

# Financing renewable energy projects: Lessons learned in Russia

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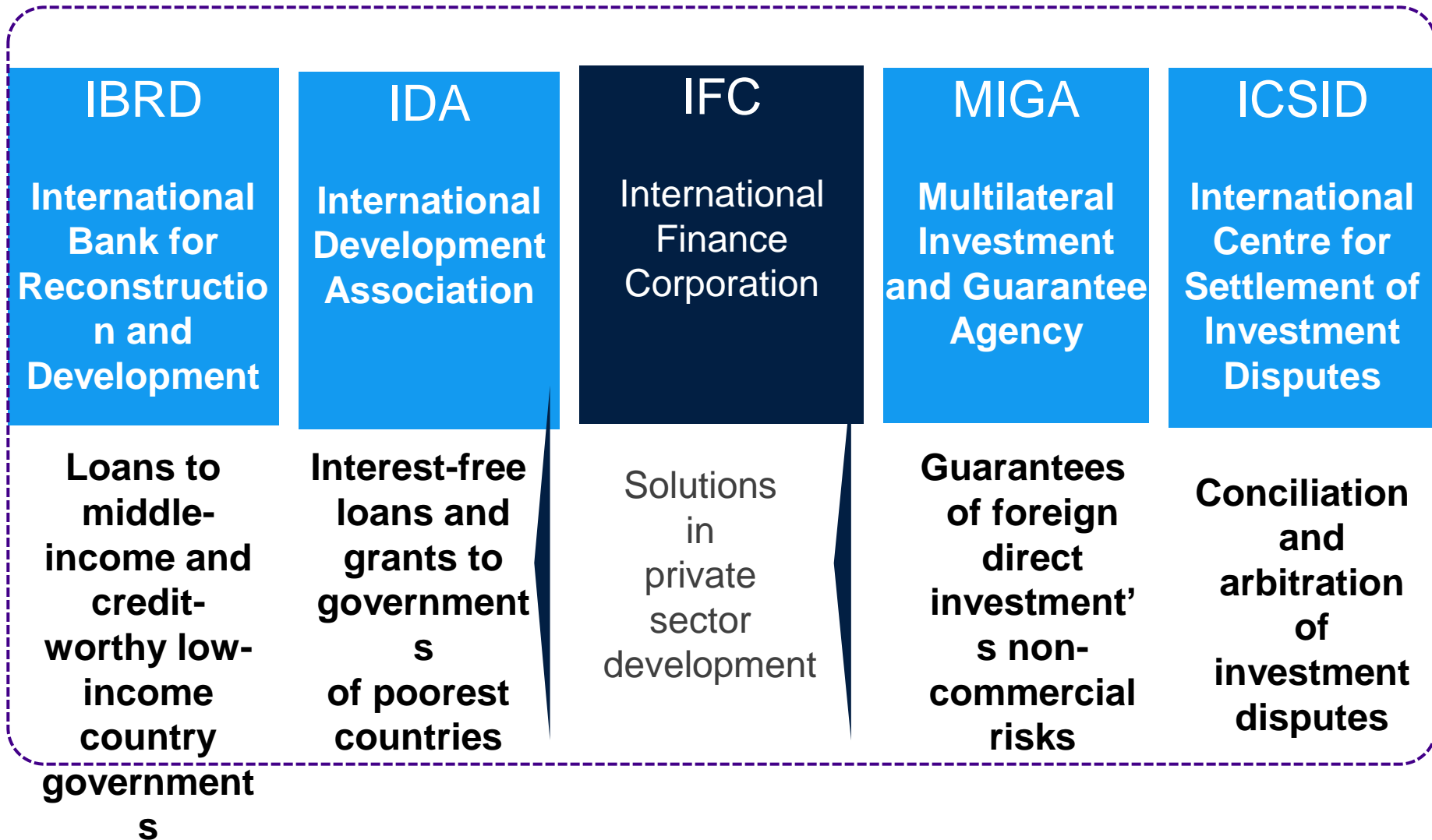
**IFC**

**International  
Finance Corporation**

WORLD BANK GROUP

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# 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)**

