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**UNECE REGIONAL ADVISORY SERVICES PROGRAMME
IN THE FIELD OF ENERGY DURING 2003-2005**

Prepared by the secretariat

INTRODUCTION

1. This report covers activities of the regional advisory services in the field of energy from October 2003 to February 2005. The purpose of the Regional Advisory Programme on Energy is to provide advice and technical assistance, of an operational nature, to countries with economies in transition and, most notably, to the most disadvantaged of these. It also complements and reinforces the regular and extrabudgetary programmes in energy.

2. The forms and methods of operational activities undertaken vary according to the needs of the recipient countries and the sub-regions, but invariably involve a combination of the following: the preparation and implementation of specific programmes, both issue-oriented and sub-regional in nature; the preparation of project proposals for funding by international organizations and donor countries; the development and preparation of substantive studies with participating countries relating to policy issues and energy strategies; assistance regarding the transition of national economies, energy industries and energy markets towards more sustainable patterns of development; assisting Governmental organizations in achieving their countries objectives with respect to the UN Framework Convention on Climate Change (UNFCCC), in particular the Kyoto Protocol through its flexible mechanisms such as the Clean Development Mechanism (CDM) and Joint Implementation (JI); participation in the development and implementation of programmes for capacity and institutional building and

training; the organization of workshops, seminars and other group meetings; consultative and advisory missions; and study tours.

3. The programme on energy has one Regional Advisor dedicated to it. Over the last two years, the Regional Advisor has participated in the preparation of analyses on the energy situation, energy efficiency potential and prospects for CIS countries; assisted in the elaboration and preparation of plans, programmes and projects to facilitate the implementation of energy policies and strategies; assisted in the planning and implementation of programmes for capacity and institutional building and in the provision of training on business planning, financial engineering, project development and sources of financing; provided advice and participated in workshops and seminars on the restructuring, rehabilitation and modernization of the energy sector in the CIS countries; and assisted in the preparation of project proposals for funding by the United Nations Development Account, the World Bank, the United Nations Development Programme (UNDP) and the Global Environment Facility (GEF).

4. In addition to funding from the Regional Advisory Services budget (section 23), activities are supported by extrabudgetary resources, notably from the Energy Efficiency 21 Project, UNDP, the GEF, the World Bank, donor countries and countries with transitional economies as well as from the United Nations Development Account (section 35). Due to limited staff resources, activities continue to be focussed on a limited number of countries taking into account priority areas for development, government support as well as the availability of extrabudgetary financing.

5. Information related to projects and programmes initiated and carried out by the Regional Adviser on Energy and activities in which he actively participated are provided in the following paragraphs.

I. ENERGY EFFICIENCY AND ENERGY SUPPLY

6. A programme of Energy Efficiency Investment Zones in Belarus, Kazakhstan, Kyrgyzstan, Russian Federation and Ukraine within the project "Energy Efficiency 21" has continued. Implementation of this project has leveraged up to now \$4.6 million in investment by the World Bank, the GEF and local organisations in Belarus, \$ 140,000 in investment from the UN Development Account and local organisations in Kazakhstan, \$ 115,000 in investment from the UN Development Account in Kyrgyzstan, \$ 2.4 million in investment from the GEF and local organisations in the Russian Federation and \$ 1.9 million in investment from the GEF in Ukraine.

7. Phase "C" of the project "Biomass Energy for Heating and Hot-Water Supply in Belarus" was started in September 2003. The total cost of the project is \$ 8,936,000 of which \$ 3,129,000 was provided by the GEF as a grant for the realisation of the full size project, \$ 2,192,000 by the Belarus Government and \$ 3,370,000 by local organisations. The UNECE is a Cooperating Agency for the implementation of this project.

