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COMMITTEE ON SUSTAINABLE ENERGY

Steering Committee of the Energy Efficiency 21 Project

Ad Hoc Group of Experts on Energy Efficiency

Investments for Climate Change Mitigation

Seventh meeting, 1–2 December 2005

**REPORT OF THE FIRST MEETING OF THE MUNICIPAL NETWORK FOR
ENERGY EFFICIENCY NETWORK (MUNEE), 1 JULY 2005**

Note by the secretariat

The sixteenth session of the EE21 Steering Committee hosted the first meeting of the Municipal Network for Energy Efficiency Network (MUNEE) Expert Advisory Panel. Among the conclusions and recommendations, the Steering Committee

“(j) welcomed the positive cooperation between the UNECE and USAID under the activities of the MUNEE Expert Advisory Panel Meeting coordinated by the Alliance to Save Energy (ASE), in particular for the first meeting of the advisory panel organized in cooperation with the EE21 Steering Committee and within its annual session” (ENERGY/WP.4/2005/5).

BACKGROUND

1. The Alliance, together with USAID and selected experts, is undertaking an extensive policy analysis that will examine two of the most important development areas for energy efficiency opportunities in the Europe and Eurasia (E&E) region: (i) urban heating policies and programmes, and (ii) actual energy and water efficiency measures as a means to ease the impact of rising utility tariffs on vulnerable urban households. The two studies are entitled (i) The Urban Heating Sector in Europe and Eurasia: Experience from the Transition and Future Directions; (ii) The Energy Efficiency and Urban Residential Utility Affordability Study (hereafter referred to respectively as the Urban Heat Study and the Affordability Study). Both studies will cover the region of Southeast Europe, the Baltic States and the Commonwealth of Independent States.

2. The Urban Heating Sector in Europe and Eurasia: Experience from the Transition and Future Directions will examine and analyse the policies and programmes of the past 15 years aimed at enabling private investment and commercial viability in the E&E's heating sector, while addressing the social and economic needs of consumers. The goal of this study is to identify critical countries for priority technical assistance/investment projects; to reveal institutional development needs; to evaluate financing requirements for rehabilitation and modernization; to emphasize the role of public-private partnerships; and to identify commercial opportunities.

3. The Energy Efficiency and Urban Residential Utility Affordability Study will analyse the policies, projects, and programmes affecting utility services – heat, electricity, water, and wastewater – in multifamily buildings, making recommendations on whether and how energy efficiency can improve the affordability of those services. The goals are to assess the impact that reform and restructuring in essential utility services will have on the affordability of heat, electricity, water and wastewater; to document residential energy efficiency experiences; to add to the Athens Process; and to present the policy case for energy efficiency vs. traditional approaches.

4. This work is being conducted within the framework of the USAID funded Municipal Network for Energy Efficiency Programme (MUNEE) of the Alliance to Save Energy. More information and periodic updates regarding these studies are available at www.munee.org. A group of prominent experts in the respective areas (heat policy, energy restructuring, tariff & subsidy reform, etc.) was identified and invited to serve as expert advisors for both MUNEE studies. The Alliance held the first meeting of these Expert Advisors on 1 July as a side-event of the sixteenth meeting of the UNECE Energy Efficiency 21 (EE21) Steering Committee. A total of 28 people participated in the Experts Advisory Work Group meeting, including many of the pre-selected Work Group members

5. The meeting encompassed the scope of research and data collection; key focus areas and necessary depth of analysis; logistics, timeframes and implementation details. Some general conclusions from the discussions are:

- The Urban Heat Study should aim at developing a summary of what has been done already, and at structuring the collected data into an easily discernable and informative format. The information should be divided into three sections – positive, negative, and

best practices – as inconsistencies emerging from differing country-specific circumstances and in project-related data availability may exist.

