



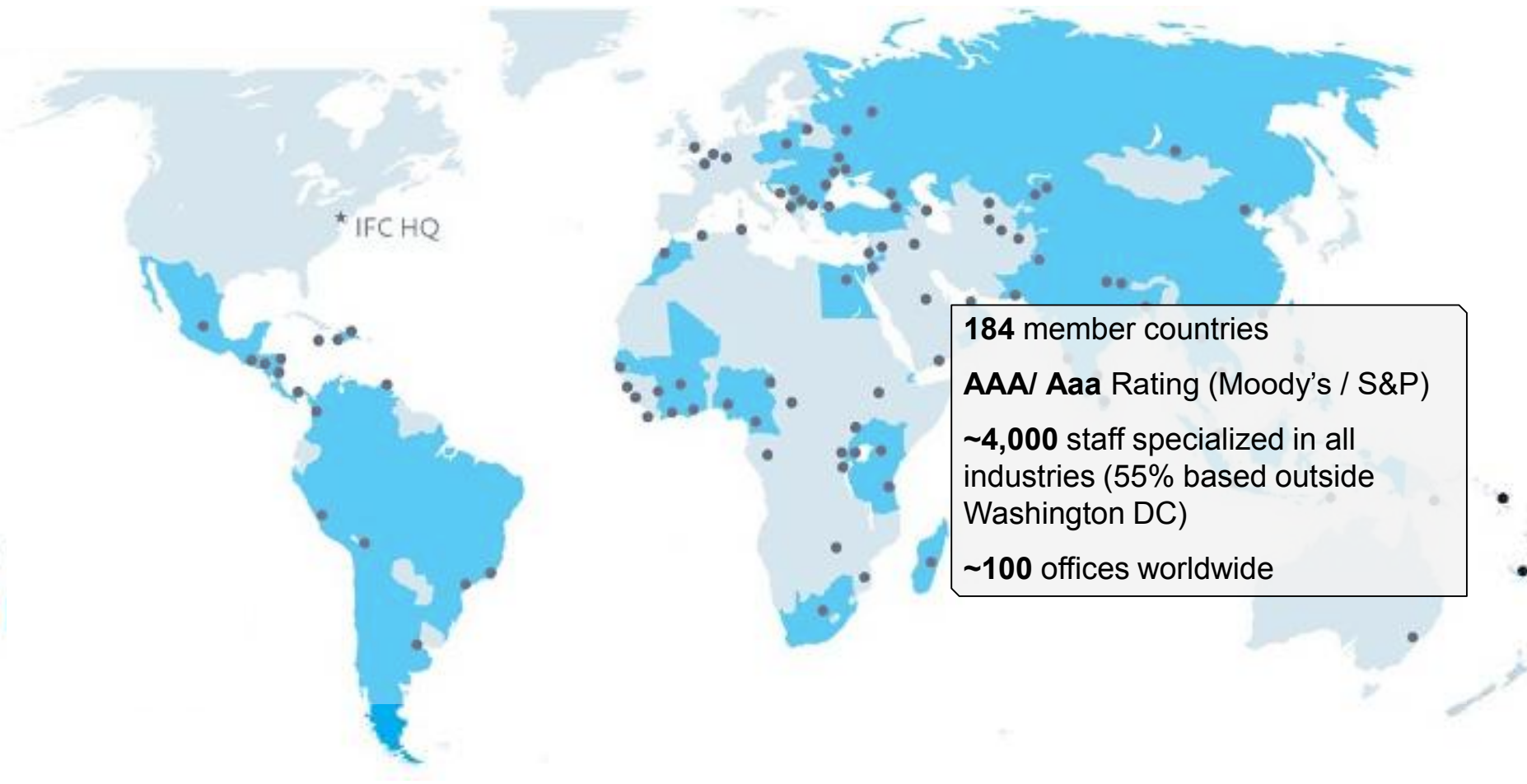
IFC in the Power Sector

November 14, 2019
Chisinau



Creating Markets, Creating Opportunities

A Global Presence to Attend the Needs of Private Clients in the Regions



How does IFC fit within the World Bank Group?