8. Since the beginning of project implementation the following project results were achieved:

- An international project consultant was selected on the basis of a worldwide competition, in which 12 consulting Institutions and Consortiums took part. The contract was awarded to the Consortium composed of BTG (Netherlands), LEV (Austria), Eco Ltd. (United Kingdom).
- A local institution was selected on a competitive basis for the development of a portfolio of new projects (i.e., bio fuel sites) for further financing by the Revolving Fund.
- The first project demonstration site (Volat-1 boiler house) was put into operation on 16 September 2004. Two automatically operated wood waste fired water boilers of 1 MW thermal capacity each were installed. A total of 276 tons of CO₂ reduction was achieved during 2004.
- The contract for the realization of the second demonstration site (JSC Mostovdrev) was awarded to Russian suppliers of a superheated steam boiler (22 tons of steam) and backpressure turbine (2.5 MW). The total amount of the contract is \$ 2.4 million. The loan agreement for the GEF contribution in the amount of \$ 400,000 was signed. The Belarus Committee for Energy Efficiency decided to invest an additional \$ 950,000 in this demonstration project.
- The international competitive bidding for the selection of equipment for the third project demonstration site (Vileika CHP) was initiated at the beginning of December 2004. The deadline for bids submissions was 15 January 2005.
- Feasibility studies and financial audits of two more project demonstration sites were completed. Bidding documents for the selection of equipment suppliers for these sites are under development.
- The first study tour of Belarusian specialists and decision makers to Austria was conducted in October 2004. The study tour was dedicated to the issue of bio fuel production and transportation. A detailed report on the study tour was submitted to the Government and placed on the project web site.
- The project web site www.bioenergy.by was opened in July 2004. All project news, progress in demonstration sites implementation, seminar and study tour reports are posted to the web site.

9. As a result of implementation of Phase "A" of the project "Removing Barriers to Energy Efficiency Improvements in the State Sector in Belarus" a project brief and a project document for financing phase "B" of this project were elaborated and submitted to the GEF Secretariat. In May 2004, the CEO of the GEF approved the project proposal and the National Executing Agency "State Committee for Energy Efficiency and Control" received \$ 195,000 as a grant for realisation of this phase. The total cost of the project is \$ 4,400,000. The UNECE is a Cooperating Agency for the implementation of this project, which was started in July 2004.

10. Assistance was provided to implement a second phase of the project “Improvement of Energy Efficiency in the Public Sector (schools and hospitals) of the Republic of Belarus”. The project is to be coordinated with the projects “Biomass Energy for Heating and Hot-Water Supply in Belarus” and “Removing Barriers to Energy Efficiency Improvements in the State Sector in Belarus”. The project is financed through a loan of \$ 22.4 million provided by the World Bank.

11. Phase “A” of the project “Feasibility Study on Opportunities for Belarus to Join the Kyoto Protocol under the UN Framework Convention on Climate Change (UNFCCC)” was completed in March 2004. Financial support for its realization in the amount of \$ 30,000 was received from the UNDP Office in Minsk (Belarus).

12. The main conclusion of the above feasibility study was that Belarus had much to gain in joining the Kyoto Protocol. Under the Protocol, the country would be committed to keeping total emissions of greenhouse gases (GHGs) at 1990 levels. However, due to the economic recession in 1990-1995 and changes in the types of fuel used in Belarus, the current emissions of GHGs are 2.5 times lower than the level negotiated under the Kyoto Protocol. Apart from this, it is projected that emissions of GHGs will increase at a much slower rate than GDP growth. Given that the Kyoto Protocol provides for emissions trading, in order to implement its commitments Belarus would be able to sell a part of its emissions credits. Initial estimates suggest that the potential revenues for the country could range from \$ 300 million to \$ 1.3 billion a year.

13. All the necessary documents for joining the Kyoto Protocol were prepared and transmitted to the Belarus Ministry of Natural Resources and Environmental Protection in April 2004. So far, the Ministry has not taken any steps in this regard.

14. A new phase of the joint Belarus/Russian project on obtaining additional electricity at large industrial gas consuming enterprises, gas-proceeding enterprises, and thermal power plants from the utilisation of natural gas letdown pressure is under development. A business proposal for the installation of the second “TURBODETANDER” at the Lukom I thermal power station in the Republic of Belarus with a capacity of 5,000 KW is now under consideration.

15. Implementation of the project “Wide utilisation of new energy efficient technology “FISONIC” in municipal heat and hot supply systems” continued in Belarus. Eight FISONIC devices for heating and hot water supply systems were installed at different enterprises.