- It is important that the Urban Heat Study focus on issues other than exclusively district heating (DH). DH has been the main focus of several studies conducted previously, while non-DH options and the energy efficiency implications of those options require more analysis, especially in transition economies where DH is unavailable or cannot be economically operated due to infrastructure deterioration, etc.
- It is important to address the macroeconomic indicators and local energy planning, as well as social and health implications.
- As part of the recommendations, the experts suggested that it would be best to include standard solutions for typical problematic situations, as opposed to country-specific solutions. Highlighting sub-regional similarities would be useful to show interconnectedness, as well as a more tailored approach without necessarily providing details for each country.
- Partners such as the UNECE, Euro Heat & Power, International Energy Agency (IEA), Energy Charter Secretariat, and RENEUER (South East European Network for Energy Efficiency and Renewable Energy) have indicated their readiness to participate in further meetings. They will be sharing respective findings, and assisting in the dissemination of those findings. UNECE had expressed interest in publishing the studies in conjunction with the USAID/Alliance team.
- The results of the studies will be disseminated through a discussion forum, websites, the MUNEE newsletter, Euro Heat & Power and the EE21 network, publications and workshops.

6. The following were the recommendations and clarifications resulting from the meeting for each respective study.

A. URBAN HEATING SECTOR IN EUROPE AND EURASIA: EXPERIENCE FROM THE TRANSITION AND FUTURE DIRECTIONS

- To consider the trend toward regional energy market integration; to consider how the integration process will affect, and is already affecting, the urban heat markets;
- To address the gas market as a driver of heat markets;
- To develop a benchmarking system;
- To develop and test a hypothesis that "the right quality and comfort will improve payment";
- To analyse heat supply with respect to total energy supply and planning;
- To consider limiting time devoted to data collection, as privatization of heat companies renders certain kinds of data unavailable; statistics are not consistently kept across countries;
- To concentrate efforts on systematizing existing data into one comprehensive document for analytical purposes.

B. ENERGY EFFICIENCY AND URBAN RESIDENTIAL UTILITY AFFORDABILITY STUDY

- The Affordability Study will improve the understanding of the characteristics of vulnerable households, and will ensure that households which do not receive DH are

appropriately evaluated in terms of how energy-efficiency (EE) improvements could benefit them. (A couple of the experts in this meeting said that income data and heat compensation data often omit some of the most vulnerable populations, i.e. households who are not even connected to DH.)

- To utilize appropriate economic indicators of EE projects (i.e. IRRs);
- To focus on EE in public buildings as a means to reduce state (municipal) subsidies for utility services;
- To provide more information regarding the feasibility and benefits of low-income weatherization programmes in the region.

7. The Alliance and USAID asked for recommendations regarding dates for the second Experts Advisory Work Group Meeting, which will most likely be held in conjunction with a regional event. Several options were proposed:

- 4-5 October 2005. ESCO Europe Conference in Vienna (<http://www.esco-europe.com/Programme.asp?Menu=145>)
- 26-28 October 2005. BISE workshop in Sofia (EnEffect coordinating)
- 17-18 November 2005. Energy Charter Conference in Brussels: Meeting of the Working Group on Energy Efficiency and Related Environmental Aspects, where Energy Charter reports on DH/CHP and Residential EE will be presented.
- November 2005. ESCO workshop in Budapest
- 1-2 December 2005. UNECE interim EE21 Steering Committee Meeting

Other suggested locations were either Ukraine or Russian Federation, depending on travel and hosting costs and the likelihood of attendance by experts from the Commonwealth of Independent States (CIS) and South East Europe. Alliance's REEEP (Renewable Energy and Energy Efficiency Partnership - the Alliance received a grant for a workshop that will complement the USAID-funded study on Utility Affordability.) seminar that will focus on barriers to residential energy efficiency will be held in Ukraine in early 2006, and can also be considered as an option.

INTRODUCTION

*Ira Birnbaum, Energy Efficiency and Global Climate Change Coordinator
Europe and Eurasia Bureau. U.S. Agency for International Development*

8. Mr. Birnbaum opened the session addressing both studies. He recognized that much more work has been carried out on urban heating than on affordability. Through the Urban Heat Study, USAID aims to: identify gaps in and requirements for improvement in urban heating systems; detect the most effective means to attract investment; and evaluate the most valuable communal enterprise management processes. The studies provide an opportunity to reach out to a new audience, which does not otherwise take into consideration energy efficiency.

