

FINANCING RENEWABLE ENERGY PROJECTS: LESSONS LEARNED IN RUSSIA

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RUSSIA RENEWABLE ENERGY PROGRAM



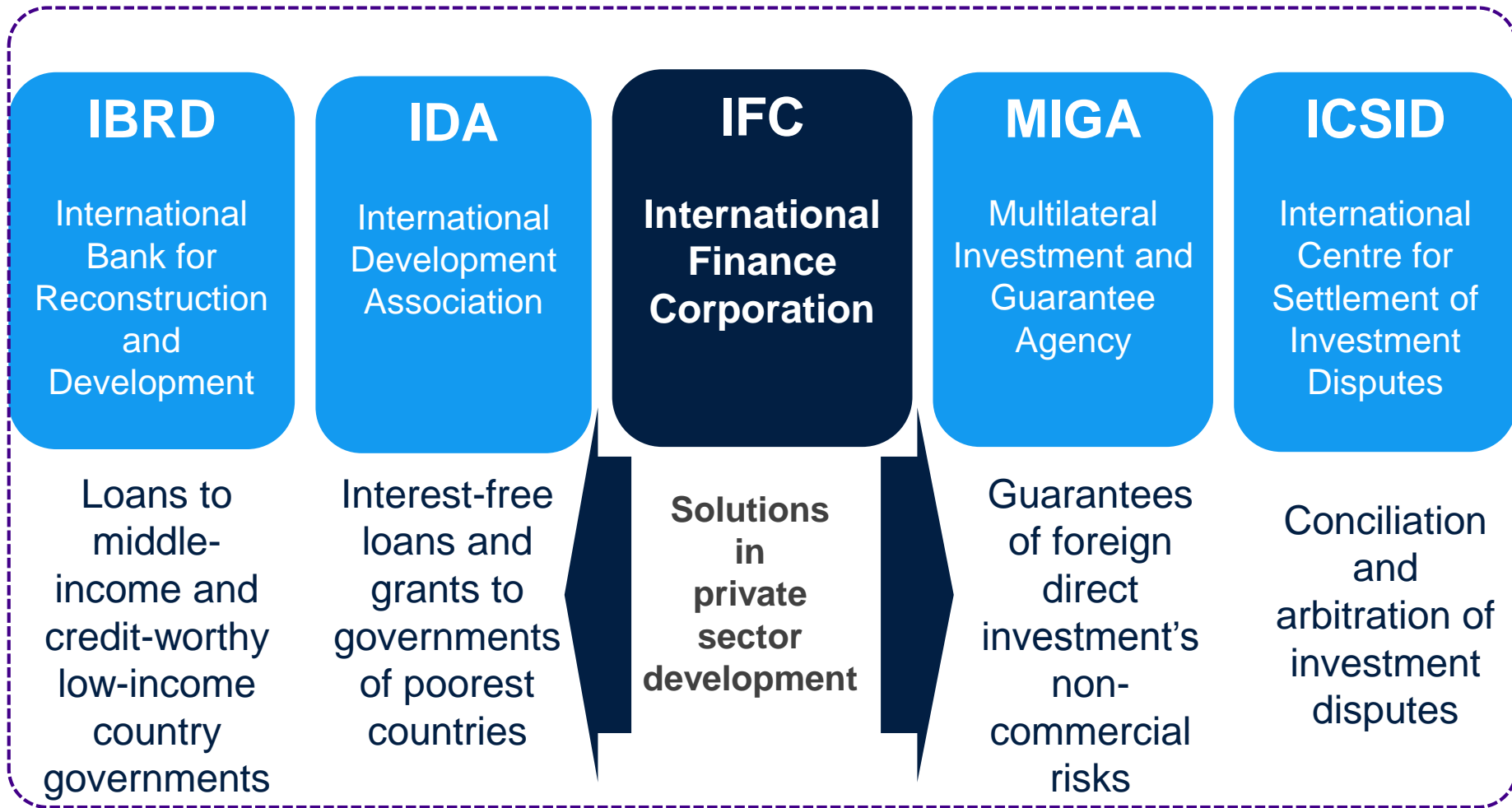
IFC

**International
Finance Corporation**

WORLD BANK GROUP

30 September 2015

IFC: A MEMBER OF THE WORLD BANK GROUP



IFC: WHAT WE DO

Integrated Solutions, Increased Impact

INVESTMENT

- Loans
- Equity
- Trade finance
- Syndications
- Securitized finance
- Risk management
- Blended finance

