



**Linking Renewable Energy Promotion Policies  
with International Carbon Trade**

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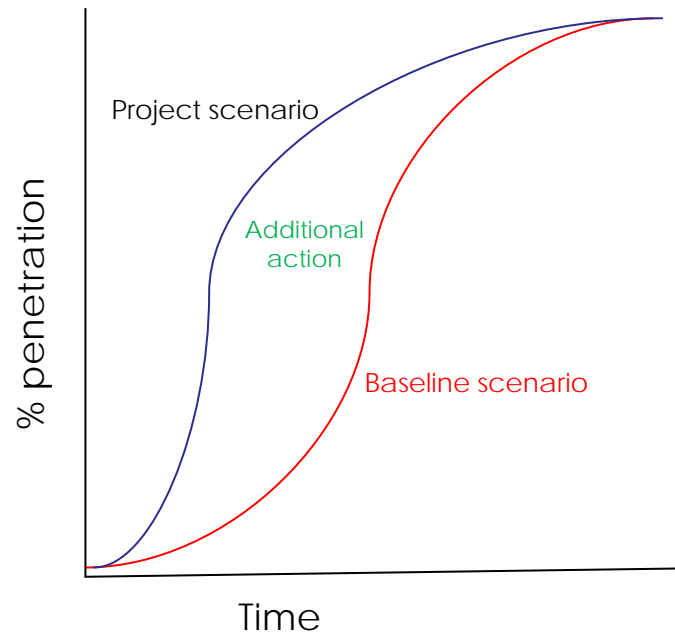
## Overview

- RE / energy technology projects in the CDM are supplying an increasing percentage of CERs
- Some energy projects are not strongly additional
- Some countries stand to benefit significantly from large scale energy projects, perhaps to the cost of others?
- How can we use the CDM to kick start renewable energy / energy technology projects but stop energy based offsets from taking over the market?

## Technology Penetration

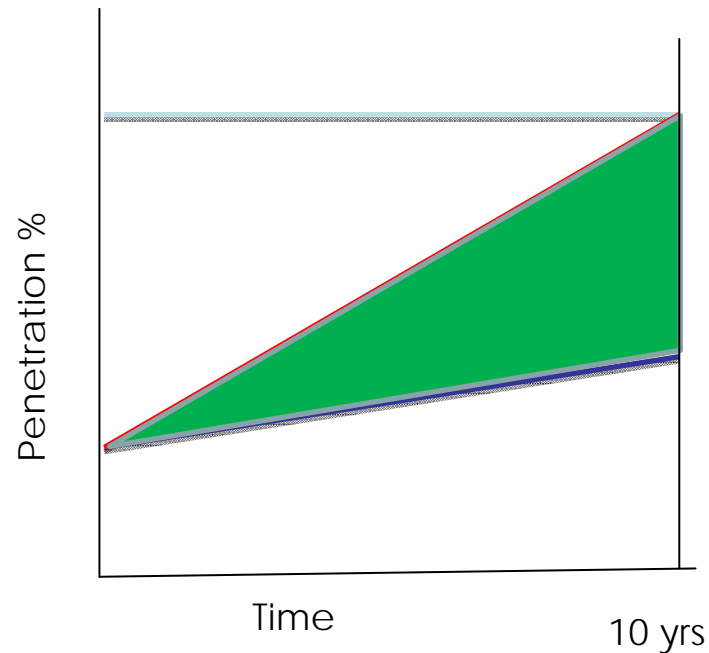
- Penetration rates are a [new] way of looking at additionality
- Strengths include simplicity and transparency
- Can define an end-point to additionality
- They reward early action
- Propose that Technology Penetration could be used to:
  - Kick start investment in renewable energy / energy technology
  - Regulate access to the CDM
  - Present a framework for the energy sector to move from CDM to other forms of national or international support

## So, how does Accelerate technology penetration work?



- The baseline can be set by a national energy plan – reflecting progress towards a goal or technical potential
- Project scenario is the combined actions of the sector – ie new RE capacity
- Additionality is defined by the space between the two curves

# Technology penetration applied to the renewable energy sector



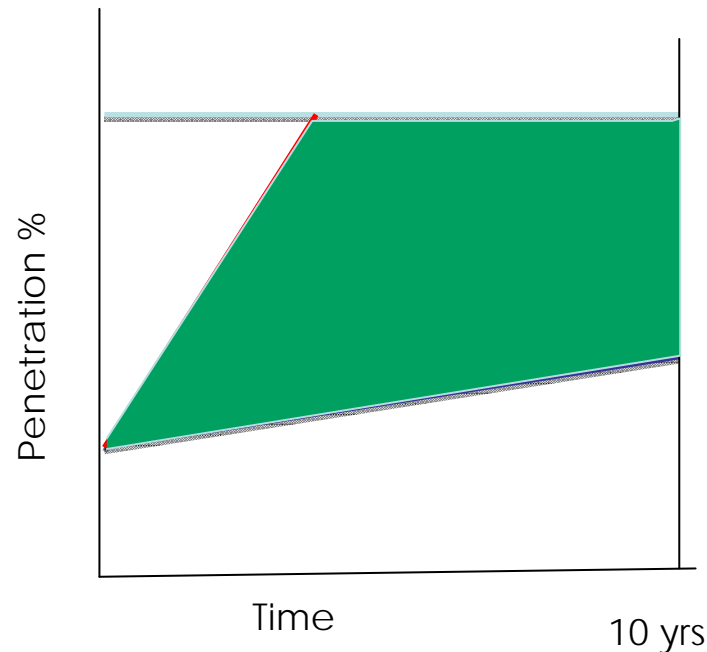
**Target** – the agreed level to which CDM support is given and beyond which, new incentives are required

**Project** – accelerates deployment of technology in return for CERs

**CERs** – calculated as  $MWh * GEF$

**Baseline** – set by reference to pre-project rate of investment; energy master plan; investment plans of largest market participants; or simply conservatively.

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## What next?

- Host country implements “Green Energy Policy” including Feed in tariffs / green tariffs / domestic ETS or other
- In conjunction with DSM programs
- These are funded by loans, if necessary from the GCF or other source
- And ultimately are paid from four possible sources:
- Increased electricity prices in the domestic market
- Saved subsidies on fossil fuels / Sale of un-used fossil fuels at international prices
- Reduced need to finance expensive new peak demand capacity
- Monetization of environmental commodity consistent with Green Energy Policy

## Why would (should) the energy sector move on from CDM?

- CDM has motivated significant investment into wind power in China
- Despite significant uncertainty about registration, duration and the ultimate value of the CERs (post 2012 LoAs in China)
- How much more money would be directed towards wind power in China if PPAs with a 25 year index linked FIT were available?
  
- CDM promotes individual projects on individual sites with high transaction costs.
- Moving to more advanced mechanisms can deliver much more.

Thanks for listening