

## **CMT-06-06: Cement Kiln Co-Generation**

### ***Project***

The project will document the economic and energy efficiency gains obtained by utilizing cement plant waste heat to generate electricity. The potential reductions in GHG emissions will also be documented as the cogeneration reduces the cement plant's use of grid electricity.

The project will also explore mechanisms to address the technical and engineering challenges involved in retrofitting cogeneration facilities to an existing cement manufacturing plant.

### ***Participation***

#### ***Managing Parties***

Australia (as lead agency), China.

#### ***Participants***

Other Partner countries are invited to participate.

Participating organizations include cement and kiln manufacturers and cogeneration technology manufactures.

### ***Objectives***

To document the technical and engineering challenges involved in retrofitting cogeneration facilities utilizing cement kiln waste heat.

To characterize the energy efficiency gains obtained from the installation of cogeneration facilities in a typical cement plant.

To disseminate the expertise of Partner countries on cogeneration technology.

To encourage and facilitate deployment of cogeneration technology to Partner countries including through the possible retrofitting of an existing plant as a demonstration site.

### ***Milestones***

<b>2006</b>	<b>2007</b>	<b>2008</b>
Reach agreement within Partnership to progress the project.	Report to Cement Task Force about the potential energy efficiency and GHG abatement performance of cogeneration using cement plant waste heat. Task Force determines the value of a demonstration plant.	Identify a suitable cement plant for retrofitting. Obtain funding and install the cogeneration facility.

### ***Location***

Australia.

### ***Resources***

The project will be funded by Australia. Partner countries' involvement might include providing information on, and access to, existing cogeneration facilities or through joint activities to examine engineering and technical challenges. In particular, Australia will seek the assistance of other Partner countries who may have expertise on the development or adaptation of cogeneration technology for use at cement plants.

### ***Detailed Description***

The project combines two established technologies, cement kiln operation and cogeneration technology, to reduce the greenhouse gas emissions (GHG) from cement production to increase cement kiln energy use efficiency, reduce kiln energy consumption and to generate electricity.

If agreed, following the technical study, the project will include retrofitting cogeneration to an existing cement plant. The project will facilitate the demonstration and deployment of energy-efficient and cleaner production formulation technologies in Partnership countries.