



**Economic and Social
Council**

Distr.
GENERAL

ECE/ENERGY/2009/2
7 September 2009

Original: ENGLISH

ECONOMIC COMMISSION FOR EUROPE

COMMITTEE ON SUSTAINABLE ENERGY

Eighteenth session
Geneva, 18 - 20 November 2009
Item 4 of the provisional agenda

**COOPERATION AND COORDINATION WITH OTHER INTERGOVERNMENTAL
AND NON-GOVERNMENTAL ORGANIZATIONS**

Review of energy security activities of selected international governmental organizations

Note by the secretariat

Summary

At its seventeenth session, held in November 2008, the Economic Commission for Europe Committee on Sustainable Energy requested that international organizations dealing with energy security be invited to organize a joint working session on international cooperation for mitigating energy security risks to take place during the Committee's eighteenth session in 2009. The Committee also asked the secretariat to prepare a background note for that session. (ECE/ENERGY/78, para. 13(a)).

On response to that request this document provides background information on the energy activities of international organizations, and more precisely, on their activities related to energy security. It is intended to help guide discussions on the issue at the 2009 annual session of the Committee.

CONTENTS

	Paragraphs	Page
Introduction	1 – 7	2
I. International governmental organizations	8-49	3
A. Energy Charter	8-20	3
B. International Energy Agency	21-32	5
C. International Energy Forum	33-37	8
D. Organization of Petroleum Exporting Countries	38-43	8
E. Organization for Security and Cooperation in Europe	44-49	9
II. European Union	50-63	10
III. United Nations Economic Commission for Europe	64-81	13
IV. Conclusions	82-90	16

INTRODUCTION

1. Despite the continued concern over energy security and efforts by countries to develop a common understanding of energy security risks and risk mitigation strategies, there continues to be wide differences among countries and among the other market participants, such as energy companies and the financial sector, on key aspects of energy security risks, including their causes and appropriate policy responses.

2. Likewise, there is no generally accepted definition of energy security. The term “energy security” or “security of energy supplies” is used in various contexts and for different purposes. While energy security is not easy to define because of its multifaceted dimensions, most experts would agree that there are four components of particular relevance. These are: (a) the potential for the physical short-run disruption of energy supplies due to infrastructure breakdown, natural disasters, social unrest, political action or acts of terrorism; (b) the physical availability of energy supplies in the long term to meet growing demand in the future; (c) the deleterious effects on economic activity and peoples (i.e., macroeconomic effects) due to energy shortages, widely fluctuating prices or price shocks; and (d) the collateral damage from acts of terrorism resulting in human casualties, serious health consequences or extensive property damage.

3. The focus in this note is on the first two dimensions of energy security, that is, on the availability of energy supplies in the short run and in the longer term. The last two dimensions are not addressed in this note because they tend to be addressed less frequently by the energy community and the institutions devoted to energy issues. The latter two dimensions are usually addressed by the economic community in the case of energy-related macroeconomic effects and the security community in the case of energy-related acts of terrorism and collateral damage.

4. There are currently three overarching energy policy objectives pursued by governments and international organizations. These are: (a) enhancing security of energy supplies in the short and long run; (b) increasing the international competitiveness of the energy sector and, thereby, furthering economic development; and (c) reducing energy-related health and environmental impacts, and most notably, emissions of energy-related greenhouse gases. This note reviews the activities of international organizations that deal with the first objective. However, it is not easy to separate out activities along these three objectives. Often activities are not labelled as being carried out to enhance energy security but, in some way or another, do affect various aspects of energy security.

5. In addition, energy security and energy sustainability are increasingly seen as two sides of the same coin. Concerns over energy security and energy sustainability are leading policymakers to consider a range of policies that can help achieve both objectives simultaneously. For example, energy efficiency offers an important avenue for saving energy by reducing the demand for energy and therefore assisting in the transition to a more sustainable energy future. But it can also reduce import dependency for energy importing countries, free up additional resources for export in energy exporting countries and alleviate fuel poverty. Likewise, renewable energy resources, such as solar power, wind power, geothermal energy and bio-fuels, can contribute to both energy sustainability and reducing a country's dependence on external sources of energy supplies. The same is true for nuclear power though its future development and use is still shrouded in controversy.

6. It should be noted that only the activities of international governmental organizations are considered in this note. There are a host of private sector international organizations and associations that periodically address the issue of energy security. Among these are the European Business Congress, the World Energy Council, Eurogas, and the International Gas Union to name a few.

