

Ensuring Sustainability in Clean Technology: Legal Issues

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Anuradha R.V.
Partner

CLARUS LAW
ASSOCIATES

Clean Tech and Renewable Energy

Natural Advantages:

- Increasing awareness of Climate Change
- Energy Demand is increasing
- Energy Supply is becoming more volatile
- Energy Prices are increasing
- In this scenario 'Renewable Energy' is a naturally attractive source

Clean Tech and Renewable Energy

Disadvantages:

- 'Green' energy is costly
- High Capital Costs
- Non-RE Sources remain cheaper

Financing- a Key Challenge for LCIG

- **Financing will be an important foundation of the post-2012 outcome.**
- Current levels of funding and technology transfer is not sufficient.
- Developing countries in particular face an up-hill task in this regard, in that they have to face both the ‘development’ challenge as well as the ‘climate change’ challenge.
- **Significant body of literature which establish that technological solutions for LCIG exists; however such a switch would entail unprecedented and potentially very costly socio-economic adjustments.**
- It has been estimated that the private sector is responsible for 86% of international finance and investment flows, and hence will have a crucial role to play in the new financing architecture that can enable such sustainable growth.

Financing- a Key Challenge for LCIG in post-2012 scenario

- **PUBLIC FINANCING IN ITSELF- NOT ENOUGH**
- **PRIVATE FINANCING- CRITICAL TO BRIDGE THE GAP**
- ***HOW TO INCENTIVISE PRIVATE SECTOR FINANCING:***
 - **Action required at both Multilateral and Domestic levels**

CDM: As an instrument for pvt. financing

- CER trading and CDM: Only recognized multilateral instrument for incentivizing pvt. sector finance
- CDM's key limitation however is that it works almost only as a 'reward' ex-post validation, registration, verification etc. which 'certifies' the actual reduction in emissions and calculation of credits.
- Focus of CDM is **not** so much on development and implementation phase of low carbon initiatives.
- **Although instruments such as advances against potential CERs and securitization as CERs could be used to generate greater funding at the development and implementation stages of a project, this in itself may not be sufficient for the scale and nature of financial flows required.**

CER Financing at Domestic Level: Limits

- Benefits of CER Financing at domestic level restricted due to:
 - *CER benefits are obtained only post-facto- as a 'reward' for an activity;*
 - *Advances against CERs- Regulatory hurdles such as FEMA regulations;*
 - *CER revenues not used very often as security, due to uncertainty, delays, etc.*

Key Drivers at Domestic Level

As with any other emerging sector:
Strong Political & Economic Support Important
for Investor Confidence.

Public Financing at the domestic level includes:

- Government Grant Schemes
- GOI/Multilateral Funding
- RE Preferential Tariffs
- Renewable Purchase Obligations (RPO)
- Generation Based Incentives
- Tax Incentives
- Renewable Energy Certificate Mechanism

Elements of Private Financing

- Carbon Finance
- Equity
- Debt
- External Commercial Borrowings (ECBs)
- Bonds
- Guarantee Facilities
- Lease Financing
- Private Equity Funding
- M&A
- Venture Capital Funding

Private Financing- Other Regulatory hurdles

- No RE Specific norms. Same set of rules as applicable for industrial/infrastructure projects
- Pvt. Equity Funding, Bonds, M&A, Lease Financing, Senior Bank Debt generally for only proven technologies/projects; returns are not tested.
- Key RE specific concerns:
 - Higher capital requirements
 - Higher degree of uncertainties in implementation
- Need for RE specific norms to address these concerns.

RE Projects: Other Legal Issues

Renewable Energy Sectors

- Wind
- Solar
- Micro Hydro
- Distributed Generation
- Biomass
- Waste to Energy
- Landfill Gas Capture
- Geothermal
- Tidal
- Bio-fuels

Broad REP Legal Issues

- Right to Establish the Facility
- Right to Access and Use Renewable Resource/Fuel Stock
- Right to Use Technology
- Site Location and Land Rights
- Equipment Supply and Installation
- Commissioning, Testing and Commencement of Operations
- Sale of all Electricity Generated