

**EXPERT GROUP ON CLEAN FOSSIL ENERGY**

**TERMS OF REFERENCE**

**A. MISSION**

The work of the APEC Expert Group on Clean Fossil Energy (EGCFE) is to concurrently enhance economic development and mitigate, at the local, regional, and global levels, the environmental impact (e.g., air emissions, water and waste management) related to the production, preparation, transport, storage, and use of fossil fuels. Fossil fuels include: coal, coalbed methane, oil, natural gas, tar sands, oil shale, and their derivatives (e.g., coke, heat, electricity, coal-derived liquids, gases and chemicals; and petroleum products, including oil-water mixtures, such as Orimulsion).

**B. OBJECTIVES AND STRATEGY**

1. Consistent with the overall APEC goals and principles expressed in the commitments of the Economic Leaders Vision Statement, their initiatives of Seattle, the Bogor Declaration, the Osaka Action Agenda, the Energy Ministers, and the objectives of fundamental importance relating to a strategic approach to the environment and the policy principles stated in the declaration of the Energy Ministers' first meeting, the objectives of the EGCFE are to:
  - a. Increase energy security
  - b. Facilitate and encourage integration of environmental considerations into the energy planning and evaluation process.
  - b. Facilitate and encourage acceleration of commercialization and use of environmentally sound (i.e., clean) fossil energy technologies and processes.
  - c. Pursue and facilitate voluntary, cooperative, multilateral joint activities, including demonstration projects, between APEC members to address environmental concerns related to greenhouse gas emissions.
  - d. Examine how cooperation between member economies can reduce the environmental impacts of fossil energy production and use while also enhancing member economies sustainable economic development objectives.
  - e. Plan and implement those principles and activities described in its "Energy and Environmental Strategy" document.

2. In pursuing this objective, the EGCFE will build upon the ongoing work of EWG to consider, evaluate, and recommend actions that are consistent with the following goals:
  - a. Improve environmental performance in the fossil energy fuel-cycle through an integrated inter-fuel approach that provides an environmentally and economically sustainable energy mix.
  - b. Increase understanding of the relevant clean fossil energy technologies and facilitate access to those technologies by encouraging information exchange.
  - c. Promote the development of technological infrastructure and application of clean fossil energy technologies.
  - d. Enable joint research and development of clean fossil energy technologies that are adapted to the needs of APEC members as well as demonstrate and transfer appropriate clean fossil energy technologies
  - e. Increase cooperation with other APEC and non-APEC organizations where mutual benefits exist.
  - f. Significantly increase and sustain the involvement of the business sector in the Clean Fossil Energy programs and activities.
  - g. Maintain and enhance open, efficient regional fossil energy markets and reduce regulatory and trade barriers to fossil energy investment and transfer of clean fossil energy technologies.
  - h. Address institutional, regulatory, human resource, and other impediments related to the uptake of environmentally sound fossil energy technologies.
  - i. Efficiently operate and maintain relevant technologies already in application.
  - j. Facilitate efficient fossil energy production, distribution and consumption, adoption of least cost approaches to fossil energy services and reduction of fossil energy subsidies.
  - k. Promote cost-effective measures that improve the efficiency at which fossil energy is used.
3. To achieve this objective, the EGCFE will implement these strategies by:
  - a. Seeking opportunities for cooperation between APEC members with respect to learning from each other's experiences and tackling the new environmental challenges in a multilateral context. This approach is necessary to address

cross-border (i.e., regional and global) impacts of environmental problems, which require collective action.

