



# Unlocking infrastructure investment opportunities

**PIDG at the Africa Energy Forum 2018**

Cover: Redavia's off-grid solar farm is providing power to the remote village of Shitunguru, western Tanzania. Supported by InfraCo Africa.

## Unlocking infrastructure investment opportunities

### Are you an investor looking for infrastructure opportunities in Africa?

### Are finance challenges holding you back?

The Private Infrastructure Development Group (PIDG) encourages private sector investment in infrastructure in low-income countries, to help promote economic development and combat poverty.

Using limited sums of public capital to help spread risk, PIDG makes it viable for private investors to participate in infrastructure projects in sub-Saharan Africa and south and south-east Asia.

Our funds help overcome the financial, technical or environmental challenges projects can face.

Many of our investments are first-of-a-kind or landmark 'greenfield' infrastructure activities.

PIDG's funds and specialist companies support private investment at every stage of the infrastructure project development cycle and across the capital structure.

This is how PIDG helps create investment-ready infrastructure opportunities in frontier markets.

#### PIDG 2002–2017

**\$2.5bn**  
donor funding and commitments

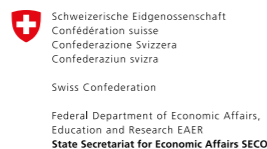
**\$22.9bn**  
mobilised from private sector investors

**170** projects  
reached financial close

**240,373**  
long-term jobs created

**231m**  
people benefiting

PIDG is a multi-donor organisation with members from seven countries and the World Bank Group



\$ are US dollars throughout and all figures are as at 31 December 2017

**We can work with investors from any country and have a network of private sector partners and developers throughout the world.**