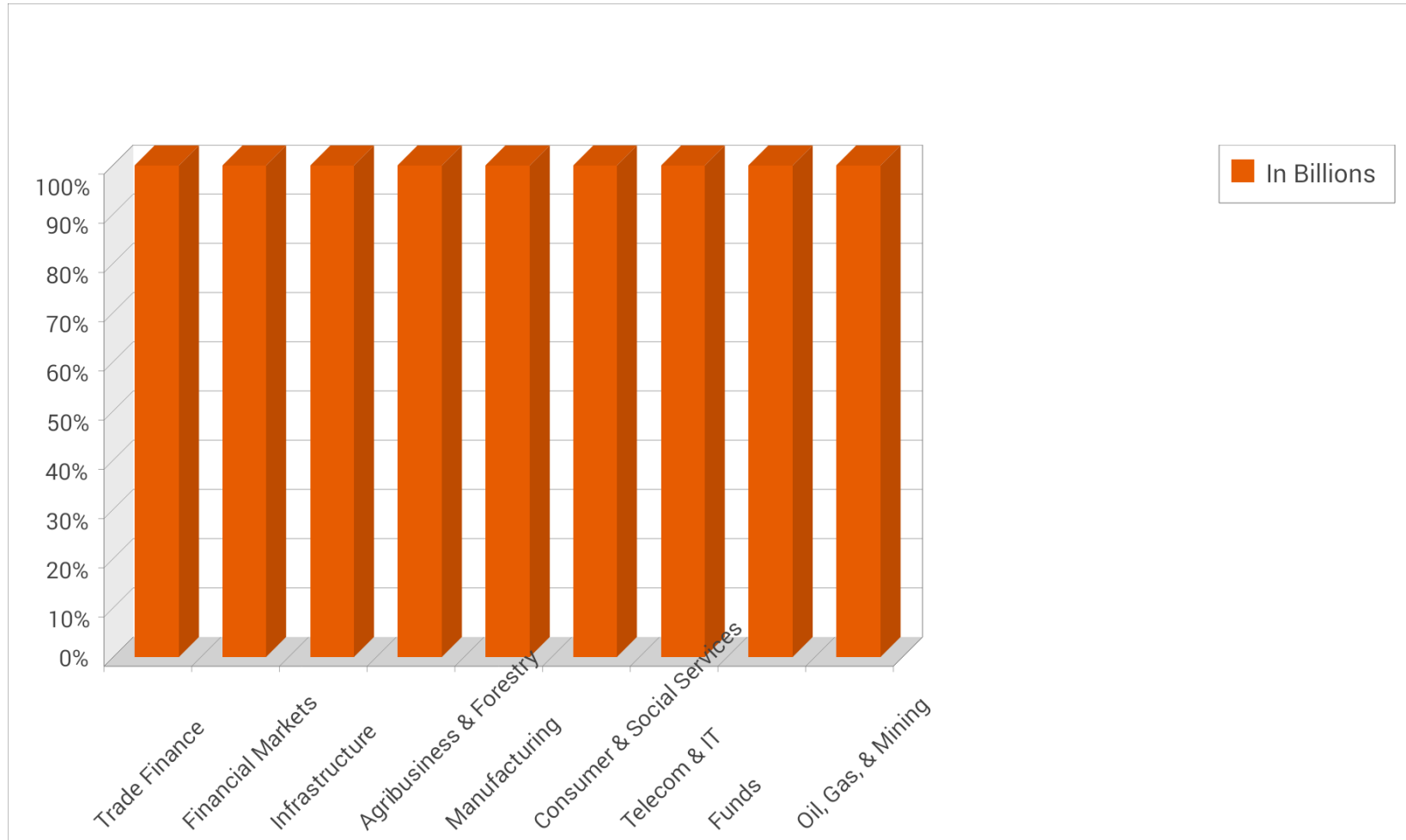
### **IFC ASSET MANAGEMENT COMPANY**

- **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 MWe1 of renewable power generation installed
- 20 – 200 mln tons (CO<sub>2</sub>eq) 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**