16. The project “Capacity Building to Reduce Key Barriers to Energy Efficiency in Russian Residential Building and Heat Supply (city of Vladimir)” was completed in 2004. Financial support of \$ 2,980,000 was provided by the GEF as a grant for the realisation of this project.

17. The project “Low Cost Energy Saving Measures in the Russian Educational Sector” was completed in 2004. The GEF provided a grant of \$ 1 million for implementation of this project. The project financed low-cost measures to conserve energy, including sealing

windows and doors, installing heat exchangers and thermostats, and other measures that were decided upon based on an energy audit.

18. The first phase of the project “Climate Change Mitigation in Ukraine through Energy Efficiency in Municipal District Heating (Pilot Project in the city of Rivne)” was completed, financed by a grant of \$ 1,900,000 from the GEF. Unfortunately, the main aim of the project was not achieved and as a result the second phase of the project has been delayed.

II. COOPERATION WITH SUB-REGIONAL ORGANISATIONS

Commonwealth of Independent States (CIS)

Project “Energy Efficiency and Energy Security in CIS”

19. The second phase of the project “Energy Efficiency and Security in CIS” was completed in February 2004. As a result of this phase, a project “Implementation of regional (inter-state) programme of rational and efficient use of fuel and energy resources in CIS” was elaborated.

20. The main objective of this project is to develop and implement organizational, legislative, financial, scientific, technical and information measures aimed at improving international cooperation within CIS countries and on introducing large-scale advanced energy efficient technologies and methods of business development at the regional level. This objective is to be achieved through:

- creating national and regional organization structures;
- improving and harmonizing the legislative base on a national and regional level;
- harmonizing and unifying energy efficiency standards and labels as well as certification procedures;
- identifying mutually beneficial financial schemes for energy efficiency investment project implementation;
- developing a scientific and research base; and
- creating information support systems.

21. The project will be implemented within the period 2005-2010. It is open to scientific, research and industrial organizations of CIS countries as well as to companies and financial institutions dealing with energy conservation from other countries.

22. The project was presented twice to the CIS Commission on Economic Questions, notably in March and October 2004. After taking into account proposals, remarks and recommendations, it was supported and received final approval of the CIS Economic Board on 11 March 2005.

III. SUB-REGIONAL PROGRAMMES

Special Programme for Economies of Central Asia (SPECA)

Project “Rational and efficient use of energy and water resources in Central Asia”

23. The project “Rational and Efficient Use of Energy and Water Resources in Central Asia” was approved by the United Nations General Assembly in its resolutions 54/249 and 54/250. Activities under this project were funded by the UN Development Account for an amount of \$ 1.75 million. The UNECE was the Executing Agency for the project and managed and disbursed the funds. UNESCAP participated as an Associated Agency. The project has been completed.

24. The objective of this project carried out under the auspices of SPECA was to foster cooperation on energy and water resources among the countries in central Asia - Kazakhstan, Kyrgyzstan, Tajikistan, Turkmenistan and Uzbekistan. A more rational and effective use of energy and water resources would significantly ease energy and water supply problems and reduce environmental problems in the region.

25. The implementation of the project followed the project schedule. The following activities were realised in the period under review:

- The 13th Session of the PWG-Energo was conducted on 3 November 2003 in Bishkek, Kyrgyzstan. A total of 37 participants attended the PWG Session including delegations from Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan.
- The International Conference “Problems of Regional Cooperation on Rational and Efficient Use of Energy and Water Resources in Central Asia” was held in Bishkek (Kyrgyzstan) from 4 to 5 November 2003.

26. The sixth and final edition of the Cooperation Strategy to Promote the Rational and Efficient Use of Energy and Water Resources in Central Asia was elaborated during this period. The Governments of Kazakhstan, Kyrgyzstan, Tajikistan and Uzbekistan approved this edition, which was presented to the International Conference on Regional Cooperation on the Rational and Efficient Use of Energy and Water Resources in Central Asia.

27. In May 2004, the Strategy was submitted to the Presidents of the Central Asian States for their consideration, and as Kyrgyzstan was the lead country for the project, the Government of Kyrgyzstan was asked to raise the issue of its implementation with their colleagues of the other countries. The Regional Cooperation Strategy has also been officially sent to the International Fund for Saving the Aral Sea, as a basis for implementation of the Aral Sea Basin Programme, Phase 2.