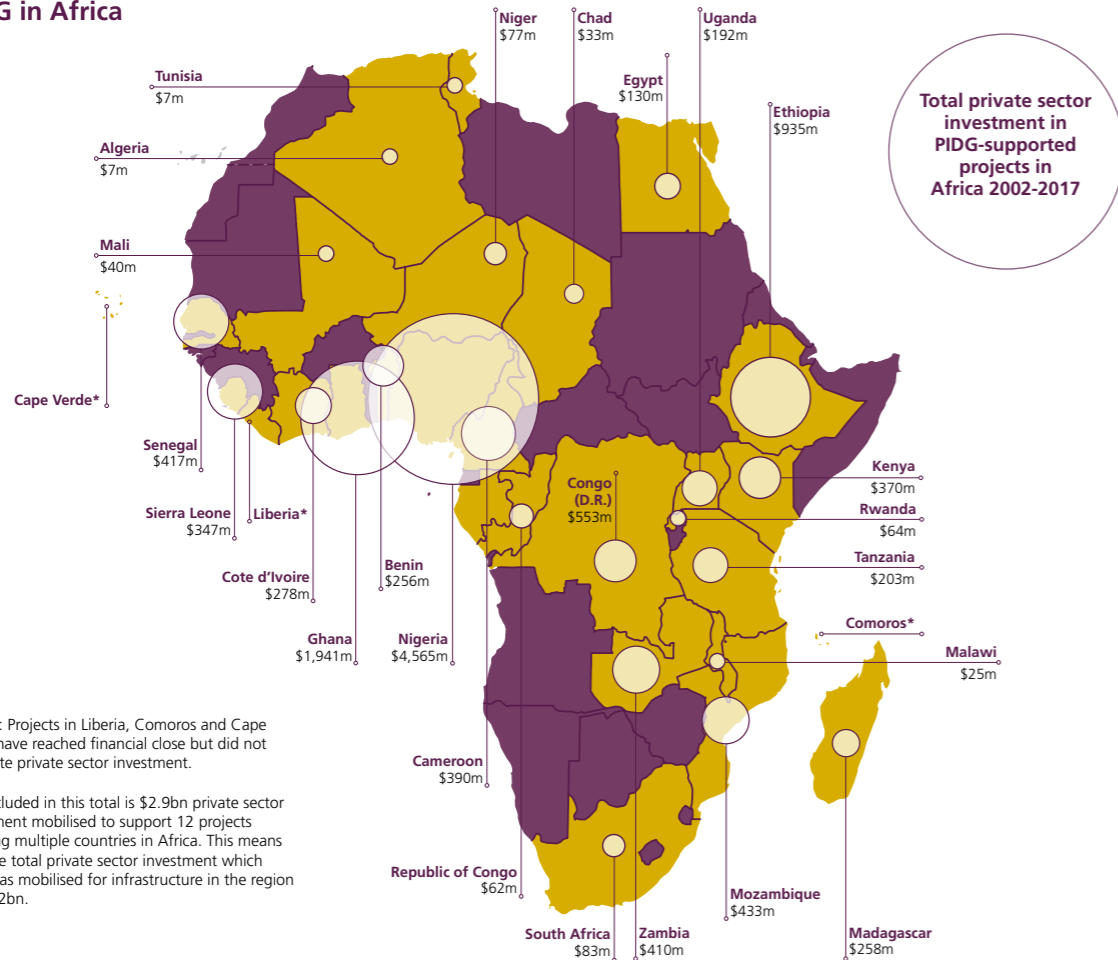
## Where we work

PIDG companies finance infrastructure in low-income countries and fragile and conflict affected states, where they are most needed.

Private investors can be wary of involvement with infrastructure projects in frontier markets, fearing that the business environment will not be favourable or that the investment or finance will not generate an adequate return.

PIDG's role is to help change private investors' minds through the deployment of a small share of the total project financing.

### PIDG in Africa



\* Note: Projects in Liberia, Comoros and Cape Verde have reached financial close but did not generate private sector investment.

Not included in this total is \$2.9bn private sector investment mobilised to support 12 projects covering multiple countries in Africa. This means that the total private sector investment which PIDG has mobilised for infrastructure in the region is \$15.2bn.

Yellow: Countries in which PIDG has supported private sector investment in infrastructure

Purple: Countries where PIDG has a mandate and can work

## Investing in Africa's energy

Energy represents the largest proportion of PIDG's commitments by sector. With an increasing focus on renewable energy, PIDG is delivering a positive impact on people's lives.

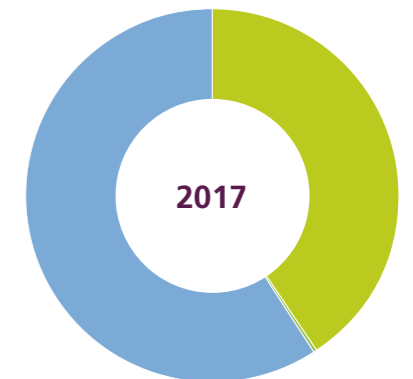
We will continue to invest substantially in energy projects, including exploring off-grid opportunities.

The countries where we invest often have an abundance of untapped wind, solar, geothermal and run-of-river hydropower, but are over-reliant on expensive imported diesel fuel to run generators.

We continue to target other areas of infrastructure, including in the transport, telecommunications, water, agri-business and industrial infrastructure sectors, where investment is also needed urgently.

### PIDG energy commitments (\$m) in Africa (2017)

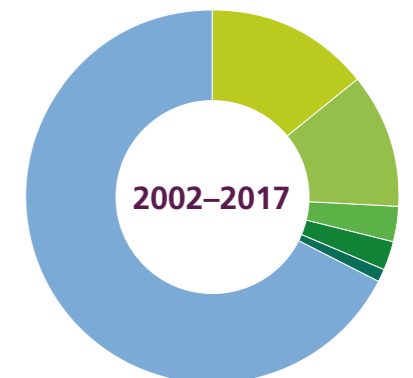
Energy		152.4
Of which:		
<b>Renewable energy:</b>	<b>41.0%</b>	<b>62.5</b>
Solar	40.7%	62.0
Hydropower	0.3%	0.4
Geothermal	0.0%	0.1
<b>Non-renewable energy</b>	<b>59.0%</b>	<b>89.9</b>



