SB 22 Side Event

Future CDM

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Baseline methodologies for energy efficiency improvements: current status and ways forward

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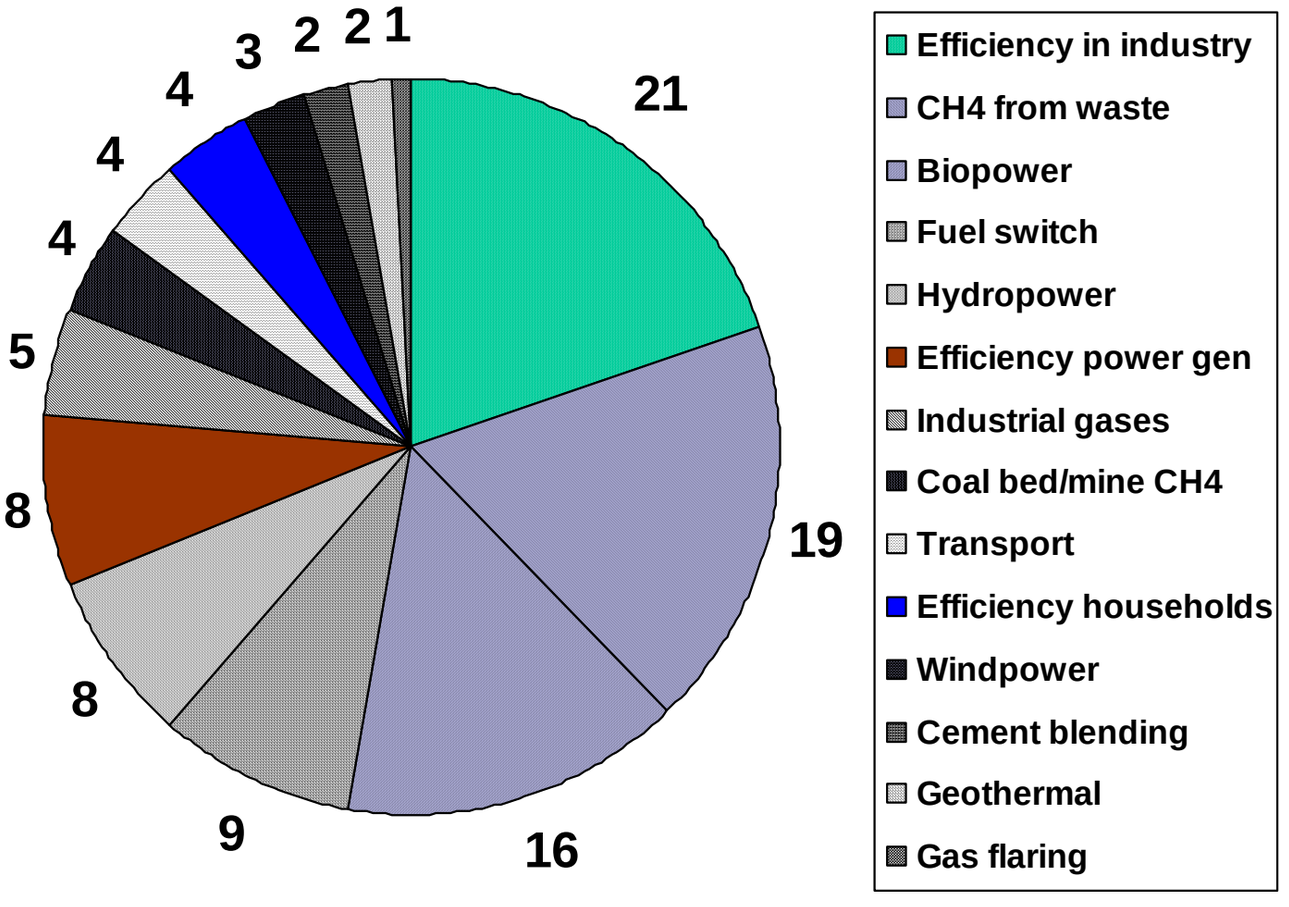
Structure

