Response to the call for input in relation to the *call for public inputs on the draft revised "Guidelines on the assessment of investment analysis"* as launched by the CDM Executive Board, at its fifty-eighth meeting, as available from http://cdm.unfccc.int/public_inputs/2010/guid_inv/index.html

General considerations:

The CDM today is the only global flexible mechanism which supports developing countries in establishing clean and sustainable infrastructure instead of more GHG intensive business as usual solutions. As such, the CDM is important to counter the observed GHG intensive development trajectory in the short term and also to lay the foundation for broader and more effective future mechanisms with the insertion of developing countries in the international carbon market. The environmental integrity of the CDM and its effectiveness to seize cost effective GHG mitigation opportunities in all countries and sectors and to support developing countries in their attempt to assure that their fast development can be achieved in sustainable manner are key foundations that have to be safeguarded. Consequently, the additionality of the GHG emission reductions generated by CDM projects and their contribution to sustainable development are key principles that must be equally valued.

Sustainable GHG mitigating technologies and clean long term infrastructure in general are often more capital intensive and require higher investments in auxiliary infrastructure. Key example are renewable energy generation capacities which are more capital intensive than fossil fueled power plants, require higher investments in transmission grids and imply higher exposure to intermitting natural resources and related energy supply risks.

Moreover, the current practice to confront a project's financial performance with a sector benchmark in order to determine its financial attractiveness is based on the financial premise that financial markets are efficient, that no capital constraints apply and that all projects that earn returns above their cost of capital will be readily financed by the capital markets. Though this is a valuable concept and foundation of the financial theory we have to recognize its limitations, i.e. the fact the cited premises are not fulfilled. In fact, capital rationing is a broad reality and capital markets are not fully efficient, especially in developing countries. This situation worsened after the recent financial crisis which made obtaining financing from equity or dept investors more difficult, especially for innovative and large capital intensive infrastructure projects which require long term financing.

Based on these general considerations we attribute high importance to Decision 2 of CMP 5 which requires the Executive Board to carry out "further work [...] on the enhancement of objectivity and transparency in the approaches for the demonstration and assessment of additionality and the selection of the baseline scenario by means of [...] further development of guidelines for demonstration and assessment of barriers and of standardized methods to calculate financial parameters."

In this context, it is most important that the requirements and guidelines for investment analysis and additionality discussion in general allow an efficient and transparent demonstration of the projects additionality based on sound financial practice as well as economic and sector specific data and references. Moreover, enough judgment and flexibility must be offered to compensate for the limitations of financial theory, as well as to capture project specific circumstances and features, such as local regulation, size, and capital market circumstances.

Base on this general understanding, we would like to offer the following considerations and recommendations in response to the call for input, while we believe that the discussion on additionality demonstration should be further promoted to develop rules that allow for utmost transparency and efficiency and therefore effectiveness of the CDM to deliver its objectives.

Specific Considerations in respect to the proposed guidelines:

The revised Guidelines propose default values for the return on equity with respect to groups of sectors and countries. Though we believe that a better definition of the rationale for defining financial benchmarks in general would be of help, the numbers proposed seem to conflict with established financial theory and the rules defined by the same guidelines and the currently valid Additionality tool:

1) **Lack of transparency:** The lack of a clear reference about the source, nature and temporary applicability of the risk premiums proposed does not allow adequate judgment and discussion. In our view the CDM rules and principles itself require a higher level of transparency for the definition of such important variables. Therefore, more transparency in the identification of the financial methodologies, estimation methods, and data sources applied in the calculation of the proposed default values for the expected return on equity and a step-by-step description on how these values were derived would be recommended not only to allow project developers and financial institutions to provide more detailed inputs but also to promote sound discussion and knowledge about financial theory among all stakeholders of the CDM process. The required transparency shall also include a clear quantification of the risk premiums applied for each host country and sectoral scope (as defined in Appendix A). It would also be recommended to include a proposal for calculating "nominal"

values from “real” values without inflation by the incorporation of the relevant inflation levels.

2) **Lack of specificity of the benchmarks:** The fact that generic rates of return are defined for whole sectors conflicts with the principle that the rate of return must be specific to a project in question. Financial references show that the returns required from investment in innovative technologies such as wind, tidal, new-generation biofuels and geothermal or projects that undergo important construction or operational risks are different from average rates required by generic activities in the power generation and distribution business. To treat these technologies as equivalent will penalize most the innovative and small scale projects for which capital markets require higher returns to compensate for increased exposure to systemic risk than traditional large scale investments in standard thermal power plants or energy transmission. It is also inaccurate to consider that investments in power generation are subject to the same risks as investments in power distribution without a further analysis of the specific industrial environment and regulatory structure, as the Annex A seems to propose, or even that investments in the same sub-group as defined in Appendix A are subject to the same risks just by their inclusion in such sub-group regardless of any other consideration.