Project “Capacity Building for Air Quality Management and the Application of Clean Coal Combustion Technologies in Central Asia” (CAPACT)

28. In 2003, the UNECE secretariat prepared a paper that provided an overview of the project proposal submitted by the UNECE for funding under the fourth tranche of the United Nations Development Account (UNDA) for the biennium 2004-2005. This submission was approved for UNDA funding by the UN General Assembly in December 2003. The total funding amount awarded was \$ 680,000 for a three-year project.

29. The objective of the project is to strengthen the capacity of air quality management institutions in Central Asia to implement the UNECE Convention on Long-range Transboundary Air Pollution and its protocols as well as to promote the application of appropriate clean coal combustion technologies for heat and power generation from solid fuels. Implementation of the Convention and its protocols will be achieved through work on developing policies to manage air quality, air pollution monitoring and the reporting of pollutant emissions. To further facilitate this process, the project will aim to develop sub-regional cooperation as well as, in cooperation with UNEP, to strengthen links between Asian and European monitoring programmes.

30. The application of appropriate clean coal combustion technologies for heat and power generation from solid fuels will be achieved through sub-regional networking and information dissemination via an Internet/Intranet system and promotion of the application of low cost, fast payback methods for improving the energy efficiency and environmental performance of solid fuel combustion technologies. In addition, clean coal technology (CCT) deployment will be facilitated through the provision of assistance with sustainable energy policy and energy pricing reforms as well as through the promotion of investment project finance.

31. At the technical level, the project approach is sectoral. Much of the substantive work, for example, on air monitoring or CCTs will target experts in those fields. However, inter-sectoral approaches will also be applied. In particular, a number of activities have been planned in such a way that energy experts and officials will be involved in air quality policy development while environmental experts and officials will be involved in discussions on energy policies and the application of CCTs. The Project Working Group will be an important body to guide the project towards achieving optimal integration between countries and between sectors. The Project was given the acronym “CAPACT” in order to facilitate its recognition and identification.

32. The following activities were realised in the period under review:

- A dedicated Project Website was developed in both English and Russian and is available at: <http://www.unece.org/ie/capact>. This site is regularly updated with project information and also provides details of forthcoming events and Project Working Group meetings
- A Project Working Group, to which all Central Asian countries have been invited to nominate senior officials, has been established to oversee the Project.

- The first meeting of this Project Working Group (Almaty, 10 November 2004) highlighted the importance and potential for future effective policy making in the joint work and dialogue between environmental and energy experts/officials in the region.
- A seminar on “Utilisation of Various Cost-Effective Clean Coal Technology Options with High Efficiency and Environmental Performance Capable of Using Locally Available Coal whilst Meeting Environmental Protection Standards and Regulations, including the Convention on Long-range Transboundary Air Pollution” was held in Almaty in November 2004.
- A CD-ROM containing all the reports and presentations provided during the seminar was produced.
- An Analytical Review on the “Technical and Economic Status of Cost-Effective Clean Coal Technology Options and Prospects for their Implementation in Central Asia” was prepared. This Review comprises three sections, prepared separately, namely: (i) the Pre-Combustion Phase; (ii) Combustion Phase; and (iii) Post-Combustion Phase.
- The Review will be finalized following receipt of comments from the National Coordinators and will be published in 2005 as a formal UNECE publication available in both English and Russian.

IV. AD HOC REQUESTS BY A SINGLE COUNTRY ON SPECIFIC TOPICS

Workshops

33. Two Workshops were organized as part of activities within the project “Biomass Energy for Heating and Hot-Water Supply in Belarus” in Minsk (Belarus). One workshop dedicated to biomass collection, processing and transportation was held on 9 June 2004. Seventy-one participants took part. It was widely reported by radio and TV and via publications in magazines and newspapers. The second one on modern technologies for wood utilization as a fuel was held on 3 February 2005. The objective of the workshop was to raise awareness among decision makers that wood energy was a modern, clean, cost-effective and efficient fuel for medium scale (5-10 MW) applications. Eighty-seven experts participated in the workshop.