- EB-defined small-scale methodologies for energy efficiency
- Status of methodology approval for large-scale energy efficiency improvement
  - Submission types
  - Approved methods and their characteristics
- Ways forward
- Draft workplan of consolidation work group in Future CDM project

Small scale energy efficiency methodology status

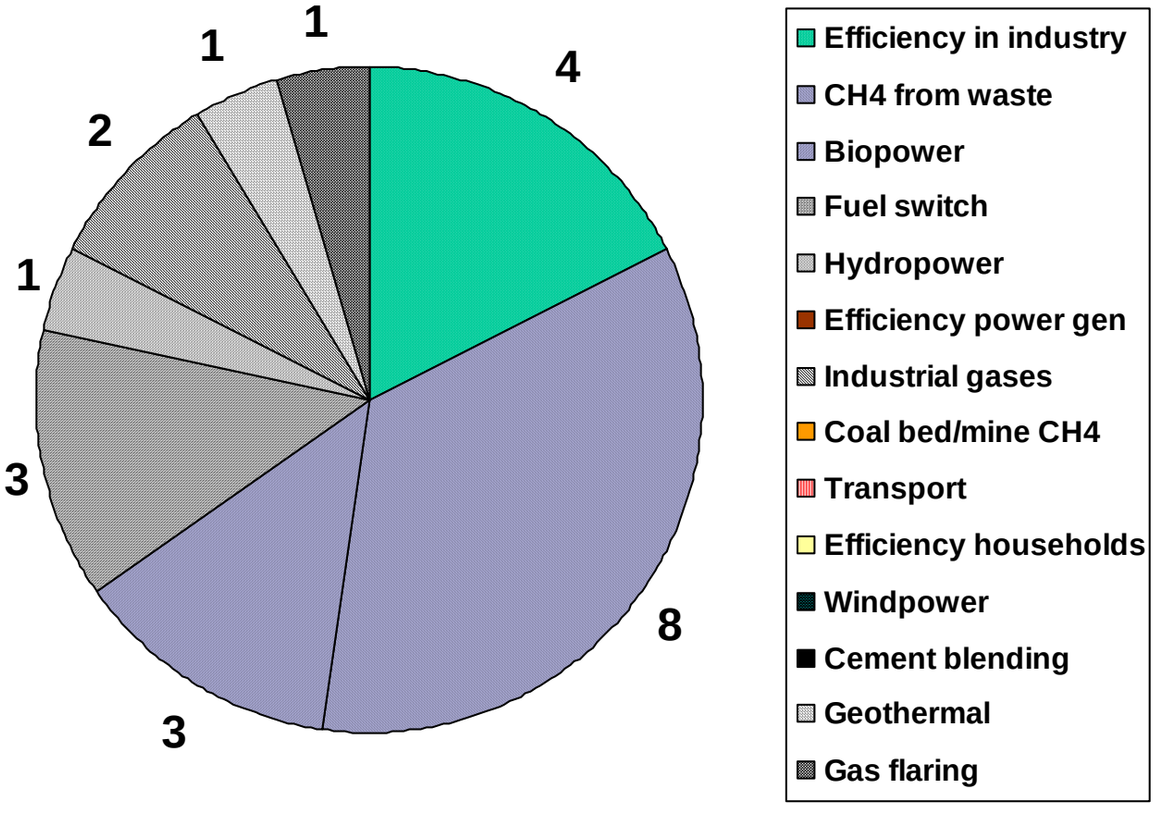
- Small scale methodologies are available
  - Typology of energy efficiency projects (5 categories)
  - Differentiation retrofit/new equipment
    - No definition of "equipment that would have been installed otherwise": key question open!
  - Monitoring through sampling
  - No discussion of control group or remaining lifetime of equipment
- Application limited
  - Only 2 projects submitted so far, none for industrial EE

Submitted baseline methodologies



Multiple methodologies for same project type

Approved baseline methodologies



EE lagging behind!