- b. Coordinating inputs from other Expert Groups to cover environmentally related activities and identify important gaps that need attention. An important goal is to develop a strong energy-environmental strategy that is both consistent with and will result in synergies with the activities of various Experts Groups. The EGCFE will work to achieve improved coordination and promotion of environmental and fossil energy activities within APEC through periodic consultation and dialogue with the Expert Group on Minerals and Energy Exploration, the Expert Group on Energy Data and Outlook, the Asia Pacific Energy Research Centre, the Task Force on Investment in Power Infrastructure, the Electricity Regulators Forum, the Ad Hoc Business Forum on Regional Cooperation for Power Infrastructure, the Ad-hoc Group, and the Natural Gas Industry Energy Technology Liaison Group.
- c. Establishing new initiatives associated with fossil energy and the environment, promoting the use of environmentally sound and efficient fossil energy technology, and the introduction of measures to mitigate adverse environmental effects.
- d. Coordinating activities with organizations involved in improving the environmental performance of fossil energy use will reduce unnecessary duplication. Improved coordination will require collection of information on environmental programs and strategies, and exchanges with producers, consumers, and policy-makers within government.
- e. Reviewing current and future initiatives to insure that participation of women will be sought. In addition, women will be encouraged to participate in the planning, management, allocation of resources, and implementation of all EGCFE projects.

### **C. THE ROLE OF THE EXPERT GROUP ON CLEAN FOSSIL ENERGY (EGCFE)**

1. The basic role of the EGCFE will be as facilitator, coordinator, and implementer of activities related to improving the environmental performance of the fossil fuel cycle. This role includes the gathering and distribution of information regarding clean fossil energy development potential and opportunities within the region that will expedite establishment of a sound investment climate within the APEC region.
2. The role of the EGCFE is particularly important with regard to the linkages between fossil energy and environmental issues, which need to be addressed in government programs, projects, and policy actions in member economies. Strong attention needs to be given to efficiency in and the environmental and economic sustainability of the fossil energy fuel cycle.
3. The EGCFE will facilitate and promote the application of environmentally sound and efficient fossil energy technologies in APEC economies.

## **D. ORGANIZATIONAL ASPECTS**

1. The EGCFE is one of five Groups that was established by, and reports directly to, the Energy Working Group (EWG).
2. The EWG is one of ten such groups that implement the Action Agenda of the Asia Pacific Economic Cooperation (APEC). The Action Program of the EWG seeks to focus on a limited number of key initiatives that will produce outcomes of direct relevance to the achievement of the objectives of the Bogor Declaration and the 3E's initiative. This program addresses both elements of the APEC Action Agenda and consists of four themes:
  - a. Fostering a common understanding on regional energy issues.
  - b. Facilitating investment in the energy sector.
  - c. Reducing environmental impacts in the energy sector.
  - d. Acceptance of equivalence in accreditation and increasing harmonization of energy standards.
3. The EGCFE assists the EWG to achieve the objectives of these themes specifically by:
  - a. Focusing activities on achieving the objectives of the EWG outlined for the theme of "Reducing the Environmental Impact in the Energy Sector" and specifically to reduce the environmental impacts of energy production, delivery, and consumption.
  - b. Developing a program to facilitate and increase the cost effective application of new and more efficient environmentally sound energy technologies.
4. The efforts of the EGCFE are guided by organizational and operational parameters that include:
  - a. The application of principles included in an "Energy and Environmental Strategy," prepared by the EGCFE and approved by the EWG, to prepare a Program of activities containing short-to-medium term as well as medium-to-long term, objectives.
  - b. Implementation of specific activities and projects planned prepared and approved by the members of the EGCFE at its business meetings that are held on a semi-annual basis.
  - c. Rotation of meetings among the member economies.
  - d. Use of a Chair to guide the activities of the EGCFE, to provide representation of the Group at meetings of the EWG, and with the Group's approval, conduct business between formal meetings. This Chair and the associated Secretariat serve by

consensus for a period of four (4) years on a rotating basis. In the fourth year of the Chair's term, the Chair-elect will be identified by the Group as the Chair-designee to succeed the sitting Chair for the subsequent four-year period.

