



Report of the
APA Secretary-General
On the
Asian Integrated Energy Market



Background

1- The APA Plenary decided, by its Resolution on the Asian Integrated Energy Market, contained in Document APA/Res/2007/08, dated 19 November 2008, to:

- a) Establish a Sub-Committee under the APA Energy Standing Committee to consider the best strategies leading to the establishment of an organization by participation of Asian Governments to pursue the objectives delineated in the annexed Plan of Action contained in Document APA/Res/2007/08/Annex,
- b) Request the Secretary-General to prepare a report for consideration by the Sub-committee and to service its meetings. The Sub-committee shall hold two meetings per year to submit its report to the APA Executive Council for its consideration and recommendation to the APA Plenary.

2- By a second Resolution adopted on 20 November 2007, contained in Document APA/Energy Com/2007/01, the APA plenary decided to:

- a) Request the Secretariat to set up an expert group for providing technical consultation on the framework and modalities of the integrated energy market in Asia prior to or during the meetings of the Sub-Committee,
- b) Hold its first meeting in the parliament of the Russian Federation in May 2008 in order to consider the report of the Secretary-General.

3- In preparation of the Report of the Secretary-General, he officially communicated with all Member Parliaments on 6 December 2007, and sought their views, comments and observations, as well as those of their governments concerning the Plan of Action on Promotion of Asian Energy Market. As of 10 May 2008, when this report is being finalized no observation from Member Parliaments has been received.

Introduction

4- In light of the above, this report is submitted by the Secretary-General to the Sub-Committee on the Asian Integrated Energy Market for its consideration. The report presents some thoughts and suggestions on:

- The Concept of Integration in Asia with Emphasis on Energy;
- Secretary-General's Observations on Certain Elements of the Plan of Action:
 - A) The "organization" or "body" referred to in the relevant Resolutions that best suits, at this juncture, to pursue the objectives delineated in the Plan of Action;



- B) Policy coordination as the salient feature of the Plan of Action;
- C) Stability of Energy Market;
- D) Energy Intensity;
- E) Integrated Asian Routes for Gas Transmission at Lower Cost: Asian Gas Network (AGN).

As an example of the kind of energy integration that might be possible to explore in Asia, the Secretariat asked a consulting firm to develop some thoughts on the issue. The consulting firm developed some preliminary views on the gas market in Asia. In fact, some studies indicate that promoting some kind of cooperation in Asia in the field of electricity is potentially very promising. The Sub-Committee may wish also to address other sources of energy both renewable and non-renewable.

The report, therefore, presents the preliminary views of an expert group on the concept of and a framework for an integrated Asian Gas Network (AGN). It presents a concept focusing on combining the potentials of gas rich countries in West Asia, Russia and other CIS countries through a network to serve themselves, their neighboring countries and the countries in the wider East Asia. The network would have to serve the interests of all participants including the contributors of gas and consumers of natural and liquid gas. This concept and framework for gas is developed as an example of how Paragraphs 10 and 11 of the Plan of Action may be explored. Other concepts and frameworks for the trade of gas, oil and other carriers of energy may also be explored by the Sub-committee.

Integration in Asia

5- Since the end of the World War II, regional cooperation has steadily expanded in most parts of the globe. Asia, particularly its eastern region, has also experienced such growing cooperation. With a population of more than 4 billion people, Asia is the biggest and the most populated continent in the world. Rich history, ancient civilizations, vast natural resources, major and fast growing world economies have doubled the significance of this continent. From an economic viewpoint, Asia ranks third after North America and Europe in terms of Gross National Product. According to an IMF survey, the share of emerging Asia in world trade flows reached 34% in 2006, up sharply from 21% in 1990. Moreover, the rise in emerging Asia trade accounted for roughly 40% of the total increase in world trade over the period.