3) Lack of pricing of specific risks: Depending on the specificities of a CDM project such as size, exposure to currency fluctuations, specific regulatory risks , liquidity of the assets and access to efficient financial markets, the financial theory applies specific risk premiums that are not being observed by the proposed tool. The use of such risk premiums is widely used in the financial theory and referenced by applicable literature and therefore shall be observed for the derivation of financial benchmarks.

4) **Temporary applicability:** The proposed default values should consider a temporal dimension. For example, the country risk premium may vary considerably during time and the values published are not compatible with investment decisions that have been taken in the past. This is of special relevance as the financial crisis caused important volatilities during the years 2008 and 2009, when many projects that are currently under validation have decided their investment. The definition of static and compulsory equity benchmarks based on assumptions and references that are not compatible to the time of the investment decision would pose a major problem and infringe the principles of the CDM. In addition, to avoid arbitrary decisions, the application of any set of benchmark default values should identify clearly the proposed procedure and timing for their review.

5) **Lack of sensitivity to specific financial arrangements:** According to the CAPM, the return on equity is a function of the degree or financial gearing of a project or company because the increasing participation of third party financing

increases the equity investor's risk. The generic values proposed ignore this important fact of the financial theory.

6) **Lack of consistency:** The returns suggested for countries with notorious investment risk such as Afghanistan and Bolivia are only marginally above those of other countries with much better investment climate. The lack of transparency of access to sources, nature and temporary applicability of the default benchmarks makes it impossible to understand such differences and to judge the consistency of the values used. Also, a comparison with the benchmarks used by registered CDM projects in the past as documented the "IGES CDM investment Analysis Database"[1] shows that the values proposed are often not compatible with those used and approved in the past.

7) **Ambiguity:** The draft Guideline, as well as the valid additionality tool, maintains and defines different options for the definition of benchmarks and at the same time seems to require the compulsory use of the values contained. This uncertainty tends to complicate the validation process and generates unnecessary doubts that would only result in validation delays and an increasing number of requests for clarifications and questioning to both the secretariat and EB members. Moreover, it does not seem reasonable to classify the values proposed as standard market parameters as the rationale of their definition is not common practice in finance. On the contrary, the CAPM and its amended versions (such as the extended CAPM) are methods used by many regulators (eg.: in Brazil where this model is adopted for defining a benchmark for distribution companies by ANEEL) as well as the investor and financial sector and it allows to treat adequately the problems presented above.

Recommendations

We encourage the revision and complementation of the guidelines to achieve higher transparency and efficiency, as well as less ambiguity, and the principles of standard financial practice shall be safeguarded as fundamental for such a revision. Based on these premises, the current draft proposal does not solve the existing shortcomings and introduces some new difficulties. We respectfully submit the following recommendations which we believe to contribute to the discussion.

General Recommendations:

1. The definition of general default values that define the minimum return that can be expected from generic investments in specific sectors is welcomed, providing that they are based on transparent and accurate financial methodologies and estimation methods, and on prestigious and referenced financial sources and data

[1] Available from http://enviroscope.iges.or.jp/modules/envirolib/upload/2593/attach/iges_cdm_ia_db_en.zip

providers which allow replicating and judging the values and their underlying variables and references. Moreover, given their default and generic nature their use shall not be mandatory. They should represent a minimum default value to be applied without further justification if no other well founded benchmark is presented or available. This definition of default value is in line with the default values used by the IPCC or in general management and science.

2. The definition of the default values or their underlying principles shall assure that they can be used or adapted for investment decisions at any specific moment in the past or future, i.e. the variables need to be established in time series or their adaptation for specific investment decision dates shall be possible. Also, the application of any set of default values should identify clearly the proposed procedure and timing for their review.

3. Rather than defining and publishing discrete default values that have to be updated and revised, it might make sense to defined specific components and specific sources for risk factors, as e.g. the Ibbotson Cost of Capital Yearbook, yearly edition, available from www.Ibbotson.com

4. The use of such default values should be optional to any kind of investment projects, regardless if they are accessible to one specific or to any investor possible.

5. Regardless of the default values established, the project proponents shall be encouraged but not required to propose a project specific benchmark that would capture the project's specific risk profile. If such project specific benchmarks are proposed, the DOE shall validate their applicability, but not require the use of the default values on the basis of the conservativeness as this would lead to undue distortions.