PIDG's total 2017 commitments across all sectors are \$354.7m

### PIDG cumulative energy commitments (\$m) in Africa (2002-2017)

Energy		976.0
Of which:		
<b>Renewable energy:</b>	<b>32.5%</b>	<b>317.5</b>
Solar	14.3%	139.7
Hydropower	11.6%	112.7
Geothermal	3.1%	30.1
Biomass	2.6%	25.7
Wind	0.9%	9.1
<b>Non-renewable energy</b>	<b>67.5%</b>	<b>658.5</b>



PIDG's total cumulative commitments across all sectors are \$2.3bn

## PIDG’s specialist companies, funds and financial products

PIDG’s specialist companies work at every stage of the infrastructure project development cycle and across the capital structure, as the graphic below shows.

Our companies’ infrastructure finance products are designed to fill market gaps, where commercial financing is not available.

PIDG’s **Technical Assistance Facility (TAF)** and **DevCo** and early-stage development companies **InfraCo Africa** and **InfraCo Asia** offer support upstream, helping bring bankable projects to market.

**The Emerging Africa Infrastructure Fund (EAIF)** and **GuarantCo** work further downstream, providing funds and guarantees at financial close through the construction phase to commercial operation.

### PIDG companies and funds

#### Technical assistance

**Technical Assistance Facility (TAF)** provides grants to help PIDG companies overcome specific development obstacles

**DevCo** helps fund transaction advisory services to governments on PPPs, delivered through the World Bank Group’s IFC

#### Project preparation

**InfraCo Africa** provides risk capital and expertise to develop early-stage infrastructure projects in sub-Saharan Africa

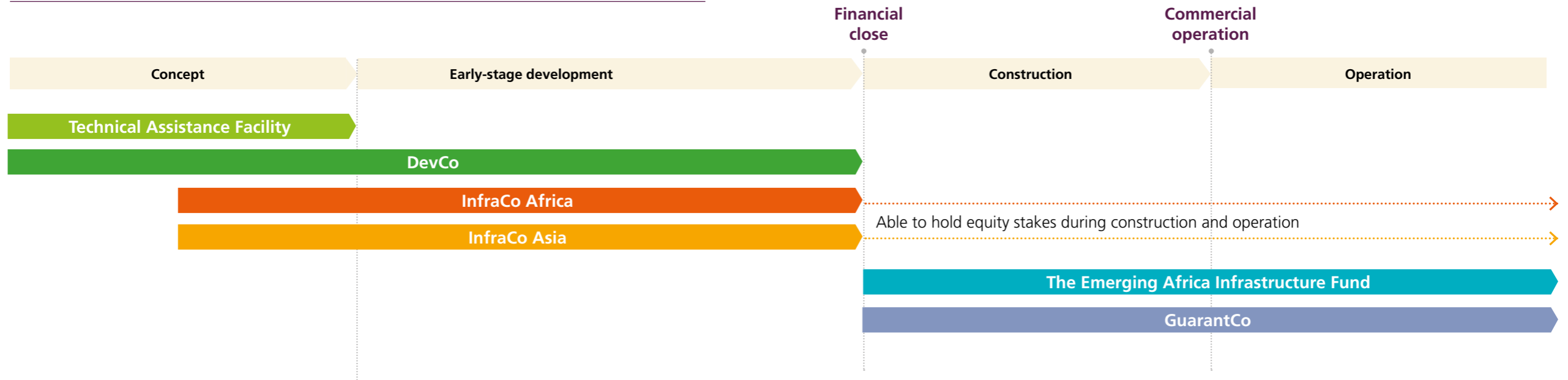
**InfraCo Asia** provides risk capital and expertise to develop early-stage infrastructure projects in south and south-east Asia

