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## **Energy Initiatives for Responding to the Ha Noi Declaration**

Purpose: Information  
Submitted by: APEC Energy Working Group Secretariat



**8<sup>th</sup> Meeting of Energy Ministers**  
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## ENERGY INITIATIVES RESPONDING TO THE HA NOI DECLARATION

### Introduction

The Ha Noi Declaration confirms that energy security is critical for sustainable economic development.<sup>1</sup> The Declaration calls for member economies to continue to:

*...work to facilitate energy investment and cross-border energy trade, to develop new and renewable energy sources and technologies to ensure cleaner use of fossil fuels, to boost energy efficiency and conservation, to enhance emergency preparedness and to better protect critical energy infrastructure.*

(Ha Noi Declaration, page 5)

An ongoing program of work – to minimise shorter-term energy market volatility and to encourage longer-term energy policy responses – is pursued by the APEC Energy Working Group (EWG) in response to the directions of APEC Energy Ministers. Implementation is made through the mechanism of the APEC Energy Security Initiative.

However, reflecting concerns about how to meet APEC's increasing energy needs with a lower environmental impact and to address climate change objectives, APEC Leaders have instructed APEC (Foreign & Trade) Ministers to report to them in 2007 on how APEC might *further contribute* to the challenges of meeting rapidly growing energy demands while minimising environmental effects. Specifically Leaders have asked for a report on "policies and technologies that promote the development of cleaner energy and the improvement of energy efficiency".

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<sup>1</sup> 14<sup>th</sup> APEC Economic Leaders' Meeting, Ha Noi, Viet Nam, 18–19 November 2006, <[http://www.apec2006.vn/uploads/doc/1163921984\\_46.pdf](http://www.apec2006.vn/uploads/doc/1163921984_46.pdf)>.

## **EMM8 Response to Leaders**

EMM8 must respond to the call by Leaders in Ha Noi to address the challenges of meeting rapidly growing energy demand while minimising environmental effects. Moreover, this should be done taking into account stated concerns to promote the development of cleaner energy and the improvement of energy efficiency.

Meeting under the theme of *Achieving Energy Security and Sustainable Development through Efficiency, Conservation and Diversity*, EMM8 provides an opportunity for Energy Ministers to give their imprimatur to a range of energy initiatives to improve the operation of energy markets and to improve energy efficiency and diversity. These initiatives respond to Leaders' instructions from Ha Noi and may contribute to Leaders' broader considerations of clean development and climate change in Sydney.

Ministers may wish to be guided by the conclusion of the EWG Lead Shepherd's report to EMM8 that:

*Through the Energy Security Initiative, the APEC forum has established a framework that enhances regional energy security and sustainable development prospects. However, there continue to be major policy challenges in achieving adequate, reliable, affordable and cleaner energy in APEC economies. Two important aspects of a cooperative policy response are improving the operation of energy markets and adopting more energy efficient and cleaner fuels and technologies.*

(ABARE 2007)

There is a wide range of relevant and ongoing activities being undertaken by the EWG in response to the directions of Energy Ministers. However, for the purposes of addressing how APEC might *further contribute* to the challenges of meeting rapidly growing energy demands while minimising environmental effects, the following list of activities – to improve the operation of energy markets and to improve energy efficiency and diversity – is presented to EMM8 with a view to forming a response to the Ha Noi Declaration.

## INITIATIVES

### 1 — Improving the Operation of Energy Markets

#### *1.1 APEC Energy Investment & Trade Study and Roundtable*

Demand for energy is increasing due to strong global economic growth, rising incomes, and continuing industrialisation and urbanisation in some economies, many of which are APEC members. The increase in energy demand has occurred rapidly, but the supply response has been slow, causing an increase in energy prices and some volatility.

These developments have raised concerns around energy security, which is often considered a strategic issue that requires specific and strong policy interventions by governments. Along these lines, energy security concerns can fundamentally be seen as an economic issue, which is best addressed by putting in place the rules and business frameworks for well-functioning energy markets.

The energy sector remains highly regulated in many APEC economies and there are significant opportunities to increase economic and energy security benefits from trade and investment liberalisation in a sustainable manner. As APEC energy demands grow, substantial investments are required to find, extract and deliver energy resources to users.

