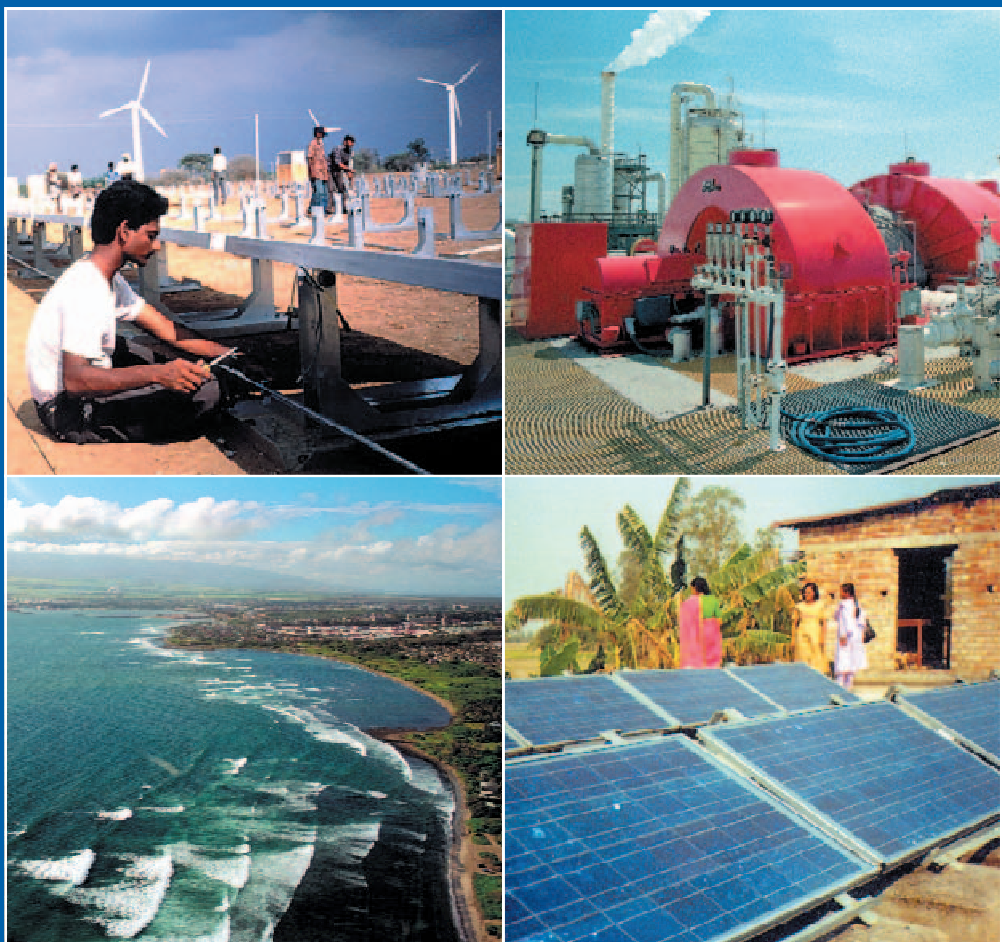
Financial Risk Management Instruments for Renewable Energy Projects

Summary document



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Foreword

Financial risk management is a key element of any commercial investment in conventional energy and infrastructure projects, yet little attention has been paid to its use in the deployment of renewable energy technologies, particularly in developing countries. Risk management instruments such as contracts, insurance and reinsurance, alternative risk transfer instruments, and credit enhancement products could, if used, transfer certain types of risks away from investors and lenders, reducing the costs of financing renewable energy projects. These and other financial tools are an essential part of well-established markets. But the market for renewable energy technologies is only getting started in many parts of the world and lack of good information hinders its development. Bringing better information to policy makers is one of UNEP's roles.

This report presents an overview of risks specific to the financing of renewable energy projects. It discusses both risk management products currently available in the market, and emerging instruments that could be applied to the sector. New products based on partnerships between private and public sector risk managers are also presented.

The application of risk management instruments to renewable energy projects requires financial innovation and a willingness to test new approaches. This in itself is risky, and the report suggests a learning-by-doing approach in order to gain experience and confidence in these new markets.

By providing concise technical information to risk management specialists and project developers, this report aims to contribute to a better understanding of risk management options for renewable energy projects. It is our hope that better understanding leads to greater deployment of clean energy technologies that meet development needs.