Southeastern and Eastern parts of the continent enjoy a good standing in industrial production. The existence of strategic natural resources, such as oil and gas in the western part of the continent has created a specific and prominent status for Asia. Asia enjoys abundant common grounds for mutual collaborations. In addition to bilateral relations, Asian countries cooperate with each other in various other groupings such as ASEAN, SAARC, ESCAP, ECO, the Conference on Interaction and Confidence Building Measures in Asia (CICA), the Shanghai Organization, and in the Persian Gulf, the Gulf Cooperation Council. No structure seems to be in place within Asia to focus on coordination of policy and measures on the critically important issue of energy.

6- Asia also encounters serious challenges. Chronic poverty in many countries of the continent, where 700 million people live in poverty and nearly half of the continent's



population earns less than two dollars per day, creates an unfavorable condition in Asia. The development disparity in Asia and the growing gap within and between Asian countries are among other serious challenges in the continent. Potential disputes over border, territory and ethnic issues, the likely crisis spots and the danger of their escalation into open conflict or spread to other regions should not be overlooked. To overcome the problems and challenges that Asia faces, it is imperative to further develop and expand cooperation and integration in the continent. The presence and participation of all Asian countries, large and small, in the process of promoting cooperation at the continental level would promote the sense of being a stakeholder and prepare the necessary grounds for effectively dealing with such challenges.

Energy and Asia

7- An Integrated Energy Market simply refers to an energy market in a geographic territory composed of a group of countries that agree on a set of laws and regulations concerning all activities relevant to energy, including development of energy resources, production of various products, transmission, conservation of energy and all trade and transactions dealing with energy.

8- Data and statistics indicate that Asia enjoys a special position in the world's energy supply and demand. While 70 percent of the world's oil reserves are located in Asia, a considerable share of energy supply and demand in the current situation, and a large share of consumption growth in future will also belong to this continent. West Asia holds the largest energy reserves of the world and the countries in East Asia are the major consumers of energy with the highest growth rate. Obviously, establishing regional cooperative relationship between these two groups, which ultimately leads to a harmonized cooperation and integration on a wider scale throughout the Asian continent, would generate great benefits for all Asian countries.

9- The challenge of promoting security in both energy supply and demand, the emphasis on the stability of the energy market in a sustainable way and in an environment-friendly manner are among the most important issues in the politics and foreign trade of large economies. Compared to other continents, Asia will face a greater challenge because of the growing increase in its energy consumption and the geographical location of its energy resources. Major consumers are likely to follow three distinctively different strategies to guarantee for themselves energy security for the foreseeable future: bilateral agreement between the supplier and the consumer; collective regional cooperation; and resort to the use or threat of the use of force to exert control over energy resources.

10- Bilateral agreements are a sensible way to proceed to securing one's energy needs. However, they could potentially be susceptible to many political variables; some quite unpredictable like the change of government or policy. Collective regional cooperation provides greater stability and security to both the energy producers and consumers. It is less susceptible to political factors relevant to one government. The combined energy resources of several participating producing countries and the aggregate of their political will and influence accord collective regional cooperative arrangements greater security and an enduring character. Addressing the strategy of resorting to force or threat of use of force to exert control over energy resources is beyond the scope of this report.



11- Currently, there is a focus on relating East Asia to the Pacific region economically. There seems to be little or no focus to promote energy cooperation between East and West of Asia. Greater economic cooperation between East Asia and the Pacific, and the partnership that should naturally be promoted between East and West of Asia as the major global consumer and producer of energy respectively, ought to become mutually inclusive and reinforcing.

12- The supply and demand of energy in the future are influenced by the extent of investment and use of modern technologies in the field. These issues may be addressed through bilateral and regional cooperation that include Asian financial and investment markets. In light of the increasing energy consumption by 2030 and the fact that fossil fuel remains the most important source of energy supply, reducing environmental pollution in Asian countries will likely become a greater challenge. This challenge can only be dealt with or perhaps even turned into an opportunity, through close and focused regional cooperation.

13- Networking and complementing one another in Asia is the only way to work in this globalizing age of rapid change. In the context of energy, such networking can begin by encouraging Asian corporations to deal with Asia-wide issues of upstream and downstream oil and gas industries and with global trade of energy. These corporations may also address broader issues of energy trade and exchange of capital and technology specific to Asia.