IBRD
*International Bank
 for Reconstruction
 and Development*

Est. 1945

Role: To promote institutional, legal and regulatory reform

Clients: Governments of member countries with per capita income between \$1,025 and \$6,055

- Products:**
- Technical Assistance
 - Loans
 - Policy Advice

IDA
*International
 Development
 Association*

Est. 1960

To promote institutional, legal and regulatory reform

Governments of poorest countries with per capita income of less than \$1,025

- Technical Assistance
- Interest Free Loans
- Policy Advice

IFC
*International
 Finance Corporation*

Est. 1956

To promote private sector development

Private companies in 184 member countries

- Equity/Quasi-Equity
- Long-term Loans
- Risk Management
- Advisory Services

MIGA
*Multilateral
 Investment and
 Guarantee Agency*

Est. 1988

To promote Foreign Direct Investment in member countries

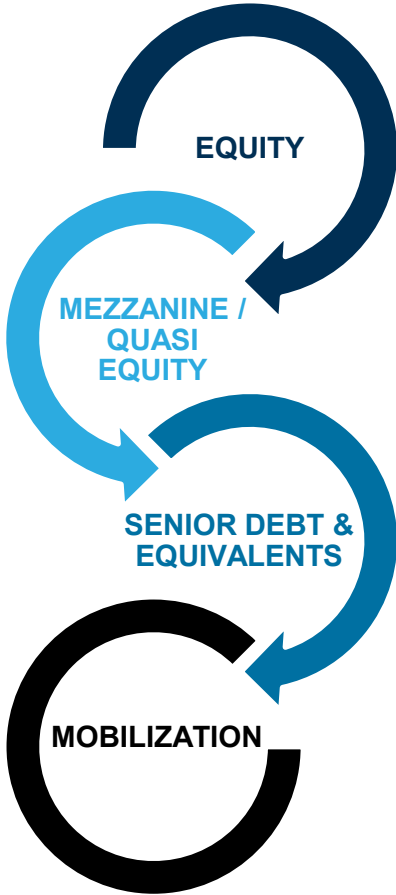
Foreign investors in member countries

- Political Risk Insurance

← **Shared Mission: To promote Economic Development and Reduce Poverty** →

A One-stop Financial Shop for the Private Sector in Emerging Markets

A COMPREHENSIVE RANGE OF FINANCING INSTRUMENTS



IFC Product Offering

6-8 Year investment
 Common or preferred equity
 Minority shareholder
 Passive partner (depending on company's needs)

Subordinated loans
 Income participating loans
 Convertible loans

Corporate loans: reserve based lending, straight corporate debt, partial credit guarantees for bonds
 Long-term project finance: greenfield, expansion

Debt mobilization from other lenders through A/B Loan structure and parallel lenders,
 Equity mobilization through self-managed funds and other co-investors,
 Over 60-cofinanciers: commercial banks, funds, DFIs

Main Conditions

Up to **20%** of the capital but can also bring **self-managed funds** to reach stakes of up to **49%**

Up to **25%** of project cost in greenfield investments (IFC's own account)

Up to **50%** of project cost in modernization investments (IFC's own account)

Up to **100%** of debt financing (IFC's own account + **mobilization**)

Fixed and **floating** rates

MXN & **US\$** currencies

Up to **20-year** tenors

IFC is a Leading Investor in the Emerging Markets Power Sector

IFC's FY2018 Commitment Activity: US\$3.6 billion invested (9% CAGR since 2013)

IFC's FY2018 Renewable Energy gross commitments amounted to **US\$2.8 bn** (77% of IFC Power)

