

# »» Renewable Energy Finance

DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH

OCT 2017

**KFW** DEG

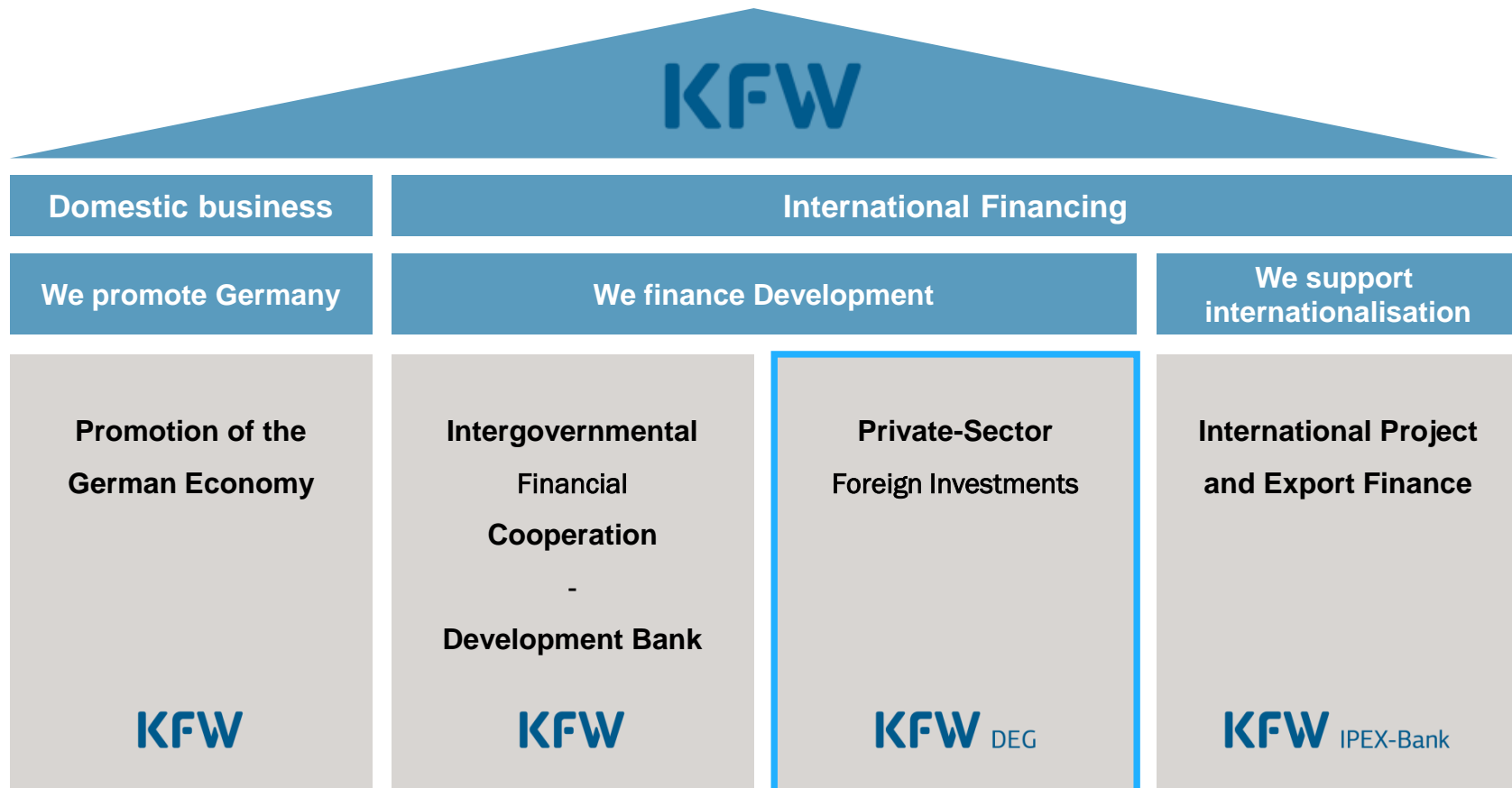
## »» DEG – Deutsche Investitions- und Entwicklungsgesellschaft mbH

For more than 50 years, we have been promoting entrepreneurial initiative in developing and emerging-market countries, offering long-term finance, advice and promotional programmes. In order to create added value for enterprises and people.

