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COMMITTEE ON SUSTAINABLE ENERGY

Steering Committee of the Energy Efficiency 21 Project

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**MONITORING AND EVALUATION REPORT
ON THE ENERGY EFFICIENCY INVESTMENT PROJECT DEVELOPMENT
FOR CLIMATE CHANGE MITIGATION 2000-2005 (ECE-CIS-99-043)**

Note by the External Evaluator

As specified in the Project Document, the project has been subject to reporting, monitoring and evaluation consistent with Article IX of the Memorandum of Understanding between the United Nations Fund for International Partnerships (UNFIP) and the United Nations Economic Commission for Europe. The Project has had a Monitoring and Evaluation Adviser to assist all parties in project implementation reported to the United Nations Foundation (UNF) and UNFIP. The Monitoring and Evaluation Adviser, Mr. Glen Skovholt, was recommended by the Energy Efficiency 21 Project Steering Committee, nominated by the Executing Agency and confirmed by UNF/UNFIP.

I. PURPOSE

1. The purpose of this Project was to assist south-east European, east European and CIS countries to enhance their energy efficiency, diminish fuel poverty arising from economic transition and meet international environmental treaty obligations under the UNFCCC and the UNECE.
2. The overall goal of the Project was to promote an investment environment in which self-sustaining energy efficiency projects can be identified, developed and implemented by local teams in municipalities or in energy efficiency demonstration zones. The intention is to replicate successful measures nationally, in Eastern Europe and CIS countries once proven on a limited scale.

II. PROJECT GOALS

3. To achieve this purpose, the Project team identified three specific goals:
 - (a) To develop communication vehicles and technical skills in order to identify, develop, finance and implement energy efficiency projects in municipal lighting, hospitals and district heating that meet environmental, health and institutional strengthening priorities
 - (b) To strengthen energy efficiency policies in the participating country by introducing the economic, institutional and regulatory reforms needed to support investments in energy efficiency projects.
 - (c) To promote opportunities for commercial banks and companies to invest in energy efficiency/carbon reduction projects through existing investment funds or a new fund managed by an international financial services company.

III. THE MONITORING AND EVALUATION ADVISER

4. When the Board of the United Nations Foundation (UNF) approved a grant to the United Nations Economic Commission for Europe in 1999 for the purpose of increasing investments in energy efficient technologies by countries in Eastern Europe, the Foundation specified that a monitoring and evaluation adviser should be retained to provide project oversight and counsel. Mr. Glen J. Skovholt, formerly Vice President, Government and Community Affairs for Honeywell Inc., was recommended to that position by the Ad Hoc Meeting of the Energy Efficiency 2000 Project in January 2000 and this was formally confirmed by the United Nations Foundation and the United Nations Fund for International Partnerships (UNFIP) in March 2000.
5. During the course of the project, the Adviser participated in meetings of the steering committee, attended training sessions, participated in discussions concerning the financing of projects in Belarus and the Russian Federation, reviewed materials, submitted periodic reports and provided informal counsel to the project managers at UNECE and to the staff at the United Nations Foundation.

IV. OBSERVATIONS AND CONCLUSIONS

6. A review of the final report and attached documents confirms that measurable results were obtained against all three of the project goals. On a quantifiable basis, the project met or exceeded its benchmarks.

7. This evaluation does not attempt to restate the quantifiable results of the project. They are reported in detail in the Project Final Report. Instead, this evaluation focuses on qualitative results of the project, believing that this may be more instructive to the organizations that funded the project, and to those who wish to apply the results of this project to future efforts.

A. Communication vehicles and training

8. Workshops are held to train municipal lighting, hospital, and district heating system managers to become experts in project development, finance and business planning. This is an extremely challenging undertaking, yet critical to achieving the ultimate objective – reducing greenhouse gas emissions.

9. The local officials who operate these services are essential to convincing public officials to undertake a project to reduce energy consumption. Although these managers generally have a technical background, it often becomes their responsibility to determine the financial feasibility of an energy reduction project and to develop a business plan. Most municipal and other governments in Eastern Europe and the CIS do not otherwise have this expertise.