9. Despite the paucity of studies devoted to affordability of utilities in pertinence to energy efficiency, some attention has been devoted to energy efficiency from the perspective of tariff subsidies and social programmes. Existing information provides options for determining whether energy efficiency can reduce bills by the same amount as the instituted subsidies. It is important to understand this question because subsidies are difficult to sustain in the long term,

whereas energy efficiency is perpetual. USAID and the Alliance are working to produce a study based on experience with residential EE in the region that will demonstrate a realistic picture of the feasibility for EE solutions to improve the affordability of energy and water services in the residential sector, especially in vulnerable households.

PRESENTATIONS

(A) Overview of Urban Heating Study

Astghine Pasoyan, MUNEE Regional Programme Manager

10. The Experts Advisory Work Group (WG) contributes to the Urban Heat study. The objective of the first WG meeting is thus to discuss implementation, approach, timeline, and outputs envisioned by USAID and the MUNEE team.

11. The heating study will provide the audience with a comprehensive assessment of all the trends in heat restructuring; changes in subsidies; financing, economic performance, and the resulting budgetary/investment implications; regulation by local authorities and ownership changes; changes in costs vs. quality of heat supply service; commercialized heat market experience; and emerging decentralized systems where DH is not functional in the E&E region. An analysis of fuel competition, technical and commercial losses will be conducted, and the potential for energy efficiency will be assessed. This will be done upholding the assumption that heat will be a service that is sold based on economic principles of cost-recovery and profit.

12. Recently, decentralization of heating systems has become a trend in many countries of the E&E region. The Urban Heat Study will work to analyse fuel competition, in particular the issue of cheaply priced Russian gas in autonomous gas heating systems competing with district heating, as well as fuel switching. The study will analyse the issue of energy loss resulting from the antiquated state of the DH infrastructure, while attempting to assess the potential for energy efficiency measures and support programmes through properly functioning policies and financing schemes.

13. The Urban Heat Study will become a repository of information as it will catalogue all the case studies and lessons learnt on the subject of heat sector restructuring and modernization. Research teams led by the Alliance and USAID will provide recommendations for further reform; best practices of policies, projects and programmes; private investment potential; and key policy directions. The recommendations will highlight countries that require more immediate intervention, followed by reform and technical assistance (TA). The recommendations will encompass institutional development needs, pricing policies, subsidy removal, metering, billing and collection. In addition, the study will evaluate financing requirements for modernization of heating infrastructure, and will provide related recommendations, incorporating all the funds, which are currently in the process of being established.

14. The Urban Heat Study will discuss the role of public-private partnerships in heat sector reform. In order to stimulate change in consumer behaviour and to facilitate responsible consumer driven decision-making, the study will identify successful incentive-based programmes, policies, awareness campaigns or other measures that have increased investment and use of energy-efficiency equipment and services. The collected and analysed information

will provide both current and future perspectives of the heat sector in the E&E region. The perspectives will be broader than those previously presented in other studies. The study will identify the type of assistance that governments require, and the most effective and efficient ways of assistance delivery (e.g. project financing, TA programmes). It will also discuss methods to facilitate more sustainable delivery of municipal services, and to integrate heat policy with social safety nets and vital services (i.e. health care, education).

15. Throughout the research process, the experts in the Working Group will make presentations on key topics and address energy-efficiency questions, which are appropriate to consider within the context of E&E. The input of the experts on other concurrent issues pertinent to the studies is requested. Experts' tasks such as white papers, selected research and analysis, and peer review will aim at facilitating further discussion, and to lead to a consensus on the concrete steps, which donors and investors should consider next.

Work Schedule of the Heat Study:

Period I: 1 July-30 September 2005

Preparation of the methodology, research, and templates for questionnaires will be carried out. The first white papers on the Urban Heat Study are due at the end of September.

Period II: 1 October-31 December 2005

Papers will be collected from consultants for review. Draft chapters will be circulated for comments. There will be another meeting in mid/end of November, which will facilitate a thorough review of the first draft, followed by the second Experts Advisory WG meeting.

Period III: 1 January-31 March 2006

The third and last period will be completed with revision of the papers, and another round of comments. Pending available funding, a conference might be held in order for experts to present and comment on the studies' findings and recommendations. The schedule for work on the Affordability Study will be staggered with the Urban Heat Study by one month (i.e. due dates for drafts and comments related to each of the two studies will be every other alternating month).

