



# Asia-Pacific Partnership on Clean Development and Climate

## e-Newsletter

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### 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.

### Inside this issue:

Aluminium Fluoride Emissions Management	1
Energy Efficiency Award	1
Cement for Sustainable Cities	2
CO <sub>2</sub> Enhanced Coal Bed Methane	2
Coal Mining Task Force Meeting	3
Wind Electric Generation and Grid Integration	3
Joint Clean Energy Research and Development Center	4
SOACT Handbook	4

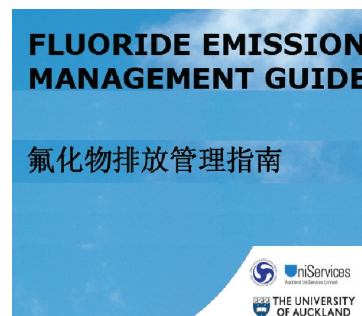
### Aluminium Task Force

The Aluminium Task Force's *Fluoride Emissions Management* project, ATF-06-05, is currently working to improve the environmental performance of aluminium smelters in China to reduce fluoride and perfluorocarbons (PFC) emissions through best practice application of existing equipment and uptake of best available technologies. In order to minimize or eliminate environmental impacts of fluoride emissions, the Task Force is providing smelters with information on their operation's fluoride emissions performance as it relates to the global average.

Aluminium production is one of the fastest growing industries in China, which is now the biggest aluminium producers in the world. The Zhongfu aluminium smelter in China's Henan Province is one of China's main aluminium smelters and is using the Task Force's Fluoride Emissions Management Guide (FEMG) to improve its environmental performance, increase process efficiency, and reduce energy consumption. The Zhongfu smelter is currently testing the robustness of the guide and its applicability to smelters in China. A review of onsite practices will assist in the Task Force's efforts to further strengthen the FEMG and ensure its relevance to the unique environments and operational and management practices of Chinese smelters.

The FEMG describes key processes and operating parameters to control fluoride emissions, and proposes a management system to achieve this purpose. In addition, the FEMG provides guidance on monitoring the progress of the emission mitigation efforts. The final stage of the Task Force's initiative will be the deployment and publicizing of an adapted

China-wide fluoride emission management guide by the end of 2010.



Fluoride Emissions Management Guide

To learn more about this project: [http://www.asiapacificpartnership.org/english/pr\\_aluminium.aspx#Aluminium Project 5](http://www.asiapacificpartnership.org/english/pr_aluminium.aspx#Aluminium Project 5)

Please visit the Aluminium Task Force webpage at: [http://www.asiapacificpartnership.org/tf\\_aluminium.aspx](http://www.asiapacificpartnership.org/tf_aluminium.aspx).

### Buildings and Appliances Task Force

Canada's Environment Minister, the Honourable Jim Prentice, accepted the International Star (I-Star) of Energy Efficiency Award from the Washington D.C.-based Alliance to Save Energy on 14 September 2010. Environment Canada received the award for demonstrating leadership in advancing net zero energy housing (NZEH) through the optimization of energy efficiency and integration of renewable energy into residential building design. The Buildings and Appliances Task Force's Canada-led flagship project BATF-09-53, *International NZEH Coalition / Dialogue* is an international cooperative effort established to map the path to achieving NZEH. Through a series of workshops and collaborative sessions, Partners sought to set a precedent for housing performance optimization by bringing together the fragmented supply

## Buildings and Appliances Task Force (continued)

chain involving this sector and discussing issues and industry barriers. The workshops prominently featured industry, case studies, R&D and demonstrations. The objective of the Coalition is to advance the benefits of the more efficient use of zero or very low impact resources including cleaner air and healthier homes, climate protection, and economic development opportunities resulting from the expanded manufacturing and deployment of energy efficient technologies and appliances, and onsite renewable energy generation in the residential marketplace.

NZEH is capable of producing, at a minimum, an annual output of renewable energy that is equal to the total amount of its annual consumed/purchased energy from energy utilities. Energy efficiency is the first step to achieve NZEH and coupled with educating communities on how consumers behave and contribute to the energy mix, it can be part of the solution to achieve sustainability, energy security, and reduce environmental impacts including greenhouse gas emissions associated with energy supply.

