Processing*, recently received a significant boost in industry recognition at the Minerals, Metals and Materials Society (TMS) Light Metals Conference held in San Francisco in February 2009. The TMS Light Metals Conference is one of the key annual conferences where the industry learns about the past year's significant developments. Both projects address key issues faced by aluminium industry.

Currently there are few economically viable and environmentally acceptable solutions for effective use of the large volume of residue generated in bauxite production. Project ATF-06-03 works to develop technically and economically sound options for bauxite residue in various end uses, including applications in the steel and cement industries. Participating Partners in this project are Australia, China, and India.

In project ATF-06-04, Australia, China, and India are working together to improve processing of high silica

bauxite. Around 70 million tons of bauxite residue created each year is currently being disposed of in land-based storage areas. APP Partners are working to increase the amount of alumina recovered by reprocessing, and recover and subsequently reuse chemicals required for processing. Partners also hope to produce commercially and economically viable products from residue in order to defray the environmental impact and overall costs of the currently used processes.



**Aluminium bauxite (CSIRO)**

For more information on the Aluminium Task Force please visit: [http://www.asiapacificpartnership.org/tf\\_aluminium.aspx](http://www.asiapacificpartnership.org/tf_aluminium.aspx).

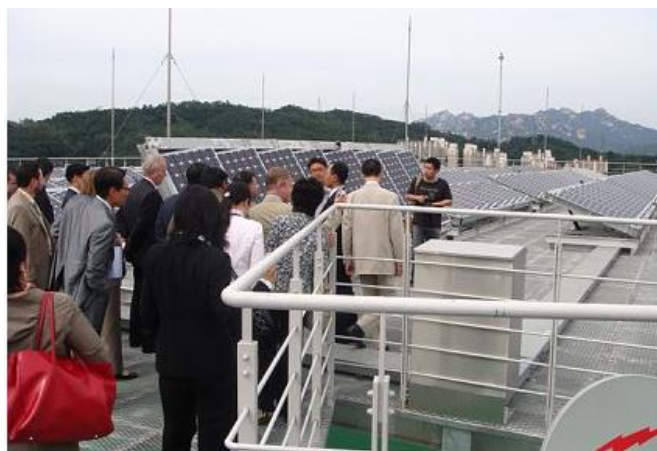
### Buildings and Appliances Task Force

#### **Energy Efficiency in Buildings**

The PIC has recently endorsed three new Buildings and Appliances Task Force projects for building related projects in China. China has the world's second largest building energy use, which accounts for 29% of the building energy use in all APP countries and 14% of the world total. China and the United States are participating Partners in each of these newly-endorsed projects.

Project BATF-09-50, *Building Energy Performance Certification Proposal*, aims to develop a building

certification program to act as a nationally accepted benchmark for the design, construction and operation of high performance energy efficient buildings in China. Key elements of the project include: incorporating energy efficiency measures into the design phase of new construction through demonstration and training; and reducing energy use in existing buildings through building retrofits and effective low or no-cost operations and maintenance measures.



Members of the Buildings and Appliances Task Force on a tour of energy efficient buildings in Seoul, Korea.

The objective of project BATF-09-51, *Improving Energy Efficiency in Buildings through Improved Operations*, is to reduce energy use and emissions in existing buildings in China by substantially leveraging the approach and technical resources of a market-based initiative. The project will improve energy efficiency in existing buildings in China through no-cost and low-cost operational best practices and technology upgrades.

Project BATF-09-52, *Implementation of Building Energy Codes in China - From Local Partnership to National Building Energy Efficiency* is a collaborative activity to enhance compliance and enforcement of building energy codes in small and medium sized Chinese cities; provide energy code compliance training and information to building inspectors, designers, and construction companies; and distribute lessons learned and training manuals nationally throughout China.

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

### **Cement Technology**

The Cement Task Force is pleased to present its Cement technologies booklet, "Energy Efficiency and Resource Saving Technologies in the Cement Industry." This Cement technologies booklet was compiled by the APP Cement Task Force through project CMT-06-01, *Status Report*, to help APP Partner countries share information on available energy efficient technologies used in the world's cement industry. China, India, Japan, Korea and the United States are participating Partners in this project.

The Cement Task Force has prioritized the collection of basic cement industry data among Partner countries as it is the basis for the Task Force's development of benchmarks and best practices. Examples of data in the technologies booklet include emissions intensity of CO<sub>2</sub> and air pollutants in the cement sector, as well as measurements of energy consumption and intensity, and usage of alternative fuels and raw materials. The information acquired from this project will contribute to a greater understanding among Partners regarding their current energy consumption levels, CO<sub>2</sub> and air pollutant emissions, and practices in the cement sector.