16. To summarize, the study will cover the E&E region (mostly South East Europe and the CIS, but will use examples and lessons-learned from Central European and the Baltic countries). The process will involve collecting existing data; conducting surveys to fill identified data gaps; interviewing local partners (utilities, implementers, the respective government); and coordinating with partners carrying out related work. An electronic forum will be used to facilitate communication and discussion on key topics relevant to the studies (Munee_Studies@yahoogroups.com), allowing for real time discussion and exchange of ideas among the experts. Up to two more Experts Advisory WG meetings will be held over the course of developing these studies.

7. The affordability study will consider all utilities in coordination with the urban heating study. The Alliance requests the input of all experts regarding data collection and/or verification. Indicators are needed in order to enable multi-country comparisons with regard to generation, energy service company (ESCO) development, subsidies, billing and collection.

18. The white papers should be drafted by December, and finalized in March. As a result of this meeting, the outlines will be revised.

DISCUSSION SESSION

19. This section shows the key points, questions and comments raised by various participants in the meeting. It is organized in a “meeting minutes” format, identifying the individual who raised the question or comment, and then summarizing the question or comment.

QUESTIONS

20. Participants raised questions concerning: the priority areas on which the analyses should focus, the data gaps that the surveys should cover, and the primary policies and institutional issues which need to be addressed.

21. Distinguishing between tariffs is important. In particular, it is important to differentiate between CHP and other district heating systems (non-CHP). In Serbia, a large number of individuals, especially in new or semi-new suburbs, use solid fuels and electricity directly for heat – a case largely overlooked by official statistics. A large amount of the fuel is smuggled, or originates from unofficial sources. There is a wide discrepancy in Serbia between official statistics and the ground surveys. The situation is similar in The former Yugoslav Republic of Macedonia, Bulgaria, Romania, etc. Those who are disconnected from district heating use other means to provide heat, and as a result resort primarily to a shadow market for the source. Another aspect of affordability in many cities and suburbs is not simply the issue of bill-paying, but the ability to afford the other ancillary effects such as indoor pollution from solid fuels. There are numerous difficulties with district heating systems and subsidies. For example, the subsidies are provided only to those who are connected. This has a significant impact on affordability in social terms – many are unable to pay the bills. Appropriate technology is another method, which can help replace unsustainable practices while being affordable. As an analysis of district heating systems shows, there are huge capital costs, which have both a direct and indirect impact on society. The systems are unaffordable and are low in energy efficiency. Macroeconomic data convey the effects well. (*Alexander Kovacevic*)

22. What is needed is a well-fitted benchmark system in the form of a survey, querying the customers and those who directly deal with customers in order to supplement the insufficient official statistics. It is hoped that the officials will take on the lead in conducting surveys of this nature in the future. UNDP in Serbia and Montenegro conducted a study “Stuck in the Past”, which can be used for brainstorming. The IEA is analysing energy and development issues, addressing particular cities, and how the national energy policies will affect urban development. The work is related to the USAID/MUNEE studies. (*Robert Archer*)

23. It is important to clarify the reasons why the work is being undertaken because it is necessary to better understand the specific expectations and final objectives. For example, one objective is to recommend key policy directions to improve urban heating. In this instance, what does “improve” mean? The experts, USAID and MUNEE already know a lot about EE, and thus should instead focus on the technical issues such as financing. Most importantly, they should focus on how municipalities will handle the accounts, transparency problems, and the lack of clarity on financial statements. (*Bernard Jamet*)

24. USAID/MUNEE is pursuing non-technical issues such as those concerning the timing of improvement in the quality of service; the procedures and timing involving improvement of payment collection and the related implications for district heating. (*Ira Birnbaum*)

25. The USAID/MUNEE prefers not to focus the Heat Study extensively on technical aspects. The key priority is policy restructuring and property rights issues, since this is what will drive the technical and technological improvements. For example, wood fuel efficiency improves affordability in terms of employment as well as indoor pollution. Transferring of subsidies from DH where they are not necessary to assisting in better stove-provision significantly improves living standards in the rural areas. (*Astghine Pasoyan*)