7. The activities of the Energy Charter, International Energy Agency, International Energy Forum, Organization of Oil Exporting Countries, and Organization for Security and Cooperation in Europe are reviewed in Section I. The activities of the European Union, a supranational governmental organization, are summarized in Section II. Section III describes the activities of the United Nations Economic Commission for Europe. The final section, Section IV, provides some concluding remarks.

I. INTERNATIONAL GOVERNMENTAL ORGANIZATIONS

A. Energy Charter

8. The Energy Charter process began with the 1991 Energy Charter Declaration, a political expression of the principles that should underpin international energy cooperation. From these initial political principles, a number of legally-binding multilateral instruments were negotiated, namely, The Energy Charter Treaty (ECT) and the Energy Charter Protocol on Energy Efficiency and Related Environmental Aspects (PEEREA). These entered into legal force in April 1998. Since then, the Treaty and the Protocol have underpinned and guided the work and activities of the Energy Charter. To date, the Treaty has been signed or acceded to by fifty-one states, the European Community and Euratom.

9. The Treaty, with its emphasis on strengthening the rule of law regarding energy-related investment and trade, is an integral part of the ongoing international effort to build a legal foundation for energy security, while respecting the principles of sustainable development and sovereignty over energy resources.

10. The activities of the Energy Charter are focused on supporting and enhancing the main pillars of the Treaty: (a) protection of foreign investment; (b) non-discriminatory conditions for trade in energy products and energy-related equipment, including reliable cross-border energy transit; (c) the resolution of disputes; and (d) the promotion of energy efficiency, including the minimization of energy-related environmental impacts.

1. Investment

11. The Energy Charter provides a forum for members to monitor and ensure compliance with the investment provisions of the Treaty through the exercise of peer pressure. It also provides a forum to exchange information, address emerging energy-related investment issues and to regularly review progress made in member States towards improving the investment climate and restructuring of domestic energy markets.

12. Efforts are continuing to reduce the remaining country-specific exceptions to the principle of non-discriminatory treatment of foreign investment and, most notably, in the "pre-investment phase". Currently, the Treaty only obliges members to do their best to provide non-discriminatory treatment of investors from other member States in the pre-investment phase. A registry of such non-conforming measures is maintained and periodically published in the "Blue Book". While negotiations were initiated in 1996 to deal with this issue in a legally-binding Supplementary Treaty, these have since been put on hold pending the outcome of discussions at the World Trade Organization (WTO) on a multilateral framework for foreign direct investment.

2. Trade and transit

13. Charter members regularly monitor the implementation and compliance of the Treaty provisions relating to energy trade and the transportation of energy across national borders. The Treaty provisions oblige participating states to take the necessary measures to facilitate trade and transit of energy, consistent with the principle of freedom of transit, and to secure established energy flows.

14. The Treaty's trade provisions were modified by the adoption in April 1998 of a Trade Amendment to the Treaty to bring those provisions into line with the rules and practices of WTO. As of January 2009, the Trade Amendment had been ratified by thirty-three ECT member States out of the required 35 that would need to ratify it before it can come into force.

15. In order to amplify and strengthen the provisions in the Treaty regarding transit, an Energy Charter Transit Protocol has been under negotiation since 2000. While the bulk of the Protocol's text has been agreed to, a few issues remain to be resolved before the Protocol can be adopted.

16. In order to keep abreast of cross-border pipeline projects, the Energy Charter launched a consultative initiative in 2005 to compile information on cross-border pipeline projects. The initiative has led to the publication of several reports on projects that are underway or planned in member or observer States.

17. To assist states and investors involved in the negotiation of cross-border pipeline projects the Energy Charter has developed two model agreements. The first is a model Intergovernmental Agreement between States involved in a pipeline project. The second is a model Host Government Agreement between each of the respective States involved in a pipeline project and the project investors. The model agreements offer a set of texts or approaches that could be used on a voluntary basis in the negotiation of a pipeline project.

3. Dispute Settlement

18. ECT provides a range of dispute settlement mechanisms on matters covered by the Treaty. These range from state-to-state arbitration on the interpretation or application of almost all aspects of the Treaty, investor-to-state arbitration for investment disputes, a specialized conciliation mechanism for transit disputes, and non-binding consultation mechanisms for competition and environmental issues. While disputes can be brought under the Treaty, and many investor-state disputes have, the EC Secretariat is not normally involved in the administration of dispute settlement procedures. This is left to the appropriate courts, administrative tribunals or to established international arbitration mechanisms.

4. Energy efficiency

19. ECT requires that each Contracting Party minimizes harmful environmental impacts arising from energy use, in an economically efficient manner. PEEREA defines in more detail the policy principles that can promote energy efficiency, and provides guidance on the development of energy efficiency programmes.