Long-term energy security requires effective policy frameworks to mobilise domestic and international private sources of investment. The best route to energy security for energy suppliers and consumers is through efficient, well-functioning markets that are characterised, *inter-alia*, by free and open trade, secure and transparent investment frameworks, clear price signals, market transparency, good governance and effective competition. It is only if these conditions are in place that firms will receive the appropriate price signals and adapt their behaviour, be it in terms of their environmental impact or in terms of responding to new supply opportunities.

Well-functioning markets will support and encourage greater cross-border trade in energy products. This is important given the geographic concentration of energy endowments and the projected rise in energy import dependency in many APEC economies.

In its 2006 Outlook, the Asia-Pacific Energy Research Centre (APEREC) forecasts that significant levels of investment – at least US\$ six trillion – are required to meet the region's energy needs in a sustainable manner. This includes investment in, for example, more efficient energy use, in exploration and production of new and existing fuel sources, in new electricity generation and LNG facilities, in transmission and distribution systems, and in technologies to promote the cleaner use of fossil fuels (which will remain APEC's primary energy source into the foreseeable future).

Facilitating regional energy trade and investment has the potential to significantly increase the efficiency of energy markets, providing both energy security and sustainable development benefits to the APEC region. For example, trade and investment liberalisation would improve access to new and enhanced energy technologies. In addition, more efficient energy markets would increase the flexibility of markets to adjust to temporary or sustained changes in supply and demand conditions.

Governments provide the conditions that attract private investment for energy projects. It is therefore proposed that Ministers support a broader APEC project to increase energy security and environmental benefits from a greater understanding of the route to improved energy investment and trade through improving the operation of energy markets.

The project comprises two parts:

1. an Expert Study to identify energy trade and investment barriers, including behind-the-border barriers, to the greater penetration of new, cleaner and more efficient fuels and technologies in the APEC region; followed by

2. an APEC Energy Investment & Trade Roundtable of relevant senior energy, environment, finance and trade experts, plus private sector representatives, tasked to review the Expert Study's findings and to develop an achievable plan-of-action towards addressing identified barriers, tailored to the needs of individual economies.

At their March meeting, EWG members welcomed this proposal noting that future liberalisation initiatives should be tailored to the needs of individual economies. Members recognised that ‘barriers’ to improved efficiency in energy markets may be diverse, and were cognisant of the need to keep the Roundtable manageable, including the number of representatives. It is therefore important that the Expert Study proposes specific foci for the Roundtable, for example addressing barriers to investment and trade in oil and gas production, electricity generation, and gas and electricity transportation and that the Roundtable includes broad-ranging expertise.

Ministers may wish to note that issues concerning organisation, funding and hosting are to be resolved post-EMM8.

***Recommendation***

- a) Recognising that addressing barriers to investment and trade requires broad inter-fora cooperation within APEC, Ministers to direct the EWG to contribute to the proposed APEC Energy Investment & Trade Study and Roundtable.

***1.2 Addressing Impediments to Oil Production***

Growth in oil product demand and a decline in spare supply capacity have contributed to a tightening of the oil supply-demand balance, with the result that the world oil market has become vulnerable to sudden fluctuations in oil supply-demand, as well as to external shocks (e.g. supply disruption). As a result of these factors, world oil prices remain historically high, despite the absence of any serious disruption of oil supply. In response:

1. Ministers may wish to recommend that the proposed APEC Energy Investment & Trade Study and Roundtable (described earlier) considers how to facilitate investment and trade in downstream and upstream oil markets. In particular Ministers may wish the Study and Roundtable to address how economies may cooperate to provide a transparent and streamlined regulatory framework for investment; to facilitate freer trade of oil products; and to create a positive environment for technology development to help refiners to produce cleaner oil products more efficiently; and
2. Ministers, observing the growing importance of state-owned oil/gas companies, may wish to recommend that they will examine the investment and trade ramifications of the role of state-owned oil/gas companies in APEC economies, including examining how partnerships and cooperation could improve the value chain and ensure that investment levels are efficient.

***Recommendations***

- b) Impediments to oil production to be addressed as per the APEC Energy Investment & Trade Study and Roundtable.
- c) Ministers direct the EWG to examine the investment and trade ramifications of the role of state-owned oil/gas companies in APEC economies.

