

EBRD Financing of Renewable Projects in Ukraine

1 March 2018



European Bank
for Reconstruction and Development

EBRD – Power and Energy Utilities, a Trusted Partner to Clients and Governments



Team of ca. 35 bankers, based in London, Almaty, Amman, Bucharest, Cairo, Istanbul, Kiev, Moscow, Skopje, Tbilisi and Warsaw

Promoting renewable and sustainable energy

Supporting sector reforms and allowing market principles to develop (e.g. increased competition, market liberalisation and increased private ownership)

Strengthening cross-border frameworks and infrastructure (e.g. transmission lines, regional trading hubs)

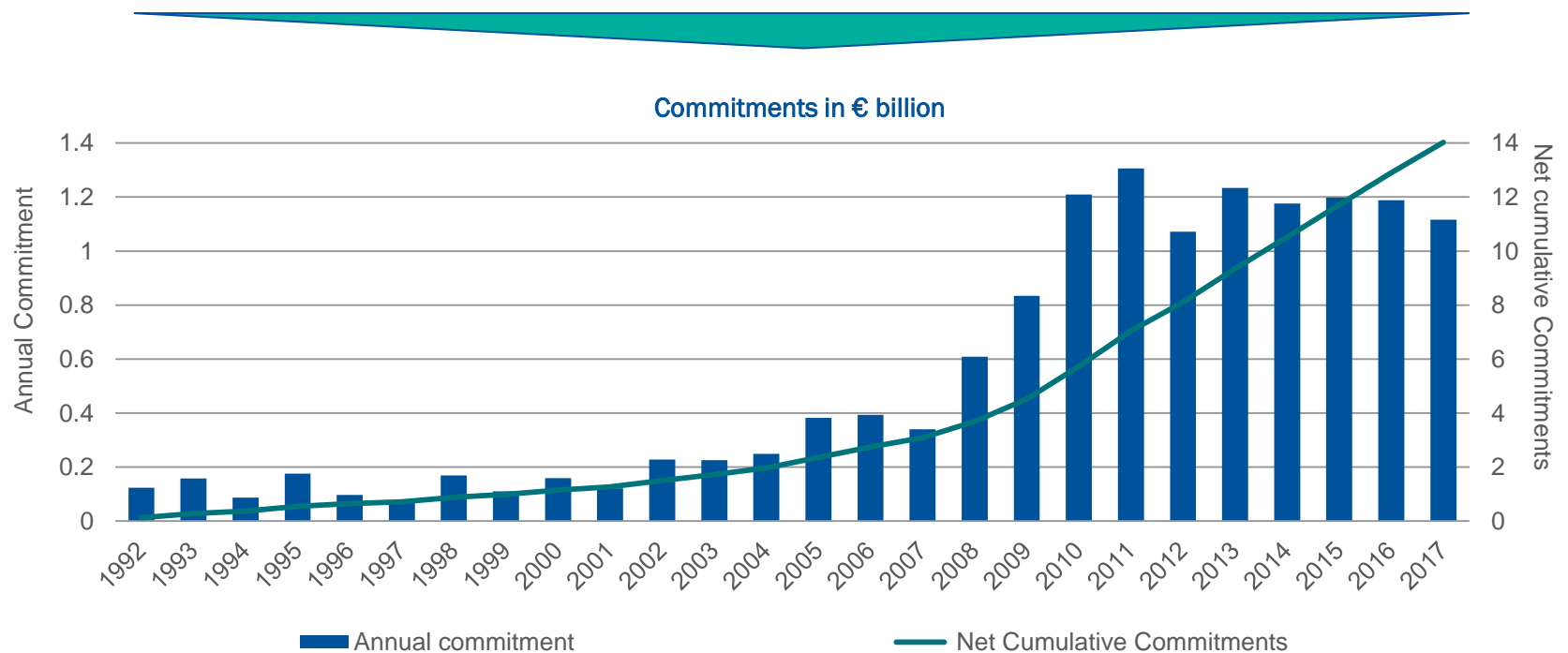
Ground-breaking projects and innovative structures