20. In contrast to other activities of the Energy Charter, the emphasis in the work on energy efficiency is not on legal obligations but rather on policies and measures to improve energy efficiency. This is promoted through discussion, exchange of experience, analysis, regular monitoring of member countries' performances, in-depth energy efficiency country reviews and thematic reports. The regular and in-depth country reviews as well as the thematic reports are published.

B. International Energy Agency

21. Energy security was the main objective underpinning the establishment of the International Energy Agency (IEA) in 1974. The original mandate called on IEA to address oil security issues and to coordinate measures among its member countries in times of oil supply emergencies. Today, energy security is still a cornerstone of IEA's programme of work but its activities have evolved in line with changes in energy markets. Its current mandate incorporates the three Es of energy policymaking: energy security, economic development and environmental protection. Its membership consists of 28 countries from Europe, North America and the Pacific.

1. Emergency preparedness

22. IEA member countries are required to hold oil stocks equivalent to at least 90 days of net oil imports, share available oil in a timely and coordinated manner in the event of a significant oil supply disruption, and undertake measures to restrain oil demand in times of supply disruption. To ensure rapid response, IEA conducts regular reviews (on a five-year cycle) of its members' emergency response mechanisms.

23. Currently, IEA is examining potential emergency response mechanisms for natural gas in the event of tighter gas markets in the future. While emergency gas stocks could provide a cushion to compensate for supply disruptions, such stocks are expensive. Therefore, other avenues are being explored, including switching and drawing on Strategic Petroleum Reserves in times of gas crisis.

2. Energy security

24. To complement its emergency response mechanisms, IEA conducts a range of activities and programmes to further the energy security of its members. The Agency monitors short- and medium-term developments in the international oil market. It publishes the *Oil Market Report* which provides up-to-date information on oil supply, demand, stocks, prices and refinery activity. It also publishes a *Medium-Term Oil Market Report* which provides yearly forecasts as well as five-year projections for the international oil market.

25. In addition to oil, IEA conducts analyses of coal, gas and electricity markets – including renewable and nuclear power generation. These energy sources are assessed in terms of their own vulnerability to supply interruptions or failures as well as potential substitutes for oil (alternative sources of energy). Since 2006, an annual *Gas Market Review* has been published, analysing developments in natural gas pipeline and liquefied natural gas markets over the medium term. Studies related to the other energy types are also periodically published assessing the key policy issues raised by regulatory reform, market liberalization, security of supply and environmental impacts.

3. Policy analysis

26. Policy analysis, policy formulation and policy coordination lie at the heart of IEA's activities. Each year IEA publishes its annual flagship publication, *The World Energy Outlook*. The publication is a source of energy analysis and projections. It provides a quantitative outlook for energy supply and demand over the medium and longer-term. It addresses major global issues confronting the energy sector and governments and draws lessons for energy policy, energy security, investment and the environment.

27. The energy policies of each IEA member country are reviewed in-depth approximately every four years. Updates of the main energy policy developments and progress in implementing the recommendations of the in-depth reviews are prepared during the intervening years. All reviews are published, including an annual synthesis report highlighting important cross-cutting policy issues.

4. Energy efficiency, technology and the environment

28. The integration of the environment into energy policymaking is central to the programme of work and activities of IEA. This is highlighted by the activities conducted in the area of energy efficiency, technology and the environment, notably regarding climate change. IEA's work on energy efficiency is focused on analysing the potential for energy saving, identifying best-practices, highlighting the possibilities for energy efficiency improvements and policy approaches to realize the full potential of energy efficiency, and facilitating international collaboration.

29. In the area of technology, current efforts are focused on clean fossil fuel technologies, including carbon dioxide capture and storage, accelerating the market penetration and diffusion of renewable energies, and promoting innovation in hydrogen and fusion power. IEA hosts an energy technology network, consisting of 42 international collaborative initiatives or Implementing Agreements to enable experts from different countries to work jointly on research and development investment, policy development in the field of technology, information dissemination and to share results.

30. Work in the area of the environment is largely focused on the issue of climate change and, more precisely, on policy measures and technological options to reduce energy-related greenhouse gas emissions. Analysis on policy measures for reducing energy-related greenhouse gas emissions is periodically reported in IEA's annual publication, *The World Energy Outlook*. Complementing the *World Energy Outlook* is the *Energy Technology Perspectives* series which focuses on the role of existing and new technologies in achieving a more secure and sustainable energy future. In addition, IEA maintains electronic databases on its member Countries policies and measures with respect to energy efficiency, renewable energies and climate change.