#### Debt, guarantees and mezzanine

**The Emerging Africa Infrastructure Fund (EAIF)** provides long-term foreign currency loans in Africa

**GuarantCo** provides local currency guarantees in Africa, south and south-east Asia and other emerging economies

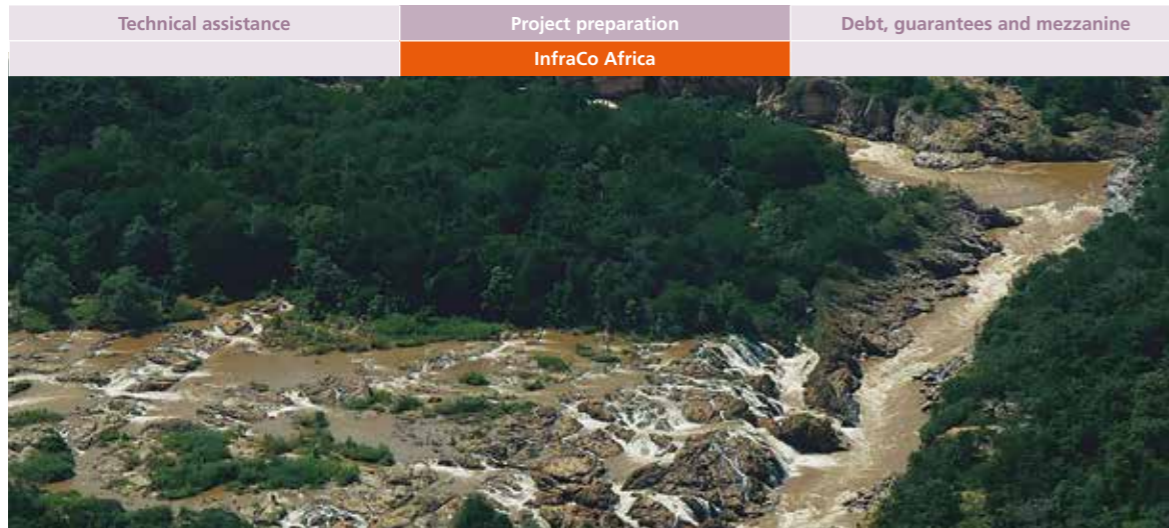
### How PIDG companies support the infrastructure development cycle



## A selection of our projects

Since 2002, PIDG has supported 170 private sector-led infrastructure projects to financial close across Africa and south and south-east Asia; 95 are now commercially operational, with more under active development.

PIDG has mobilised \$22.9bn from private sector investors and \$10.7bn from other IFIs and DFIs using \$2.5bn from its pool of donor funding.



### Mozambique, Pavua

#### Supporting the development of a 160MW hydro power initiative

**InfraCo Africa** has partnered with local developer Tora Holding to progress development of a major hydropower project in Mozambique.

The Pavua project will build a dam and hydropower plant with the potential to deliver up to 160MW of clean power to Mozambique’s national grid. The plant design will also enable regulation of water levels downstream, mitigating the impact of floods and dry periods on agricultural productivity and domestic drinking water supplies.

- InfraCo Africa has committed \$7.9m in early-stage development finance
- Working with local partners to deliver one of Mozambique’s first renewable energy IPPs
- Meeting growing demand for power in the country’s economically important Beira Corridor

Construction expected to commence in 2020  
With Tora Holding



### Zambia, Standard Microgrid

#### Funding the scale up of Standard Microgrid’s innovative solar microgrid business

**InfraCo Africa** and PIDG partner Power Africa are supporting Standard Microgrid to achieve the scale required to attract further investment for its distributed power solutions.

Standard Microgrid’s 10kWp modular solar units are designed to be deployed quickly, enabling rural and peri-urban communities in Zambia to operate solar PV microgrids with remote support from the Standard Microgrid team.

- InfraCo Africa has committed up to \$3.5m in risk capital and expertise
- Initially deploying six microgrids, the project plans to deploy >100 units over time, providing power to more than 15,000 homes
- Incorporating battery storage and smart metering technology, the units can deliver clean power at a competitive price

Construction expected to commence in 2018  
With Standard Microgrid

Technical assistance	Project preparation	Debt, guarantees and mezzanine
TAF	InfraCo Africa	EAIF



### Ghana, Cenpower

#### Originating, developing and financing a 350MW Combined-Cycle Gas Turbine (CCGT) plant

PIDG companies **InfraCo Africa** and **EAIF** helped finance Cenpower's Kpone Independent Power Plant (KIPP). **TAF** provided additional development funding.

