



Emerging Markets Climate Finance

What Works?

Asia Clean Energy Forum 2015

Manila, Philippines

Geoffrey Tan

Our Organization

As the U.S. Government's premier development finance institution, OPIC mobilizes the participation of U. S. private capital to support sustainable economic development in emerging markets.



OPIC currently manages a \$17.3 billion portfolio of projects in over 150 countries and operates on a self-sustaining basis.

Our Solutions

OPIC offers innovative financial solutions to support private investors, including debt financing, insurance, and investment funds

Products

■ Debt financing

- Support to large structured deals, project finance, SME, micro-finance
- Significant infrastructure and power expertise
- Up to \$250M with terms of 20+ years
- Guarantees of loans or capital market bonds
- Local and off-shore lending capacity
- No syndication or market disruption risk; OPIC retains full credit risk

■ Insurance

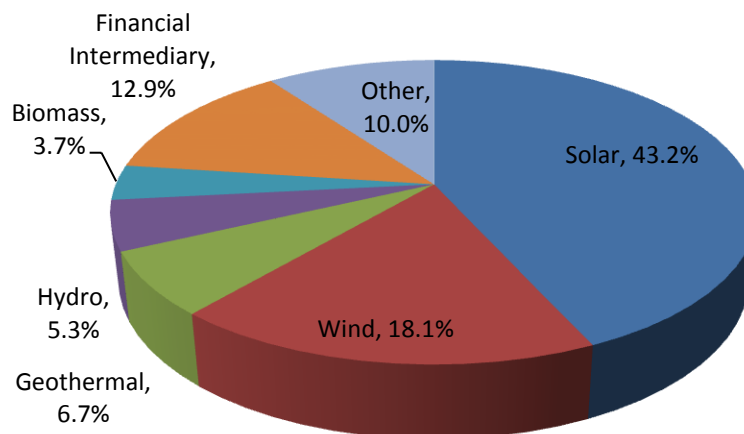
- Covers risk of expropriation, political violence, and currency inconvertibility
- Breach of contract, non-honoring coverage

■ Investment funds

- Provides debt that is matched by privately raised equity to support funds investing in emerging markets

Renewables Portfolio

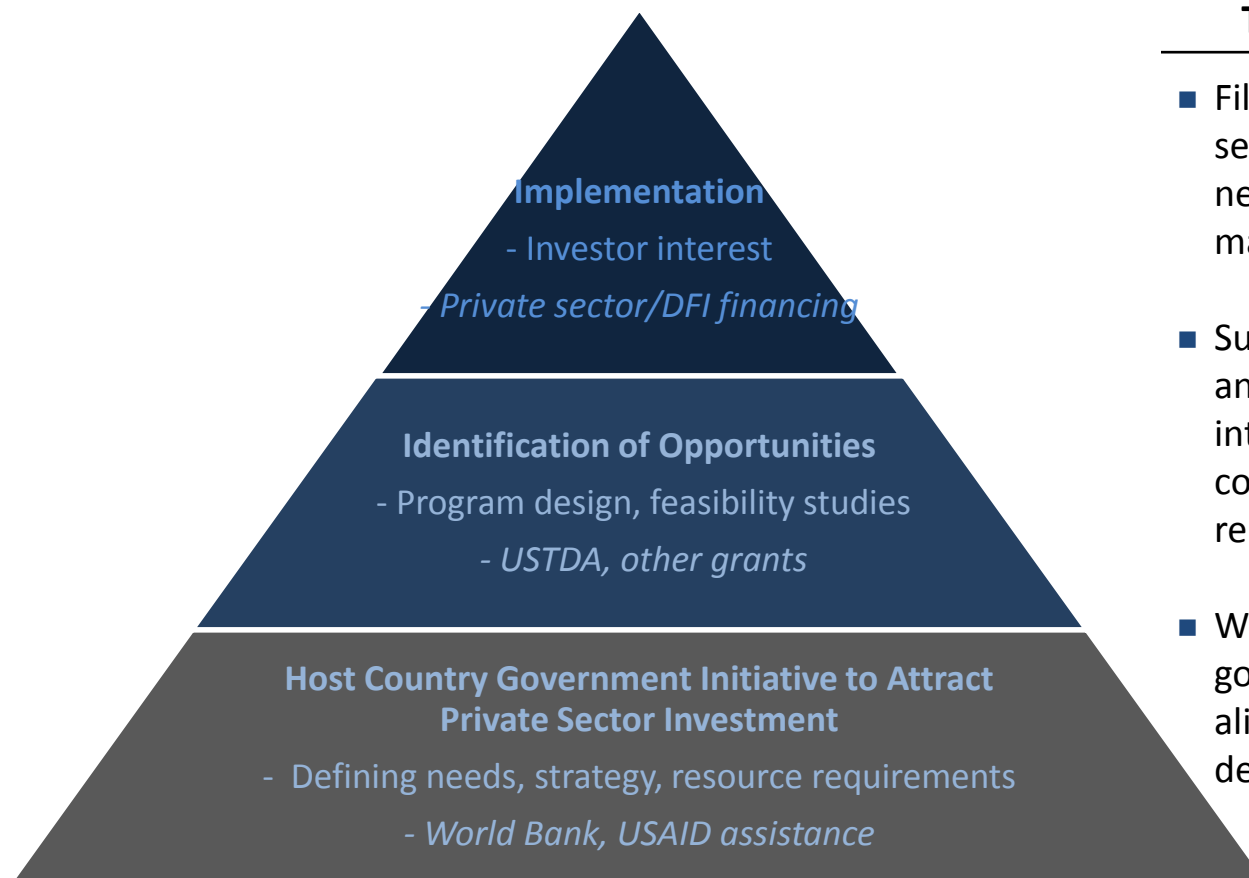
Total Commitments (2007-2014)



Global:	\$6.1 billion
Asia:	\$1.3 billion

When Does OPIC Get Involved?