26. A legislative framework is very important, particularly in the case of the energy reform process, which allowed for provision of gas heating. It is also necessary to clearly outline the information related to the concessions and tendering procedures for heating service provision. ENSI [represented by Mr. Dahlsveen] has experience with network utilities, which can be shared with USAID/MUNEE. (*Trond Dahlsveen*)

27. Options other than DH should be considered. Total energy supply is the key. Cost should be one of the most important factors in energy supply planning. Supply side management results are based upon cost and are driven by improving EE, reducing costs and increasing consumer payment collections. (*Witold Cherubin*)

28. The large set of data which USAID/MUNEE will collect can be used at both levels: by in-country policymakers, as well as by international donors. However, there is a need to be careful in presentation of information to different audiences; the results should be tailored to specific audiences. (*Ira Birnbaum*)

B. Energy Efficiency and Residential Affordability Study

Angela Morin Allen, MUNEE Programme Manager

29. Much of the discussion about EE in these meetings has focused on financing and project pipelines. EE is an important part of economic development, but it is also a large part of sustainable development, and many benefits of EE are not always quantifiable. USAID and the Alliance are considering this issue from the standpoint of quality of life, and health indicators that are not always quantifiable.

30. It is also important to link the EE market benefits to the social benefits (health, school attendance, indoor air quality). Emerging economies are following the lead of the new European Union (EU) Member States. The goal of the affordability study is to ensure that EE in the policy sphere will be synonymous with the issue of social safety nets; to compare EE as a provider of social safety nets to the more traditional approaches such as subsidies (social tariffs), and to incorporate the issues into the Athens process. The audience of the affordability study will include national governments, new partners (who will be attracted), NGOs, donors, investors.

31. As the saying goes, a rising tide lifts all boats. The motive behind the studies is to ensure that all boats are raised, including the poorer segments, whose needs have not been addressed sufficiently by EE efforts. The study will focus on multi-family buildings in urban

centres, identifying areas where most vulnerable households are located, and establishing whether these households are mixed among other social strata or are segregated. The study will identify who these marginalized individuals are, where they live, and how easy it is to reach them.

32. The affordability study is seeking to uncover the real-life examples of residential EE projects, the net financial gain or loss of households and governments that adopt EE measures. In analysing the benefits, costs and effects of EE projects and programmes, the study will investigate and draw conclusions on whether the EE programmes in Bulgaria, Romania, Poland, Albania, etc. target the vulnerable households, or whether such households are even included among the beneficiaries. The key question the study aims to answer is whether EE programmes can be a way to supplement the impact of social safety nets.

33. If unavailable in published literature, the data that may need to be collected will be on poor households. For example, some recent data from the development banks show that only 10 per cent of the region's population truly cannot afford utilities. The affordability study will verify if this is the case and delve deeper into understanding the lower income decile(s) of the population. In addition, the study will consider social compensation schemes for households with high affordability ratios (meaning that the percentage of overall household expenditure spent on utilities exceeds 15-25 per cent). The study will assess what percentage of municipal budgets is devoted to these compensations, and whether EE is a better user of those funds, or at least part of those funds.

34. The research approach and methodology will consist of collecting case studies of actual projects and, if available, tariff schemes that have targeted vulnerable households. A comparison of approaches that have been used will be conducted. A recently received REEEP grant will be used to conduct a workshop in early 2006.

35. The experts' role in this is to aid in filling the gaps in data and analysis, to engage influential decision-makers and partners, and to provide peer review. A draft of the study is requested by the end of the year, while the white papers should be submitted by October.

DISCUSSION SESSION

36. As far as the residential affordability study is concerned, USAID/MUNEE assumes that in order to help low income families, there needs to be an effective method of reaching the residential sector with EE improvements, for example through home owner associations (HOAs). But relative to a such method, Ira Birnbaum emphasized that other means should be used in the case of absence of HOAs within a particular country. (*Ira Birnbaum*)

37. Both studies will be carried out in parallel, because affordability is a key component of the heating study. Therefore, according to Bernard Jamet's point of view, an important link must be established because if we want to improve the DH system, it must be managed in a way that recovers cost. Particularly, Jamet stressed the issue of how one would support those who cannot afford market prices for energy and he wondered about the meaning of production costs. Perhaps it would also be wise to distinguish between the supports necessary for a centralized network versus a decentralized one. (*Bernard Jamet*)