14- Delegates of Asian Parliaments are well placed to rise above local and national politics and develop the courage, the foresight and the vision to promote such networking in different fields within Asia as a whole. In this context, a closer cooperation between Asian governments and parliaments is the key to success for Asian integration.

15- In the context of the importance which the APA has attached to integration in Asia, particularly on the issue of energy, the APA plenary requested, in its First meeting in 2006, the Secretary-General to develop a Plan of Action on promotion of Asian Integrated Energy Market. The APA Plenary decided, in its Second meeting in 2007, as referred to in Paragraph 1 (a) above, to adopt the plan of action and seek ways to promote its implementation by considering the best strategies leading to the establishment of an "organization" or "body" in which representatives of Asian Governments would participate.

Secretary-General's Observations on Certain Elements of the Plan of Action

A) Reflection on "organization" or "body" to pursue the Plan of Action

16- Both APA Resolutions referred to above call on Member Parliaments to encourage their respective governments to look into establishing an organization to study the implementation of the objectives and measures of the Plan of Action. The Sub-Committee is mandated by the relevant Resolutions to develop the strategies leading to the establishment of such an organization.



17- In view of the Secretary-General most elements of the Plan of Actions are primarily of a policy nature and therefore require greater policy coordination between APA Members. APA itself is a nascent organization and establishing an associate organization to implement the plan of Action on Asian Integrated Energy Market may require some time for further reflection and greater preparation.

18- The Secretary-General holds firm that cooperation and coordination between APA and governments are an imperative for any progress in the work of the APA. He is convinced that a small group of energy experts from Member Parliaments supported by their respective Governmental energy experts would serve the purpose of the APA Resolutions. This group of expert representatives could serve as an "APA Advisory Council on Energy", hereinafter, "AACE." The objective shall be to have every Member Parliament and its respective Government represented in the "AACE." However, "AACE" may be established when at least 5 Member Parliaments and their respective Governments (preferably, three energy exporting and two importing countries) express interest to do so.

19- "AACE" experts rely mainly on communicating between themselves utilizing IT. However, the meetings of "AACE" take place in a volunteer country, use existing resources and data which are normally open to energy experts from all Member Parliaments and their respective Governments. The APA Secretariat will serve the meetings of "AACE." The mandate of the "AACE" would have to embrace what the 2007 APA Resolutions on Energy have stipulated, i.e., to pursue the objectives delineated in the Plan of Action on the Promotion of Asian Integrated Energy Market as annexed to APA Resolution contained in Document APA/Res/2007/08. "AACE" members may be divided into few sub-groups specializing on different subjects. "AACE" formulates its views in an advisory capacity to be considered by the APA Standing Committee on Energy and the APA Plenary.

20- The first substantive step would be for Member Parliaments and their respective Governments to express interest to appoint energy expert(s) to "AACE" in order to expedite and facilitate its establishment. Procedurally, the Sub-Committee on Energy may wish to formulate a draft decision or resolution to be considered by the APA Executive Council and referred to the Plenary for a decision to establish "AACE."

"AACE" may be restructured, at a later stage, to suit the unfolding requirements of changing circumstances.

B) Policy Coordination as the Salient Feature of the Plan of Action

21- Most elements of the Plan of Action deal primarily with issues of policy, like balancing the supply and demand of energy in Asia; minimizing political, technical and bureaucratic impediments of regional and international investment in the field of energy; encouraging joint ventures between producers and consumers in various fields of energy; supporting public and private investment in upstream and downstream energy industries by fostering Asian transnational corporations; and promoting trade in products, equipment and services related to various fields of energy. The more Asia moves towards greater cooperation and integration, the more likely it is that oil and gas producers and consumers



coordinate their national policies. This may resemble the perennial question of whether the chicken or egg came first. Hopefully, "AACE" will demonstrate to both groups of countries that working together along the lines of the Plan of Action is the way of the future that would serve everyone's interests in Asia and beyond. Asia needs to promote an atmosphere conducive to strengthening cooperation: develop incentive for joint ventures by tax credits and equal opportunity programs for domestic and foreign firms; promote transparency in energy statistics and rules and remove bureaucratic and other impediments for policy coordination and for joint venture execution. Many elements of the Plan of Action are mutually reinforcing and some are the results of the others.

