

Incentivising CCS:

Funding Carbon Capture and Storage in Developing Countries

CEM Mandate

Carbon Capture Utilisation and Storage Action Group

Recommendation # 2 was endorsed at May 2011 Clean Energy Ministerial (CEM) in Abu Dhabi:

- **Identify and advance appropriate funding mechanisms to support CCS in developing countries**
- **Report back to 2012 CEM in London**

Clean Energy Ministers:



CEM Mandate:

Work for 2012 CEM to be undertaken by:

- **Asian Development Bank (ADB)**
- **World Bank**
- **World Resources Institute (WRI)**
- **Global CCS Institute tasked to coordinate**

In consultation with

- **Clinton Climate Initiative**
- **International Energy Agency**
- **UK Government**
- **Australian Government**

Key disincentives for developing countries to invest in CCS :

1. Cost
2. Energy penalty
3. A perception that the technology is 'not proven'
4. Lack of policy and regulatory frameworks – e.g. no feed in tariffs, lack of carbon price, mandatory emission reductions, known regulatory requirements

Demonstration is the best way to overcome these barriers

Need to provide climate change funding for CCS demonstration funding

- Similar to what has been/is required to drive renewable energy investment
- *Funding CCS in Developing Countries* report focused on the need for this funding, channeled through existing funding mechanisms
- Largely utilising either grant based or concessional loan financing

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Why now?

- IEA estimates 50-60% of CCS deployment will need to occur in non-OECD countries to achieve global emission reduction targets
- Many developing countries are taking a ‘wait and see’ approach
- Given the long lead times, countries should start undertaking the pre-investment and enabling activities now
- Some aspects of CCS cannot be ‘transferred’ – including policy and regulatory frameworks and identifying suitable storage

Rationale for public funding

- Strong climate change case, relatively weak ‘business case’
- Why lack of private sector finance?
 - Lack of policy incentives or requirements
 - Risks of CCS are high compared to ‘business as usual’
- Public funding addresses two main market failures
 - Lack of price on carbon
 - Imbalance between ‘risk’ and ‘reward’ for first movers
- Significant contribution to emissions reductions – in global public interest
- Contribution of demonstration projects to emission reductions is substantial

Short Term Recommendations (2012-15)

1. Donor countries to provide funding in the order of \$150-200 million primarily for CCS enabling and pre-investment activities in developing countries, through topping up existing dedicated CCS funding programs.
 - Existing dedicated funds and programs which are able to easily accommodate such funding include:
 - Asian Development Bank's *Carbon Capture and Storage Trust Fund*;
 - Carbon Sequestration Leadership Forum's *Capacity Development Program*;
 - Global CCS Institute's *Capacity Development Program*; and
 - World Bank's *CCS Capacity Building Trust Fund*.
2. Donor countries seek to lift the exclusion of CCS in the Clean Technology Fund.
3. Donor and developing countries to engage in bilateral and/or multilateral project support.
4. Developing countries to seek complementary funding for capacity building activities under the Global Environment Facility.

Medium Term Recommendations (2015+)

Donor countries to provide dedicated CCS funding in the order of \$5 billion for the 'extra' CCS costs of construction and operation of demonstration projects in developing countries.

Potential vehicles through which funding can be channelled :

- Dedicated CCS funding window within the Green Climate Fund (noting that this is ultimately a decision for the Green Climate Fund Board).
- Portfolio approach to funding a range of technologies within the Green Climate Fund, with CCS included as a component of the portfolio (noting that this is ultimately a decision for the Green Climate Fund Board).
- Establish a new dedicated CCS Fund with its own governance arrangements, but which counts towards a country's climate funding commitments.
- Top up existing dedicated CCS trust funds or programs and make any changes to criteria to accommodate project support funding, and ensure it counts towards a country's climate funding commitments.

Outcomes & Next Steps

1. UK announced £60 million for CCS in response to this call for funding
2. Consult further with developing and developed country governments regarding which funding vehicle they prefer and why, and what the key principles and funding criteria might be under each funding vehicle
3. Identify any barriers preventing implementation of the recommendations, and if applicable, make recommendations to Clean Energy Ministers and officials to address these barriers

The Working Group welcomes your feedback

For example:

- Do you have a preference regarding the funding vehicle for the proposed \$5 billion? If so, why?
- Initial work has already been undertaken by WRI and ADB on key principles and funding criteria, however, are there any suggestions around these issues?