Developing and deploying new technology

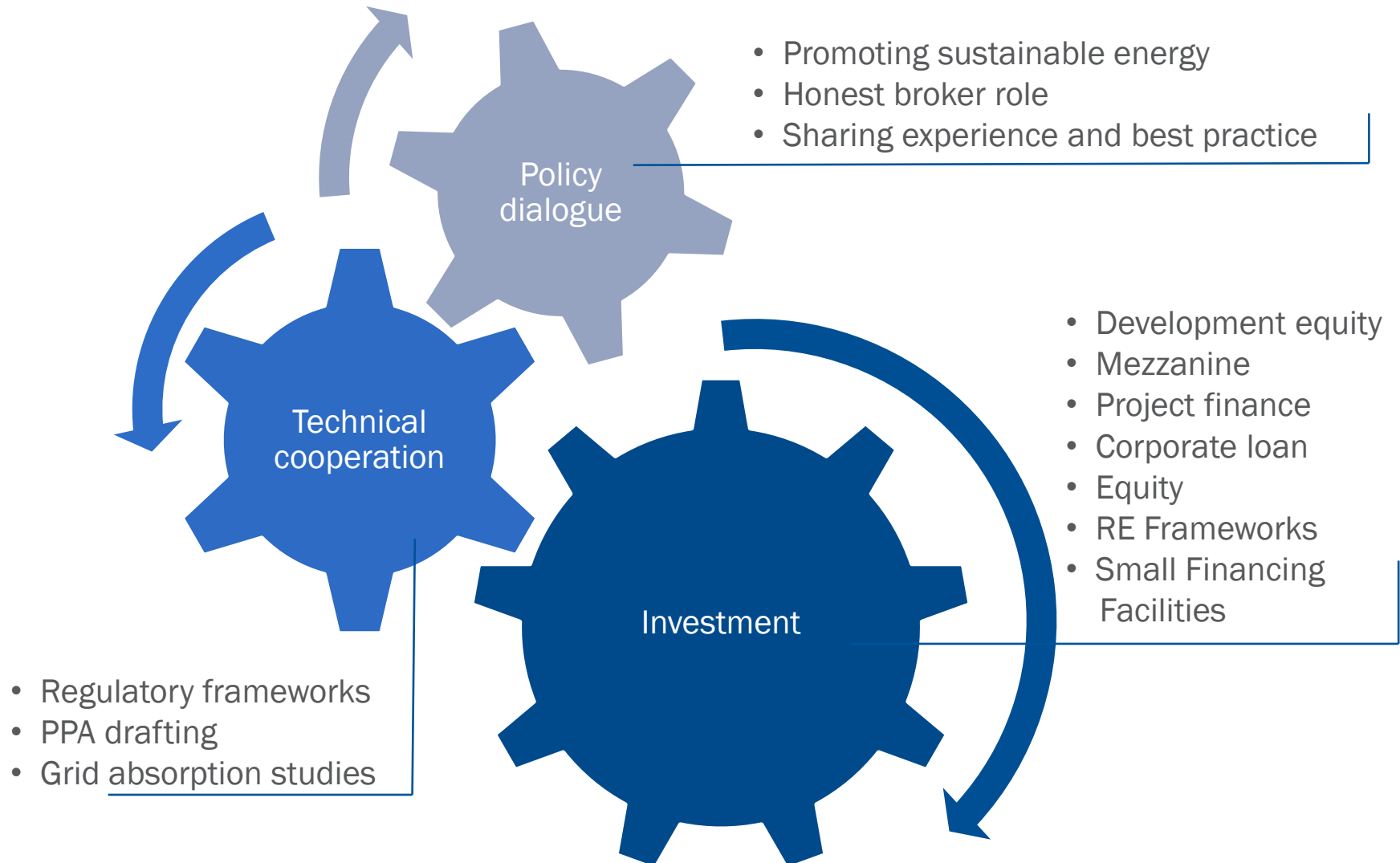
Crisis response

EBRD – Power and Energy Utilities

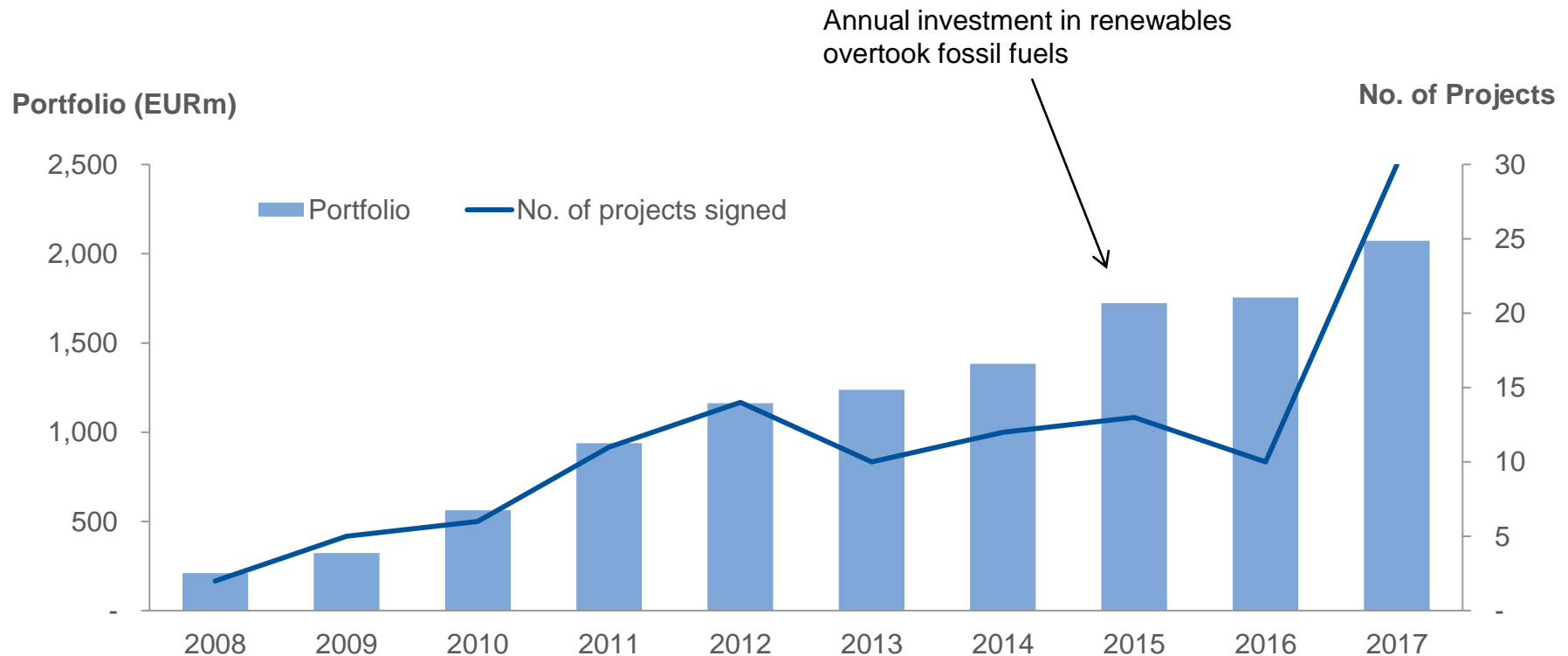
- EBRD power investments cover electricity generation (conventional, large hydro and renewables), electricity transmission, electricity distribution and natural gas distribution.
- In 2017 EBRD invested over EUR 1.1 bn in 44 projects in the power & energy sector.
- Cumulative EBRD financing in the power and energy sector since 1992 has exceeded EUR 12bn, spread across 302 projects. Total value of these projects is ca. EUR 49bn.
- In each of the last five years, annual power & energy investments exceeded EUR 1bn and at least 20% of those funds went towards renewable energy generation projects (and almost 70% in 2017).