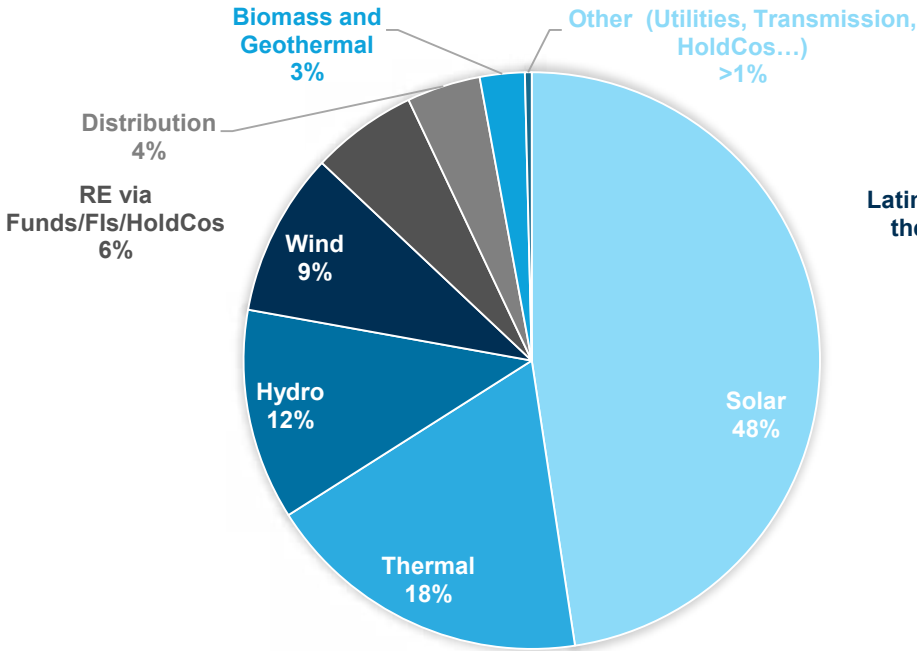
IFC Investments

- Generation – 48,000+ MWs to date
- Transmission – 13 investments to date, including financing of greenfield private transmission assets
- Distribution – 38 investments to date, reaching > ~165 million customers
- Early stage start ups in renewable energy, distributed generation and battery storage
- Financial intermediaries (banks, PE funds) who reach smaller assets/companies
- Platforms, HoldCos and sub-sovereign entities with regional or global footprint

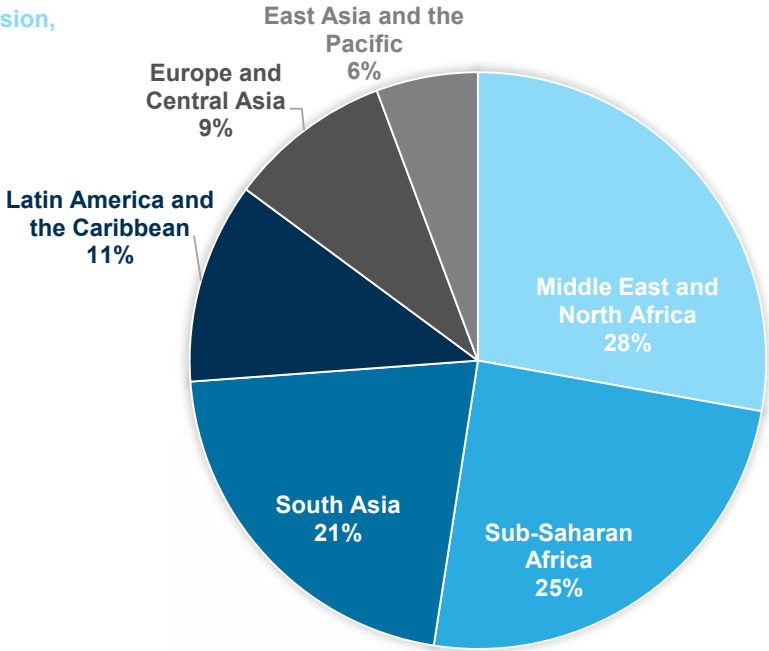
FY2018 Power Highlights

FY2018 Commitment Activity: US\$3.6 billion invested, including US\$1.4 billion for IFC’s own account and US\$2.2 billion of mobilization