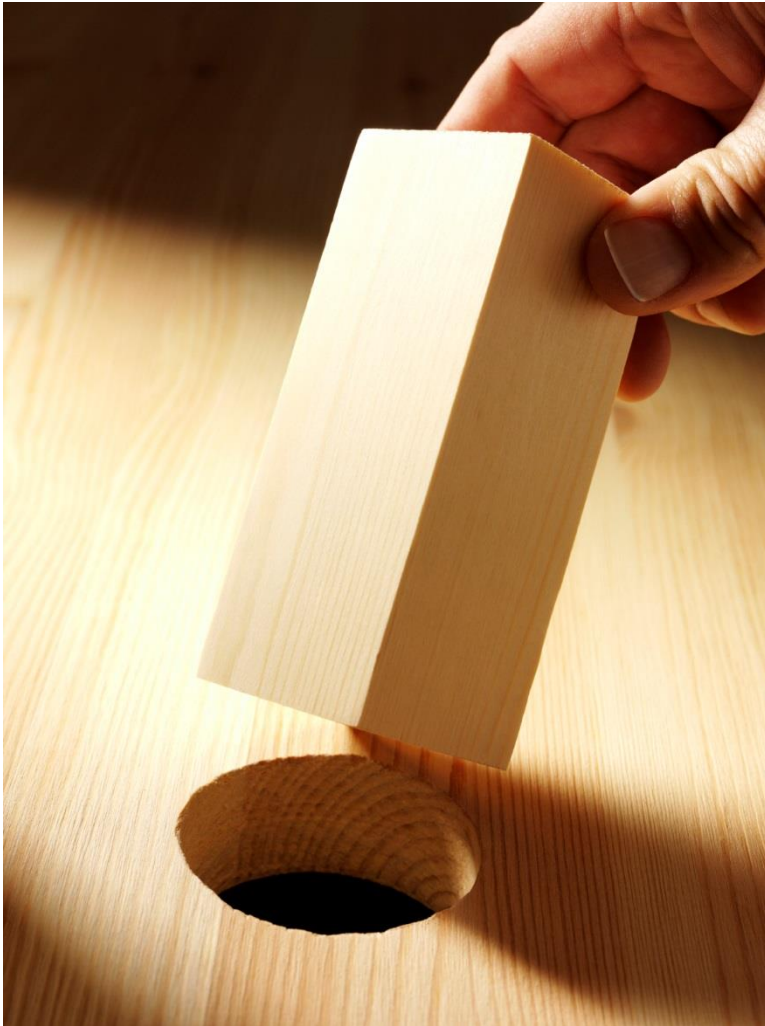
**Project developer concerns**

**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:	<b>28<sup>th</sup> May 2013</b>
Supported Technologies:	<b>Wind, Solar, Small Hydro</b>
Support mechanism:	<b>Capacity payments (not FIT)</b>

- 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

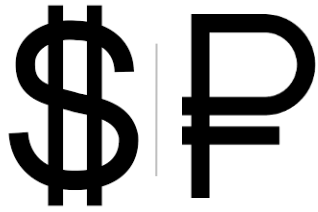
## ***Complex local regulations***



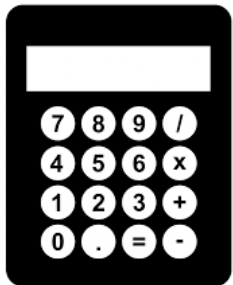
### ***Other issues encountered in project development:***

- ***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***

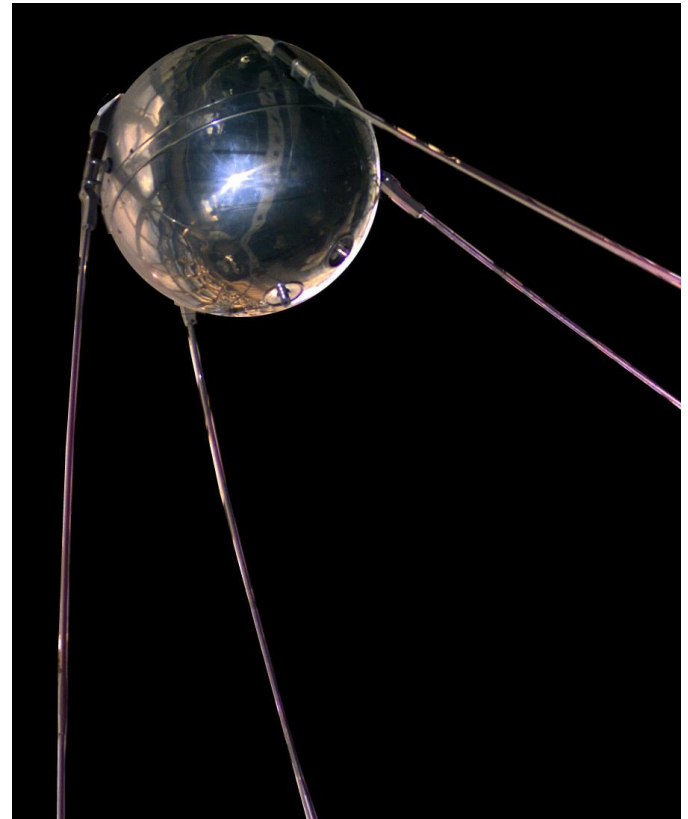


- **Anything overlooked can significantly delay a project or (at worst) cause it to fail**
- **Project developer should commit to paying for due diligence - puts “skin in the game.”**
- **Integrity due diligence: IFC and other IFIs often have higher social and environmental standards**
- **Political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