To learn more about the BATF Net Zero Energy project, please visit: [http://www.asiapacificpartnership.org/english/pr\\_buildings\\_appliances.aspx#BATF\\_Project\\_53](http://www.asiapacificpartnership.org/english/pr_buildings_appliances.aspx#BATF_Project_53)

For more information on the activities of the Buildings and Appliances Task Force, please visit: [http://www.asiapacificpartnership.org/english/tf\\_buildings\\_appliances.aspx](http://www.asiapacificpartnership.org/english/tf_buildings_appliances.aspx).



**Minister Prentice receiving the International Star (I-Star) of Energy Efficiency Award, September 2010 in Washington, DC.**

## Cement Task Force

The Cement Task Force recently completed a milestone in project CMT-06-04, *Lifecycle Evaluation of Concrete Building Construction as a Strategy for Sustainable Cities*, by completing the development of model case studies used to predict the energy performance and greenhouse gas emission (GHG) profile of concrete structures and pavements. The objective of the project is to prepare such models, using cement and concrete lifecycle data, to analyze GHG emissions specifically as they relate to low-rise residential and commercial structures and concrete pavements.

Concrete from buildings can be readily recycled and reused as base materials for roads, sidewalks, and concrete slabs and is considered a sustainable building material. Buildings with exterior concrete walls, also called mass walls, utilize less energy to heat and cool than similarly insulated buildings with wood or steel frame walls. The cement industry has invested in new technologies and equipment to improve energy efficiency at its manufacturing facilities. The Cement Task Force continues to promote cement as a building material and resource for sustainable development.

For more information on this project, please visit: [http://www.asiapacificpartnership.org/english/pr\\_cement.aspx#Cement\\_Project\\_4](http://www.asiapacificpartnership.org/english/pr_cement.aspx#Cement_Project_4)

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

## Cleaner Fossil Energy Task Force

Australian and Chinese Partners of the Cleaner Fossil Energy Task Force formally signed an agreement on 7 July 2010 in Washington, DC, USA, to launch the demonstration phase of project CFE-06-13, *CO<sub>2</sub> Enhanced Coal Bed Methane (CSIRO-JCOAL-ECBM)*. Enhanced Coal Bed Methane (ECBM) involves the injection of CO<sub>2</sub> into coal seams to displace methane that can then be used to generate energy, while providing the additional benefit of reducing greenhouse gas emissions by storing the CO<sub>2</sub> underground. Coal is considered to have long term storage potential for CO<sub>2</sub> because the CO<sub>2</sub> will readily adhere to the exposed coal seam while displacing methane contained in the coal, which can then be recovered. The demonstration project will store 2,000 tons of CO<sub>2</sub> underground in the Shanxi Province and extract methane for use as an energy source for the local community. The project aims to provide a pathway to the adoption of a zero emissions technology from fossil fuels through ECBM by developing techniques to maximize CO<sub>2</sub> injection and methane recovery rates and overcoming the challenges arising from a lack of coal seam

## Cleaner Fossil Energy Task Force (continued)

permeability (ability of CO<sub>2</sub> to flow through the coal), to allow for proper CO<sub>2</sub> absorption. When CO<sub>2</sub> is stored in a coal seam, the coal can swell. This reduces permeability which in turn lessens injectivity (ability to receive the CO<sub>2</sub>). The ECBM project will also demonstrate new approaches to maximize CO<sub>2</sub> injection and methane recovery. ECBM wells are typically drilled vertically to inject CO<sub>2</sub> into coal seams but this demonstration project will drill horizontally resulting in an entry point of the well that is more directly embedded in the coal seam. It is believed that horizontal wells will help minimize the negative effects of coal swelling, thus improve permeability.

To learn more about this project, please visit:  
[http://www.asiapacificpartnership.org/english/pr\\_fossil\\_energy.aspx#CFE\\_Project\\_13](http://www.asiapacificpartnership.org/english/pr_fossil_energy.aspx#CFE_Project_13).

Please visit the Cleaner Fossil Energy Task Force page at:  
[http://www.asiapacificpartnership.org/english/tf\\_fossil\\_energy.aspx](http://www.asiapacificpartnership.org/english/tf_fossil_energy.aspx).



Cleaner Fossil Energy Task Force members signed an agreement on 7 July 2010 to launch the demonstration phase of project CFE-06-13, *CO<sub>2</sub> Enhanced Coal Bed Methane*.

