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of Energy &
Climate Change

Results-Based Financing

For Low Carbon Development

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March 2013

Agenda

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- Identifying Barriers to Low Carbon Development
- Traditional Approaches for Addressing these Barriers
- Results-Based Financing as a Solution
- Past Applications of Results-Based Financing
- Results-Based Financing Methodologies, 5 Potential Approaches
- Current UK Results-Based Financing Initiatives for Low Carbon Development
- Applying Results-Based Financing to the PMR
- Concluding Thoughts

Barriers to Low Carbon Development

Identifying the Problem

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The 3 Stern 'pillars': Tracks to Address Climate Change

1. **Carbon pricing**, to target the carbon externality
2. **Technology policy**, to target positive technology spillovers and learning effects; and
3. **Overcoming behavioural barriers**, to target myopia.

BUT: *Action in developing countries is slowed down by additional barriers to investments*

Barriers to Investment in Low Carbon Technologies in Developing Countries

1. High cost of capital
2. Sovereign risk
3. Incremental cost of low carbon technologies
4. Lack of a strong regulatory framework and market experience

All barriers are not specific to low carbon investment.

Addressing the Barriers to Low Carbon Development
Traditional Approaches

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Policies linked to the three Stern 'pillars'	Put a price on carbon & technology, and change behaviour, through market instruments and regulation.
Mechanisms to address Capital market failure	Provide concessional loans, and access to missing financial instruments, e.g. bonds, to reduce the risk

These have different strengths and limitations, in driving low carbon investments

Lowering cost of capital can…

- Encourage investment in technologies where lack of finance is main barrier, and policy frameworks already in place
- Or provide some additional low carbon investment in near cost competitive technologies
- **<u>But:</u>**
  - Impact on Net Present Value (NPV) is not enough to overcome significant incremental costs
  - And pricing carbon provides a direct incentive to deliver, which loans don't

- *Without policy to price carbon or technology learning, investors will not have the incentive to move into low carbon technology at scale.*
- *There needs to be a balanced effort to reduce risks **and** address incremental costs.*
- *If we don't address all the causes of the problem simultaneously, we might get less economic and environmental impact than expected.*

Results-Based Financing

Defining a Solution

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Finding a Balanced Solution: RBF

- Until regulatory frameworks are in place Results-Based Financing (RBF) has the ability to price on carbon or low carbon technology delivery and incentivize investment by:
  - Reducing sovereign risk;
  - Providing transparent and predicable funding, which increases the ability of investors to leverage debt; and
  - Building market confidence.

Definition

Results-Based Financing (RBF) refers to payments for measurable, pre-agreed actions that have been achieved and verified. RBF payments address the gap in funding between costs and revenues, the affordability or viability gap.

Alternative terms for Results-Based Financing:

- *Quantity-Performance Instruments*
- *Payments for Results*
- *Advance Purchase Agreements*

Past RBF Approaches

The Historical Context

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RBF

RBF has been widely applied in the health care sector and for delivering international aid. Initiatives include:

- Global Programme for Output Based Aid (GPOBA)
- GAVI Alliance – Immunisation Services Support
- Millennium Challenge Account (MCA)

Traditionally project funding within these areas of work had been directed toward inputs—salaries, construction, training, equipment, but positive results did not always followed.

Lessons Learned

Pros

- Spurs innovation and creativity
- Provides flexibility
- Maximizes fiscal resources
- Catalyses private investment

Cons

- Relatively new and unproven mechanism
- Transaction costs can be exorbitant and prohibitive
- Quantity may not translate to quality
- Sustainability of results is unclear
- Risk of de-incentivizing other work

RBF Methodologies

5 Approaches for Consideration

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1 Advance Purchase Agreement	• A contract for a fixed quantity of results, with payments made upon delivery.
2 Forward Purchasing	• A contract for a fixed quantity of results, with some portion of payments made in advance of delivery.
3 Underwriting emission reductions	• An optional contract for a fixed quantity of results in which sellers can sell to the contracted buyer at the pre-agreed price, or sell to the market.
4 Payment for difference	• A contract to pay the difference between a pre-agreed price and the market price for results delivered to others (not apart of the contract).
5 Agreement to Purchase from the Market	• A guarantee to buy a fixed quantity of results from the market at a set price, but no contracts with specific sellers.

Results-Based Financing for Low Carbon Development

Current UK Initiatives

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Results Based Financing (RBF) for Low Carbon Energy Access

A UK Department for International Development (DfID) programme, launched in 2012 and delivered through EnDev, in conjunction with the Deutsche Gesellschaft für Internationale Zusammenarbeit.
The aim of the programme is to:

- Stimulate decentralised low carbon energy markets leveraging private investment to increase sustainable energy access.
- Support 10-15 clustered RBF instruments in at least five countries, allocating funding through a challenge fund process. A focus would be on off-grid or mini-grid systems.

This programme will make payments on delivery of new low carbon installations. It could include payments for electricity connections, per unit of energy delivered or for services provided.

Carbon Market Finance (CMF) Initiative (Under Development)

A joint DfID and DECC programme currently under development*.
The aim of CMF would be to increase the flow of carbon finance to Least Developed Countries by:

- Supporting 10-15 demonstration projects focused on low carbon energy access technologies that deliver household and community level results (i.e. off-grid or mini-grid projects).
- Demonstrations must be CDM registered and will prioritize Standardize Baseline and Programme of Activity project types.
- Carbon credits generated would be purchased by the UK using a RBF mechanism, to combat current weak market conditions, and cancelled, to achieve net emissions reductions.

Projects would be monitored to verify their delivery of both carbon credits and high quality development benefits.

*Meaning this project has not yet been approved for development and may not be taken forward by the UK.

Applying RBF to the PMR

Looking Ahead

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There is still a long way to go before Results-Based Financing can be applied to work undertaken through the PMR. But as we move closer to the implementation phase it is important to consider how we can support emerging mechanisms.

Implementing Results-Based Financing mechanisms for PMR supported market-based mechanisms will require further work.

Questions to answer when considering RBF:

- What are the aims of the mechanism? Of the donors?
- Who are the funders or buyers and the sellers?
- What is the result? Is their a market for the result, and if so what drives market demand?
- How is performance measured and monitored?
- Can RBF enhance the functioning of the mechanism?

Issues to address before implementing an RBF mechanism:

- Selecting Sectors
- Developing Criteria
- Selecting & Measuring Results
- Setting a Price

Additional Sources of Information

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Further information on Results-Based Financing and the initiatives presented here can be found in the following articles:

Oxford Energy and Environment Brief, August 2012 - http://www.oxfordenergy.org/wpcms/wp-content/uploads/2012/08/Mobilizing-the-Private-Sector.pdf

Independent Verification in Results-Based Financing, May 2012 - https://www.gpoba.org/sites/gpoba.org/files/OBApproachesNo43RBF_WB.pdf

Results based aid and results based financing: What are they? Have they delivered results?, January 2011 - http://www.hlsp.org/LinkClick.aspx?fileticket=tdqKrWX321Q%3D&tabid=1570

Results Based Financing for Low Carbon Energy Access (RBF) http://www.dfid.gov.uk/Work-with-us/Funding-opportunities/Business/Results-Based-Financing-for-Low-Carbon-Energy-Access-RBF/

Seeding the Market, Auctioned Put Options for Certified Emissions Reduction, August 2011 - http://nicholasinstitute.duke.edu/economics/climatechangepolicy/seeding-the-market-auctioned-put-options-for-certified-emission-reductions

Concluding Thoughts

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Thank you for your time and consideration.

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