FY2018 Commitment Activity by Sector



FY18 Commitment Activity by Region

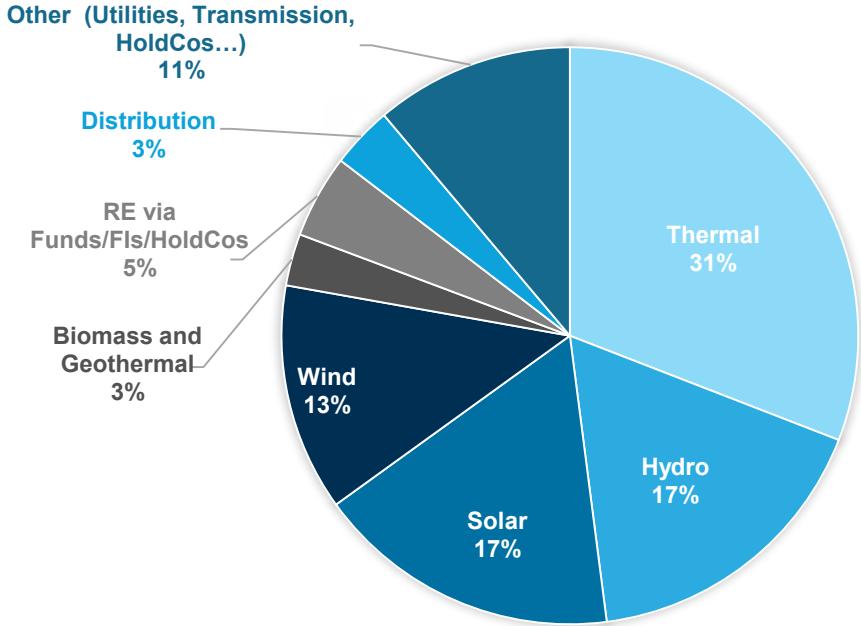


Note: IFC year-end is June 30th

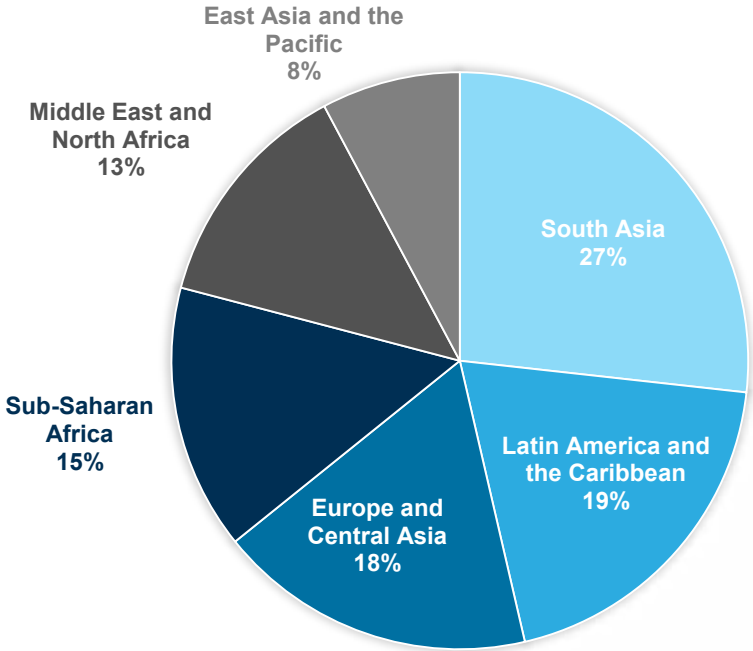
FY2018 Power Highlights

FY2018 Committed Portfolio: US\$6.7 billion of committed debt and equity as of June 2018. Power represents 51% of US\$13.3 billion committed debt and equity in all Infrastructure.

FY2018 Committed Portfolio by Sector



FY2018 Committed Portfolio by Region



Note: IFC year-end is June 30th

Far-reaching Experience Arranging and Financing Complex Power Projects Globally

Select power projects recently financed by IPP across the globe*

Europe / Middle East / Central Asia

Egypt	Egypt FIT	\$799 mn	Lender/ Arranger/ Swap Provider, 2018
Jordan	Masdar Baynouna	\$193 mn	Lender/ Arranger/ Swap Provider, 2017
West Bank & Gaza	PRICO Solar	\$4 mn	Lender/ Swap Provider, 2017
Jordan	ACWA Zarqa	\$497 mn	Arranger/ Lender, 2017
Iraq	MGES Power	\$375 mn	Lender / Arranger / Investor, 2016
Turkey	Akfen Energy	\$100 mn	Investor, 2016

South Asia / East Asia

India	Rewa India	\$437 mn	Lender, 2017
Bangladesh	Summit Mezzanine	\$176 mn	Lender / Arranger/ Investor, 2017
Bangladesh	Sembcorp – Sirajganj	\$240 mn	Lender / Arranger, 2017
Myanmar	Sembcorp - Myingyan	\$57 mn	Lender, 2017
India	Ostro Energy	\$179 mn	Lender / Arranger, 2016
India	Hero Future Energies	\$115 mn	Investor / Arranger, 2016
Vietnam	GEC Hydro	\$10 mn	Investor, 2016