34. Within the project "Removing Barriers to Energy Efficiency Improvements in the State Sector in Belarus" a workshop was held on 20 August 2004 in Minsk (Belarus) to discuss the major objectives of the project. A report “UNECE experience in implementing sub-regional energy efficiency projects in CIS” was also presented at the Workshop.

35. The Workshop “Republic of Belarus and the Kyoto Protocol” was held on 27 November 2003 in Minsk within the framework of the UNDP/UNECE Project “Feasibility Study on Opportunities for Belarus to Join the Kyoto Protocol under the UNFCCC”. The key task of the workshop was to launch a comprehensive discussion of issues relating to Belarus’ joining the Kyoto Protocol and positive and negative impacts on the country that would need to be addressed in the future if it became a party to the Protocol.

Advisory missions

36. At the request of Governments and to implement a number of projects, the Regional Adviser on Energy carried out missions to the following countries: Belarus, Kazakhstan, Kyrgyzstan, Russian Federation and Ukraine. Direct advice was provided in assisting national experts to prepare plans, programmes and projects, to facilitate implementation of their energy strategy, capacity and institution building, and training. Special attention was given to energy efficiency and conservation problems of economies in transition: realisation of Energy and Water Efficiency Demonstration Zones in Central Asia, Energy Efficiency Investment Zones in Belarus and Ukraine and the development of financial mechanisms for attracting foreign investors to realise energy efficiency projects in these member States.

37. Advisory services were also provided on the realisation of medium size electricity production units, development of renewable sources of energy, interconnection of electricity, and for technology cooperation in the field of energy with particular emphasis on environmentally clean technologies, assisting Governmental organizations to further the goals of the UNFCCC, in particular the Kyoto Protocol through its flexible mechanisms. See Part II for specific examples of the results of the missions.

Project formulation

38. A project brief and three drafts of the project document for financing phase “B” of the full-scale project "Removing Barriers to Energy Efficiency Improvements in the State Sector in Belarus" were elaborated and submitted to the GEF Secretariat. As noted above, the GEF provided \$ 195,000 as a grant for realisation of this phase. The total cost of the project is \$ 4,400,000. The UNECE is a Cooperating Agency for its implementation.

39. Project proposals for the projects “Regional Cooperation in Dam Safety in Central Asia (phase I)” and “Elaboration of feasibility study on establishing International Water and Energy Consortium in Central Asia (Phase I)” were elaborated and submitted to donor countries for their consideration.

40. A project proposal for the project ‘Capacity Building for Improving Energy Efficiency and Energy Conservation in CIS through Management, Networking and Partnerships’ was prepared and submitted to the secretariat of the United Nations Development Account for its consideration. The total cost of the project is \$ 520,000.

41. The terms of reference for the Project “Support and Development of Renewable Sources of Energy (Biomass)” to be implemented by TACIS in Ukraine was elaborated and submitted to the State Committee of Ukraine for Energy Conservation.

Training programmes

42. Training programmes were held in the framework of other projects (See Parts II and III).

Conferences, forums, meetings and training

43. Within the framework of the SPECA project “The Rational and Efficient Use of Energy and Water Resources in Central Asia”, an International Conference “Problems of Regional Cooperation on Rational and Efficient Use of Energy and Water Resources in Central Asia” was held in Bishkek (Kyrgyzstan) from 4 to 5 November 2003. A report “Results achieved during the project implementation” was presented and concrete energy water projects that could be realised as a follow-up to the above-mentioned project with assistance of UNECE/UNESCAP in the region were proposed.

44. An International Seminar “Russian Programme of Renewable Energy Development” was organized by the Russian Ministry of Education and Science together with the Administration of the city of Riabinsk from 27 June to 1 July 2004 in Riabinsk (Russian Federation). A presentation on the potential UNECE role in the implementation of the project “Russian Renewable Energy Programme” was given at the Seminar.

45. The Second International Ukrainian Conference on Biomass was organized by the National Academy of Sciences of Ukraine and the Austrian Energy Agency from 20 to 22 September 2004. The results of the project “Biomass Energy for Heating and Hot water supply in Belarus” that is being implemented under the auspices of UNECE was presented at the Conference.