Founded	<b>1962</b>
Employees	<b>539</b>
Headquarters	<b>Cologne</b>
Shareholder	<b>KfW, Frankfurt</b>
New business	<b>EUR 1.6 billion</b>
Portfolio	<b>EUR 8.6 billion</b>
Equity	<b>EUR 2.4 billion</b>
Balance sheet total	<b>EUR 5.8 billion</b>

## »» Part of a strong group

DEG, a subsidiary of KfW – promotional bank of the Federal Republic of Germany



## »» DEG locations and portfolio

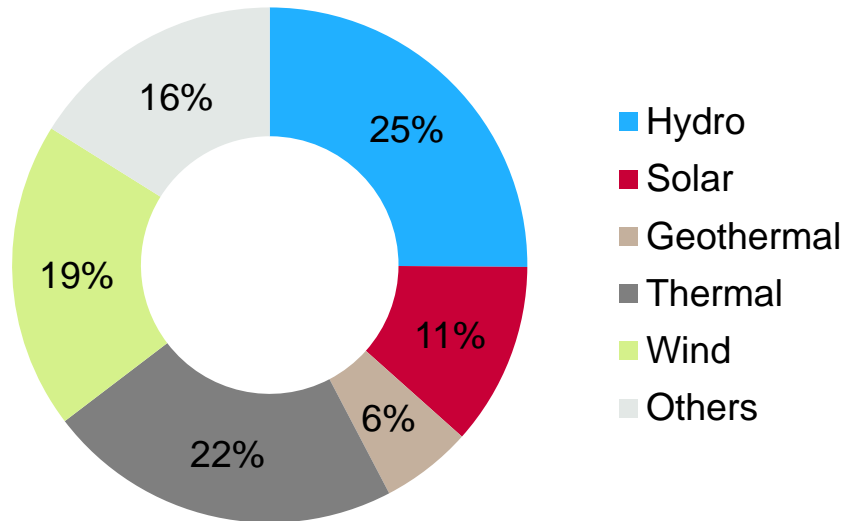
14 representative offices, 8.6 bn euros invested worldwide.



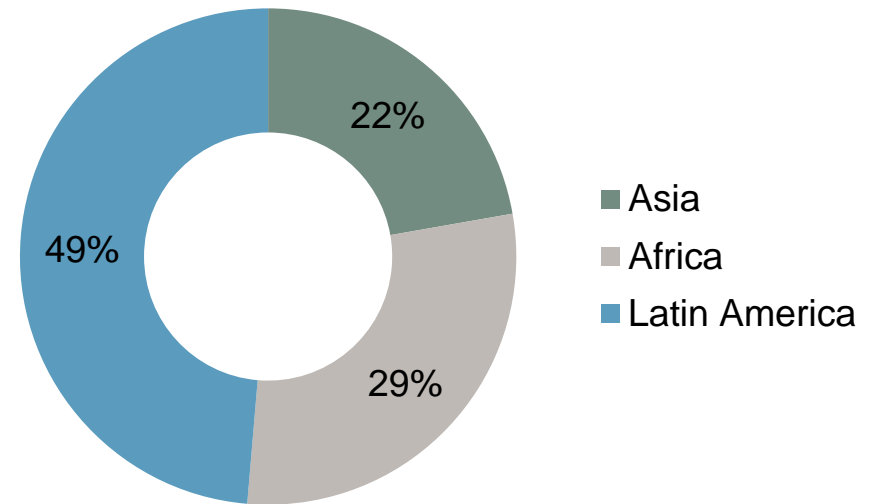
## »» Portfolio overview

DEG energy portfolio and distribution of technologies (debt exposure as of 31/12/2016)