***1.3 Promoting Diversity through Cross-border Energy Trade in Natural Gas, including Advancing the Findings of the APEC Gas (APGAS) Forum***

In order to promote clean and efficient energy production and use by attracting energy investment and facilitating cross-border energy trade, Ministers may encourage member economies to address the recommendations of the APGAS Forum and to continue implementation of the APEC LNG Public Education and Communication Information Sharing Initiative.

At EMM7 Energy Ministers directed that the APGAS Forum be created in order to expand cross-border energy trade. APGAS has since met twice and identified

concerns with a global shortage of gas/LNG supply; the potential for increased use of gas in power generation; the lack of standardisation in gas/LNG quality specifications; the requirements for greater public education on the benefits of gas/LNG; and greater clarity on the role of gas/LNG in addressing greenhouse gas emissions reductions.

The APGAS Forum recommendations were reported to Energy Ministers during the EMM8 Government–Private Sector Dialogue by the Chair of the Energy Business Network (EBN). The EBN is calling for:

1. funding to actively promote and facilitate the use of natural gas in regional markets and to provide expert advice to Ministers and the APEC Energy Working Group on measures to enhance energy security; slow the growth of greenhouse gas emissions; accelerate cross-border gas trade; and educate the public on gas as an energy choice; and
2. an immediate review, on a voluntary basis, of all domestic policies on energy in order to identify those that may act as barriers to gas industry investment, development of gas projects and regional cross-border trade in gas.

Ministers may wish to recommend that recommendation '1' be addressed through greater EWG–APGAS cooperation in co-developing and co-sponsoring projects for APEC funding in consultation with member economies and the relevant EWG Expert Groups. Ministers may also wish to consider recommendation '2' as part of the proposed APEC Energy Investment & Trade Study and Roundtable.

To complement recommendations '1' & '2', Ministers may also consider it appropriate that the EWG's broader work to-date on natural gas be assessed through an APEC Energy Best Practice Implementation Review (described below). For example, the Best Practice Principles for LNG Trade, endorsed at EMM6, continue to be important guides to policies and behaviour that allow LNG trade to expand among exporting and importing economies in the region. Member economies could therefore be encouraged to report to the EWG on a voluntary basis on progress in implementing these principles.

At EMM7, Energy Ministers approved the LNG Public Education and Communication Information Sharing Initiative. This Initiative is aimed at better informing the public about the environmental and safety aspects of LNG projects, including liquefaction and regasification facilities, in order to reduce public and official opposition to such projects. The construction of liquefaction and regasification facilities is a fundamental prerequisite to LNG trade in the APEC region. Therefore, sustained support for the Initiative should be sought from members, with a program of work that is also cognisant of the recommendations of the APGAS Forum.

***Recommendations***

d) Ministers encourage economies to address the recommendations of the APEC Gas Forum.

e) Identification of barriers to gas industry investment, development of gas projects and regional cross-border trade in gas to be addressed through a review of domestic policies on energy as per the APEC Energy Investment & Trade Study and Roundtable.

f) Ministers direct the EWG to continue implementation of its LNG Public Education and Communication Information Sharing Initiative.

***1.4 APEC Energy Best Practice Implementation Review***

Ministers may wish to consider the utility of an APEC Energy Best Practice Implementation Review.

Over the years APEC has developed a series of best practice principles (BPPs). A Review – initially for selected BPPs – would allow APEC to assess progress in their implementation and value. It would allow for identification of those areas where progress is advanced or limited. This could provide a useful impetus for further voluntary capacity building, tailored to individual member economy requirements,

and also in assessing the value and effectiveness of the original principals. Ministers may wish the review to be a process of voluntary self-reporting and review. Ultimately, the outcome is to use the process to assist members to identify where greater policy development or technical assistance may be required.

Ministers may wish to recommend that the Review will complement efforts to promote diversity through cross-border energy trade in natural gas, including advancing the findings of the APGAS Forum, as described above.

***Recommendation***

g) Ministers direct the EWG to review the uptake and currency of Best Practice Principles on Accelerating Investment in Natural Gas Supplies, Infrastructure and Trading Networks in the APEC Region; Facilitating the Development of LNG Trade; Financing Energy Projects; and Natural Gas Trade.