Renewables – Operational Approach



EBRD's renewable energy portfolio exceeds EUR 2.0bn

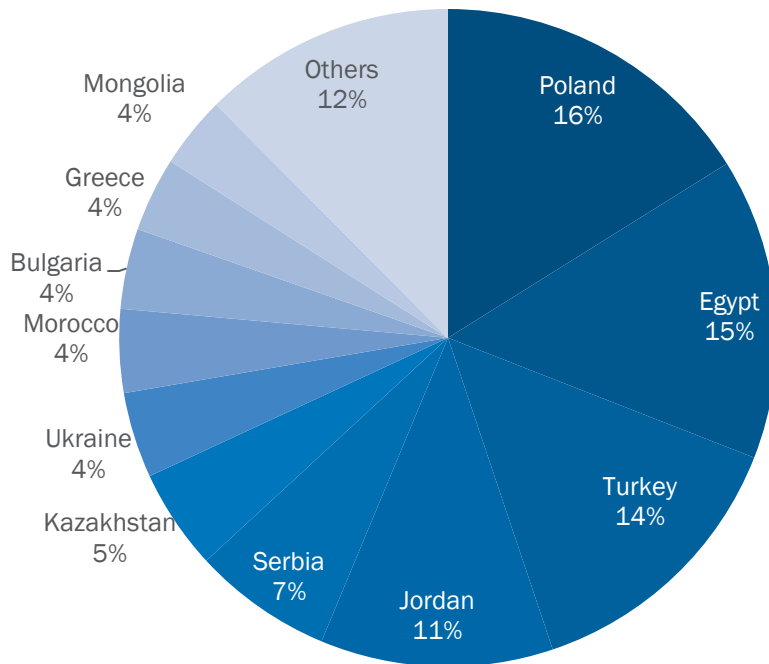


- EBRD has been active in financing renewables projects since the first project - 156MW Saint Nikola Wind Farm in Bulgaria in 2008
- Complex and award winning renewable transactions include: Krnovo Wind Farm (Montenegro), Salkhit wind farm (Mongolia), Ma'an Solar Programme Round 1 and 2 (Jordan), Efeler Geothermal Plant (Turkey), Khalladi wind farm (Morocco), Dolovo and Kovacica Wind Farms (Serbia) and Benban Solar (Egypt).

EBRD Portfolio in Renewables

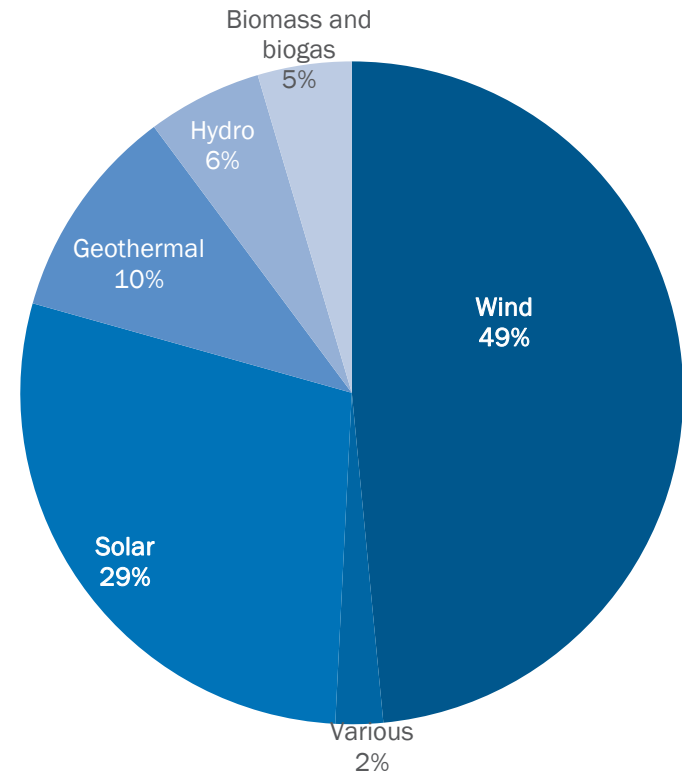
PEU's exposure to renewables is 35% of its portfolio

Renewables - by Country



Others include Romania, Montenegro, Estonia, Albania and Lithuania

Renewables - by Technology



Updated as of 31 December, 2017.
Source: EBRD data

EBRD in Ukrainian power sector

EBRD presence

- Largest financial investor in the country and in the sector
- Total sector loan commitments of €882 million invested over 2005-2017
- €778 million sovereign (7 transactions) and €104 million private (13 transactions)
- Leading policy dialogue efforts in the sector for two decades

Focus areas

- 1) Financing of bankable projects with potential to attract investors
- 2) Continued participation in improvements to the Power Purchase Agreement
- 3) Engagement in the process of introducing competitive award mechanism for large renewable project
- 4) Support of corporate governance reform of the state clients.