### DEG energy portfolio (EUR 670mn)



### Regional investment



## »» Role of DEG

### › **Active in challenging markets**

- › Limited commercial financing- for example Myanmar, Laos, Cambodia, Vietnam, Bangladesh, & Mongolia

### › **Promote renewable energy**

- › Wind, Solar, Hydro, Geothermal, Biomass, etc.
- › (no coal, no atomic energy, no HFO, no Diesel)

### › **Ensure international standard**

- › e.g. PPA, Environmental and Social development

### › **Provide added value**

- › e.g. experience, network, syndication capability, technical assistance

## »» DEG's Financial Instruments

### Long-term loans

- Currency: EUR, USD and some local currencies (PHP, ZAR, IDR, HKD, JPY, CNH)
- Term: usually 4-18 years, depending on cash-flow
- Grace period: depending on cash flow
- Amount: USD10-40mn (up to USD100mn under the Friendship Facility Agreement); max. amount not to exceed one third of total assets post investment
- Interest rate: fixed or variable, market-oriented depending on project and country risk

### Mezzanine finance

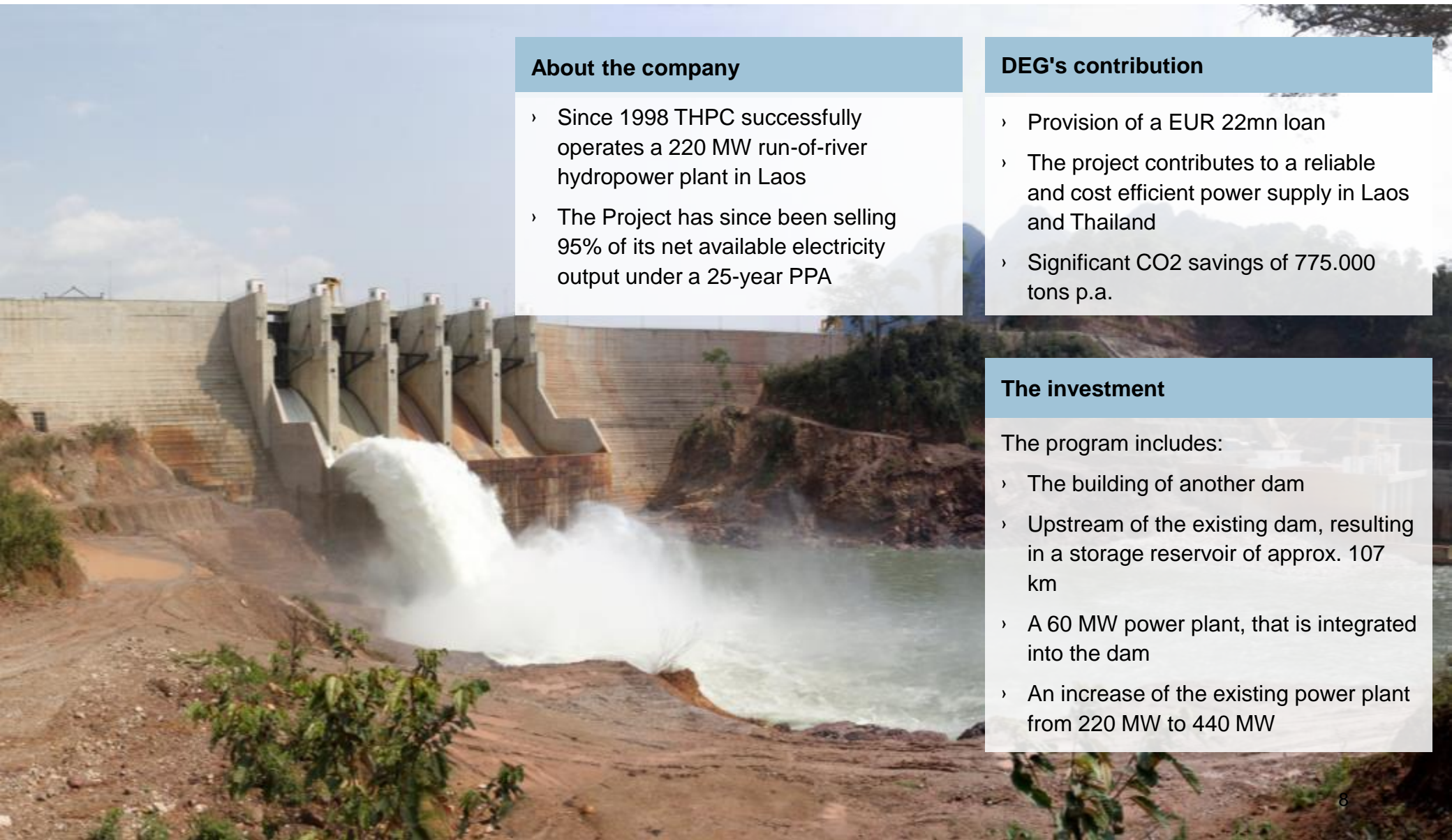
- Equity mezzanine: significant equity kickers (e.g. conversion rights, warrants, other performance-linked returns etc.)
- Debt mezzanine: i.e. long tenor, no-, partial-, subordinated collateral, subordinated debt service, partially performance linked returns