***1.5 Facilitating Investment through an Electronic Register of Domestic Energy Policies***

This is a broader APEC project to *investigate the feasibility and value* (including financial and human resource considerations) of compiling a register of domestic energy policies and key energy regulations for each APEC member economy. It would be conducted in consultation with other APEC fora activities on standards and conformance and the APEC Energy Investment & Trade Study and Roundtable.

The register could be compiled in the form of an internet site that would be regularly updated with contributions from member economies. The aim is to improve investment decision making by increasing information available to private investors and enhancing the development of domestic energy policy through information sharing. The registry could provide an enhanced ability to develop policy to help markets work more effectively while addressing barriers to investment.

Ministers may wish to note that issues concerning funding, researching, constructing and ongoing management of such a large repository of information are to be considered by the project.

***Recommendation***

h) Ministers direct the EWG to consult, including with business, on the feasibility and value of a register of domestic energy policies and key energy regulations for each APEC member economy, as per the considerations of the APEC Energy Investment & Trade Study and Roundtable.

## Section 2 — Improving Energy Efficiency and Diversity

### *2.1 APEC Energy Peer Review Mechanism*

The improvement of energy efficiency offers many cost-effective opportunities to achieve energy security and environmental objectives. Improving energy efficiency offers opportunities to reduce energy demand in a shorter timescale, in conjunction with longer-term efforts to facilitate investment in energy supply infrastructure.

Disseminating best practices and technologies for improving energy efficiency helps economies meet increasing energy needs with a lower environmental impact. There is potential for energy efficiency improvements in the industrial, transport, residential and commercial sectors. Furthermore, many energy efficiency measures can pay for themselves through reduced energy costs.

Many economies would benefit from developing clear goals and plans towards improving energy efficiency. As a step towards this, it is important to better understand regional energy demand trends by identifying areas/sectors where individual member economies have the scope to improve energy efficiency.

The development of sectoral energy efficiency indicators and the compilation of good practices for improving energy efficiency in key energy consuming sectors are important prerequisites that could draw collaboratively from APEC's joint work on developing energy efficiency indicators, in co-operation with the IEA; the sectoral approach of the Asia-Pacific Partnership on Clean Development and Climate; and the Second East Asia Summit's proposed measures to set individual goals and formulate action plans voluntarily for improving energy efficiency.<sup>2</sup> Progress towards achieving energy efficiency goals and plans could be monitored and progressed through an APEC Energy Peer Review Mechanism.

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<sup>2</sup> A joint APEC–IEA Workshop on Energy Indicators was held in Australia, November 2006, building on previously separate work programs. The IEA was admitted as an APEC Guest for a three year duration to December 2008.

The Cebu Declaration on East Asian Energy Security was released at the Second East Asia Summit, Philippines, January 2006.

The APEC Energy Peer Review Mechanism would recognise that energy policies and effective governance regimes necessary for addressing energy security should be pursued in tandem with the development and deployment of new, cleaner and more energy efficient technologies that contribute to meeting environmental and climate change objectives.

Currently the EWG has no peer review process for interested economies. Under this proposal, APEC economies would undergo peer review on a voluntary basis. Initially, and in order to be responsive to the instructions of APEC Leaders from Ha Noi, the review mechanism would focus on policies and measures to improve energy efficiency in developing economies.

Such a mechanism must be clearly differentiated to the IEA's In-depth Peer Review (where every four years the policies of IEA Member countries are subject to peer review). IEA Members use this process to co-operate to increase their collective energy security through diversification of their energy sources and improving energy efficiency, while ensuring economic and environmental sustainability in energy policies. Therefore APEC members of the IEA may wish to instead present selected chapters of their IEA review for discussion at EWG plenary.

Reviews could either be conducted by the host economy and then be subject to external peer review, or they could be conducted by a review team of respected international energy experts. Implementation of recommendations coming out of the process would be voluntary. The aim would be to encourage a greater regional policy debate and potentially a greater alignment of economies' energy policies towards improved energy efficiency.

Ministers may wish to note that issues concerning organisation and resourcing are to be resolved post-EMM8.

***Recommendations***

i) To assist interested economies in developing policies that support energy security and environmental objectives, Ministers instruct the EWG to develop a voluntary Energy Peer Review Mechanism, with an initial focus toward attaining energy efficiency goals.

j) Ministers to encourage APEC economies to individually set goals and formulate action plans for improving energy efficiency on an overall and/or sector basis.