5. Global outreach

31. IEA maintains an outreach programme with non-member countries in order to promote closer engagement on all aspects of energy policy and technology between IEA member countries and major energy consumer, producer, and transit countries which are not IEA members. The outreach programme includes collaboration and information exchanges, workshops and conferences, the provision of training, and joint projects. In addition, non-member countries can participate as full members in the IEA network of energy technology Implementing Agreements.

6. Statistical data and information

32. IEA collects, processes and publishes extensive data and information on energy production, trade, stocks, transformation, consumption, prices and taxes as well as on greenhouse gas emissions. The data are collected from national statistical offices in the 30 member countries of the Organisation for Economic Co-operation and Development (OECD) as well as from firms, government agencies and industry organizations using special questionnaires to ensure international comparability. Data are also collected for over 100 non-OECD countries directly from government and industry contacts and from national publications.

C. International Energy Forum

33. The prime objective of the International Energy Forum (IEF) is to provide a venue for Energy Ministers from energy producing and energy consuming countries to meet, discuss and contribute to the convergence of views on global energy challenges and opportunities of interest to both groups. Of particular importance to IEF are issues related to oil and gas. IEF countries account for more than 90 per cent of global oil and gas supply and demand.

34. IEF began to take shape in the early 1990s when the first meetings of Energy Ministers took place to further producer-consumer dialogue. But it was not until 2003 that a permanent Secretariat was established to support the initiative.

1. Ministerial and other events

35. IEF organizes, every two years, a global gathering of Energy Ministers. This is preceded by the International Energy Business Forum which provides a platform for discussion between Ministers and Senior Officers of leading energy companies.

36. In addition, the IEF Secretariat organizes other events in support of the Forum's objective to enhance producer-consumer dialogue, and to further energy security and market transparency. While the focus of IEF has historically been on global oil issues, the Forum has in recent years partnered with the International Gas Union to promote and strengthen a global dialogue between natural gas producing and consuming countries.

2. Joint Oil Data Initiative

37. The objective of the Joint Oil Data Initiative (JODI), launched in 2001, is to address the apparent lack of transparency and consistency in oil market data that could be a contributing factor to excessive price fluctuations. Work by the IEF Secretariat and six partner organizations has led to the development of a monthly database, the JODI World Database, on oil production, refining, trade, demand and stocks of seven product categories.

D. Organization of Petroleum Exporting Countries

38. The Organization of Petroleum Exporting Countries (OPEC), established in 1960, consists of 12 major oil exporting nations. The organization's aim is to coordinate the petroleum policies of its member countries, to further their interests, and to secure a steady stream of income as well as a fair return on invested capital for its member States. In pursuing those objectives, the organization has often sought to stabilize international oil prices by working to mitigate excessive price fluctuations. In addition, OPEC is committed to promoting producer-consumer dialogue on issues of mutual interest.

1. Organization of Petroleum Exporting Countries Conference

39. Member country delegations meet at the Ministerial level at least twice yearly to assess the situation in the world oil market and to take action on issues of particular relevance to its members. In the past, the organization has repeatedly been called upon to address the issue of

sharp and significant changes in crude oil prices. OPEC has often responded to these sharp oil price swings by asking its members to produce more or less oil depending on the prevailing conditions in an attempt to stabilize oil prices. In acute situations, OPEC has also asked non-OPEC producers to assist in stabilizing the international oil market.

40. In addition to the OPEC Conference, member States hold other types of meetings. These include meetings of petroleum and economic experts, country representatives and special purpose bodies, such as committees to address environmental issues. In regard to the environment, the OPEC secretariat has been seeking opportunities to participate in international collaborative efforts in research and development programmes aimed at improving carbon capture and storage technology, tackling gas-flaring and promoting safer and cleaner drilling, transportation and refining processes.

2. Analytical and statistical activities

41. The organization monitors, forecasts and analyses short-term and long-term developments in the energy and petrochemical industries and, in particular, analyses economic and financial issues related to the international oil industry. It collects data on behalf of its members, takes part in the Joint Data Oil Initiative, and issues regular publications on the state of the international oil market.

42. The organization's *World Oil Market Report* provides periodic assessments of the medium- to long-term outlook for the international oil market and addresses emerging issues of significance to oil producing countries and to the oil industry. The *OPEC Monthly Oil Market Report* contains analyses of key developments impacting on oil market trends and provides an assessment of the crude oil market for the year ahead. The *Annual Statistical Bulletin* provides statistical data on various aspects of the hydrocarbon sector, such as on the world's oil and gas reserves, crude oil and product output, exports, refining, tankers, plus economic and other data. The *OPEC Energy Review* is a quarterly academic journal featuring research articles on energy economics and related issues.