### Equity capital

- Long-term equity participation i.e. 5-7 year exit horizon
- Clear exit strategy
- Significant minority stake up to 25% with protection rights
- Active role e.g. board representation

# »» Success story: Affordable and clean energy supply

Customer: Theun-Hinboun Power Co. Ltd. (“THPC”) in Laos



## About the company

- › Since 1998 THPC successfully operates a 220 MW run-of-river hydropower plant in Laos
- › The Project has since been selling 95% of its net available electricity output under a 25-year PPA

## DEG's contribution

- › Provision of a EUR 22mn loan
- › The project contributes to a reliable and cost efficient power supply in Laos and Thailand
- › Significant CO2 savings of 775.000 tons p.a.

## The investment

The program includes:

- › The building of another dam
- › Upstream of the existing dam, resulting in a storage reservoir of approx. 107 km
- › A 60 MW power plant, that is integrated into the dam
- › An increase of the existing power plant from 220 MW to 440 MW



# »» Success story: Affordable and clean energy supply

Customer: Lake Turkana

## About the company

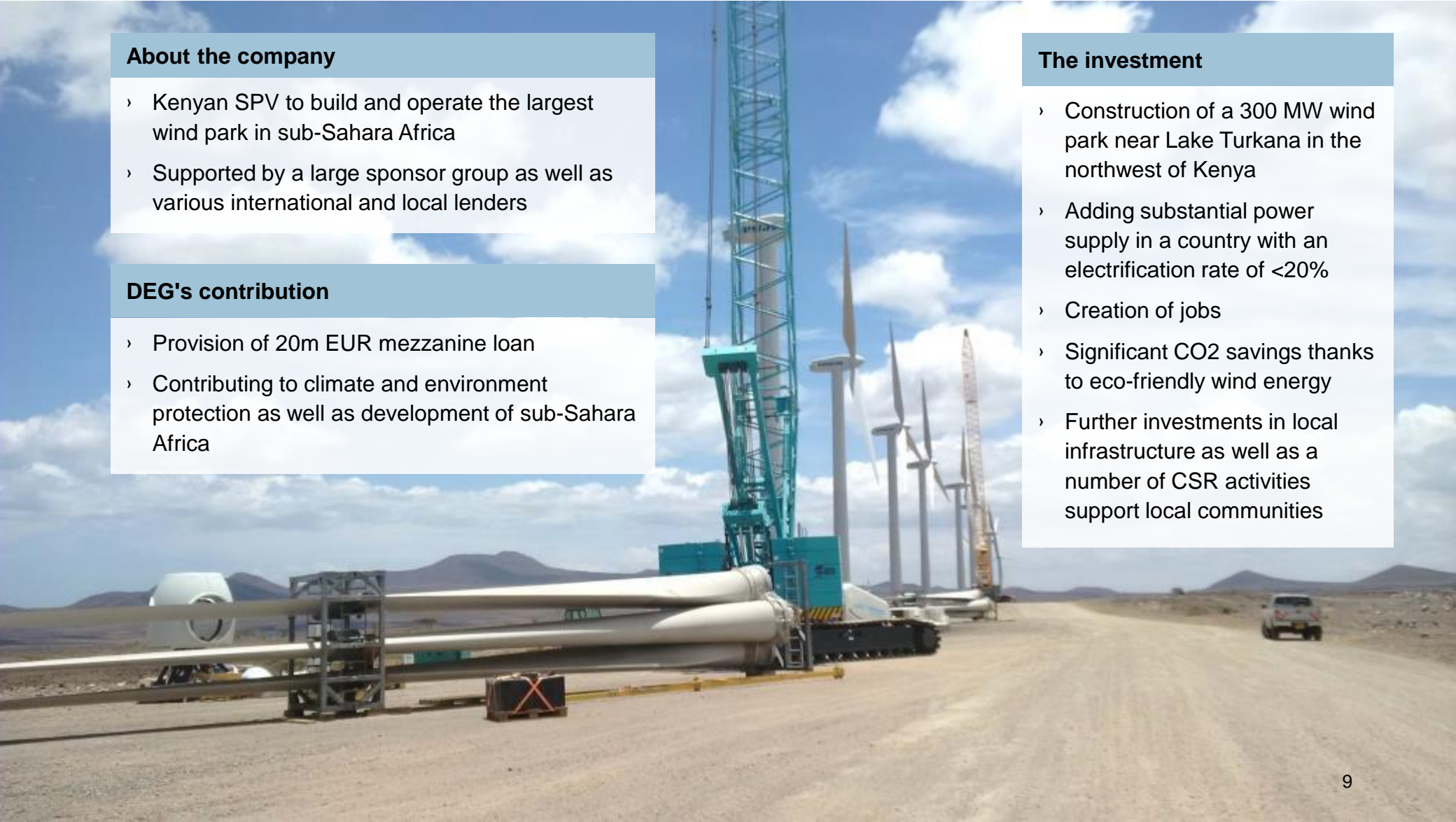
- › Kenyan SPV to build and operate the largest wind park in sub-Saharan Africa
- › Supported by a large sponsor group as well as various international and local lenders

## DEG's contribution

- › Provision of 20m EUR mezzanine loan
- › Contributing to climate and environment protection as well as development of sub-Saharan Africa

## The investment

- › Construction of a 300 MW wind park near Lake Turkana in the northwest of Kenya
- › Adding substantial power supply in a country with an electrification rate of <20%