Latin America

Brazil	CELSE	\$200 mn	Lender, 2018
Argentina	La Castellana	\$66 mn	Lender / Swap Provider, 2018
Dominican Republic	PECASA Wind	\$64 mn	Lender, 2017
Mexico	Solem I & II	\$55 mn	Lender / Swap Provider, 2017
Panama	Penonome	\$300 mn	Lender / Arranger, 2014

- IFC Offices
- Countries where IFC has financed power projects

Sub-Saharan Africa

Zambia	Scaling Solar I & II	\$78 mn	Lender / Arranger, 2018
Burkina Faso	Zina Solaire (Windiga)	\$31 mn	Lender, 2017
Mozambique	CTRG	\$200 mn	Lender, 2017
Africa Region	Mainstream Africa	\$53 mn	Investor / Arranger, 2016

*Amounts represent total financing committed and mobilized by IFC

Diverse Set of Companies Trust IFC as a Global Partner with Local Presence

Multinational companies comprise half of IFC power business, such as:

- Long-term partnerships with key strategic players
- Work closely with renewable energy companies expanding into emerging markets
- Help companies access capital at project, holdco and corporate levels

“Local” companies are becoming regional / global and a larger share of IFC business on the back of market reform. IFC engages in the following ways:

- Power companies investing in the ‘home’ country or expanding into other emerging markets
- Local industrials expanding into the power sector

IFC also works with **emerging renewable energy companies**

- Supporting newly started local renewable energy firms, as they begin to build their first projects
- Players that are innovating in distributed energy, storage, and other offgrid solutions

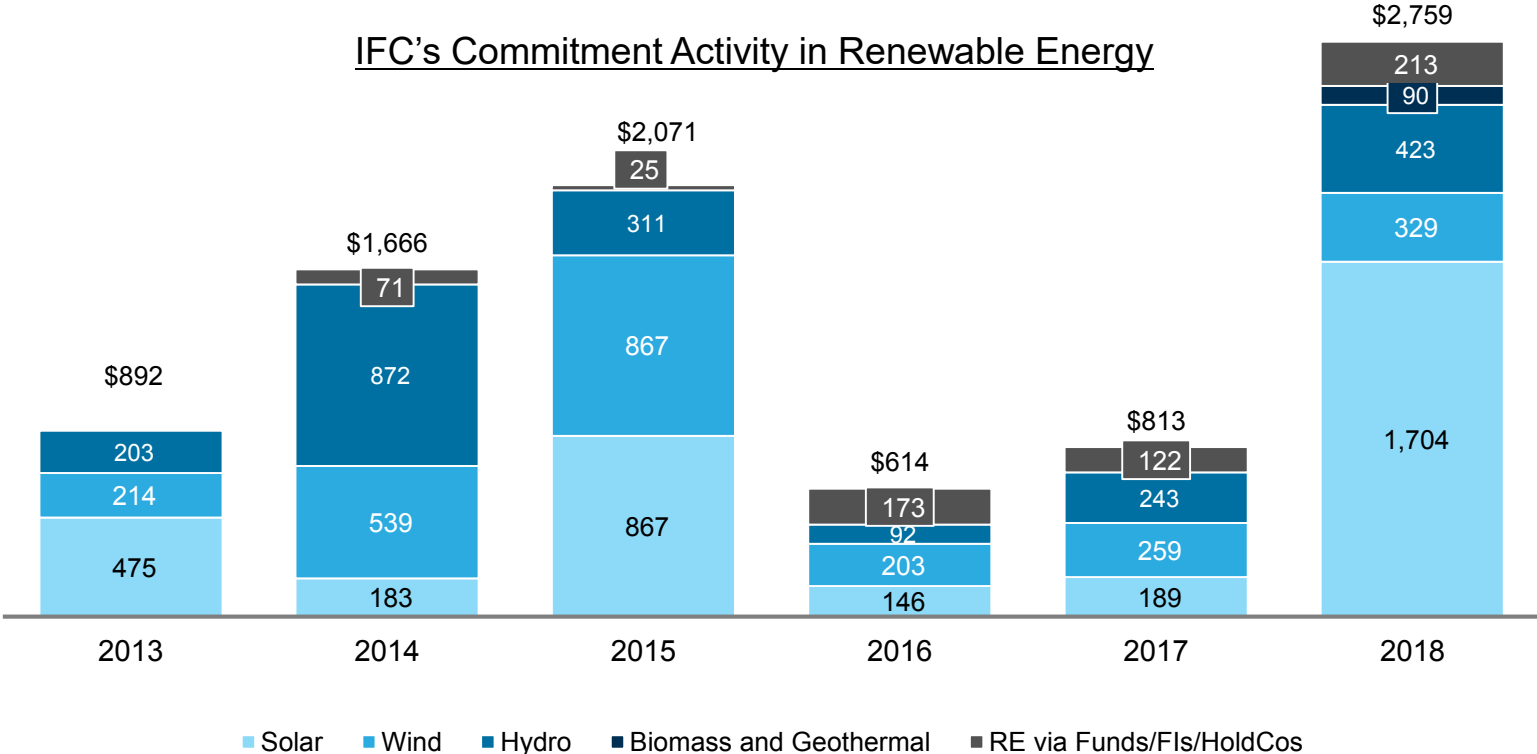
IFC works with **sub-sovereign entities and governments** to create vehicles for private participation