# Local technology and expertise

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

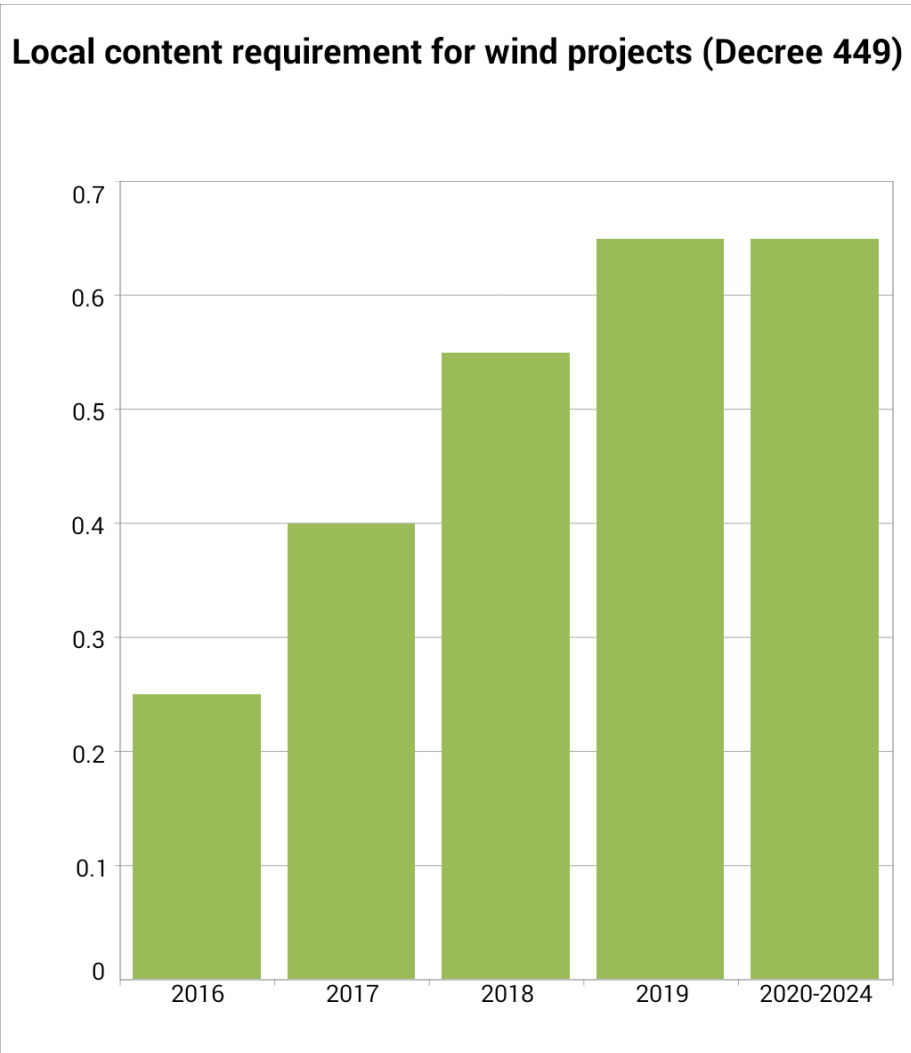
- **Russia has a rich and extensive scientific history, with a large pool of capable engineers and other talent**
- **This includes a long history of wind power, though on a small scale**
- **Some engineering and construction work is done according to different standards**
- **International investors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



**Sputnik-1 Satellite**



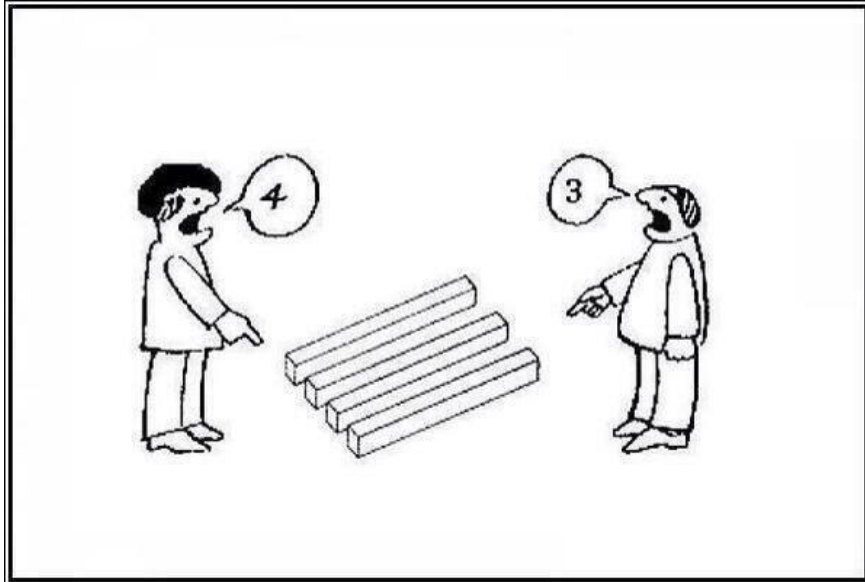
# Local content requirements



## Local content 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.**