3. Organization of Petroleum Exporting Countries Fund

43. In 1975, OPEC established the OPEC Fund for International Development to promote cooperation between OPEC member countries and other developing states. In particular, the Fund aims to help poorer, low-income non-OPEC countries in their pursuit of social and economic advancement. Since its establishment, it has made commitments totalling nearly \$10 billion, of which two thirds have been disbursed.

E. Organization for Security and Cooperation in Europe

44. The Organization for Security and Cooperation in Europe (OSCE) was founded in 1994 as evolution of the Conference on Security and Cooperation in Europe created in 1975 to improve security in the Eurasia space, with a particular focus on South-Eastern Europe, Eastern Europe, the Caucasus and Central Asia. The Organization deals with three dimensions of security – the politico-military, the economic and environmental, and the human dimension.

There are 56 States participating in the work of the organization. In addition to its headquarters in Vienna, the OSCE has 16 missions or field offices.

45. Priorities for the organization are set at periodic meetings of Heads of State or Government. Between these meeting, decision-making lies with Ministers from the participating States who meet once a year.

1. Economic and environmental dimension

46. The dimension of most relevance to this paper is the organization's work in the economic and environmental fields. Activities in this area consist of monitoring developments among participating States which could pose a threat to security and stability, and assisting in the creation of economic and environmental policies and related initiatives to promote security and cooperation in the OSCE region. OSCE organizes annually the Economic and Environmental Forum, which targets a different major economic and/or environmental security issue each year.

47. More specifically, economic activities are focused on combating money laundering and the financing of terrorism, promoting good governance, supporting transport development and security, and fostering effective migration policies as well as assisting in migration management.

48. In the area of the environment, OSCE's work is focused on promoting sustainable development, in particular related to water management, land degradation, soil contamination and hazardous waste, and assisting in the implementation of the Environment and Security Initiative (ENVSEC) with other international organizations.

2. Energy security

49. OSCE's involvement in energy security stems from the Strategy Document for the Economic and Environment Dimension, adopted by Ministers in 2003, which underlined the importance of a high level of energy security for member States. Both in 2006 and 2009, the Chairpersons-in-Office identified energy security as priorities for deliberation by member States. In 2006, the OSCE Secretariat was given the task by Ministers to promote a dialogue on energy security, including at the expert level, involving producing, transit and consuming countries. Since then, in addition to deliberations on energy security within the structures of the organization, the OSCE Secretariat has participated in international conferences and meetings on energy security, including co-organizing some of these with other international organizations.

II. EUROPEAN UNION

50. The European Union (EU) and its constituent bodies is a supranational organization consisting of 27 member States. Its foundation, the European Economic Community was established in 1957 by the Treaty of Rome but its roots predate that and can be traced to the European Coal and Steel Community founded in 1951. There are three main bodies that run the EU and adopt its legislation. These are the European Parliament (representing the people of Europe), the Council of the European Union (representing national governments), and the European Commission (representing the common EU interest).

51. While responsibility over energy matters lie with individual member States and are not within the direct competence of the European Commission, the Commission nevertheless has significant derived powers over the energy sector and over the energy policies of its member States through various instruments where it has competence, such as over competition policy, the internal market and trade policies. In fact, the Commission's powers and influence over energy matters have significantly increased in recent years. The Commission has had a very profound impact on the structural transformation that has been taking place over the last decade in the energy industries of its member Countries, particularly in the natural gas and electricity markets.

1. Energy policy

52. The EU's energy policy is based on three main pillars: competitiveness, sustainability and security of supply. Over the last two decades, the EU has devoted considerable efforts to enhancing the competitiveness of its energy sector by opening up and liberalizing energy markets with the view of increasing competition, efficiency and creating a single internal energy market. Today, substantial efforts are being dedicated to the issue of sustainability. In particular, the ambitious quantitative targets adopted by the EU for lowering energy intensity and for reducing greenhouse gas emissions are bound to significantly alter the EU's energy sector over the coming years as the EU moves to a low-energy and low-carbon energy economy.

53. While new forms of energy production and consumption will make the EU somewhat less dependent on imports of fossil fuels, the European Commission recognizes that oil, gas and coal are likely to remain a key part of the fuel mix of its member States for some time to come. As such, EU countries will continue to have to import significant quantities of fossil fuels. As a result, energy security is and will continue to be a preoccupation of the EU and its third energy policy pillar.

2. Energy security

54. To improve energy security, the Commission has adopted a broad-based approach. This includes improving the functioning of the single internal market for energy, reinforcing measures regarding strategic stocks, enhancing the development and implementation of energy-saving and cleaner energy technologies, and fostering closer cooperation and partnerships with both energy producing and exporting countries as well as energy consuming countries.

