Linking renewables promotion policies with international carbon trading

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Scoping Study “Linking RE Promotion Policies with International Carbon Trade”

- Commissioned by IEA - Renewable Energy Technology Deployment

IEA - RENEWABLE ENERGY TECHNOLOGY DEPLOYMENT

- Study carried out by a consortium of University of Zurich, Perspectives GmbH, Point Carbon

- Presentation based on content by Axel Michaelowa, University of Zurich and Perspectives (with permission)
Background

The mission of RETD is to accelerate the large-scale deployment of renewable energies

RETD stands for “Renewable Energy Technology Deployment”.

RETD is a policy-focused, technology cross-cutting platform that brings together the experience and best practices of some of the world’s leading countries in renewable energy with the expertise of renowned consulting firms and academia.

- Created in 2005, RETD is an Implementing Agreement that functions under the legal framework of the International Energy Agency.
- Currently 10 countries are members of the RETD: Canada, Denmark, France, Germany, Ireland, Italy, Japan, the Netherlands, Norway and the United Kingdom.
- RETD commissions annually 5-7 studies. The reports and handbooks are publicly and freely available on the RETD’s website at www.iea-retd.org.
- In addition, RETD organizes at least two workshops per year and presents at national and international events.
Key elements of study

How can renewables promotion policies and the Clean Development Mechanism/Joint Implementation be linked?

- **Barriers** to renewables promotion under the CDM/JI
- How to remove these barriers / **link** CDM with RE policies?
- Policy **recommendations**
Barriers to RE Promotion under CDM/JI

- Financial barriers
  - Revenues from credits cover only part of the cost gap to fossil fuels; combination with RE policies or other instruments needed
  - Ex-post crediting leads to problems to cover high upfront costs of CDM project development and investment

- Technical barriers
  - Data to calculate the emissions baseline are only available in a limited number of countries; data collection is costly
  - High monitoring costs in case of dispersed RE in rural areas
  - No credits for suppressed demand (case of poor households consuming no fossil fuels / little unsustainable biomass because of budget constraint)
Barriers to RE Promotion under CDM/JI

- Regulatory barriers
  
  - Uncertainty regarding “additionality”; especially related to the E+/E- rule, which rewards developing countries for E- (climate-friendly) policies and punishes them for E+ (non-climate friendly) policies
    
    • Uncertainty 1: some CDM projects are rejected if host country decreases the RE feed-in-tariff
    
    • Uncertainty 2: Unclear if non-price-based renewable promotion policies such as renewables portfolio standards are also to be seen E- policies.

  - Liability for verifiers of CDM Programme of Activites (PoAs), a promising tool to bundle small RE installation

  - Uncertainty regarding post-2012 CDM demand (linked to political decisions)
Removing barriers for RE in the carbon market

- Addressing financial barriers
  - Increased focus on CDM Programmes of Activity (PoAs); reduces transaction costs
  - Combining the CDM with (other) NAMAs
    - Optimizing the mix of unilateral, supported and credited NAMAs
    - Electricity feed-in tariffs as supported and/or credited NAMAs
    - Other policy instruments as supported and/or credited NAMAs
  - High long-term carbon price as driver of RE projects
Removing barriers for RE in the carbon market

Combing CDM/JI with NAMAs

<table>
<thead>
<tr>
<th>Cost gap</th>
<th>CDM/JI/Sectoral (credited part of NAMA)</th>
<th>Internat. Subsidy (supported part of NAMA)</th>
<th>Domestic subsidy (domestic part of NAMA)</th>
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<tbody>
<tr>
<td>• E.g. 4 cents/ kWh between coal and wind electricity</td>
<td>• 1 cent / kWh</td>
<td>• 1 cent / kWh</td>
<td>• 2 cents / kWh</td>
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Removing barriers for RE in the carbon market

- Addressing technical barriers
  - Increased focus on CDM Programmes of Activity (PoAs); reduces monitoring costs
  - Default grid emission factors
  - Default emission factors per installation

- Addressing regulatory barriers
  - Clarification of the E+/E- rule
  - Country- or region-specific positive lists for additionality determination
  - Reformed rules for PoAs (liability of verifiers)
  - Use new market mechanisms or (credited) NAMAs instead of CDM
  - Global emissions trading instead of CDM (targets in non-Annex 1)
Policy recommendations

Roadmap for RE in the carbon market (developing Countries)

- CDM: Standardization and clarification E+/E-
- Increased use of CDM PoAs
- (ambitious) emission reduction targets
- Sectoral crediting
- Sect./nat. ETS
- Nationally Appropriate Mitigation Actions
- National RE policies, internat. supported

2012
2015
2020
Policy recommendations

Short-term measures (next 2-3 years)

- **Standardize** baseline and monitoring methodologies
  - Introduce default factors (e.g. electricity grid CO₂ emissions)
  - Use positive lists (e.g. all solar power < 10 MW are automatically “additional”)

- **Solve the liability problem** to increase the use of CDM POAs
  - Liability could be shifted from verifier to project developer
  - => e.g. RE roll-out plan: e.g. Country X registers a small hydro PoA and finances part of the roll-out plan with PoAs (low risks once PoA is registered)

- **Clarify** the additionality of CDM/JI projects in relation to the presence of domestic RE support policies (E+/E- rule)
  - All RE with higher costs than fossil fuels should be accepted by CDM; also in the presence of new (post-2001) domestic policies
Policy recommendations

Mid- and long-term measures (until 2020 and beyond)

- Up to 2015: Combine CDM with NAMAs
  - Nationally Appropriate Mitigation Actions (NAMAs) form an umbrella, under which RE financing can be secured by combining domestic resources (e.g. FIT), international public funding and CDM (PoA) funds

- New market mechanisms can reduce regulatory uncertainty
  - Intermediate step: Sectoral crediting (combined with national RE policies)
  - Long-term goal: National (or regional) emissions trading systems

- Essential: Create demand / high price for carbon credits
  - Ambitious targets/caps in Annex I countries
  - Allow for carbon offsets
Policy recommendations

- **Analyze cost gaps** for RE technologies (and how much of the gap the carbon market can close), analyzed for promising technologies and countries

- **Develop simple rules for additionality determination** of RE
  - **Standardisation**, e.g. positive lists (geographical, technological focus)

- **Move from the global/conceptual to the real-world/national level**
  - Develop a **policy-driven CDM PoA** for RE promotion; include “additionality” issues
  - Develop a **pilot NAMA** for RE promotion, **funded by a combination of international carbon credits, domestic resources and international public finance**
Policy recommendations

Conclusions & recommendations in a nutshell

- **CDM approval procedures for RE** have high risks/costs
  - Short-term: Simplify procedures (e.g. referring to RE policies) & use PoAs
  - Long-term: Move to sectoral crediting and ETS

- **Carbon price** is not high enough for most RE
  - Short-term: Combine carbon credits with national RE policies and/or further international funding (unilateral/supported NAMAs)
  - Long-term: Increase carbon price through more ambitious targets
Thank you for your attention!

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