The plant will provide approximately 10% of Ghana's total capacity when it becomes commercially operational in 2018.

KIPP was the first licensed IPP in Ghana, and was Sumitomo Corporation's first thermal IPP investment in Africa.

- \$903m total project cost
- \$685m private sector investment
- PIDG companies InfraCo Africa and TAF financed critical early-stage development
- PIDG company EAIF lent \$22m on a long tenor to finance construction

Under construction, operational in 2018  
With Cenpower Holdings (a private sector consortium) and the African Finance Corporation

Technical assistance	Project preparation	Debt, guarantees and mezzanine	
		EAIF	GuarantCo



### Mali, Akuo Kita Solar

#### Financing the first solar IPP in Mali

PIDG companies **EAIF** and **GuarantCo** helped finance the construction and operation of a 50MW Solar PV in Kita, southern Mali.

EAIF was mandated lead arranger on the €78m project, raising €61m in debt and contributing a €17m 17-year senior secured facility and a €8m mezzanine facility. GuarantCo is providing a debt service reserve account guarantee facility of €2m.

The project will be the first large scale Solar IPP in Mali, a fragile conflict affected country that is among the 25 poorest countries globally and will:

- help stabilise and increase power supply to the Malian grid which currently only meets 50% of the estimated total demand, adding 9% to the available power capacity
- provide a lower cost of electricity than is currently provided by higher cost thermal sources
- employ up to 400 people, during the 12-month construction period
- provide improved quality of service for over 700,000 people

Construction expected to commence in 2018, operational in 2019  
With Akuo Energy Africa, IFU and InfralInvest

Technical assistance	Project preparation	Debt, guarantees and mezzanine	
		EAIF	GuarantCo



### Ghana, Quantum Terminals LPG Storage

#### Guaranteeing the first corporate bond to be issued by a non-financial institution in Ghana

**GuarantCo** guaranteed a first-of-a-kind 10-year corporate bond on the Ghana Fixed Income Market, issued by Quantum, to support the expansion of a 1,500m<sup>3</sup> Liquefied Petroleum Gas (LPG) storage unit in Atuabo.

**EAIF** will also provide a \$10m loan on the same tenor, with both PIDG companies acting as joint mandated lead arrangers of debt finance for the project.

The storage facility will provide a reliable supply of LPG, substituting coal and wood, helping Ghana to be self-sufficient in electricity production for industrial and domestic use, and driving the country's socio-economic development.

The landmark bond is expected to be replicated by other Ghanaian companies, creating new opportunities for investment and the expansion of businesses.

- GuarantCo provided a 75% partial guarantee for the GHS 45m (\$10m) bond issuance
- GuarantCo's guarantee gave the necessary security to attract investment from pension funds
- local currency bond will allow conversion of Quantum's existing hard currency debts in to GHS

Fully operational in 2019  
With Quantum Group Ltd

Technical assistance	Project preparation	Debt, guarantees and mezzanine
TAF		EAIF



### Rwanda, KivuWatt

#### Financing the development, construction and operation of a landmark lake bed methane-fired power plant on Lake Kivu

PIDG company **EAIF** co-arranged financing for the deal and provided senior debt funding. PIDG also provided **TAF** funding.

The unique project has overcome significant technical barriers, using floating barges to extract potentially harmful methane from the bed of Lake Kivu to generate much-needed power.

Almost 2.5 million people have gained access to the 25MW of power created by the plant, substantially boosting Rwanda's 85MW installed capacity.

- \$196.3m total cost
- EAIF provided \$25m loan and helped arrange senior debt funding from other DFIs
- TAF provided a \$500k grant
- \$105m private sector investment

Operational 2015  
With ContourGlobal

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p.8: Kpone Independent Power Plant, photo courtesy of Cenpower Generation Ltd and AFC

p.11: KivuWatt, photo by kind permission of ContourGlobal

All other photos © PIDG companies





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