55. The Commission intends to complete the effective implementation of the single internal energy market by addressing and removing the remaining obstacles that stand in the way to open gas and electricity markets. These include: a clearer separation between the management of gas and electricity networks and production or sales activities; resolution of disparities that exist between national technical standards, differences in network capacity and differences in regulatory practices among member States; and fostering better cross-border infrastructure connections.

56. The EU has supported projects to improve European energy networks for over a decade and a half through the TransEuropean Networks for Energy (TEN-E) programme as well as other initiatives. The Commission has now launched a review to replace the TEN-E instrument with the EU Energy Security and Infrastructure Instrument. The intent of this initiative is to provide a

new momentum or spur to major proposals and projects which could help expand and modernize Europe's energy network and better guarantee EU security of energy supply.

57. The Commission has proposed to reinforce measures supporting strategic oil stocks. Currently, member States are required to establish and maintain minimum stocks of oil at a level corresponding to at least 90 days average daily internal consumption in the preceding calendar year. However, the Commission would like to strengthen implementation of measures focused, in particular, on improving coherence with the IEA regime, on harmonizing the organization of oil stocks and promoting their coordinated use (national storage systems, emergency stocks, intervention criteria) during crisis situations.

58. The Commission is also exploring measures and mechanisms to respond to possible gas supply disruptions, including the harmonization of minimum security of supply standards, predefined emergency measures, thresholds for triggering EU action and on the adequacy of compensation arrangements.

59. Energy efficiency measures that the Commission is proposing to reduce energy intensity, notably with respect to buildings, energy labelling and cogeneration, can also contribute to enhancing energy security. A lower energy intensive economy can not only improve competitiveness but it can also contribute to lowering net energy imports and, thereby, enhance energy security.

60. EU measures to reduce greenhouse gas emissions involving the use of renewable energy sources, such as, wind power, solar and photovoltaic energy, biomass and bio fuels, and geothermal energy can contribute to the diversification of the types and sources of energy consumed and, thereby, also improve energy security. Proposals by the Commission to upgrade incentives for the development of technologies and the construction of carbon capture and storage demonstration projects can do likewise by making better use of the EU's indigenous energy reserves, notably coal.

61. While the development and use of nuclear energy continues to be a subject of controversy and the responsibility of individual EU member States, the Commission sees nuclear energy as an important element in the debate on security of energy supply. The Commission believes that a common legislative framework on the safety of nuclear installations and the management of nuclear waste is needed and, in due course, is planning to propose new measures for the EU as a whole.

3. Outreach strategy

62. The EU has an outreach programme to increase dialogue, cooperation and partnerships with major energy suppliers, transit countries, consumer countries and, in particular, neighbouring countries. It supports its outreach strategy with investment, research funds and transfer of technology. The Commission believes that the EU needs to intensify efforts to develop an effective external energy policy; speaking with one voice and identifying and ensuring the construction of major infrastructure projects of particular importance to enhancing security of energy supply.

63. The EU works on energy issues with the Russian Federation through the EU-Russia Energy Dialogue, with Ukraine on energy cooperation and transit issues, with Mediterranean countries through the Euro-Mediterranean Energy Forum, and in partnership with seven South-East European countries which have formed a single Energy Community anchored to the EU. The EU is also working with 13 Black Sea and Caspian countries, known as the Baku Initiative, to establish a similar arrangement as that with the South-East European countries. More generally, the EU is engaging with other producing countries, such as with OPEC countries through the EU-OPEC Energy Dialogue, to enhance producer-consumer dialogue and cooperation in order to improve market transparency as well as to encourage secure supply arrangements.

III. ECONOMIC COMMISSION FOR EUROPE

64. The Economic Commission for Europe (ECE), established in 1947, is one of five regional commissions of the United Nations. Its objective is to promote pan-European economic integration by strengthening economic relations and multilateral cooperation among its 56 member States. It also gives focus to the United Nations' global mandates in the economic field.

65. ECE has had an energy programme for over 60 years. It provides a forum for member States to exchange views and experiences on energy issues with the aim of facilitating the harmonization of energy policies and practices, and the further integration of the energy networks and energy systems of its member States. Priority within the programme of work in energy is given to advancing expert dialogue on energy security issues, including the development of a common classification code for reserves and resources; the promotion of sustainable energy policies and practices, particularly in relation to energy efficiency, renewable energy and the cleaner production of coal and electricity; and in advancing expert dialogue on natural gas issues among governments and the private sector, notably with respect to natural gas policies, market structure and infrastructure.