IFC's Case For Renewables – Fueling Growth and Combating Climate Change

- Developing countries have a clear need to power **economic growth** and to improve quality of life of their citizens (e.g. access to lighting and communications)
- Need to **diversify generating sources** and where possible, deploy indigenous power rather than using foreign exchange to import fuel
- **Climate change** and environmental concerns tied to use of coal, gas and oil fired power generation persist
- As capital costs decline, solar, wind and other forms of **renewable energy** present increasingly attractive opportunities for private investors in emerging markets

IFC's Commitment Activity in Renewable Energy



IFC's Value-Add in Power Transactions

From Patient Equity to Long Term Debt	Sector Expertise	Country Risk Mitigation	Environmental & Social Risk Management	Advisory Services
<p><u>Equity</u></p> <ul style="list-style-type: none"> • Up to 20% in project or company • Start-up equity / co-developer (IFC InfraVentures) <p><u>Sub-debt</u></p> <ul style="list-style-type: none"> • Terms tailored to meet project needs <p><u>Debt</u></p> <ul style="list-style-type: none"> • Long Maturities Tailored to Project Needs • Fixed/Floating Rates, Local Currencies • Flexible Amortization Profile • Syndication/ Mobilization from commercial banks and DFIs 	<ul style="list-style-type: none"> • Deep sector knowledge gained from experience • In-house Engineers • In-house Market Expertise • In-house Regulatory Expertise 	<ul style="list-style-type: none"> • Government Relations • Neutral broker Role • World Bank Synergies • World Bank Guarantees • MIGA • Coordinated approach across WBG services (ex: MIGA Political Risk Insurance (PRI), IDA Bank Guarantee) 	<ul style="list-style-type: none"> • Environmental and Social Best Practices • Equator Principles Modeled after IFC Standards • Governance 	<ul style="list-style-type: none"> • Private sector perspective to governments • Introductions + matchmaking • Cross-border support + Sector knowledge • Access to Donor Funding/Concessionary Support Coordination/Carbon Finance • Programs to assist client, including: Local Supplier Development, Corporate Governance, Community Development Funding

Pioneer Investments in EMENA

2017

First privately financed energy infrastructure project in Gaza over the past 10 years (FCS RE Prico Solar)



2016

First equity investment in a CCGT asset in Iraq (MGES Power)
First investment in a competitively tendered RE project in MENA (FRV Jordan)



2015

First equity investment in Turkish power sector (Gama Enerji)
First privately financed grid connected solar PV projects in MENA, innovative structuring approach to simultaneously close seven separate deals (Seven Sisters program, Jordan)



2013

First private distribution company in Pakistan (Karachi Electric)



2012

First internationally financed wind IPP in Pakistan (Zorlu)



2011

First crossborder power export project from Georgia to Turkey (Paravani)
First wind project financed under a market based support mechanism (EDPR Romania)



2009

First wind farm project financing in Bulgaria (AES)
First international commercial bank project financing for wind in Turkey (Rotor Elektrik)
First hydro IPP in Pakistan (84MW Laraib)
First electricity disco privatization in Jordan (EDCO)



2008

First merchant plant financing in Turkey (Enerjisa)



Major Investor in Fossil Fuel-based Thermal Generation

IFC Approach:

- Increased focus on natural gas
- Climate friendly measures (e.g. energy efficiency, gas flaring reduction)
- Diesel and heavy fuel oil where limited alternatives exist

IFC Experience:

119 investments with a total capacity of 27GW. Latest projects include:

Brazil




LNG-to-Power
1,516MW CCGT

US\$200mn loan




2018

Bangladesh



SM2PCL
590MW Multi-fuel

US\$120mn loan



2018

Mozambique



CTRG
175MW gas fired

US\$60mn loan
US\$140mn mob.