***2.2 APEC High Level Roundtable on Energy Efficiency***

In tandem with the proposed APEC Energy Investment & Trade Study and Roundtable (addressing how to improve the operation of the energy market), Energy Ministers could endorse a High Level Roundtable on Energy Efficiency.

The Roundtable would examine the potential for greater regional information sharing and policy development towards the improvement of domestic energy efficiency policies, tailored to the individual needs of APEC member economies, and to help formulate and track progress towards such goals. The Roundtable would be expected to enhance the operation of the APEC Energy Peer Review Mechanism for energy efficiency.

***Recommendation***

k) Ministers endorse that the EWG contribute to an APEC High Level Roundtable on Energy Efficiency in accordance with Ministers' instructions to strengthen efforts to share information on energy efficiency policies and measures, identify energy efficiency approaches and review progress towards efficiency goals.

### ***2.3 Encourage Practical Collaboration towards Energy Efficiency Best Practice***

Recognising the active program of work and the linkages being built with other international energy fora, including the IEA, Ministers could encourage the EWG to take forward international collaboration on improving energy performance by developing energy efficiency indicators and compiling best practices.

Development of energy efficiency indicators and compilation of best practices will enable APEC economies to assess their relative energy efficiency performance in an international context and to identify sectors with high potential for improving energy efficiency. This can be a useful input for formulating and tracking progress towards achieving energy efficiency goals and bringing energy efficiency towards best practice in such areas as the power generation, industrial, transportation, public, residential and commercial sectors.

Economies with mature skills and capacities in energy efficiency standards and labelling could take a leadership role in developing international standards and assisting less developed APEC economies to improve energy efficiency performance. This could include developing practical measures to align standards and labelling with interested APEC economies. Interested economies could also be encouraged to align their energy efficiency endorsement programmes to provide clear and aligned objectives for manufacturers and market takers to aim for in order to liberalise trade in energy efficient products. Building on the Australian-hosted International Conference on Standby Power, supported by APEC and the IEA in November 2006, one focus could be to undertake closer cooperation on Standby Power Arrangements through aligning international energy efficiency standards and labelling programmes and standby power reduction strategies (based around the global 1 watt by 2010 objective) in APEC economies. Another focus could be to increase contributions to, and utilisation of, the APEC Energy Standards Information System.

#### ***Recommendations***

- 1) Ministers to encourage APEC economies to individually set goals and formulate action plans for improving energy efficiency on an overall and/or sector basis.

m) Ministers to direct the EWG to collaborate with the IEA to develop energy efficiency indicators and compile best practices that can be used to help formulate and track progress towards such voluntary goals and action plans.

#### ***2.4 Cooperation on Alternative Transport Fuels, including Biofuels***

Ministers may note the report of the APEC Biofuels Task Force that, *inter alia*, biofuels from several crops are cost-competitive at current oil prices, that biofuels can lower greenhouse gas emissions and that biofuels can displace a sizeable share of oil use over time.

#### ***Recommendation***

n) Ministers to report on progressing the recommendations of the APEC Biofuels Task Force to intensify efforts to develop and deploy techniques for the cost-effective use of non-food feedstocks, such as farm and forest residues and grasses, which hold the greatest potential for expanded biofuels production and greenhouse gas reductions and to encourage collaboration on alternative fuels with other international energy bodies, such as the IEA and the Global Bioenergy Partnership.

#### ***2.5 Nuclear Safeguards***

In October 2006, EWG members endorsed an Australian self-funded project for a series of meetings to discuss the formation of an Association of Regional Nuclear Safeguards Authorities. The purpose of the proposed Association is to take advantage of the synergies between the various regional organisations with safeguards responsibilities with a view to capacity building. Such an association could serve as a means of building up regional expertise on issues relating to nuclear safeguards, nuclear security and nuclear-related export control and reporting regimes. This project is being organised by the Australian Safeguards and Non-Proliferation Office with the first of two APEC workshops to consider this scheduled for June in Sydney, Australia.

While some APEC member economies have expressed reservations about the EWG covering nuclear safeguards, the two workshops will explore the merits of establishing an Association and do not prejudge any recommendation for an Association to be established.

***Recommendation***

o) Ministers await EWG advice on the recommendations from the forthcoming meetings of regional nuclear safeguards experts.

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