**\$51.7 bn portfolio
(FY14)**

ADVISORY

- Firm-level advice
- PPP transaction advice
- In partnership w/World Bank, advice on broader market development and enabling environment for private sector

**720 projects valued at
\$1.1 bn (FY14)**

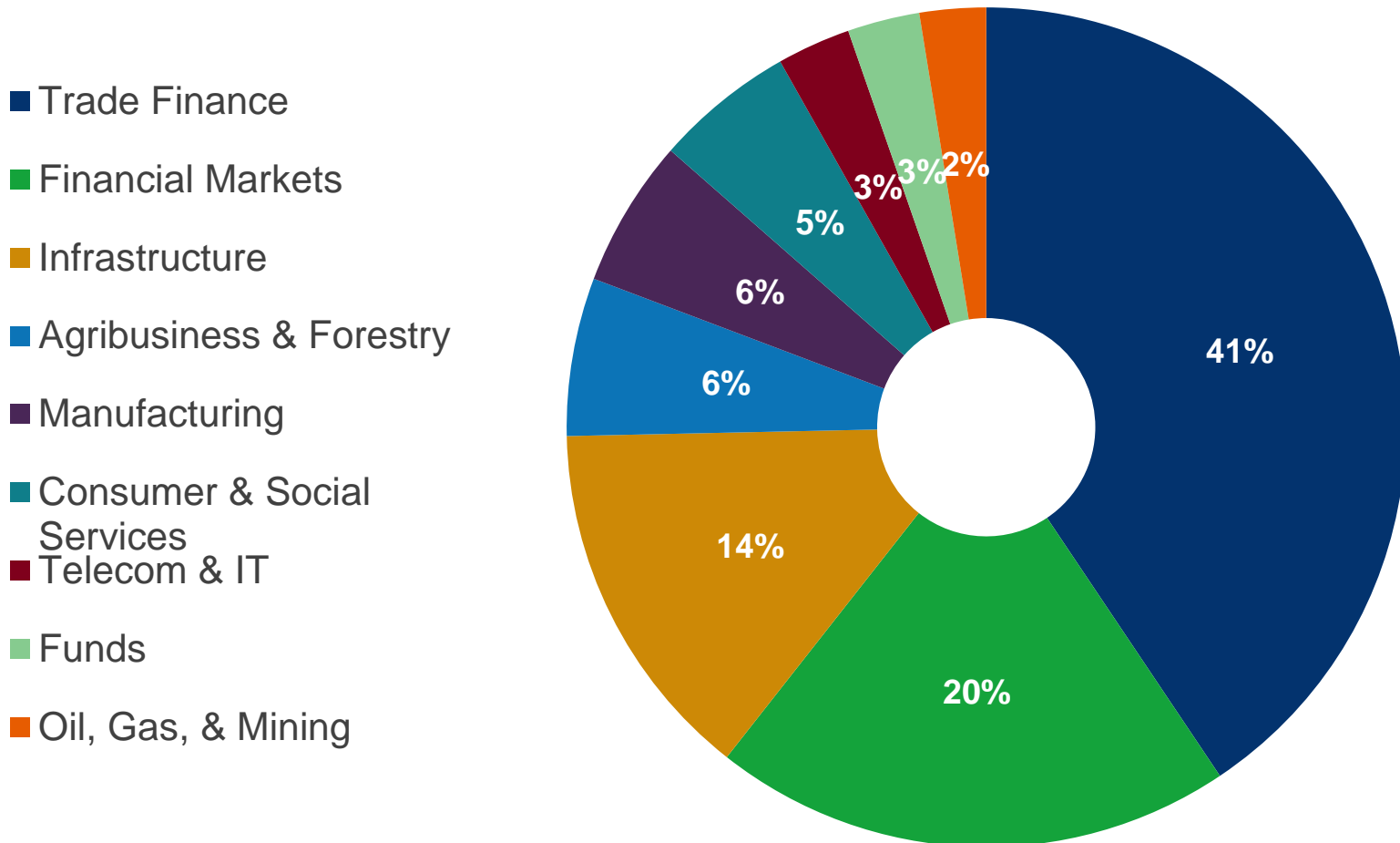
IFC ASSET MANAGEMENT COMPANY

- Wholly owned subsidiary of IFC
- Private equity fund manager
- Invests third-party capital alongside IFC

