

Scaling Up Energy Efficiency under the CDM Do we Need a "Plan B"?

About 50 delegates attended this official UNFCCC Side Event, which took place at the Grand Hyatt Nusa Dua (Bali, Indonesia) on Friday, 7 December 2007 from 13:00 - 15:00. The event took up issues raised at the CSEND COP12 Side Event "Energy Efficiency – With or Without the CDM", in particular, the types of policies, frameworks and partnerships that will be needed to scale up investment in end-use efficiency in the post-2012 framework.

Moderator (and event organizer) **Anne Arquit Niederberger** (Policy Solutions), introduced the subject matter, stating that "facilitating the widespread uptake of existing, high-efficiency technologies must be a cornerstone of climate mitigation going forward", because it:

- can be implemented rapidly
- is cost-effective (often "no regret", with short payback periods)
- represents vast potential – largest contribution to mitigation in coming decades
- has important sustainability co-benefits

She indicated that the CDM Executive Board has taken several actions that could make it easier to leverage carbon finance for investment in end-use energy efficiency:

- EB 32 decision to look into ways to facilitate the registration of end-use efficiency projects and mandate to the secretariat to initiate and expedite this work
- Adoption of rules for CDM Programs of Activities (PoA)

However, she also said that "CDM alone cannot address all of the barriers to end-use efficiency. We are still only scratching the surface. We know this, because there remains in all countries significant 'no regrets' abatement potential".



Panelists (L to R)
Hans Jürgen Stehr,
Sandro Santamato and
Dick Hosier (not
pictured: Grant
Kirkman), together
with **moderator** Anne
Arquit Niederberger
after the Side Event
session.

Hans Jürgen Stehr (outgoing Chairman of the CDM Executive Board / Visiting Fellow, International Center for Business and Politics, Copenhagen Business School) and **Grant Kirkman** (UNFCCC Secretariat, Team Leader – CDM Methodologies) outlined status, issues and opportunities for end-use efficiency under the CDM. The Executive Board has noted that energy efficiency currently accounts for only a small fraction of

projects in the CDM pipeline, with no registered demand-side projects – and the Board is exploring possibilities for creating an environment that would better enable the provision of qualified energy efficiency projects and programs under CDM. PoA is one innovation, but there are still many challenges, including:

- Increasing the number of approved methodologies for demand side (end use) energy efficiency in the industrial, commercial, residential and services sectors
- Measuring energy savings and concomitant GHG reductions with adequate accuracy and precision, given the number of independent factors that may affect energy consumption that are not related to energy efficiency improvements (e.g., weather, energy prices, operation and maintenance practices)
- Setting boundaries for the analysis
- Equipment lifetime for retrofit, replacement and new construction projects
- Establishing appropriate baseline scenarios that account for historical usage, changes in operation, technology degradation and naturally occurring conservation and changes in system characteristics
- Free-ridership and measurement uncertainty
- Changes in system characteristics
- Balancing the convenience of using ex ante measurements against increased accuracy and transaction costs associated with ex post measurement

At the request of the EB at its 32nd session, the Secretariat is building up its internal expertise on end-use efficiency CDM and has commissioned several consultant studies, which are currently undergoing internal review. These studies include a review of selected EE programs to provide a summary of key good practices with respect to quantification of energy savings and an analysis of how key issues, such as free riders, gross-to-net adjustment, rebound effects, and suppressed demand in EE programs are addressed to ensure real reductions in energy consumption. Mr. Kirkman also noted that the secretariat is actively working with other competent institutions, such as participating in the new “Energy Efficiency & Carbon Finance Expert Group” launched at a Side Event in Bali on 6 December 2007.

Members of the audience posed several questions about methodologies and procedures, and it was pointed out that DNAs don't have the capacity necessary to understand complex methodologies, which makes them reliant on expensive consultants. Stehr recognized this capacity gap, but questioned whether capacity building was the task of the CDM Executive Board.

