

## DRAFT OUTLINE OF APEC LEADERS' DECLARATION ON CLIMATE CHANGE, ENERGY SECURITY AND CLEAN DEVELOPMENT

### The Challenge Facing the APEC Region

- Economic growth, energy security and climate change as fundamental and interlinked issues for APEC economies
- Central role of technology in meeting multiple goals in high-growth Asia-Pacific region, particularly cleaner fossil energy technologies in the context of ongoing importance of fossil fuels and the need to expand energy access and reduce air pollution and GHG emissions
- High potential of energy efficiency improvements and use of renewable energy to improve energy security, economic growth and reduce emissions
- safe and secure use of nuclear energy, for those economies that use or plan to develop it, will contribute to meeting the climate change challenge
- Different national circumstances – e.g. resource endowments, land uses, social development objectives and institutional capacities – mean a framework of different policy responses will be required
- To meet the aspirations of the APEC region any international response to climate change needs to be flexible, fair and environmentally effective

### Principles for Future Action

- APEC Leaders call for future global climate change framework that is environmentally and economically effective, equitable and based on the following principles:
  - comprehensive participation including contributions by all major economies
  - respect for differences in national circumstances
  - a more flexible and diverse framework that promotes practical and co-operative action
  - the value of "bottom-up" national actions making measurable and verifiable contributions to meeting shared global goals
  - support for enhanced investment and co-operation on the development and diffusion of low-emission technology
  - importance of forests as carbon sinks
  - focus on adapting to impacts of climate change
  - need to avoid creating obstacles to trade
- Agree on the importance of these principles in the UNFCCC negotiations and in processes contributing to them

- Confirmation that the UNFCCC is the principal multilateral forum for negotiations on climate change
- Support for President of this year's UNFCCC Conference of the Parties meeting, and for an outcome that establishes a pathway to a comprehensive post-Kyoto framework
- Agree that a long-term aspirational global emissions reduction goal will be a key component of the post-2012 framework
- Note the national decisions made by some APEC economies to propose a long-term global emissions goal
- Welcome the initiative by the United States to convene a dialogic process among major economies as an important contribution to a post-2012 framework

### Action Agenda

#### *Technology, innovation and diffusion*

- Agree to establish the Asia-Pacific Network for Energy Technology (APNet) to strengthen and formalise energy research coordination and collaboration
- Participation in APNet would be open to all relevant research bodies and it would facilitate regional collaboration towards technology breakthroughs in areas such as clean fossil energy and renewable energy
- Welcome Australia's offer to convene a major APEC energy research conference in 2008 to inaugurate the APNet and to agree on specific activities

#### *Improved energy efficiency*

- Agree to work toward the goal of a reduction in energy intensity across the APEC region by at least 25% by 2030 (2005 base year)
- Agree to implement national policies and measures consistent with this goal
- Agree to review progress on this agenda through the APEC Energy Peer Review Mechanism which was established by Energy Ministers, and to report back to APEC Leaders in 2010

#### *Forests and Climate*

- Noting that the APEC region as a whole accounts for about half global forest area, that it has increased forest area in recent years and that it aims to build on this progress
- Agree on importance of sustainable forest management, stopping illegal logging and the benefit of forests as carbon reservoirs
- Welcome national policies in these areas; endorse the Global Initiative on Forests and Climate; welcome the World Bank's forest carbon partnership facility

- Agree to establish the Asia-Pacific Network for Sustainable Forest Rehabilitation and Management (PRC proposal to be circulated)

#### *Aviation*

- Agree that APEC will further develop practical co-operative measures to reduce emissions from aviation building on APEC Transport Ministers' outcome

#### *Renewable energy sources*

- Agree APEC will exchange information and promote policy environments that will encourage investment in all cleaner fuels, including renewable energy sources
- Support efforts to develop international standards for sustainable biofuels to facilitate increased use of alternative fuels
- Welcome the efforts underway in a number of international partnerships, including on methane and hydrogen, where collaboration is advancing potentially important new technologies

#### *Trade in environmental goods and services*

- Support the successful conclusion of the WTO Doha Development Agenda with the inclusion of a substantive liberalising package in the area of environmental goods
- If Doha round is not concluded by end-2007, agree to examine possible action by APEC to liberalise trade in environmental goods and services for consideration by Leaders in 2008