**\$6.4 bn under mgmt
(FY14)**

INVESTMENTS BY INDUSTRY, FY14

COMMITMENTS FOR IFC'S ACCOUNT: \$17.3 BILLION



IFC: NOT ONLY INVESTMENT BUT ALSO ADVISORY SERVICES



Ongoing activities in Europe and Central Asia

- Renewable Energy in Russia, Western Balkans, Central Asia, Caucasus, Turkey, Morocco, Pakistan, Ukraine
- Resource Efficiency in 26 countries of EMENA region
- Sustainable Energy Finance with banks in Russia, Ukraine, Morocco, Jordan, Armenia, Albania, Lebanon, Azerbaijan, Turkey, Belarus

Standard service offerings

- Government: Regulatory reform advice
- Power sector companies (utilities, transmission and distribution operators, generating companies, private project developers, IPPs): feasibility support, targeted assistance
- Industry: resource efficiency and captive power scoping and in-depth assessments

RUSSIA RENEWABLE ENERGY PROGRAM'S (RREP) GOALS:

Environmental

To reduce GHG emissions on a continuous basis by overcoming barriers to the development of renewable energy in the Russian Federation

Development

To facilitate a sustainable market for renewable energy in the Russian Federation by supporting the development of enabling policies, institutional capacity, market facilitation and financing mechanisms

Infrastructure

205 MW of installed capacity of new, renewable power generation

RREP PROGRAM OBJECTIVES

2010

Project Completion

2017

OBJ 1. Development of market infrastructure for RE technologies

RE friendly market infrastructure in place

OBJ 2. Development of incentive schemes for RE

Functioning support schemes in pilot regions

OBJ 3. Support development of RE financing products

Dedicated RE finance available in Russia

- 5 mln tons of GHG reductions
- US\$366 mln facilitated into RE
- Enabling regulatory and incentive framework in place in 2 – 3 pilot regions
- 770 GWh of electricity generated from new RE installations
- 205 MWeI of renewable power generation installed
- 20 – 200 mln tons (CO₂eq) of indirect GHG reductions
- 30 RE projects reaching financial closure

CASE STUDY IN RUSSIA: WHAT WE LEARNED

The Project

200 MW wind park in north west Russia

Challenges

Complex legislation & regulation

No policy / market experts, lack of understanding of latest developments of market

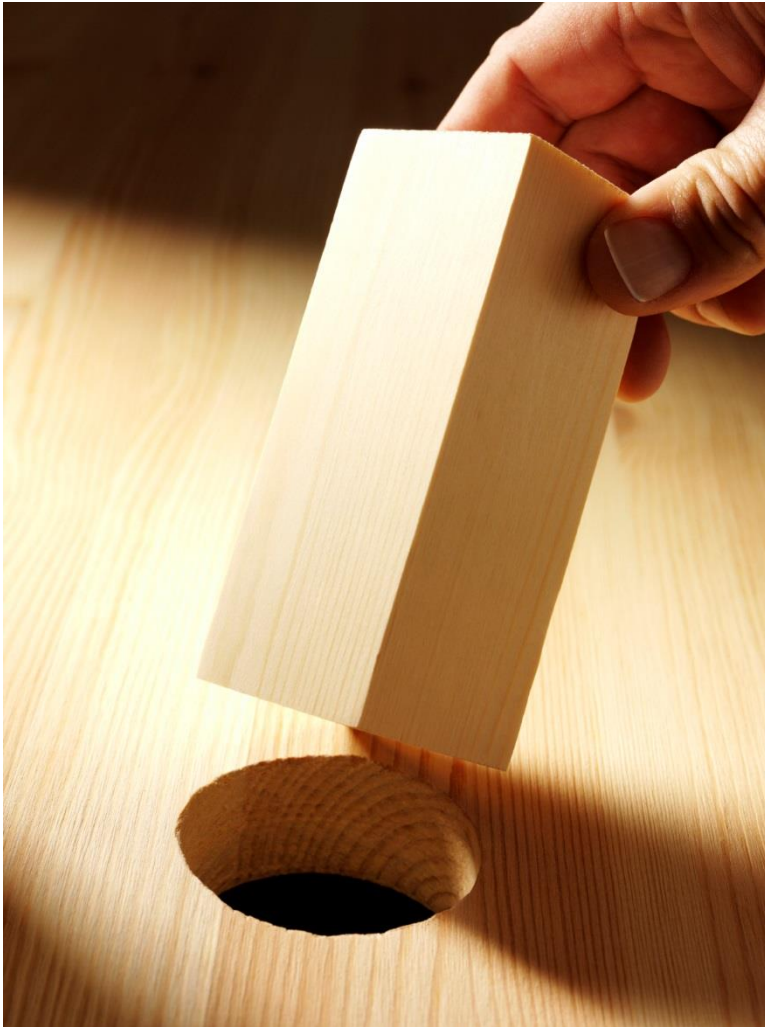
Local expertise and know-how not recognized by international actors

