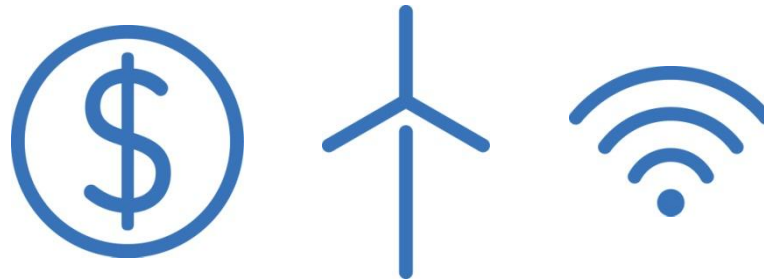


Investment, trade & development:

The role for multilateral and bilateral agencies in energy infrastructure



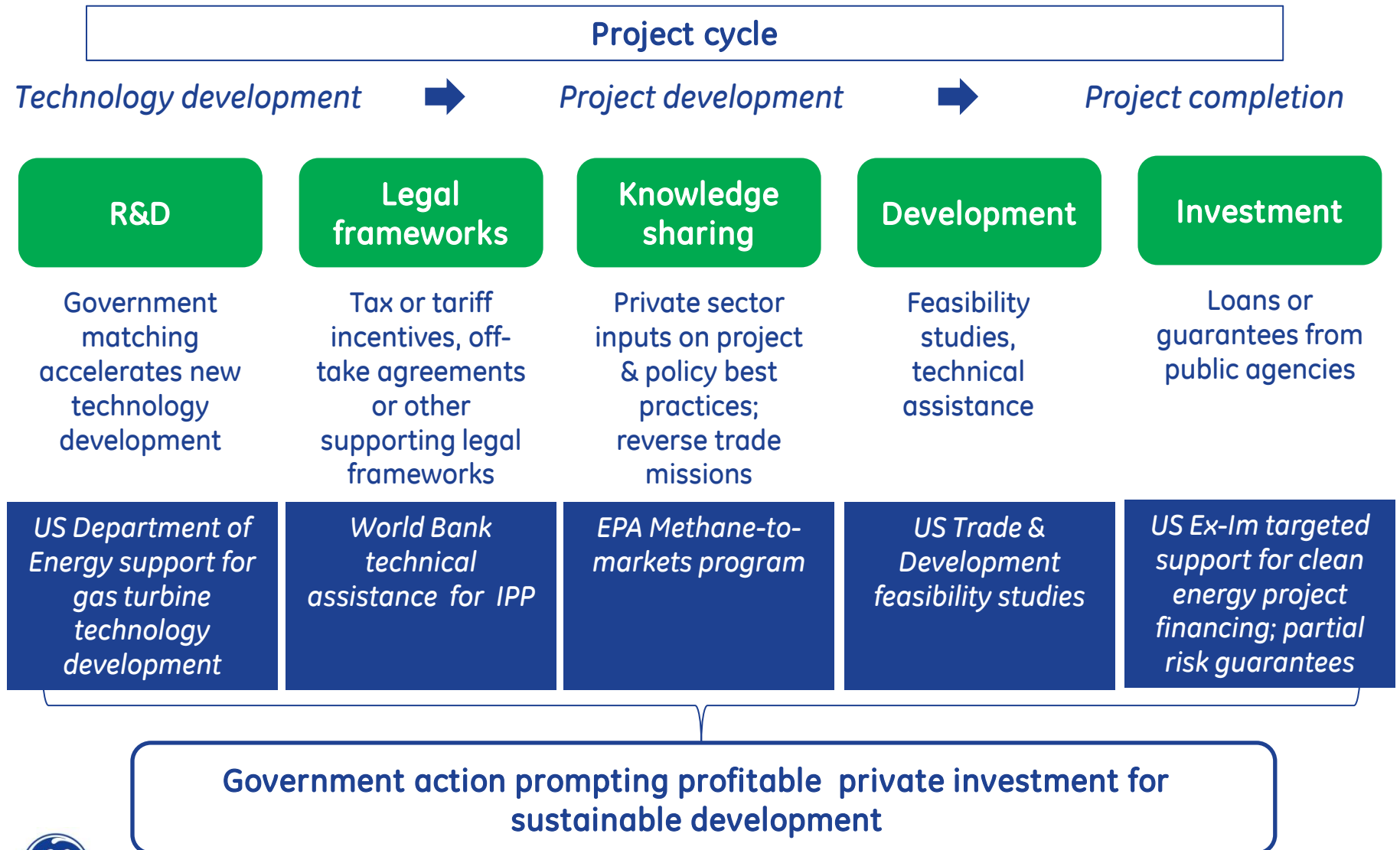
Hannah Kaplan
GE Energy
June 5, 2012

Quantum Leap in Wind 2012
Asian Development Bank



imagination at work

Support for energy projects



5 challenges for energy in the developing world

- Development of bankable projects
- Reliable government commitments
- Scalability of pilot programs
- Services for remote/distributed sites
- Local capacity

Energy and global trade

Government intervention

Tariffs on cleaner energy

Gas turbine tariffs

Nigeria	10.0%
Russia	10.0%
India	7.5%
S. Korea	6.3%
Canada	4.8%
E.U..	4.1%
China.	3.0%
U.S.	1.3%

Wind turbine tariffs

Mexico	10.0%
China	8.0%
S. Korea	8.0%
India	7.5%
Russia	5.0%
U.A.E.	5.0%
E.U.	2.7%
U.S.	1.3%

Local content requirements



Tariff and non tariff barriers should be eliminated

Mongolia wind IPP – Salkhit wind farm

Project description

- First wind farm planned in Mongolia – 70 km outside Ulaanbaatar
- 50 MW project = 31 units x 1.6 MW, first units ship in 6/2012 (est)
- 5% of Mongolia's electricity usage
- Investment capital from EBRD, FMO, IFC, Newcom (private Mongolian conglomerate) and GE
- 26 - year power purchase agreement with Mongolian government, at \$US 0.095/kWh
- GE field services engineers for first 5 years of project

R&D

Wind technology development with support from government programs from multiple countries

Legal framework

Mongolia National Renewable Energy Program 25% by 2020; ADB support for IPP framework

Knowledge sharing

Asian Development Bank "Quantum Leap in Wind" program

Development

MCC support through tariff supplement for project, Wind feasibility studies supported by MDBs investors;

Investment

EBRD and FMO investment in wind farm, total investment of \$100 MM

Lessons learned

1. Government role with private sector at all stages of project development
2. Government can cut project costs through trade policy
3. Services model is critical

Essentials

- ✓ Project must be economically sustainable
- ✓ Political will required to implement and maintain necessary policies



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