Financing renewable energy projects: Lessons learned in Russia

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Russia renewable energy program

30 September 2015
<table>
<thead>
<tr>
<th>IBRD</th>
<th>IDA</th>
<th>IFC</th>
<th>MIGA</th>
<th>ICSID</th>
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</thead>
<tbody>
<tr>
<td>International Bank for Reconstruction and Development</td>
<td>International Development Association</td>
<td>International Finance Corporation</td>
<td>Multilateral Investment and Guarantee Agency</td>
<td>International Centre for Settlement of Investment Disputes</td>
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<tr>
<td>Loans to middle-income and credit-worthy low-income country governments</td>
<td>Interest-free loans and grants to government of poorest countries</td>
<td>Solutions in private sector development</td>
<td>Guarantees of foreign direct investment’s non-commercial risks</td>
<td>Conciliation and arbitration of investment disputes</td>
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**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
### 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

<table>
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<tr>
<th>2010</th>
<th>Project Completion</th>
<th>2017</th>
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<tbody>
<tr>
<td>RE friendly market infrastructure in place</td>
<td>• 5 mln tons of GHG reductions</td>
<td></td>
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<tr>
<td>Functioning support schemes in pilot regions</td>
<td>• US$366 mln facilitated into RE</td>
<td></td>
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<tr>
<td>Dedicated RE finance available in Russia</td>
<td>• Enabling regulatory and incentive framework in place in 2 – 3 pilot regions</td>
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<tr>
<td>OBJ 1. Development of market infrastructure for RE technologies</td>
<td>• 770 GWh of electricity generated from new RE installations</td>
<td></td>
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<tr>
<td>OBJ 2. Development of incentive schemes for RE</td>
<td>• 205 MWel of renewable power generation installed</td>
<td></td>
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<tr>
<td>OBJ 3. Support development of RE financing products</td>
<td>• 20 – 200 mln tons (CO₂eq) of indirect GHG reductions</td>
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<td></td>
<td>• 30 RE projects reaching financial closure</td>
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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”
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

support legislation for renewable energy in Russia
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 underfinanced 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 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?

- 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.

Perception is the financial reality.
Local

Regulation
• Complex, unique to local conditions
• Access to local gatekeepers

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 AND IFIs: GETTING EVERYONE ON THE SAME PAGE
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!

Merci!

Спасибо!