1. Energy security

66. To enhance dialogue and promote the convergence of views on energy security issues, ECE has addressed the topic of energy security periodically at annual sessions of the Committee on Sustainable Energy, at sessions of its subsidiary bodies and through the 2003-2005 Energy Security Forum established to better engage the energy industries and the financial community on this matter.

67. The current programme of work on energy security stems from a decision taken by the Commission at its sixty-second session held in April 2007, which recommended that an enhanced technical dialogue on energy security be conducted during the annual sessions of the Committee on Sustainable Energy with the participation of representatives of governments, the energy industries, the financial community and relevant international organizations (E/2007/37 E/ECE/1448, Annex II).

68. Also during its sixty-third session in April 2009, the Commission pointed out the problem of energy security as an important concern of ECE member States and the need to develop and increase regional cooperation on energy issues (E/2009/37, E/ECE/1453, Annex I).

69. So far two technical dialogues on energy security have taken place. The first was held at the sixteenth annual session of the Committee, in November 2007, on “Investing in and financing the hydrocarbon sector to enhance global energy security”. The second was held at the seventeenth annual session, in November 2008, on “Strategic alliances for energy security”, which examined how cooperation between national oil companies and international oil companies could help to enhance hydrocarbon investments for global energy security.

70. At its sixteenth session in 2007, the Committee requested the secretariat, together with interested national and international experts, to undertake the following: (i) a study of how energy security risks are perceived by decision-makers in governments, the energy industries, the international financial sector and international and supranational organizations and associations; (ii) an analysis of how policy measures to promote sustainable energy development can enhance energy security; and (iii) an appraisal of the use of statistical indicators to measure the energy vulnerability of ECE member States (ECE/ENERGY/78, para. 13(a)). Work in all three areas has been initiated and is proceeding.

71. Preliminary work on how energy security risks are perceived by different stakeholders has been completed. The methodology, design and interactive information solicitation process to carry out the study was developed by a group of experts with the assistance of the National Opinion Research Centre, University of Chicago. The next stage is to carry out the study itself.

72. This will be done in two phases. The first phase will consist of a large survey of stakeholders to determine their perception of the range of energy security risks that exists. The second phase will involve a smaller more focused group of experts to assess the probability and potential consequences of the risks identified during the first phase. During the second phase, a number of Delphi iterations will be carried out to allow the interchange of experiences and insights among the group of experts being solicited for their views. The data from the Delphi exercise will be analysed to assess the occurrence probabilities of different risks and the severity of potential outcomes, including an assessment of the distribution of responses among the experts. The study will also compare and contrast the perception of energy security risks from the point of view of governments in energy exporting countries and importing countries, the energy industries, the financial community and specialized international organizations working in this field.

73. Taylor DeJongh, Washington DC, has been commissioned to assist the secretariat with the second study on how sustainable energy policies can contribute to enhancing energy security. In particular, the study is focused on identifying policies in the areas of energy efficiency, renewable energy technologies (solar power, wind power, bio-fuels), clean electricity production, carbon capture and storage technologies, and on inter-fuel substitution that can contribute to strengthening energy security.

74. Since a number of topics covered by this study are dealt with by subsidiary bodies of the Committee on Sustainable Energy, experts participating in these subsidiary bodies will be solicited for their views, guidance and information. Likewise, interested representatives of governments, the energy industries, financial institutions and international organizations will be solicited for their experiences and views.

75. Both studies – on the perception of energy security risks and on the contribution of sustainable energy policies to strengthening energy security – are being supported by the European Business Congress B.V. and its Energy Committee through financial contributions as well as through the provision of in-kind expert assistance.

76. With respect to the use of statistical indicators to measure the energy vulnerability of ECE member States, WEC has developed a methodology and indicators of energy vulnerability. WEC has agreed that indicators of energy vulnerability can be generated for ECE member States by selected WEC member Committees for presentation at the annual energy security dialogue of the Committee on Sustainable Energy. The indicators would provide international and time series comparisons to enhance the dialogue on energy security.

77. In addition to the work related to the expert dialogue on energy security, ECE conducts other activities that contribute, to various degrees, to enhancing market transparency and energy security. One such activity is the global effort, led by ECE, to develop a common code for classifying fossil energy and mineral resources through the widespread application of the United Nations Framework Classification for Fossil Energy and Mineral Resources (UNFC). In 2004, the United Nations Economic and Social Council encouraged member States and others to apply the UNFC (resolution 2004/233). The use of a global common code based on the UNFC would make the recovery of fossil energy and mineral resources more sustainable and more secure by serving the needs for information for long-term energy policy formulation, for effective government resources management, for efficient industrial management and for appropriate capital allocation.