#### *Financing Sustainable Development*

- Agree to support financing for clean development through multilateral development banks and technical assistance programs as well as through improving conditions for investment (APEC Finance Ministers outcomes)

#### *Policy analysis capability*

- Agree leading economic modelling and related institutions in the region co-ordinate to enhance understanding of the economic and environmental implications of climate change policies, including mitigation and adaptation strategies

## **APEC Leaders' declaration on climate change and clean development**

### Draft outline text on forestry

- Note broad consensus in the region that reforestation and avoided deforestation will be an important part of an effective global response to climate change; underscore the importance of sustainable forest management practices, and the need to combat illegal logging
- Note that the APEC region as a whole accounts for about one half of global forest area; welcoming the increase in forest cover in the APEC region of 7.6 million hectares over the period 2000-2006
- Look forward to the continuation of that trend, and highlight APEC's collective aspirational goal of expanding forest cover in the region as a whole by at least 20 million hectares by 2020
  - note that this has the potential to store approximately 1.4 billion tonnes of carbon dioxide, equivalent to around 11 per cent of annual global emissions (2004)
- In line with this aspirational goal:
  - encourage continued efforts by APEC economies to implement policies and measures that are consistent with the goal
  - endorse the Global Initiative on Forests and Climate, welcoming the results of the High Level Meeting held in Sydney in July 2007, supporting a second meeting in 2008 which would aim to maintain momentum and identify future project activity
  - intend to work together and with other international partners to ensure that forestry issues are addressed effectively in the post-2012 international climate change framework
  - intend to work with the World Bank as it implements its proposed forest carbon partnership facility
  - establish the Asia-Pacific Network for Sustainable Forest Rehabilitation and Management with the aim of promoting capacity building and providing technical assistance

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## Asia Pacific Network for Energy Technology (APNet)

### Background information on the proposal for the APEC Leaders' Declaration

It is proposed that the APEC Leaders' declaration in Sydney announce the establishment of an Asia-Pacific Network for Energy Technology (APNet).

#### *Objectives*

The purpose of APNet would be to facilitate cooperation and information flows between regional research bodies in the clean energy area. It would add an important new regional dimension to other initiatives, including those underway in the GS Gleneagles Dialogue, the UNFCCC and other partnerships. It would not be a negotiating forum.

APNet should focus on research and development of emerging low emission energy and energy efficiency technologies - those which are not yet available for large scale demonstration or commercial deployment. Such technologies are still at the stage of needing significant public sector support. The technology scope would include clean fossil energy, renewable energy, energy efficiency and nuclear energy, with research focussed on medium term breakthroughs. APNet would not seek to direct national-level research activities.

#### *Participation*

Participation would be open to research bodies in APEC, such as the Australian Commonwealth Scientific and Industrial Research Organisation (CSIRO), university research centres, the United States Department of Energy laboratories, and similar institutions. Private sector research laboratories would be able to join.

Membership would be voluntary, and multiple research bodies could join from individual countries. The criteria for membership would relate to a relevant energy research capability, and a willingness to collaborate. APNet could support the involvement by countries that may not have a research body, for example through scholarship arrangements and sponsored participation in the proposed conference (see below).

#### *Activities*

APNet would establish specific research goals for key energy technologies identified. These goals could relate to technical efficiency, cost or scale. The research goals would address issues relevant to the commercialisation of new climate-friendly technologies.

To promote linkages across the region, APNet would publish a report on progress towards the research goals. This report would be analogous to an IPCC 'Summary for Policy Makers', providing a synthesis of the state of clean

work on minimum standards for efficiency, sound performance labelling, information campaigns and voluntary arrangements at the sectoral level.

An energy efficiency work program has started in APEC. At their meeting in May 2007, APEC Energy Ministers agreed there was great potential for energy efficiency improvements in the region. Ministers encouraged APEC economies to set goals and formulate action plans, and to strengthen efforts to share information on policies and measures. Activities in the energy efficiency area are also under discussion in the APEC Transport Working Group.