Project developer concerns

Other project risks: perceived vs. actual



HOW TO MATCH BEST PRACTICES WITH LOCAL CONDITIONS



- Legislation and regulation often do not match international experience
- Need to tailor support and expertise to conditions on the ground
- Local technologies and practices not always internationally recognized
- Don't try to “put a square peg in a round hole.”
- Role for IFIs to play role of “matchmaker”

SUPPORT LEGISLATION FOR RENEWABLE ENERGY IN RUSSIA

Decree No. 449 on the Mechanism for the Promotion of Renewable Energy on the Wholesale Electricity and Capacity Market

Adopted:	28th May 2013
Supported Technologies:	Wind, Solar, Small Hydro
Support mechanism:	Capacity payments (not FIT)

- A novel approach, unique to Russia
- Complex support scheme, increased uncertainty to investors
- Aims to make RES investments financially viable
- RES projects able to compete with thermal electricity production
- Introduces competition into the project selection to reduce costs

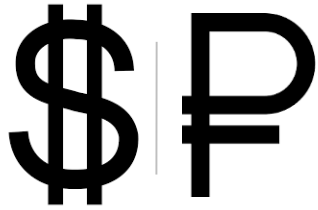
COMPLEX LOCAL REGULATIONS



Other issues encountered in project development:

- In Russia, cranes need to be certified before they are built
- Land lease agreements are signed for 49 years
 - Makes replacing with new wind turbines more difficult
- Transportation problems
- Social and environmental assessments often carried out with different standards

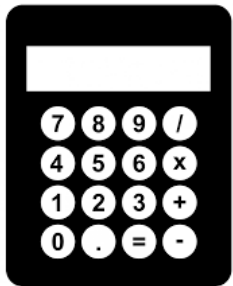
PROJECT DEVELOPERS: ADVICE AND EXPERIENCE



- Project developers often woefully under financed in Russia
- Developers should have sufficient “skin in the game”



- Developers need support / advice with project management skills and strategy
- Expect tedious discussions regarding smart equity stake



- Project’s pre-money valuation
- Best time to approach investors is a few months before the project is ready

PROJECT DUE DILIGENCE: CHECK ALL OF YOUR BOXES

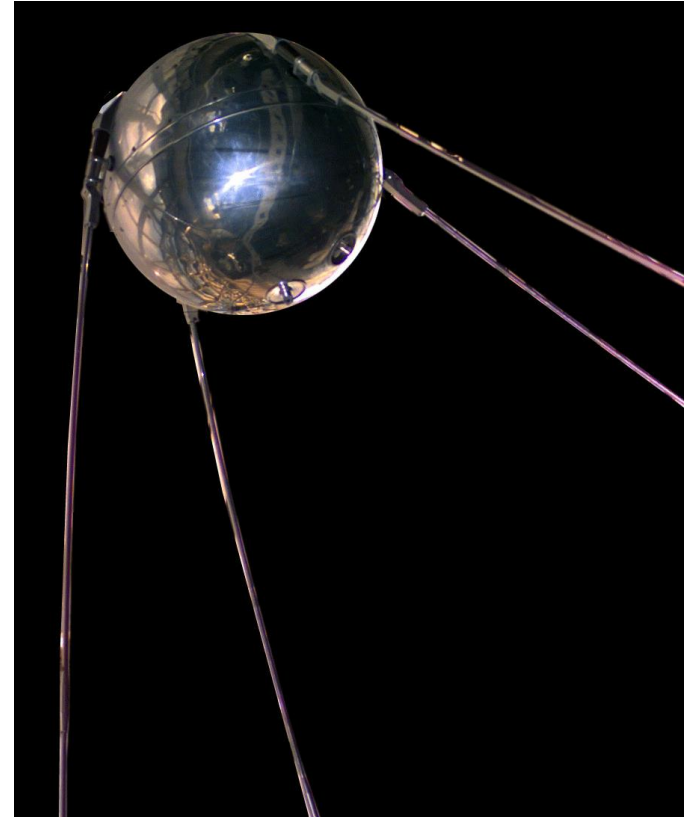


- Anything overlooked can significantly delay a project or (at worst) cause it to fail
- Project developer should commit to paying for due diligence - puts “skin in the game.”
- Integrity due diligence: IFC and other IFIs often have higher social and environmental standards
- Political connections are a risk to financing and involvement by IFIs