38. Trond Dahlsveen was concerned about the real amount of data needed to come up with recommendations, and above all about their reliability. He considered that more general recommendations would be better than country-specific ones. (*Trond Dahlsveen*)

39. There will be two data sets: (1) income data and (2) EE data, with the former coming from the World Bank and other existing sources. The expertise of the Alliance consists of documenting residential EE experiences, impact of EE on bills, etc. (*Robert Archer*)

40. The study will evaluate the experiences of EE projects on a regional basis, identifying typical buildings and grouping these buildings into a set of construction types that can be analysed across countries. This will then be used for recommendations for sub-regions (e.g. South East Europe, Caucuses, etc.) (*Angela Morin Allen*)

41. There are a few countries where the government has made the effort to provide assistance to low-income populations. The exemplary countries are Albania and Romania. In those cases, USAID and the Alliance would like to persuade these countries to make it possible to use the assistance funds for EE, not simply for bill-paying. (*Ira Birnbaum*)

42. The heat study will aim at providing a menu of options, which have worked in given situations, including macroeconomic analysis. There will not be a lot of data-gathering involved as the World Bank, Global Environment Facility (GEF), IEA, etc. already have collected data. The study will attempt to blend the various data into a synthesized picture and identify gaps. There are Alliance staff in many of these countries who can readily get data in case any identified gaps need to be filled. (*Astghine Pasoyan*)

43. The studies aim at understanding the percentage of household income that is being spent on utility services; some of this information has been collected, although much remains to be done. (*Ira Birnbaum*)

44. The Bulgarian EE Center “EnEffect” [the organization headed by Mr. Genchev] did a study on low-income households and uncovered that the EE potential in these households is very low because they consume very little energy. Some have disconnected radiators, others have only one lamp; and where possible many have already improved their windows. The funds could therefore be used for other things, such as decreasing heating subsidies to municipalities so that the money could instead be directed to low-income households. This of course can only occur if all governmental officials are cooperating. This cooperation requires competent involvement by all relevant ministries. (*Zdravko Genchev*)

45. In Bulgaria, DH is a step ahead because the country requires all households to install thermal regulation valves (TRVs). (*Ira Birnbaum*)

46. Poland is full of solutions, which are applicable to other countries. One of these is the organization of multi-family housing based on modernization of housing to reduce heat losses, improve water, etc as opposed to subsidies. In this case, the premium from the government does not come until the project is completed. Details of this will be provided in Cherubin’s report. (*Witold Cherubin*)

C. Euro Heat & Power

Norela Constantinescu

47. Euro Heat & Power (EHP) is an association of associations, working to promote combined heat and power (CHP) and DH. The association has members in 32 countries. Several of the countries on the USAID/Alliance study are members of Euro Heat & Power, mainly in countries of the CIS.

48. The following references would be useful for the studies: *District Heating and Cooling, A Country by Country 2005 Survey*; projects financed by the EU such as EUROHEATCOOL, and the IEA study *Coming in from the Cold*, and others.

49. When considering the main goals that the USAID/Alliance study is trying to accomplish in regard to DH, it is important to concentrate on energy policy and legislative frameworks. A distinction needs to be made between the EU member countries, and those outside the EU. This is because the member countries have to meet certain criteria and in addition, have easier access to EU-based funds. DH assures heat load of the CHP units. DH is a heat supply option while emissions trading is an option that provides incentives through market-oriented mechanisms.

50. *District Heating and Cooling: Country by Country 2005 Survey – EHP*: The EU Commission for Energy gave priority to energy efficiency within the EU. There are two ways of assuring this – through security of supply, and through reduction of CO₂ by the use of renewable energy and DH, which is particularly important in Central Europe and should not be disregarded. The survey also looks at national legislative frameworks, renewable energy, and DH; tariffs, regulation and taxation.

51. *Competition aspects*: In Central Europe, DH competes with natural gas. In Hungary and Romania this is one of the main reasons why people disconnect from district heating. In Romania foreign companies own the natural gas services. This stimulates the households to consider market trends, service reliability, and environmental impacts seriously before disconnecting from DH.