10. Consequently training programmes such as those developed as part of this Project are a necessary component of any large scale effort to implement similar projects. The training sessions that the Adviser observed in Belarus were well organized and valuable. They resulted directly in the World Bank funding three of the projects for which business plans had been developed.

11. The ECE Energy Series country reports that have been developed for the five countries involved in the project contain a wealth of information that can be useful in future activities. This is also the case for two other reports, “Financing Energy Efficiency and Climate Change Mitigation” and “Reforming Energy Pricing and Subsidies”.

12. EE-21 Website: Websites are an indispensable link in the sharing of information and developing expertise, particularly for a multi-national project such as this one. The www.ee-21.net website benefited from funding through this project. It has become increasingly user-friendly and valuable to energy efficiency experts throughout Eastern Europe and the CIS.

B. Energy efficiency policies

13. Publications, conferences and workshops: The final report lists several publications that were prepared as part of this project which provide valuable guidance to countries and regional and local governments in establishing and reforming laws to encourage energy efficiency and

carbon reduction activities. The Report also references conferences and workshops that were conducted on energy efficiency policy reforms, carbon emission trading and reforming energy prices. The publications, conferences and workshops are all an essential part of an overall effort, and need to be continued. However, they cannot by themselves bring about needed policy reforms. Governments must be led by farsighted public officials who, when informed, will understand the economic benefits of these investments and are willing to make difficult political decisions in order to enact the necessary policy measures.

14. Demonstration zones: Also important, in order to provide economic incentives for policy reforms, are real examples of the results that energy saving projects can achieve. In a limited way, the 15 demonstration zones in the five countries, established as a part of this project, provide such results.

15. Carbon Emissions Trading Handbook: A most innovative, and possibly one of the most valuable outcomes of this project is the Carbon Emissions Trading Handbook. In a CD-ROM format, this handbook provides valuable information on carbon emissions trading, including software for calculating the reductions in carbon emissions that can result from an energy efficiency project. Recognizing that it can be difficult for a public official from an East European or CIS country (countries whose economies are in transition) to understand the economic benefits of energy saving projects, it is far more challenging to grasp also the concept that those energy savings can be translated into reductions in carbon emissions, and that those emission reductions have their own economic value. The handbook will not, by itself, solve this problem, but it makes an impressive contribution to the understanding of this complicated subject.

C. Opportunities for commercial banks and companies to invest in energy efficiency/carbon reduction projects.

16. Through this Project, 60 energy reduction projects, with a projected investment value of \$61.8 million, were identified and business plans developed, with energy and environmental savings calculated. Eighteen of these projects received financing and are being implemented. The annual carbon emission savings from these projects, 136,300 tonnes, are modest in terms of the need and the opportunity. But the results are noteworthy because they demonstrate that energy reduction projects can also contribute to reducing greenhouse gas emissions.

17. It is noteworthy that nearly all these projects were financed with public funds from sources funds ranging from the World Bank to municipal government budgets. Commercial financing is not yet a significant source of financing for projects such as these.

D. Conclusions

18. The Evaluation Adviser has observed or participated in several demonstration projects in Central and Eastern Europe that were designed to demonstrate the economic benefits of reducing energy consumption. This Project breaks new ground, going beyond earlier the earlier projects by: (a) documenting the environmental benefits of reducing energy consumption through the reduction of greenhouse gas emissions; and (b) describing how reducing emissions has an economic value beyond the energy savings. In this respect alone, the Project has made a valuable

contribution to the development of a commercially viable market for energy efficiency/emission reduction projects.

19. Training energy managers and other officials to be able to develop financially feasible business plans must be continued in some forum because it remains an essential element in developing a sustainable investment market for energy and emission reduction projects.

20. The Adviser fully agrees with the following statement from the report: “While grants, loan guarantees and other innovative financing schemes have an important demonstration value and help local partners to acquire the professional skills they need, only commercial sector finance on a suitable scale can actually deliver significant results.”

21. Public sector financing is critical to demonstrating the economic viability of these projects. But there are simply not adequate public funds available to implement these projects on a scale sufficient to make a significant reduction in greenhouse gas emissions. What is required, as the report concludes, is the development of a commercial financial market in which private investors are confident that energy and emission reduction projects are safe and will provide a sufficient financial return. At the moment, such a system does not exist, at least on a sufficient scale.