V. PROBLEMS, EVALUATION AND FUTURE WORK ORIENTATION

Problems

46. The development of energy systems is one of the major priorities for most of the economies in transition and it is not possible to satisfy all requests of the Governments of these countries. Due to limited staff resources, activities continue to have to be focussed on a limited number of countries taking into account priority areas for development, government support as well as the availability of extrabudgetary financing.

Project “Rational and Efficient Use of Energy and Water Resources in Central Asia”

47. UNECE and UNESCAP and the Governments of the participating SPECA countries did not succeed in involving Turkmenistan in the project.

48. There were instances where cooperation with some stakeholders in Uzbekistan in the work of the project and the Regional Cooperation Strategy elaborated within it were difficult in spite of the principles of openness and transparency applied by the project management.

49. Extensive guidance and assistance had to be provided to participants of the Project on preparing and handling Project documentation. With the generally inadequate state of telecommunication connections in the region, correspondence and communication were sometimes difficult.

Project “Climate Change Mitigation in Ukraine Through Energy Efficiency in Municipal District Heating (Pilot Project in Rivne, Stage 1)”

50. The implementation of Stage 1 of this project did not correspond to the main tasks of the project document that had been approved by the GEF Council. The major task of Stage 1 of this project was the creation of a Municipal Energy Service Company that would realize and finance all necessary and cost effective investments in municipal buildings, the district heating network and other energy consuming local facilities through energy performance contracts (EPCs).

51. During Stage 1, energy efficiency measures were implemented by the local municipal company “Kommunenergo” (2002-2003). While a new company, ESCO-Rivne, was ultimately created in January 2004, it did not meet the terms of the GEF approved project document since the created company was a consulting company rather than a true ESCO. Furthermore, the company did not implement any energy performance contracts since it was set up in January 2004.

52. In accordance with the project document, financial arrangements for the project's Stage 2 were also to be defined by the end of Stage 1, including identification of citywide opportunities for energy efficiency improvements through the use of energy performance contracts. So far, no financial arrangements have been made and, as a result, Stage 2 of the project has not yet started.

53. Moreover, concerns have been raised about the sustainability of this project and whether it could be replicated in its current form in other locations given the failure to comply with the original intent of the project.

Evaluation

54. A number of projects were developed with GEF funding, such as "Removing Barriers to Energy Efficiency Improvements in the State Sector in Belarus".

55. The Regional Cooperation Strategy for Rational and Efficient Use of Energy and Water Resources of Central Asia elaborated within the project “Rational and Efficient Use of Energy and Water Resources in Central Asia” was officially approved by the four states involved in the project. This is the first instance after the dissolution of the Soviet Union that a joint strategy on water and energy use has been agreed to in Central Asia. The Regional Cooperation Strategy opens up avenues for further negotiations on essential inter-governmental agreements and joint policy making.

56. The development of the Regional Cooperation Strategy has yielded considerable capacity building effects, as the joint work over three years in a group of decision makers and experts from four countries has strengthened the insight into modern principles of water and energy policies, as well as the mutual understanding of the positions of the Central Asian countries. The UN Development Account project has also contributed to an improved dialogue between sectors such as energy and water, which is of great importance for moving ahead on these issues.

57. Within the framework of the UNDA project and at the request of the Governments of Kazakhstan and Kyrgyzstan, UNECE and UNESCAP have developed and raised funds for a supplementary project: "Support for the Creation of a Commission on the Chu and Talas Rivers between Kazakhstan and Kyrgyzstan". Sweden, United Kingdom and Estonia fund the project, which is budgeted at 120,000 Euros. The project is implemented in collaboration with the OSCE. More information can be found on the UNECE web site: http://www.unece.org/env/water/chu_talas/welcome.html.

58. An external evaluation of the project "Rational and Efficient Use of Energy and Water Resources in Central Asia" was conducted by an independent consultant during June-November 2003.

59. As a result of completing the second phase of the project "Energy Efficiency and Security in CIS", the project "Implementation of regional (inter-state) programme of rational and efficient use of fuel and energy resources in CIS" was elaborated and approved by the Governments of the ten CIS countries.