2017

Iraq



MGES Power
500MW CCGT

US\$250mn loan & equity
US\$125mn mob.



2016

Senegal




Cap des Biches
53MW HFO fired

US\$9mn equity
US\$91mn mob.



2016

Nigeria



Azura Edo
450 MW OCGT

US\$80mn loan
US\$215mn mob



2015

* as of July 2018.

Leading Investor in Wind Power in Emerging Markets

IFC Approach:

- Products that optimize leverage, e.g. deferrable subordinated debt that take more wind risk layered on top of senior debt
- Can mobilize concessional financing where appropriate
- Deep understanding of new regulatory support mechanisms and risk

IFC Experience:

57 investments with a total capacity* of 4,150 MW. Latest projects include:

Argentina




La Castellana
100MW

US\$38 mn loan
US\$28 mn mob.




2018

Dominican Republic



PECASA
50MW

US\$19 mn loan
US\$45 mn mob.



2017

Serbia



Dolovo
158MW

US\$55 mn loan
US\$110 mn mob.



2017

India




Ostro Energy
198MW

US\$60 mn loan
US\$118 mn mob.




2016

Pakistan




Gul Ahmed
50MW

US\$15 mn loan & equity
US\$36 mn mob.




2015

Armenia



Green Infra
242MW

US\$55 mn loan
US\$110 mn mob.



2015

* as of July 2018.

Increasing Focus on Solar Power Generation

IFC Approach:

- Utility-scale plants
- Best-in-class start up developers
- Developing relationships with suppliers
- Can mobilize concessional financing where appropriate
- Deep understanding of new regulatory support mechanisms and risk

IFC Experience:


105 investments with a total capacity* of 3,965 MW. Latest projects include:

India



Rewa
750MW Solar PV

US\$127 mn loan
US\$310 mn mob.



2018

Egypt



Egypt FIT
752 MW Solar PV

US\$203 mn loan
US\$596 mn mob.



2018

Zambia



Scaling Solar I & II
88MW Solar PV

US\$28 mn loan
US\$50 mn mob.



2018

Mexico




Solem I & II
348MW Solar PV

US\$55 mn loan




2017

Jordan



Seven Sisters
90MW Solar PV

US\$79 mn loan
US\$116 mn mob.



2014

Honduras



SunEdison HON3
82MW Solar PV

US\$46 mn loan
US\$81 mn mob.



2014

* as of July 2018.

Experience in Distributed Generation (DG)


IFC Approach:

- A growing market: Distributed PV growth is expected to exceed utility scale PV growth in the next years.* 70% of DG growth will be in the Commercial & Industrial (C&I) segment.
- As the cost of solar PV continues to fall and new business models evolve, DG investment opportunities are opening up in IFC markets.
- IFC focuses on the C&I segment where deployment is driven by cost savings and grid reliability concerns. The LCOE of C&I solar is reaching socket parity.
- DG expands electricity procurement choices for end users, improves energy access and reliability, and helps companies achieve sustainability goals.

IFC Experience:


IFC has invested in renewables developers who are active in the C&I solar segment, captive DG projects and microgrid opportunities. Latest projects include:

Pacific Region



Sunergise
C&I Solar DG Developer

US\$2m equity



2014

India



CleanMax

US\$15m equity



2017

West Bank & Gaza




PRICO Solar
7MW

US\$4m loan




2017

India




Azure Solar
Rooftop Debt Facility

US\$35m loan +
US\$103m mobilization




2018

Myanmar



Yoma Micro-Power
250 solar hybrid
telecom minigrids

US\$7m equity



2018

UAE and Jordan



Yellow Door Equity

US\$5m equity +
US\$14m mobilization



2019

Experience in Transmission and Distribution

IFC Approach:

- Financing capital expenditure programs for distribution companies, including recently privatized companies – e.g. Sedas (Turkey), Umeme (Uganda), CEZ (Albania), EVN (Macedonia) and rural electrification concessions – e.g. Comasel (Senegal)
- Financing of greenfield private transmission assets – e.g. Powerlink (India) and privatized transmission assets (e.g. TDE, Bolivia)

IFC Experience:

38 distribution and 13 transmission investments*. Latest projects include:

Turkey




Zorlu Disco

US\$80 mn loan
US\$65 mn mob.