78. Another area of ECE's work that touches upon energy security is its programme of work in the field of natural gas. The security of natural gas supplies has regularly been on the agenda of subsidiary bodies of the Committee working in the field of natural gas as well as in the programme of work of the ECE Gas Centre, which is supported financially and through in-kind contributions by 26 major gas companies operating throughout the ECE region. In addition to energy security, the natural gas programme also includes work on such issues as liquefied natural gas, transport corridors in Europe for heavy-duty vehicles using natural gas, underground gas storage, the impact of the liberalization of the natural gas market, implementation issues related to EU Gas Directives, cross-border gas transportation and pipeline matters, and issues related to industry and market structure.

2. Sustainable energy development

79. ECE has had a sustained long-term programme of work in the field of energy efficiency, largely focused on countries in Central Europe, Eastern Europe, South-East Europe and Central Asia. The programme is delivered through an extensive network of local, national and international experts as well as government officials working in the field of energy efficiency and renewable energy, and in investment project finance. The objectives of the programme are to enhance trade and cooperation in energy efficient, environmentally-sound techniques and management practices; to promote the formation of energy efficiency markets; to develop financing mechanisms; and to encourage the establishment of private investment funds to finance energy efficiency and renewable energy projects.

80. ECE activities on energy efficiency are largely funded through extrabudgetary funding. Currently, activities are financially supported by the United Nations Foundation, the Global Environment Facility, the Fonds Français pour l'Environnement Mondial, the European Business Congress and other co-financing organizations.

81. To complement the programme of work on energy efficiency, ECE has a number of other activities in the field of sustainable energy development, namely related to clean electricity production, coal mine methane extraction and clean coal production. These activities are focused on identifying the key barriers and their removal, limiting the implementation of new environmentally-sound technologies and hindering the development of new demonstration and commercial projects. The areas explored include issues related to investment, investment project finance, policy and regulatory constraints, technology, carbon capture and storage, and methane capture and use.

IV. CONCLUSIONS

82. The international governmental organizations differ in terms of their membership, mandate and orientation, methods of work and areas of expertise. These differences reflect why the institution was set up in the first place, the historical evolution of each institution, its specific mandate, its array of expertise, and the type and range of countries that are members of the organization. While all the organizations reviewed in this note address the issue of energy security within their programme of work, they often do so from different perspectives, with different expert and policy constituencies, using different approaches and work methods, as well as addressing different aspects of the problem.

83. Three organizations, the Energy Charter, ECE and OSCE, have almost the same country membership (although not totally identical). But even in this case, the three organizations have different mandates, use different approaches to issues and work methods, and involve different technical and policy experts in their programmes of work.

84. At the core of the Energy Charter's activities are two legally-binding instruments. These largely define the orientation of its programme of work which is focused on the implementation and compliance of legal obligations under these two instruments as well as on the negotiation of new legally-binding instruments.

85. In contrast, the emphasis in the ECE programme of work in energy is not on legal instruments but rather on the practical implementation of policies and technical measures to facilitate international cooperation and the further integration of the energy infrastructure and energy systems of its member States. ECE also gives focus to the United Nations global mandate in the economic field on energy-related issues.

86. On the other hand, OSCE's mandate is much broader and more politically oriented than the other two organizations. It is also involved in a multitude of issues on security, such as the politico-military and human dimensions of security, that go well beyond the issue of energy security. Furthermore, its activities involve and are aimed at more senior officials and a more politically-oriented constituency.

87. The other organizations reviewed in this note differ significantly from the Energy Charter, ECE and OSCE in terms of their membership, their orientation and expertise.

88. IEA's focus is largely on policy formulation, the preparation of policy-related analytical studies, the monitoring of global energy developments, the gathering and dissemination of energy information and statistics and on one operational type activity, that is, the coordination of measures among its member countries in times of oil supply emergencies. However, this work is guided and conducted within the framework and the context of its membership which consists of the world's 28 most advanced and developed economies.

89. Likewise, OPEC's orientation and programme of work is influenced by its unique membership and mandate which is to promote the interests of large oil exporting countries and, if necessary, to collectively agree on quantitative oil production levels. On the other hand, IEF's vocation is to provide a venue for Energy Ministers and senior officials from both energy producing and energy consuming countries to exchange and promote the convergence of views on global energy issues of interest to both groups.

90. In contrast to the other organizations covered in this note, the EU is not a typical international governmental organization but a supranational organization with the European Commission exercising a range of powers that are normally exercised by individual sovereign States. As such, it is unique and distinctive in terms of its mandate and powers.