LOCAL TECHNOLOGY AND EXPERTISE

Competent and ***bankable***
are not the same thing

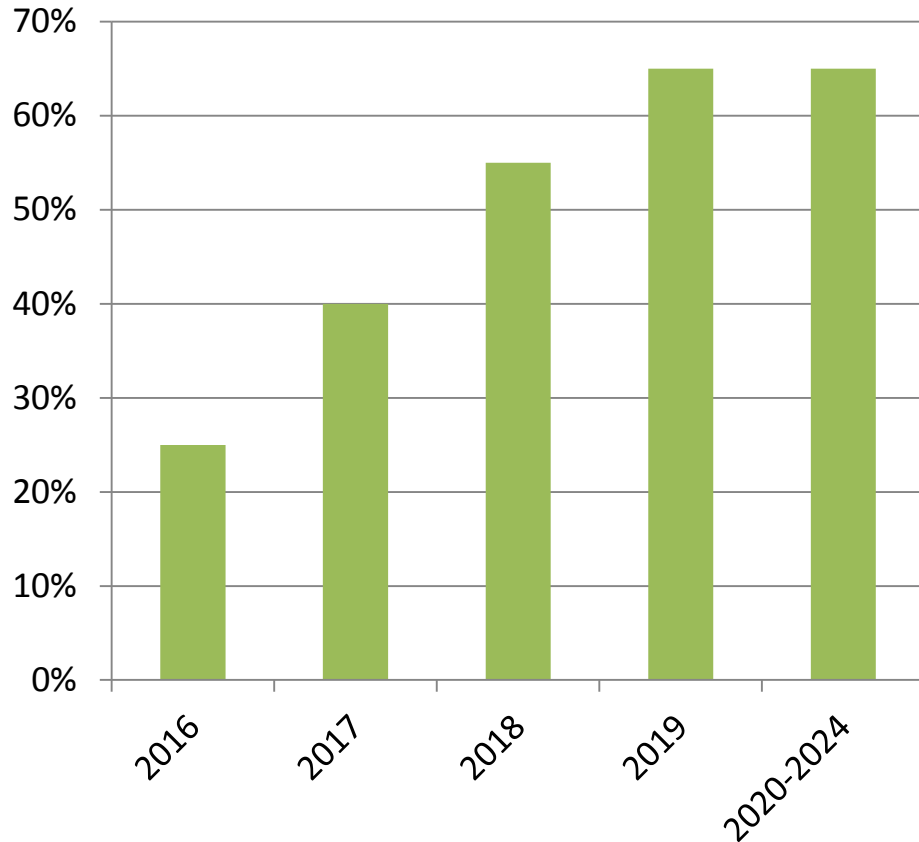
- Russia has a rich and extensive scientific history, with a large pool of capable engineers and other talent
- This includes a long history of wind power, though on a small scale
- Some engineering and construction work is done according to different standards
- International investors may not be comfortable with these standards and doing things “the Russian way”



Sputnik-1 Satellite

LOCAL CONTENT REQUIREMENTS

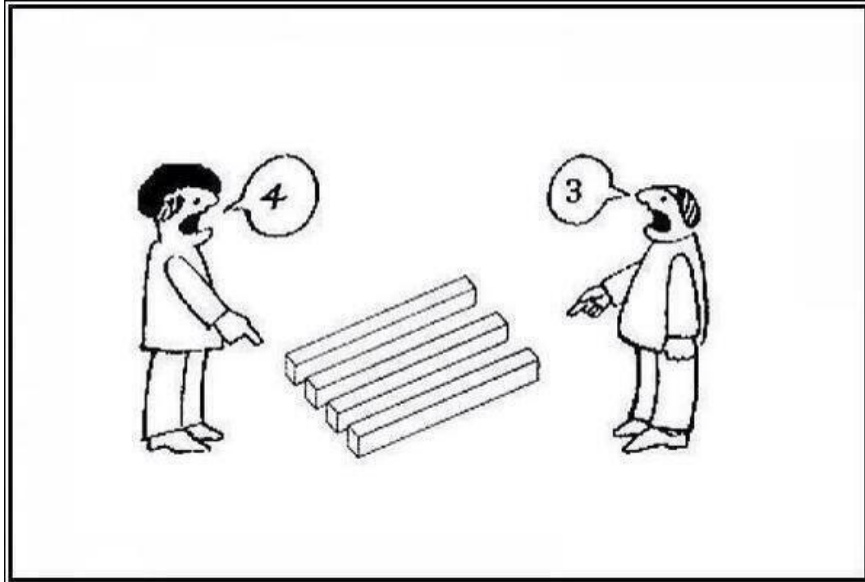
Local content requirement for wind projects (Decree 449)