52. The EUROHEATCOOL project identifies the lack of information regarding the DH and district cooling markets, and the lack of comparable data among countries. The project aims at analysing heating and cooling markets, assessing energy and environmental efficiency of different district energy schemes and at recommending policy strategies. So far, it has been concluded that end-use of electricity and heat per capita is low, and that as GDP will increase, even the end-use indicator will increase too. When countries with similar climates are assessed, there are very few evidenced differences. However, Denmark's energy use is significantly lower due to its building codes.

D. International Energy Agency

Robin Wiltshire

53. The IEA has committed a significant international effort to research of DH, which integrates technology and end users. Since large numbers of stakeholders are involved, it is difficult to measure progress on a macro level.

54. Heat demand density is fundamental for DH and district cooling. DH provides a stable long-term load, which contributes largely to energy security, as the type of fuel utilized is flexible. District heating and cooling help to address economic, environmental and social elements of sustainability.

55. The mission of the IEA is to provide high quality research and policy recommendations. The key goal is to concentrate on issues that are very relevant to Central European countries. In addition to its cooperative relationship with Euro Heat & Power, the IEA has done research that will be helpful for both USAID/Alliance studies.

56. For project selection, a competitive bidding process is used. A panel supports each project. The IEA functions on cost-sharing mechanisms, and has an executive committee with representatives from each country who meet twice a year to steer projects and ensure high quality outcomes. Membership enables a country to have direct influence over the research that IEA conducts.

57. A lot of work has been done regarding integration of cooling systems with district heating. The United Kingdom is a just a beginner as far as DH is concerned, and can learn from others. Also, decision-makers often overlook DH.

58. The IEA Secretariat initiated the recently published study *Coming in from the Cold*. BRE (the company Wiltshire represents) had produced a set of guides as part of a project of the EU on DH ownership, rehabilitation, modernization, and management. There are also case studies – that of Hungary is particularly relevant for the USAID/Alliance studies. This can be found on the IEA website.

E. Poland
Witold Cherubin

59. In 2001, the World Energy Council organized a workshop in Central Europe to provide an overview of DH and CHP in the accession countries at that time. It addressed the status of technical development and the status of ownership and restructuring of the sector. As a result of the workshop, the Neptune Declaration was assembled a year later. It addressed decision-makers regarding municipal policy and policy for DH companies.

60. Another declaration called the *Moscow Statement* portrays DH as one of most efficient and environmentally friendly forms of heat system, provided that the population has a high heat density. The *Statement* asked decision-makers to make DH a priority, and the regulators to assure equal treatment for all forms of heat. The *Statement* said that DH companies should be profitable with the pricing mechanisms established to reflect all costs. Incentives for investment should enable payback periods that attract investment, and issues related to low-income households and consumers require further attention.

F. Energy Charter Secretariat
Valya Peeva (in lieu of Tudor Constantinescu)

61. The Energy Charter encompasses a wide region throughout Central & Eastern Europe. Its work consists of studies, reviews, and policy advising. Two country analyses have been done.

One of the analyses assessed the municipal role in heating (DH and cogeneration), including building maintenance. It is now being edited, and is scheduled for release in the autumn.

62. In addition there are two case studies on the financial sector and energy efficiency in the development stage. The scope of the case studies encompassed residential energy efficiency, appliances, and affordability.

63. As far as the USAID/Alliance studies are concerned, the beginning could identify current problems instead of collecting data, since the research process would be easier if it was to query for existing problems. Also a clear distinction needs to be made between urban heating and DH. The studies will require a specific country-based approach. It is also necessary to make clear divisions in regard to what is meant by low-income households and vulnerable households. It is necessary to clearly state how the studies will be disseminated, and how the target groups will be reached.

64. Workshops and the MUNEE website are important ways to reach out to the audience for these studies, and interactive discussions will be established. MUNEE has an extensive network in the field, which will facilitate dissemination. In addition, there is the MUNEE newsletter, issued every two months, as well as a budget to publish the reports. (*Astghine Pasoyan*)

MODERATED DISCUSSION (based on sub-region)

G. Bulgaria

65. So far, EnEffect has formulated several suggestions based on the “questionnaire” (or rather, a list of questions) related to the urban heat study and the affordability study. The first one concerns clarification on what kind of studies these should be. EnEffect considers that it would be best to summarize what has been done in the field, and consequently to present a compendium of “practices” – both successes and failures, the so-called case studies referenced earlier in this discussion. EnEffect suggests that the result should be a relatively short text describing the main conclusions of studies which have been done, in addition to a good collection of practices that address the various scenarios. The examples can be presented by scenario.