22- Some elements of the Plan of Action require certain measures to be taken like establishing banks to promote investment in energy fields and provide financing or establishing an Asian integrated research network and statistical center. They are important measures to be implemented in Asia, but they are also results of some initial policy coordination between Asian countries. Many concur that the utility of such measures would be much greater when a reasonable degree of convergence on policy issues discussed above has emerged between major oil and gas producers and consumers in Asia.

C) Stability of Energy Market

23- The 1st Operative Paragraph of the Plan of Action touches on the stability of world energy market and the contribution that Asia can potentially make to that end. This is an important but complex issue. In the years to come, renewable sources of energy; solar, wind, and others, will gain even greater importance in national, regional and global energy plannings. By focusing greater attention to new sources of energy, the APA would also help promote the stability and security of energy market in Asia. The Sub-Committee may wish to task "ACCE", when established, to study the appropriate priority that need to be accorded in explorations of options for closer cooperation in Asia in various fields of both renewable and non-renewable sources of energy.

24- Supply and demand are the main fundamentals of the global oil and gas markets. One of the challenges is to forecast real future supply and demand, particularly when stocks are factored in. Producers regard consumers' demand estimates to be somewhat exaggerated to encourage greater investment on the part of the oil producing countries to increase supply and lower oil prices. Producers adjust their investment for production and supply on the basis of such perception in order to prevent sharp decline of oil prices. The challenge, therefore, is to minimize uncertainties and enhance security of both supply and demand in order to promote global oil market stability. Under such circumstances, where uncertainties are contained, data on production, consumption, stocks and trade are more timely and reliable, there will be less room for speculation and more ground for transparency and stability.

25- Oil and gas industries are, in fact, industries highly sensitive to political environment. Free flow of oil and gas and their unhindered trade do promote confidence in the stability of global energy market. Any type of uncertainty, let alone open unilateral economic sanctions against major oil producers, surely undermines the confidence in market stability and heightens speculations.



26- This was the theme of the 11th International Energy Forum held in Rome from 20 to 22 April 2008, where 74 Ministers and 27 industry leaders participated. The understanding was that only through enhanced dialogue between energy exporting and importing countries, they can tackle the main challenges like high energy prices, enhancing the security of energy supply and demand, promotion of sustainable development, global concerns about the environment and addressing energy poverty.

27- APA delegates, as the representatives of the will of their own people are uniquely placed to promote confidence between exporting and importing countries in Asia. In this context, APA's effort to explore ways to promote the Asian Integrated Energy Market is, in fact, a major step to promoting global energy market stability.

D) Energy Intensity

28- Paragraph 8 of the plan of action calls on Asia to reduce energy intensity and optimize energy consumption by enhancing existing equipments and facilities and utilizing new technologies in order to upgrade current consumption throughout Asia

29- It is encouraging to note that the current primary energy intensity illustrate a decreasing trend in most regions of the world, as a result of several factors, including higher energy prices, energy conservation programs and in some regions, CO2 reduction policies. This trend has been the fastest in China. China had the highest energy intensity level in 1980, but between 1990 and 2000, China achieved the most improvement in energy productivity, around 5% to 7.5% p.a. Consequently, China's energy intensity is now slightly above the world average level, whereas it was 80% higher in 1990. This great achievement of China may be attributed to more efficient use of coal, substituting oil for coal, rapid growth of equipment manufacturing industries and certainly higher energy prices. (Facts and figures on energy intensity are derived from the world energy Council 2008 Report.)

30- Europe is the region with the lowest energy intensity. The CIS uses three times more primary energy per unit of GDP than Europe. India and Asia pacific are close to European level, about 10% higher. High energy intensities in West Asia and the CIS countries are attributed to lower energy efficiency in industry, home use and transportation, dominant role of energy intensive industries and low energy prices.