Participants then heard from **Dick Hosier** (Team Leader, Climate and Chemicals, Global Environment Facility) about GEF assistance for market transformation to scale up energy efficiency. Within the GEF climate change portfolio, the energy efficiency program has had the greatest mitigation impact in terms of kWh saved and CO₂ avoided. The emphasis has been on barrier removal to pave the way for greater investment, which has been more challenging for energy efficiency than for renewable energy. Mr. Hosier described three GEF activities¹:

- the highly-successful China Energy Efficient Refrigerator program, which involved a package of market push and pull activities (including training for refrigerator manufacturers, development of efficiency standards & labels and financial incentives) – and which will result in lifetime savings of 170 million tons of CO₂ for refrigerators produced through 2005
- numerous projects to introduce standards and labels for refrigerators and other electrical appliances in countries/regions around the globe

¹ See www.thegef.org

- global program to phase-out incandescent lamps, which is a new role for the GEF (focus on mature technology) and might benefit from closer coordination with carbon markets, since GEF does not have resources for financial incentives

Mr. Hosier indicated that there is greater scope for GEF and carbon offset regimes to collaborate and reinforce each other, possibilities for programmatic cooperation and technological or sector-specific approaches.

Questions were posed on how to finance the necessary investment in energy efficiency on a massive scale, the practical implications of a firewall between GEF and CDM and the GEF justification for energy efficiency, when incremental costs might be negative.

Finally, **Sandro Santamato** (European Commission DG TREN, Head – Economic Analysis, Impact Assessment, Evaluation & Climate Change) outlined the EU Energy Efficiency Action Plan adopted in October 2006², which sets out 75 actions in 6 areas (dynamic energy performance requirements for energy-using products, buildings and energy services; improving energy transformation; transport; financing energy efficiency, economic incentives and energy pricing; changing energy behavior; international partnerships) to achieve a 20% savings in the EU’s annual primary energy consumption by 2020. In the area of international partnerships, the EU Commission proposed in September 2007 a “Platform for International Cooperation on Energy Efficiency”, which would provide a new global forum to achieve effective policy input, to facilitate discussion between the political and experts level on energy efficiency and to coordinate cooperation among key initiatives, organisations, partnerships, financial institutions, industry, and other stakeholders in order to:

- secure a clear picture of international action on energy efficiency
- take a strategic view across this activity
- identify gaps and help avoid duplication of efforts
- identify the most appropriate bodies/partnerships to take forward individual sectoral issues and actions internationally under its auspices.

Bilateral discussions with Gleneagles Dialogue countries and a multilateral meeting to discuss the proposal will pave the way for the signing of the Declaration to establish the Platform in Chiba, Japan in 2008 under its G8/G20 presidency.

The **open discussion** on scaling up energy efficiency under the UNFCCC/KP focused on how to design the post-2012 regime in such a way that it tackles the fundamental barriers to end-use energy efficiency. “In my opinion,” said Anne Arquit Niederberger, “the Kyoto round of talks failed to do that – and we cannot afford to overlook concrete action on end-use efficiency this time around.” Participants briefly discussed the emergence of white certificate schemes in several European countries/regions and US States, as well as the complexity and challenge of linking cap-and-trade schemes, renewable portfolio standards and white tags.

In her concluding remarks, **Anne Arquit Niederberger** described market transformation as making best available technology the “business-as-usual” choice for end-users – as well as stimulating manufacturers to continuously innovate to raise the bar rapidly over time. A multi-pronged approach to change the behavior of manufacturers, distributors, retailers, end-users, including the following elements, is needed:

- Policy frameworks
- Human capacity
- Incentives

² See http://ec.europa.eu/energy/action_plan_energy_efficiency/index_en.htm

- Appropriate funding mechanisms
- International cooperation & harmonization

The moderator left participants with some ideas to consider, including the need for:

- International implementation partnerships
- Results-oriented “efficiency roadmaps” for key sectors, based on barrier analysis and specification of barrier removal options and strategies
- National Energy Efficiency Plans of Action

The event closed with a round of applause to thank both the panelists and the audience for their active participation. It is the intent of CSEND and Policy Solutions to continue this Side Event series next year, and inputs and cooperation are welcome.

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