## Coal Mining Task Force

The Coal Mining Task Force held their 7th Task Force meeting in Whistler, Canada, 13-15 September 2010. Task Force members gave updates on the status of projects, and highlighted success and achievements. The Task Force also discussed the importance of coal's role in clean energy efforts, and the need to improve information-sharing regarding the benefits and technological advances provided by the coal industry.

Meeting participants also took part in a site visit to the Westshore Terminals located at Roberts Bank, Delta, British Columbia. This terminal is one of Canada's largest coal export facilities. For the past decade, Westshore has also been the busiest single export coal terminal in all of North America, routinely shipping about 21 million tons of coal each year. U.S. shipments reached a record of two million tons in 2009. Created from dredging the Strait of Georgia in one of the largest reclamation projects of its kind, the terminal has been a consistent and major source of revenue for Canada and British Columbia. During its 40 year history Westshore has completed three major expansions or upgrades, leading to their current capacity of 29 million tons per year.



Westshore Terminals located at Roberts Bank, Delta, Canada.

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

## Power Generation and Transmission Task Force

The Power Generation and Transmission and the Renewable Energy and Distributed Generation Task Forces, in cooperation with the Edison Electric Institute, hosted a technical information exchange program on wind electric generation and grid integration, 13-15 September 2010 in Montreal, Canada. The major objective of this event was to have Partner representatives share information on planning methodologies, site selection and integration approaches, case studies, technology developments, and policy concepts to assist all partners in the identification of opportunities to effectively utilize wind electric generation. The session participants provided information from the perspectives of the stakeholders of wind energy: the developers/owners of the wind projects, the operators of the

## Power Generation and Transmission Task Force (continued)

transmission grid, the utilities, and policy-makers that provide regulation and incentives for these uses.

Workshop participants discussed the continued evolution of wind technology, increasing wind energy price competitiveness, the constraints brought about by transmission and density of wind generation, the challenges of reducing the cost of energy from wind, reducing the grid integration barriers, accelerating market adoption of wind, addressing policy issues, and the new challenge of offshore production.

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).



Participants of the Wind Electric Generation Event, 13-15 September 2010 in Montreal, Canada.

## Renewable Energy and Distributed Generation Task Force

India and the United States recently signed an agreement for cooperation on a Joint Clean Energy Research and Development Center on 20 August 2010 in Washington, DC, USA. The new cooperation is viewed as an extension of activities between India and the United States under the Renewable Energy and Distributed Generation Task Force.

The Center, the location for which is yet to be determined, will facilitate joint research and development by teams of scientists and engineers from India and the United States on clean energy and related joint activities, needed to deploy clean energy technologies rapidly with the greatest impact. The areas of cooperation under the auspices of the Center will include energy efficiency of buildings, smart grids, unconventional natural gas, second-generation bio fuels, clean coal technologies, and solar energy. The Indian and U.S. governments will both provide funding for the activities to help ensure long-term and stable financial support to achieve the objectives of the Center. In addition, it is anticipated that private industry and academia in both countries will also provide additional resources.

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).



India's Ambassador to the U.S., Meera Shankar with Deputy Secretary at the U.S. Department of Energy, Daniel Poneman on 20 August 2010 in Washington, DC, USA.

## Steel Task Force

The Steel Task Force is currently in the process of updating the State-of-the-Art Clean Technology (SOACT) Handbook, the product of flagship project STF-06-05, *SOACT Handbook*. Updates to the handbook were requested earlier this year and received from participating APP countries in July 2010, and are now under review in order to complete a final version by the end of 2010. This comprehensive document contains information on energy saving technologies and practices in the iron and steel industry in different parts of the world. The SOACT Handbook provides industry decision makers with a comprehensive information resource to guide capital improvement projects, while also creating a live clearinghouse to match technology suppliers and end users.

To learn more about this project, please visit: [http://asiapacificpartnership.org/english/pr\\_steel.aspx#Steel\\_Project\\_5](http://asiapacificpartnership.org/english/pr_steel.aspx#Steel_Project_5)  
For more information on the Steel Task Force, please visit: [http://asiapacificpartnership.org/english/tf\\_steel.aspx](http://asiapacificpartnership.org/english/tf_steel.aspx).