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Acronyms and abbreviations

AfDB	African Development Bank
ASEAN	Association of South East Asian Nations
AsDB	Asian Development Bank
CDM	Clean Development Mechanism
CERES	Coalition for Environmentally Responsible Economies
CLN	Credit Linked Note
CSR	Corporate Social Responsibility
CUP	Cooperative Underwriting Programme (of MIGA)
DFID	Department for International Development (a UK Ministry)
EBITDA	Earnings before interest, tax, depreciation and amortization
EBRD	European Bank for Reconstruction & Development
ECA	Export Credit Agency
ECGD	The Export Credits Guarantee Department (of the UK)
EIA	Environmental Impact Assessment
EIB	European Investment Bank
EU	European Union
FDI	Foreign Direct Investment
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GNI	Gross National Income
GNP	Gross National Product
IADB	Inter-American Development Bank
IBRD	International Bank for Reconstruction & Development
IDA	International Development Agency
IFC	International Finance Corporation
IFI	International Financial Institution (i.e. IMF and World Bank)
ILS	Insurance Linked Security
IMF	International Monetary Fund
IRR	Internal Rate of Return
kWh	Kilowatt Hour
LDC	Least Developed Country
M&A	Mergers & Acquisitions
MDB	Multilateral Development Bank
MFI	Multilateral Financial Institution
MIGA	Multilateral Investment Guarantee Agency
MW	Mega-Watt

NCR	Non-Commercial Risk
NCRI	Non-Commercial Risk Insurance
NEXI	Nippon Export and Investment Insurance (of Japan)
NFFO	Non-Fossil Fuel Obligation
NGOs	Non-Governmental Organizations
NPV	Net Present Value
OBI	Official Bilateral Insurer (for political and non-commercial risk)
OCF	Official Capital Flows (Non-Concessional Funds plus ODA)
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
O&M	Operations and Maintenance (contracts or agreements)
OPIC	Overseas Private Investment Corporation (of the USA)
OTC	'Over-the-Counter' (securities)
PCG	Partial Credit Guarantee
PPA	Power Purchase Agreement
PPI	Public Private Interaction
PPP	Public Private Partnership
PRG	Partial Risk Guarantee
PR	Political Risk
PRI	Political Risk Insurance
PSA	Production-Sharing Agreement
PV	Photovoltaic
RDB	Regional Development Bank
RE	Renewable Energy
RET	Renewable Energy Technology
RoA	Return on Assets
RoE	Return on Equity
SME	Small and Medium-sized Enterprise
SEFI	Sustainable Energy Finance Initiative
SPUV	Special Purpose Underwriting Vehicle
STAP	Scientific and Technical Advisory Panel (GEF)
UK	United Kingdom (Great Britain and Northern Ireland)
UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNCTAD	United Nations Conference on Trade & Development
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
USD	United States Dollars
WB	World Bank
WBG	World Bank Group (i.e. IBRD, IDA, IFC and MIGA)
WHO	World Health Organization
WTO	World Trade Organization
XOL	Excess of Loss (Reinsurance contract)

Glossary of terms

Accession Countries: Countries in the process for accession to the European Union.

Appetite for Risk: A measure of the propensity for Risk Taking or Risk Aversion.

ART (Alternative Risk Transfer): Generic phrase used to denote various non-traditional forms of re/insurance and techniques where risk is transferred to the capital markets. More broadly, it refers to the convergence of re/insurance, banking and capital markets.

Asset-backed Securities: Debt securities which depend on a pool of underlying receivables. In ART these refer to insurance-linked securities.

Blended Cover: Typically a combination of traditional re/insurance product lines with other risk management products in a single aggregated policy. These are commonly arranged on a multi-year basis.

Bond: Capital instrument issued by government or private corporation. Redemption may be linked to an event (e.g. CAT bond).

Call Option: Gives buyer the right to buy, seller is obliged to sell.

Capacity: Amount of reinsurance that can be underwritten by an entity or market.

Captive: The term for an insurance company that is owned by the company it insures. It is a Risk Financing strategy to lower the cost of insuring Risk and is usually established in a 'low-tax' environment.

CAT: Common term for a catastrophe.

CAT Bonds: Securitized insurance receivables—an example of an ART structure.

Cedant: An insurance company buying reinsurance cover.

Collaterallized Debt Obligations (CDOs): Securitization of loans/bonds etc.