60. Within the project "Biomass Energy for Heating and Hot-Water Supply in Belarus" the first demonstration site (Volat-1 boiler house) was implemented and commissioned. Based on UNDP/the GEF project experience, the Ministry of Power jointly with the Committee for Energy Efficiency of Belarus approved a conversion programme for 14 medium size boiler houses and Combined Heat and Power (CHP) to biomass to be implemented by the end of 2006. Two project demonstration sites are included in this programme.

Future work orientation

61. The Regional Adviser on Energy will continue to respond to the specific needs and priorities of countries in transition in strategic areas of sustainable energy development as: the rational and efficient use of energy; analysis of new developments affecting energy demand and supply in the short and medium-term; pricing policy and security of supply; restructuring of the energy sector; energy infrastructure including interconnection of electric power and natural gas networks; normative activities in the energy field; and renewable sources of energy.

62. In all these areas, assistance will be provided in identifying the needs for further developing the energy sectors of economies in transition, assisting national experts to prepare plans, programmes and projects to facilitate the implementation of their energy strategies, providing assistance in capacity and institution building and in the realization of the objectives of the UNFCCC, in particular the Kyoto Protocol through its flexible mechanisms,

such as, the Clean Development Mechanism (CDM) and Joint Implementation (JI). Special emphasis will be given to energy efficiency investment and demonstration zones, training on project financing and management, small and medium sized company start-up, including energy services companies and their participation in the realisation of Energy Investment Demonstration Zones, utilisation of new environmental clean energy technologies, networking and information exchange, energy efficiency standards, and development of business contacts.

63. Primary attention will be given to cooperation with sub-regional organisations such as CIS and to the implementation of energy projects in sub-regional programmes, such as SPECA.

64. The Regional Adviser will continue his cooperation with UN agencies and international organisations, in particular with the UNDP, World Bank, EBRD, Black Sea Trade & Development Bank, CIS Executive Committee and other regional and sub-regional organisations as well as the Commission of the European Union.

65. With regard to specific projects, which are being realised now and will be implemented in the future, the following examples can be noted:

- 2003-2006 phase of the “Energy Efficiency 21 Project”;
- Project “Implementation of regional (inter-state) programme of rational and efficient use of fuel and energy resources in CIS”;
- Project “Capacity Building for Air Quality Management and the Application of Clean Coal Combustion Technologies in Central Asia” (CAPACT);
- Project “Financing Energy Efficiency and Renewable Energy Investments for Climate Change Mitigation” Selected countries in south-eastern Europe, eastern European and the Commonwealth of Independent States (CIS);
- Project “Biomass Energy for Heating and Hot-Water Supply in Belarus”, phase “C”;
- Project “Removing Barriers to Energy Efficiency Improvements in the State Sector in Belarus”, phase “B”;
- Project “Improvement of Energy Efficiency in Public Sector (Schools and Hospitals) of the Republic of Belarus”;
- Phase 2 of the joint Belarus/Russian Project on obtaining additional electricity at large industrial gas consuming enterprises, gas-processing enterprises, and thermal power plants (Lukom 1 thermal power station) from the utilisation of natural gas let-down pressure for the production of cryogenic products: nitrogen, oxygen, and argon;
- Project “Support and Development of Renewable Sources of Energy (Biomass)” in Ukraine;
- Project “Removing Barriers to Energy Efficiency in Municipal Heat and Hot Water Supply in Kazakhstan, phase “C”;

- Project “Development of Energy and Water Efficiency Demonstration Zones in the Republics of Kazakhstan and Kyrgyzstan”;
- Project “Wide utilisation of new energy efficient technology “FISONIC” in municipal heat and hot supply systems” in Belarus, Kazakhstan, Russian Federation and Ukraine;
- Project “Russian Renewable Energy Programme”;
- Project “Energy Efficiency Service Market for Industrial and Commercial Sectors of the Russian Federation (EESM)”;
- Identification of projects for possible Activities Implemented Jointly (AIJ-projects) between economies in transition and developed countries in order to facilitate the implementation of the provisions of the Kyoto Protocol.