To access the Cement technologies booklet, please visit:  
[http://www.asiapacificpartnership.org/cement\\_tf\\_technologies\\_booklet.aspx](http://www.asiapacificpartnership.org/cement_tf_technologies_booklet.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

### **Liquefied Natural Gas Sector**

The Cleaner Fossil Energy Task Force is currently working to identify cost-effective best management practices and technologies to achieve reductions in the liquefied natural gas sector. The work is being done under project CFE-06-09, *Evaluating and Reducing Emissions in Producing, Processing and Transporting Natural Gas*. Australia and the United States are participating in this project to develop consistent and comprehensive methods to estimate methane, carbon dioxide, and other greenhouse gas emissions from liquefied natural gas (LNG) facilities and gas infrastructures. Adoption of these methodologies will be promoted within Partner countries and other interested countries. Use of these consistent methodologies will enable comparability and

assessment of potential gas wastage areas and will facilitate cost-effective investments to reduce natural gas losses, improve energy efficiency and increase the amount of gas delivered to market. The project will be conducted in synergy with existing programs, such as the Methane to Markets Partnership, GasSTAR and other international initiatives. The overall goal is to achieve up to a 30% decrease in the current level of methane leakage in Partner countries.

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

### [Coal Mining Task Force](#)

#### **Coal Mine Health and Safety**

The Coal Mine Health and Safety Steering Committee of the Coal Mining Task Force is currently finalizing a report that covers various aspects of health and safety training in each Partner country. The committee is compiling information about the legislative frameworks of Partner countries to produce a report that lists the coal mining hazards and identifies the risk management methods currently used in Partner countries, while developing case studies illustrating how to build effective safety leadership in an organization.

This report, *Coal Mining Workforce Safety Skills, Training and Education*, is a deliverable of the Task Force project CLM-06-09, *Coal Mine Health and Safety*, and will ultimately be made available on the APP website. The Task Force project seeks to develop a strategic approach toward risk management; advance the goal of zero fatalities and injuries in the coal mining industry in Partner countries; and identify leading practices to control health and safety risks in the mining sector.



Automated longwall coal mining equipment (CSIRO)

The report will include information about practices and technologies such as longwall mining automation technology created to increase mine safety, developed by Australia's Commonwealth Scientific and Industrial Research Organisation (CSIRO). The Australian coal mining industry is moving towards the automation of underground longwall mining which allows miners to be kept away from hazardous, noisy and dusty environments. Another benefit is that the technology also increases the cutting rate by 5%. This innovative machinery is an example of a technology that can be introduced into the commercial market.

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

### [Power Generation and Transmission Task Force](#)

#### **Wind Generation**

The Power Generation and Transmission Task Force held a wind generation technical information exchange program in San Francisco, California, USA from 2-6 March 2009. The event, the latest in the series of Task Force utility peer review exchanges, was attended by 29 participants from APP Partner countries, including representatives from utility companies, wind energy industry associations, state electricity regulators, academia, and federal and provincial governments. Participants engaged in technical discussions on issues such as transmission planning, wind resource assessment, grid interconnection, RD&D efforts, system balancing methods, and wind generation best practices.



Task Force participants of the Wind Generation wind generation technical information exchange program.

The event included a visit to a wind farm owned by NextEra Energy which generates 162MW of wind power through 90 turbines.



NextEra Energy wind farm, Solano County, CA, USA.

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 and Distributed Generation Task Force

#### **Deployment Cost Initiative**

The Renewable Energy and Distributed Generation Task Force has completed its *Deployment Cost Initiative*, an analysis and literature review of cost barriers to the deployment of renewable energy and distributed generation. The *Deployment Cost Initiative*, by analysis of cost barriers to deployment across Partner Countries, suggests policy instruments for successful large-scale deployment of renewable energy and distributed generation.

The Task Force identified the need for such a review out of concerns that the higher costs of deploying renewable energy and distributed generation technologies may be resulting in sub-optimal deployment in target communities. The *Deployment Cost Initiative* estimates the relative asset life cycle cost-penalty of deploying renewable energy and distributed generation, and hybrid options (diesel, solar, gas, and wind). This review also assists in quantifying the level of support and most appropriate mechanism needed to eliminate the cost penalty. Barriers to renewable energy deployment identified include the high cost of materials, labor and fuel, grid connection issues, intermittency of resources, legal frameworks and the perception of high risk by financiers. It found that costs for renewable

energy and distributed generation can be reduced through policies that create stability and investor security; ensure transparent and fair access; brings forward the next generation of technologies; and uses a portfolio of schemes that are optimized for effectiveness and efficiency.

To access the *Deployment Cost Initiative*, 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 and 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

#### **Performance Diagnosis**

Under Project STF-06-04, *Performance Diagnosis*, Japanese APP experts in energy savings and environmental protection conducted site visits of Indian steel plants in February 2009, to offer advice on best practices and clean technologies. APP Task Force Partners will use the performance diagnoses to develop improvement plans (increasing energy efficiency and environmental protection opportunities), and identify opportunities for collaborative research and development. The Japanese steel industry experts participating in this effort visited Jamshedpur Works of Tata Steel Limited and Visakhapatnam Steel Plant of Rashtriya Ispat Nigam Limited (RINL).



Steel Task Force Experts visit Indian Steel Plant, February 2009.

For more information on the Steel Task Force, please visit: <http://www.asiapacificpartnership.org/SteelTF.htm>.