



Asian Parliamentary Assembly
Secretary General

SG/Rep/2008/01
29 April 2008

Preliminary 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 8 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 29 April 2008, when this report is being finalized no observation from Member Parliaments has been received.

Introduction:

- 4- This report, against the background above, 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:
 - a. The concept of integration in Asia with emphasis on energy;
 - b. The "organization" or "body" referred to in the relevant Resolutions that best suites, at this juncture, to pursue the objectives delineated in the Plan of Action;
 - c. Some of the objectives and measures delineated in the Plan of Action.



The report also presents the preliminary views of an expert group on the concept of and some framework for an integrated Asian Gas Network (AGN). The expert group took stock of the concept of the "Trunkline Loop in the Middle East countries" initially formulated by Chiyoda Corporation of Japan and the United Nations Industrial development Organization (UNIDO) in 1994. It presented a new concept focusing on combining the potentials of gas rich countries in West Asia, Russia and other CIS countries through a network. 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- Regional cooperation has steadily expanded in most parts of the globe since the end of the World War II. 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 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, "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 stake holder 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 relative 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. These include: 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. Resorting to force or threat of use of force is not an option to be addressed in this report.

11- Currently, there is a focus on relating East Asia to the Pacific region economically. Such focus seems missing 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 for supply of energy, 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 complimenting one another in Asia is the only way to work in this globalized 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 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 some 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 ensure that an organization is established to look into studying 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 establishment of such 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 governmental energy experts 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 government represented in the "AACE." However, "AACE" may be established when at least 5 Member Parliaments and their governments (preferably, three energy producing and two importing countries) express interest to do so.

19- "AACE" experts rely chiefly on communicating between themselves using modern 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 governments. The APA Secretariat will serve the meetings of "AACE." The mandate of the "AACE" is that which the 2007 APA Resolutions on Energy have accorded to an organization to be established, i.e., pursue the objectives delineated in the Plan of Action on promotion of Asian Integrated Energy Market 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 governments to express interest to appoint energy expert(s) to "ACCE" when established. 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 first 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. Supply and demand are the main fundamentals of global oil market. The challenge 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, stock and trade are more timely and reliable, there will be less room for speculation and more ground for transparency and stability.

24- 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.

25- APA delegates, as the representatives of the will of their own people are uniquely placed to promote confidence between producing 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.

C) Energy Intensity

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

Primary energy intensity relates the total energy consumption of a country or region to its GDP and it is a general indicator of energy efficiency performance. The amount of energy required to produce one unit of GDP in a particular country or region equals that country or region's primary energy intensity. (Facts and figures on energy intensity is from World Energy Council 2008 Report)



27- Energy efficiency is positively correlated with economic efficiency and includes technological, behavioral and economic changes. 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.

28- The sharp rise in oil price since 2003, had severe consequences for economic growth of the poor oil importing countries. Any efficiency improvement in oil consuming sectors will result in direct benefits to the balance of trade of oil importing countries. Improving energy efficiency will result in supplying more consumers on the one hand and reduces the growth of demand on the other. By reducing the need for investment in the expansion of the energy sector in countries with high growth of demand, such as China and many South East Asian countries, resources will be freed for other projects.

29- It is heartening 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.

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 improvement shall be promoted as a priority by governments in all regions of Asia, particularly in West Asia and the CIS countries, for it offers many benefits. Decreasing energy intensity:

- can optimize the trend of energy supply and demand,
- upgrades the technology, equipment and skills used in various stages of energy production, storage, transportation, conservation programs and consumption,
- reduces energy subsidies,
- can extend the availability of fossil resources to the next generations,
- limits the macro economic impact of high oil prices for oil importing countries,
- decreases tensions in domestic energy supply,
- reduces local pollution and CO₂ emissions,
- reduces deforestation,



- increases competitiveness by reducing energy cost, and
- contributes to poverty eradication.
- educates the public and influences change in certain cultural, economic and political patterns of life in Asia.

32- Strategies to help promote energy efficiency programs and projects leading to a targeted decrease in energy intensity, among others, are:

- the establishment of appropriate institutional and regulatory framework;
- quality control of equipment and certification of processes;
- public and private collaboration to develop workable energy efficiency programs and services, including access to funding;
- "AACE" 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. "AACE" may wish to take advantage of a consulting firm to identify the new technology and services to optimize energy consumption and industrial modernization programs.
- Taxation encourages more efficient use of energy, particularly when combined with a credit program to replace inefficient equipment,
- "AACE" can help promote exchange of information and best practices for lowering energy intensity in different Asian countries.
- good planning, a regular strengthening and proper enforcement of regulations; and,
- adaptation of measures for each national circumstance.
- Developing a public education program to influence the culture of over consumption of energy in the Middle East and CIS countries.

D) 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 further. The subject was discussed with an expert group in accordance with paragraph 2 (a) above. The expert group 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 is an attempt to give some meaning to Paragraph 10 and 11 of the Plan of Action, which relate to promoting the



"most reasonable, economical and optimized transit and transportation routes of energy in Asia" and to energy trade "aiming at reduction of energy costs."

36- The concept is to be presented to the Sub-Committee on promotion of Asian Integrated energy Market. It is a 20-minute power point presentation to be followed by some exchanges of views.

37- The Secretary-General suggests that the preliminary concept of Asian Gas Network deserve 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.

38- 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.

39- Power point presentation of Asian Gas Network.