Local content requirements create further obstacles and uncertainty for international investors

- Currently no capacity for local production of turbines, blades
- Other locally produced equipment may not be internationally certified
- Less of a track record and experience than international manufacturers

REAL VS. PERCEIVED RISKS: WHO IS CORRECT?



Perception *is* the financial reality

- Given the local conditions, investors often view the risks and realities of the project differently.
- They view risks in Russia and other less-developed renewable energy markets that may or may not exist.
- IFIs can play a role in harmonizing the needs of international investors and local conditions

IFC AND IFIs: GETTING EVERYONE ON THE SAME PAGE

Local

Regulation

- Complex, unique to local conditions
- Access to local gate-keepers

Technical

- Highly skilled but want to do things own way

Economic

- Lack of financing for projects
- Budget shortfalls



International

Regulation

- Long history and experience in what works (and doesn't)
- Don't know who to talk to

Technical

- Industry best practices, mature technologies

Economic

- Access to finance
- Specialized development funds

IFC InfraVentures

Objectives, structure and working:

- IFC InfraVentures is a global infrastructure project development fund
- \$100 million fund with five-year fund life
- Mandate to invest in infrastructure projects in IDA borrowing countries*
- For each project, IFC InfraVentures can fund up to US\$ 4 million of project development expenses at an early stage. Typically, this would be 20-30% of the early-stage financing required to bring the project to financial close.
 - In selected situations, IFC InfraVentures may take a larger stake or even lead project development as a “surrogate” sponsor
- In return, IFC InfraVentures will take a stake in the equity of the project at financial close
 - This is not grant funding
 - Additional debt and equity to fund construction could come from other parts of IFC’s balance sheet (would be subject of a separate agreement)
- Fund staff work proactively as co-developers of the project, alongside the lead sponsor. Dedicated, experienced senior professionals are deployed

* For a list of IDA borrowing countries, see <http://www.worldbank.org/ida/borrowing-countries.html>

IFC InfraVentures (cont)

Project eligibility criteria:

- Must be a PPP or private infrastructure project in an IDA country/region
- Must be at early stages of development
- Type of projects include :
 - Sponsor has agreement with Government
 - Projects being tendered by the Government
 - Projects not requiring contract with Government
 - “Post-conflict country” initiatives
 - Projects in need of a surrogate sponsor at the initial stages
- IFC InfraVentures seeks to invest in projects that could reach financial close within a few years
- Project must meet IFC’s Additionality guidelines
- Must have high development impact /powerful demonstration effect

CLEAN TECHNOLOGY FUND (CTF)

Project eligibility criteria:

- The \$5.3 billion Clean Technology Fund (CTF), a funding window of the Climate Investment Funds.
- Established in 2008 to provide scaled-up financing to middle income countries to contribute to the demonstration, deployment and transfer of low carbon technologies with a significant potential for long-term greenhouse gas emissions savings.
- CTF concessional financing, channeled through five partner multilateral development banks (MDB), focuses on large-scale, country-led projects in renewable energy, energy efficiency, and transport.
 - AfDB, ADB, EBRD, IDB, WBG
 - \$6.1 billion is allocated under the CTF for 134 projects and programs, expecting co-financing of \$51 billion from other sources.
 - CTF allocations are projected to result in approximately 1.7 billion tons of CO2 emission reductions over their lifecycle—like taking 350 million cars off the road.
 - CTF \$3.3 billion (54% of CTF allocations) is approved and under implementation for 59 projects, expecting \$31 billion in co-financing. Projects aim to deliver 15 GW of renewable energy capacity of which 2 GW is already installed.



Thank you!

Спасибо!

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Merci!