- e. Use of program managers, which will be elected by consensus, to assist the Chairperson in developing an annual work plan and help with monitoring, evaluation, and reporting accomplishments of ongoing activities within their program. Program Managers will serve by consensus for a period of (4) years. Election of the Chairperson and each program manager should be scheduled so as to have the election of only one leadership position per year.
  - f. Use of project managers that will be nominated by program members and will assist the program managers to develop specific project proposals (and Request for Proposals if needed), help choose winning contractors for projects, serve as the focal point for day to day operations until the project is completed and help in the preparation of any final reports.
  - g. Inviting APEC members to participate in all EGCFE activities. However, each economy will have only one vote when approving/disapproving EGCFE issues. During the introduction and welcome portion of each business meeting, each economy will identify the individual with the authority to vote for his/her economy on EGCFE issues. In addition, prior to each meeting, the Chair will be notified of the representative from each economy with voting authority.
5. The activities of the EGCFE are supported by one, or a combination, of the following:
- a. Cooperative, multilateral, efforts of the member economies.
  - b. Funds from the APEC Central Fund.
  - c. The Common Fund of the EGCFE Expert created by contributions from a member economy.
  - d. Task-shared activities in which the respective member economies perform separate activities that contribute to the completion of the whole project.

## **E. WORK PROGRAM**

1. The present scope of activities of the EGCFE in the area of clean fossil fuels include:
- a. Transfer of information and technology that enables member economies (governments and enterprises) to identify low-cost means to improve the environmental performance of the fossil energy fuel cycle while promoting sustainable development.
  - b. Development of an enabling environment for regional investment, financing, and

joint-venture development of projects that improve the environmental performance and efficiency of the fossil fuel cycle.

- c. Assisting the EWG and related bodies to identify the implications of APEC actions on the fossil energy fuel cycle and to develop strategies to mitigate those effects.
- d. Form an expert team to visit any economy that needs technology assistance in promoting clean fossil energy or improving the efficiency of fossil fuel cycle.

2. Over the short-to-medium term, the EGCFE will:

- a. Expand on current programs, which focus on increasing understanding of available technologies and how they can be implemented; facilitate access to these technologies, training, and services, to include the area of not only clean coal technology, but also more efficient use of gas- and oil-based power generation, alternative and improved liquid fuels, and environmental control measures. Activities that are expected to continue to include periodic training courses and technical seminars covering technical and policy issues.
- b. Survey, collect, correlate, and distribute existing data and studies, which will form the basis of policy recommendations. These activities will be designed to measure fossil energy environmental performance and progress and ultimately facilitate cost-effective environmental solutions. The data and analyses will be used to identify appropriate clean fossil energy technology and policy strategies and to assist business interests (e.g., users, financiers, and consulting engineers) in member economies.
- c. Develop a systematic cooperative program to identify and address impediments to clean fossil energy implementation, and to facilitate and increase the cost-effective application of new, more efficient and environmentally sound energy technologies, standards and systems. These activities will aim to promote investment in the development of technological infrastructure and application of clean fossil energy technologies and processes. They will include work with the fossil energy industry, especially to focus on the opportunities for mutual benefit in technology development and transfer and environmental improvements.
- d. Implement multilateral joint studies, pilot/demonstration projects that will increase the efficiency, reduce the cost and minimize the environmental impact of fossil fuel use.
- e. Develop a formal process for seeking the advice and participation of fossil energy companies in the development and implementation of the clean fossil energy program.

- f. Establish and maintain a web page to improve the dissemination of information (including EGCFE meeting dates, research reports and seminar papers) to a much wider APEC audience.
3. Over the medium-to-long term, increased emphasis will be given to global climate change issues, which will be implemented through:
- a. Increased attention will be given to examining the impacts of various fossil fuel and technology options on greenhouse gas emissions. This will also include examination of various policy options for promoting options that will reduce greenhouse emissions, while sustaining strong economic growth among APEC economies.
  - b. Increased attention to education and training to better understand fossil fuel and technology options that are competitive and have reduced environmental emissions.
  - c. Implementation of demonstration projects on fossil energy in the areas of more efficient energy production, power generation, natural gas use, and liquid fuel production and use.
  - d. Developing a set of policies to enable the reduction of barriers to the use of cleaner and more efficient fossil fuel technologies and processes. These include structural barriers (e.g., uncertainty about fuel prices, limited access to capital, government and fiscal regulation and policy, codes and standards, and supply infrastructure limitations) and behavioral barriers (e.g., perceived risk of investment, attitudes toward energy efficiency, information gaps, and misplaced incentives).