OPIC brings investment capital, through financing, political risk insurance and private equity solutions, once private sector investors have determined that a project is commercially viable



Themes of Involvement

- Fill in gaps where the private sector is unable to meet the needs of a project in order to make it sustainable
- Support only viable projects and thus not only provide the intended benefits to the host country but also ensure repayments to OPIC
- Work with host country government to confirm alignment of interests and development objectives

Renewable Program Incentive Structures

Renewable power programs are designed to incentivize investment into projects that independently are not economically or financially viable.

Long term Power Purchase Agreement (PPA) and concession with:

- Take or pay obligation supported by national government or utility
- Feed-in Tariffs (FITs)
 - Flat or predetermined tariff profile for life of PPA
 - Set at time of award or commissioning
- Supplementary Tariff
 - Fixed supplement above prevailing wholesale or other rate
 - Set at time of award or commissioning
- Tariff set by competitive bid or auction process
- Relief from certain taxes, fees, and customs duties
- Subsidized financing
- Grid connection

Renewable Program Structures

Regulatory framework and offtake arrangements as part of long term energy strategy.

- Renewable energy a key component of mid-to-long term sector strategy
- Not only green objectives but typically also fuel mix and energy independence as well as local economic benefits
- Grid ability to connect and sustain targeted levels and types of renewable power
- Impacts on system costs and allocation of related subsidies
- Recognition of evolving technologies and cost profiles

Renewable Program Experiences

Sample experiences from around the world (ex-Asia)

- Bulgaria (11 GW system)
 - Regulations created in 2007, revised 2011, target of 16% by 2020
 - FIT set by regulator, fixed once awarded but declining annually
 - 440 MW renewables; until 06/12 solar PV at 32 c/kWh, 16 c/kWh after
 - Retroactive 20% fee or “tax” established 2013
- South Africa (45 GW system)
 - 2011 REIPP RFP for 3,725 MW by 2016
 - Competitive bid with maximum tariff for each technology specified
 - Awards in 4 rounds, each of limited capacity
 - Round 1 bids due 11/11: 1415 MW, solar PV 30-34 c/kWh
 - Round 2 bids due 03/12: 1044MW; solar PV 16-23 c/kWh
 - Program expanded to 10GW by 2030; 79 projects totaling 5.2GW awarded by 4/15
- Peru (9 GW system)
 - Regulations created in 2008, target of 5% by 2013
 - Competitive bid process for limited MW, flat tariff floor in open market
 - 400 MW awarded in 2010, 108 MW in 2011; solar PV at 12-22 c/kWh

Renewable Program Lessons

Successful FiT and other programs typically include:

- Fixed price tariffs based on the cost of generation plus a reasonable rate of return; competitive process
- Stable, long-term take or pay contracts for sale of the electricity produced (15-20 years) usually with national utilities
- Guaranteed grid access
- Capacity limits to control program costs, address initial technical concerns, and allow competitive selection of investors able to execute and perform
- Differentiated pricing – to account for different technologies, project sizes, locations and resource constraints
- Cost sharing or subsidization of program clearly defined and spread across sector
- Long term strategy and adequate oversight over the regulatory and policy framework

Renewable Power Project Finance

Same key issues as in any project financing but
added focus on regulatory framework and revenue or offtake arrangements

- Country: economics/currency, political stability, judicial system
- Legal and regulatory frameworks for country and sector
- Transparency of concession's bid process and award
- Sponsor's financial and performance wherewithal
- Construction: EPC terms and contractor's financial and technical capability
- Cash Flow: revenue and cost agreements, credit of users, sector, financial and counterparty guarantors
- Operation period: technical, commercial, insurance

Renewable Power Project Finance

Additional elements necessary in renewable programs to facilitate access to project financing.

In the absence of any willingness of governments to directly engage with lenders on a project by project basis – understandable in the context of large renewable programs involving multitudes of projects and investors – lenders look for the following:

- Clear and transparent renewable energy strategy, program and implementation
- Sufficiently detailed and comprehensive offtake agreement/concession, including explicit government support for utility payment and performance obligations
- Safeguards for investors in the sector
 - Protection from evolving cheaper technology or future grid connection (for off-grid)
 - Protection from changes in law
 - Force majeure relief
- Project ability to sell to third parties in case of termination of original offtake/concession
- Explicit recognition of lender step-in rights and ability to remedy
- Independent and neutral dispute resolution, in most cases preferably offshore (for international lenders)

Contact Information

For more information, please contact:

Asia Pacific

Geoffrey Tan

Email: Geoffrey.Tan@opic.gov

Phone: +66 2 205 4027

General Information

Website: www.opic.gov

Email: info@opic.gov

OPIC Main Phone: +1 202-336-8400