- › Creation of jobs
- › Significant CO2 savings thanks to eco-friendly wind energy
- › Further investments in local infrastructure as well as a number of CSR activities support local communities



# »» Success story: Affordable and clean energy supply

Customer: Triconboston Consulting Corporation Private Ltd. (“TBCC”) in Pakistan

## About the company

- › TBCC is a SPV that was incorporated in Lahore in 2012
- › The Project Company was acquired by Sapphire Textile Mills Ltd. – the flagship company of the Sapphire Group

## DEG's contribution

- › Parallel participation with IFC with a senior loan of up to USD 42mn (USD 22mn DEG commitment)
- › Contribution to the United Nations Sustainable Development Goals 7, 9 & 13

## The investment

- › Construction of three Wind Power Projects, each 49.3MW, in the Sindh Province, Pakistan
- › The project contributes to the reduction of the significant power shortfall in Pakistan that is impeding GDP growth by estimated 2% p.a. and affecting quality of life

## »» Project Assessment - Recommendations

- Engage DEG at the early stage. **Project teaser** is a good start.
- **Require main sponsor** to drive the project with technical and financial track records
- **Basic information / documentation** should be ready:
  - FIT/ PPA / Feedstock plan/ Wind data/ Grid connection
  - Business plan and Financial forecast
  - Audited financials of sponsors
- Require reliable / proven technology & EPC
- Be realistic
- Understand project risks and mitigations

## »» Energy Asia: Local Representatives



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»» Q&A

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