<u>Recommendations for the definition of guidance for the establishment of project specific benchmarks:</u>

6. In complementation to the default values, the guidelines should maintain, though further clarify and detail the use of the existing options for the definition of benchmarks as defined by the "Tool for the demonstration and assessment of additionality" (Version 05.2) as this would provide the project proponent with enough options and flexibility to capture the projects unique risk profile in an appropriate benchmark, while retaining at the same time the required level of transparency and accuracy in the application of the CDM rules..

7. The use of "Government/official approved benchmark where such benchmarks are used for investment decisions", as well as "expert opinions" and "Estimates

of the cost of financing and required return on capital based on bankers views and private equity investors/funds" have proven to be valuable options to reference appropriate investment benchmarks and should be maintained.

8. The most versatile and universal option available is to define benchmarks based on "Government bond rates, increased by a suitable risk premium to reflect private investment and/or the project type", but further guidance should be provided to define criteria for the selection of appropriate sources of data, calculation methods, and financial methodologies, based on parameters that are standard in the market and relevant to the project type, project size and host country. Such criteria shall be based on state of the art financial practice and prestigious references.

9. The financial theory offers a set of established methods for the definition of project specific investment benchmarks, which should be available to the project proponents. Among these, the so called "Build up Model" and the extended CAPM, as explained and detailed by Shannon[2] (Chapter 8 and 9 respectively) or by Ibbotson & Associates[3], are the most common, transparent, and intuitive tools to capture the different risk dimensions of different projects types and sizes to be developed in emerging countries and under different regulations. Moreover, most of the variables and parameters used by these tools are available from official and prestigious data sources that are standard in the market.

10. The expanded CAPM, which allows to define the cost of capital for investments in developing countries on the basis for the cost of capital in developed and established financial markets such as the United States and to capture project specific risks relate do country, size or other specific liquidity and business risks had already been used by projects that were registered under the CDM, as for example in http://cdm.unfccc.int/Projects/DB/SGS-UKL1232378419.68/view. We recommend to build on these positive experience

<u>Recommendations for the definition of guidance for the establishment of benchmarks for company internal projects, i.e. projects that are only available to one specific investor:</u>

11. Company internal projects which cannot be developed by any other investor should not be restricted to the use of own company internal benchmarks, but

[2] Cost of Capital: Estimation and Applications, 2nd edition and accompanying workbook by Shannon P. Pratt. 2002, John Wiley & Sons, Inc. Publisher, available from: http://up.m-e-c.biz/up/Mohcine/Book/Cost%20of%20Capital%20Estimation%20and%20Applications.pdf

[3] Ibbotson & Associates, "Stocks, Bonds, Bills and Inflation, 2007 Yearbook (Valuation Edition)"

have the option to use the default values to be established, as well as the options to define general project specific market benchmarks as discussed above. This shall facilitate the use of investment analysis for the demonstration of financial additionality to companies that do not have a history an established history of using benchmarks for investment approvals or that do not commonly engage in the specific project type under discussion. This is further justified on the basis of the financial principle that "The company cost of capital is not the correct discount rate if the new projects are more or less risky than the firm's existing business. Each project should in principle be evaluated at its own opportunity cost of capital" (Brealey−Meyers, 2003, page 2224). This financial premise can be understood based on the consideration that the opportunity cost of investing into a specific project type is defined by the capital market, i.e. the return financial expected by the average investor from a specific project type, given its specific risk profile. Now as an internal investor always has access to external projects it is reasonable to assume that the external benchmark defined as discussed above also represents his minimum opportunity cost.

12. In addition to the principles above, the internal investor might have capital constraints that lead him to apply higher benchmarks for his investment decisions and in this case the existing regulation that allow him to demonstrate his internal investment criteria based on previous investment decisions offer and important additional criteria.

We hope that we were able to contribute to the discussion and keep ourselves available for further interactions on this important topic.

With kind regards**,**

Econergy Team

[4] **Brealey−Meyers**: Principles of Corporate. Finance, **Seventh Edition**, The McGraw−Hill Companies, 2003, available from http://up.m-e-c.biz/up/books/Corporate%20Finance%20Brealey-Meyers.7th.Edition.pdf

Annex 3: Unsolicited letter to EB 53 on Input regarding annotated agenda EB53

The document referenced above has been included in the submitted zip file and can also be located on the Project Developer Forum website at http://www.pd-forum.net/files/9da9be23f4937fba5da1c881dfab5758.pdf