31- Energy efficiency is influenced by many factors including the following five:

- Individual behavior,
- Technology,
- Equipment,
- Energy prices,
- Public service industry.

32- Energy efficiency is a matter of appropriate equipment and more importantly a matter of individual behavior. It reflects the rationale of energy consumers. Avoiding unnecessary consumption of energy or choosing the most appropriate equipment to reduce the cost of



energy helps to decrease individual energy consumption without decreasing individual welfare and comfort.

Furthermore, cheap energy prices are unlikely to encourage any kind of energy conservation programs. Energy subsidies in most energy producing countries are a major disservice to lowering energy intensity.

Expansion of public service systems and developing sufficient infrastructure promote greater energy conservation programs.

33- Energy efficiency improvement shall be promoted as a priority by governments in all regions of Asia, particularly in West Asia and the CIS countries.

In order to increase energy efficiency, the following measures and policies concerning each of the five factors mentioned above as well as some common to all of them are recommended to be considered by the Sub-Committee:

- Development of a public education program to influence the culture of over-consumption of energy in Asia, particularly in the Middle East and the CIS countries.
- Development and promotion of a program to upgrade the technology, equipment and skills used in various stages of energy production, storage, transportation, conservation programs and consumption.
- Development and promotion of a country-specific program for quality control of equipment used in that country and certification of processes.
- An energy taxation program to encourage more efficient use of energy, combined with a credit program to replace inefficient equipment.
- Encourage governments to create incentives for private sector to become partner in development of public service systems.
- Establishment of appropriate institutional and regulatory framework;
- "AAACE" which is to pursue promotion of the implementation of the Plan of Action may wish, in this context, to propose the establishment of a fund for this purpose. This fund is to be used by its members for the sole purpose of decreasing energy intensity. The member using the fund will remit back to the fund from the savings that it accrues. "AAACE" may wish to take advantage of a consulting firm to identify the new technology and services to optimize energy consumption and industrial modernization programs.
- "AAACE" can help promote exchange of information and best practices for lowering energy intensity in different Asian countries, and
- Adaptation of measures for each national circumstance.



E) Integrated Asian Routes for Gas Transmission at Lower Cost: Asian Gas Network (AGN)

34- The Secretary-General intended to take the concept of networking in Asia in the field of energy (Paragraphs 10 and 11 of the Plan of Action) a step forward. In accordance with paragraph 2 (a) above, an expert group on gas was asked to develop a preliminary conceptual framework for a gas network in Asia where gas rich countries could collectively work together with gas consumers in Asia. Such network would be viable only if it offers a win-win situation for every participant without limiting its options: lower energy cost for all participants, greater availability and security of gas supply and demand, helping feed major growing economies, and at the same time, helping with industrial development of other Asian countries and so on.

35- The preliminary concept developed by the expert group upon initiative of the Secretariat is one of many possible ways to give some meaning to Paragraph 10 and 11 of the Plan of Action. The concept is to be presented to the Sub-Committee on promotion of Asian Integrated Energy Market. It is a 30-minute power point presentation to be followed by some exchanges of views.

36- The Secretary-General suggests that the preliminary concept of Asian Gas Network deserves further study to identify the precise concepts and elements that need refinement and in depth study by experts. One way to proceed is for interested Member Parliaments to have their experts, from the Parliaments and governments, appointed to reflect on the preliminary concept of Asian Gas Network and report to the second meeting of the Sub-Committee (Paragraph 2 (b) above) before the APA Executive Council meeting in 2008. The Secretariat is to serve the meetings of the expert group. The Sub-Committee determines the number of meetings of the expert group, their venues and dates.

37- The Sub-Committee may wish to recommend to the Plenary that the expert group reflecting on the concept of Asian Gas Network does, in fact, constitute the "AACE" discussed in paragraphs 16-20 above.

38- Power point presentation of Asian Gas Network.