2018

Turkey



US\$106 mn loan
US\$58 mn mob.



2015

Brazil



Equatorial

US\$99 mn equity



2013

Kenya



Kenya Power
KPLC

US\$50 mn loan



2013

* as of July 2018.

Mobilization of Capital

IFC Approach:

- Bring the entire financing package to the table through own account investment and / or mobilization
- Equity Mobilization through the **Asset Management Company** (part of the WBG): US\$10 billion AUM as of December 2017 and through IFC's Equity Mobilization Program (bringing in reputable partners to co-invest alongside IFC)
- Debt Mobilization through Managed **Co-lending** Portfolio Program (**M CPP**) or syndication

IFC Experience:

From 2012 to 2018, IFC mobilized over US\$9.2 billion for power investments from commercial lenders and DFIs

Mozambique



CTRG
debt mobilization

US\$140 mn



2017

Iraq



MGES Power
debt mobilization

US\$125 mn



2016

India



Ostro Energy
debt mobilization

US\$120 mn



2016

Senegal




Cap des Biches
debt mobilization

US\$91 mn



2016

**Bangladesh/
Singapore**



Summit
equity mobilization

US\$114 mn



2016

Brazil



Enel
debt mobilization

US\$100 mn equivalent



2014

* as of July 2018.

Local Regulatory Frameworks and Market Reforms

IFC's View on Regulatory Frameworks

- In energy projects **change in regulation** is a **key risk** (feed-in tariffs, tax credits, etc)
- IFC provides
 - **Assessment of stability and predictability** of a country's regulatory framework
 - **Support for increased competition and fair market access**
 - **Support** in case of **regulatory changes**
- Experience in market reform efforts leads to deep in-house power market expertise
- Teams work for governments and companies from either side of the "Chinese wall"
- We leverage our relationship with the World Bank (IBRD)

IFC Experience:

Argentina

- At the request of the Secretariat of Energy, helped **draft the PPA** for the first renewable power auction under the new Renewable Electricity Law in Argentina
- In coordination with the World Bank, helped prepare a **USD 500 mn World Bank Guarantee** for potential termination events for 1,000 MW of renewable energy projects
- At the request of the Secretariat of Energy, helped review the **FODER** Trust Joinder Agreement (payment scheme), **RFP** (bid documents) and the compatibility of both documents with the PPA and PRG
- Targeting 2-3 renewable energy projects for **USD 100 mn in IFC A-loans** and additional mobilization from bilateral banks and commercial banks to support Argentina's new renewable energy program

Mexico

- Recently financed one of the largest projects to come out of the **auctions** (Solem I & II, 290MW)
- Actively participated providing comments and feedback to Mexico's **new Electricity Law** and its regulations
- Presented in several workshops best-practice on the workings of deregulated markets to the Secretariat of Energy, Regulator, System Operator and Industrial Groups
- Designed and structured **the first wholesale and retail aggregator** to commercialize power and green certificates under Mexico's new deregulated power sector with the hope to help offload contractual commitments from the State Owned Utility (CFE)
- Targeting investments in **renewable power and CCGTs** under hybrid contractual and merchant schemes under the new deregulated scheme

Infrastructure & Natural Resources – Investing Across Sectors and Regions

- Local presence in key markets
- Extended team covering both global giants and local leaders

Power	Utilities	Transport Infrastructure	Transport Services	Natural Resources
<ul style="list-style-type: none">• Generation, thermal and renewable• Transmission• Distribution• Integrated Utilities• DER, Storage	<ul style="list-style-type: none">• Water, Waste• Privatized Public Services	<ul style="list-style-type: none">• Airports• Ports• Roads• Railroads	<ul style="list-style-type: none">• Logistics• Shipping• Airlines• Rolling Stock	<ul style="list-style-type: none">• Oil & Gas• Gas Distribution• Mining• Pipelines• LNG