Approved EE methodologies

- Steam system improvement in refineries
  - Control group approach
    - 5 plants of same or lower age
- Gas-based cogeneration, modified CO_2 removal system of ammonia plant, water pumping
  - Historical emissions
- Heat recovery-based captive power
  - Almost accepted. Electricity grid average
- Recent submissions tend to combine consolidated additionality test with the consolidated renewable electricity methodology. Problems include:
  - Project boundaries are not clearly defined
  - No control group
  - Often no clear differentiation between retrofit and new capacity

Generation efficiency

- Gas power plant single cycle – combined cycle (Bolivia, Ghana)
  - Historical emissions, combined margin
- Gas power plant: new combined cycle (Akhakol, India)
  - Combined margin: operating margin 10% worst performers
- No decision taken so far but unlikely to pass
- No submissions done for efficiency improvements of existing / planned coal-fired power plants
- Control group approach could play an important role

DSM households

- Andijan District Heating Project (Uzbekistan)
  - Rejected due to data problems and issue of suppressed demand/rebound effect
- Energy Efficiency Improvements-Hou Ma District Heating, Shanxi Province (China): not assessed
  - Historical emissions
- Mandatory Energy-Efficiency Standard for Room Air Conditioners (Ghana)
  - Interesting: policy!
  - Sampling of current AC efficiency
- Kuyasa housing (South Africa, SouthSouthNorth)
  - Attempt to define sufficient energy service level

Policies and the baseline

- Policies that lead to emissions (e.g. fossil fuel subsidies) can only be taken into account in the baseline if adopted before 11 December 1997
- Policies that support emission-reducing technologies (e.g. renewables subsidies) adopted after 11 November 2001 need not be taken into account in the baseline
- It is unclear how this rule impacts on the additionality test
  - Will subsidies not be counted in the context of the investment analysis to determine whether a project would have been implemented anyway?

Large methodology status

- **Many submissions for EE methodologies**
  - **Currently largest category**
  - **But lag in dealing with them**
- **No consolidation of large methodologies in sight**
  - **Some tendency to combine consolidated add. test with renewable electricity meth.**
  - **No consistent retrofit vs. new capacity**
- **Consolidated additionality test is challenge for project development**
- **Decision on treatment of policies remains to be operationalized**

Ways forward

- **Define characteristics of suitable control groups and monitoring samples for household DSM to address issue of remaining lifetime of equipment and rebound effect**
  - **Policy decision should be taken to neglect rebound effect as it embodies the "development" component of the CDM**
- **As control groups may not be available for industrial sector due to competitiveness reasons, define standard lifetimes for key equipment classes**
  - **Disaggregation at regional level?**

Ways forward II

- **Define standard payback periods for different classes of equipment to facilitate additionality test**
- **Define efficiency benchmarks for different equipment types and skip additionality test**
  - **Suffers from adverse selection problems**
  - **Trade off between aggregation and degree of adverse selection**
- **Allow policy as CDM "project"as long as it can be monitored and fulfils the payback criteria**
  - **But: policies shift CER rents to politicians!**

Workplan

- **WP 1: Lessons of small-scale project EE methodologies for large-scale methodologies**
  - **June 2005**
- **WP 2: Evaluation of large-scale EE methodology proposals submitted to the EB**
  - **June 2005**
- **Workpackage 3: Development of priority list of EE methodologies**
  - **Based on overall potential of the underlying project types (cost, replicability, sustainability benefits) in CDM host countries**
  - **July 2005**

Workplan II

- **WP 4: Development of three methodologies for the most promising project types**
  - **July-September 2005**
- **WP 5: Development of dummy PDDs for each methodology unless real projects are available**
  - **September-October 2005**
- **WP 6: Submit methodologies/PDDs to EB**
  - **October-December 2005**
- **WP 8: Development of a consolidated methodology**
  - **January-March 2006**

Thank you!

Further information:

www.hwwa.de/climate.htm

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