A number of APEC economies have introduced national goals and comprehensive policies to promote energy efficiency. For example, energy efficiency is cited as a major goal of Japan's Energy Conservation Law; China's National Climate Change Programme (2007) includes a target of 20 per cent reduction of energy consumption per unit of GDP by 2010; the United States has committed to improve energy efficiency and to reduce greenhouse gas emissions of Federal Government agencies; the ASEAN Plan of Action for Energy Cooperation includes an undertaking for each member country to prepare national action programs that incorporate provisions on energy efficiency.

#### *Possible aspirational APEC-wide goal*

It is proposed that APEC Leaders consider a long term aspirational goal for improving energy efficiency. Such a goal would be a tangible demonstration of the APEC region's political-level commitment to lead the world in practical action to address climate change.

The goal would apply to the APEC region as a whole and would not translate into targets for individual APEC economies. The goal would be not be legally binding or enforceable, and could be amended as necessary if circumstances change. Agreement to such a goal would not imply a prescriptive or harmonised approach to policy measures; APEC economies' policies would continue to be determined according to national circumstances and capacities.

On the basis of current performance in the APEC region, a reduction in energy intensity\* of at least 25 per cent by 2030 by the APEC region as a whole would appear to be achievable. This goal assumes the continuation of current policy settings, together with a comparable rate of uptake of technological advances and best practices to current levels. If the goal is agreed, it is proposed that progress would be tracked in the APEC Peer Review Mechanism which was agreed by APEC energy ministers in 2007.

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\* Although it is not a perfect measure of energy efficiency, energy intensity (defined as primary energy consumption per unit of Gross Domestic Product (GDP)) is frequently used in studies as a broad indicator of trends in energy savings, for example by the International Energy Agency.

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## Energy efficiency

### **Proposal for inclusion in the Leaders' Declaration**

Under current policy settings, and driven by population and economic growth, energy consumption in APEC economies is projected to increase by about 140 per cent over the period 2004-50.

A continued reliance on fossil fuels by APEC economies to meet this escalating energy demand is projected to lead to a marked increase in greenhouse gas emissions. By 2050, emissions are projected to be about 130 per cent higher in APEC economies relative to 2004 levels.

The widespread adoption of cleaner, more advanced and energy efficient technologies and practices has the potential to considerably reduce the overall demand for energy and reduce the growth in greenhouse gas emissions in the APEC economies over the medium to long term. Such action would also generate significant energy security benefits as a result of a reduction in the consumption of oil and other fossil fuels.

Given this potential, there is a strong case for public and private sector efforts to focus on developing more energy efficient technologies, particularly in key industry sectors such as iron and steel, wood, pulp and paper products, aluminium, cement and mining. Research and development efforts into cleaner energy supply options for electricity generation should remain a high priority for APEC economies.

It is likely, however, that technological breakthroughs will take some time to reach the market. Coherent economy-wide policy measures to improve energy efficiency have the potential to generate large economic and environmental benefits in a shorter timeframe.

#### *The importance of energy efficiency*

According to the International Energy Agency (Alternative Policies Scenarios, World Energy Outlook 2006) the successful implementation of a range of energy efficiency policies could contribute up to 80 per cent of avoided greenhouse gases at the global level by 2030.

There is ample evidence to suggest that energy efficiency savings are being made in all APEC economies and that there are opportunities to make further progress. Harvesting these opportunities will require active efforts by the governments of APEC economies in the implementation and monitoring of appropriate measures, according to national circumstances.

An APEC-wide consensus on energy efficiency would be consistent with efforts elsewhere. The G8 has committed to a 'model of efficient energy systems' and agreed to work with other countries to promote appropriate policies including economic incentives and fiscal policies, and to advance

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energy technology. This report should become the primary reference document for researchers, investors and policy makers. Funding arrangements for APNet activities would be settled at the inaugural conference (see below). A competitive grants program could also be established, to support research collaboration within APNet. Grant funds could also be used to establish APNet scholarships and post-doctoral research. An alternative model for funding collaborative research could involve voluntary contributions on a project-by-project basis.

*Inaugural conference*

APNet would be launched at a major energy technology research conference to be held in the region in 2008. Key issues on the operation of APNet and its governance arrangements would be settled at the conference. It is proposed that the issue of grant funding be discussed at the conference. If agreed, such a conference could become an annual or biannual event on the APNet calendar. The conference could be organised around the research plan and goals. It could incorporate major prizes for excellence in energy technology research to recognise breakthroughs or sustained contributions in line with APNet research goals.