66. Concerning data, there probably are not many accessible databanks because companies consider the information proprietary. In addition, some data are scattered and have not yet been compiled. Data collection is expensive and there is not much time; the need for data is small in this case. Another important issue to consider is that it is difficult to compare different DH companies because DH differs by fuels, ownership, size, and clear answers are difficult if not impossible to obtain from such comparisons.

67. EnEffect will organize a brainstorming session with specialists from Ministries, DH companies, universities, and other relevant parties within Bulgaria as EnEffect is unable to fully answer all the questions on its own. This will be done so as to ensure that they provide the best possible answers. However, several clarifications are desired regarding South East Europe. It is necessary to say which countries will be included, and how it will be organized financially. (*Zdravko Genchev*)

68. EnEffect and the rest of the experts did not receive a questionnaire but a set of questions to structure today's discussion. A more formal questionnaire will follow later and will be based on input from the Experts Advisory WG. (*Astghine Pasoyan*)

H. Romania

69. The two studies are complicated because the situation relating DH in Romania is changing fast. This is because data, which were collected two years ago and published last year, are now outdated due to the many changes which have taken place since then. There is now an energy efficiency law; the recommendations published in a study last year have already been implemented with respect to heat supply and DH. To have quality data it will therefore be necessary to collect it again. (*Marian Dobrin*; noted he was not speaking for his organization)

I. Albania

70. Although Mr. Hido had expressed an interest in working on the studies, there is no DH in Albania as everything is shutting down due to outdated technologies. However, the new Energy Strategy emphasizes CHP, and will hopefully be implemented in the near future. There are, however, some data on low-income households. Nonetheless, it might not be a good representation of the current situation. (*Edmondo Hido*)

UNEP/Independent Consultant

71. Jamet suggested that while creating the structure of the studies, USAID and the Alliance should try to consider how these would be disseminated so that the EU can be included in the activities of mutual interest. Activities, to avoid overlap with UNDP, include prioritizing policies and technical analysis, and identifying commercial opportunities. (*Bernard Jamet*)

CONCLUSIONS AND SUMMARY

72. The target audience of the studies consists of national governments and international financial institutions (IFIs). It is now clear that USAID and the Alliance need to restate the emphasis of both studies. USAID and the Alliance now understand that the data collection process can be complicated because of changes and different statistics. Existing data will therefore be used where available, but new collection will be done in order to fill the gaps.

73. As far as the methodology is concerned, USAID and the Alliance will take into account the need to focus more on policy analysis and energy management. The suggestion to use macroeconomic indicators is a good one. The way subsidies are being addressed today certainly distorts the market towards the DH customers, excluding many from the social safety net. A compendium of good practices will be collected.

74. As regards distinguishing between urban and DH heating, the study concentrates on Urban Heating, and is thus entitled the Urban Heat Study. The Alliance should be informed of any relevant events which will be ongoing during the timeframe for these studies. This includes events and meetings of the Energy Charter Secretariat, Euro Heat & Power, etc. The Alliance would like to coordinate its future Experts Advisory WG meetings with those meetings in order to facilitate collection of input at minimal cost. (*Astghine Pasoyan*)

75. In addition to the ability to reach critical audiences, the experts have a lot to offer in terms of inputs. USAID and the Alliance look forward to everyone's continued participation in the process. (*Ira Birnbaum*)

76. The next steps are to include the comments and finalize the outlines. Questionnaires will be sent for feedback. Those who have extensive writing to do should start. MUNEE will collect together a list of possible events which could be used in a similar way to the EE21 meetings now taking place, and will determine which have wider priorities for a larger group. (*Astghine Pasoyan*)

77. Mr. Genchev ended by pointing out two important events: Meeting of financial experts on 1-2 December 2005, and the BISE Forum in Sofia in October.