EBRD renewable energy investments

Solar

5 projects
EUR 43m
56 MW capacity

Wind

3 projects
EUR 44m
69 MW capacity

Bio-mass

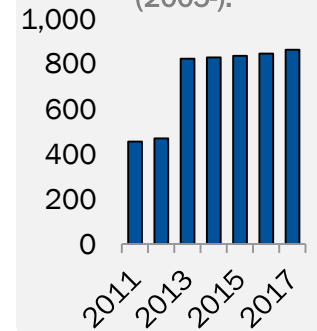
3 projects
EUR 27m
22 MW capacity

Ukraine

Population: 45.0 mn
GDP: \$93.3 bn
Elec. Prod: 182 TWh



PEU Cumulative Portfolio
(2005-):



EBRD policy dialogue in Ukrainian power sector



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Electricity market law

- Ad-hoc support and review in cooperation with international donors

Power Purchase Agreement

- Assistance to regulator in improving the PPA together with IFC
- Enhancement to PPA through addition of option to execute the agreement pre-construction

Renewable energy law

- Engagement with policy makers on the future of renewable energy support schemes

Regulator

- Collaboration with policy makers on improving the functionality of the National Energy and Utilities Regulatory Commission (NEURC)

State-owned enterprises

- Corporatisation process of Ukrenergo and Energoatom

Nuclear decommissioning

- Technical assistance to design a strategy to ensure timely and sufficient flow of funds to the Nuclear Decommissioning Fund

Power and Energy – Selected Business Partners

Sponsors



Co-Financiers



2016 – Tsetsii Windfarm Mongolia



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pour la Reconstruction et le Développement

The Tsetsii Windfarm will be the second wind energy project in Mongolia following the 50 MW Salkhit Wind Farm project, which the EBRD financed in 2012. The operation will contribute to reducing Mongolia's carbon intensity as well as meeting its increasing power demand. The project will also strengthen the private sector in the energy sector in the country.

Key Facts

- **Borrower:** Clean Energy Asia LLC
- **Sponsors:** SB Energy Corp. and Newcom LLC
- **Project Size:** USD 127m
- **EBRD finance:** USD 25m
- **Co-Lender:** JICA USD 64m
- **Structure:** Senior secured loan (non-recourse)
- **Emission savings:** reducing CO2 emissions by up to 151, 280 tons per year.
- **Grant support for substation upgrade:** Japanese Government funded a USD 750k grant



...what they said

“This project marks the first step to develop renewable energy in Mongolia for the SoftBank Group. Power generated from the wind farm will supply electricity in Mongolia by connecting to its domestic grid, and I believe the project will help contribute to the stable supply of power for the nation. With this project, the SoftBank Group will have bases in Japan, India and Mongolia for its renewable energy business. We will work to further expand our global business to increase the adoption of renewable energy and reduce CO2 emissions.”

Masayoshi Son, SB Energy Chairman & CEO

Location



2015 - Damanhour CCGT Egypt



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pour la Reconstruction et le Développement

EBRD financing will enable the construction of a 1.8 GW combined cycle gas-fired power plant in Damanhour city, Egypt. The Damanhour CCGT will have state-of-the-art technology and will be the most energy and water efficient conventional plant in the country.

Key Facts

- **Borrower:** Arab Republic of Egypt
- **Sponsors:** EEHC and West Delta Electricity Production Company (WDEPC)
- **Project Size:** USD 1.3 billion
- **EBRD Finance:** USD 200m from the SEMED Investment Special Fund
- **Co-Lenders:** European Investment Bank, Arab Fund for Economic & Social Development and African Development Bank
- **Structure:** Sovereign Loan



...what they said

“The project will support Egypt to face the increasing power demand from the industrial, domestic and agriculture sectors. In addition it will reduce the burden on the main electricity grid.”

- Sahar Nasr, *Egypt Minister of International Cooperation*

“Investing in electric power is crucial when it comes to our work in Egypt. Through this investment we're offering full support to diversify the sources of energy generation, energy efficiency and clean energy.”

- Hildegard Gacek, *EBRD Managing Director for SEMED*

Location



2015 - Khalladi Wind Farm

Morocco



Multi award winning project financing. Financing construction of a wind farm of up to 120 MW near Tangiers in northern Morocco. Khalladi wind farm will become the first private project to sell electricity directly to high voltage private offtakers under long term PPAs.

Key Facts

- **Borrower:** UPC Renewables
- **Sponsors:** ACWA Power, UPC Renewable, and ARIF
- **Project Size:** EUR163 million
- **EBRD Finance:** EUR 57m + EUR 10m EBRD Special Fund
- **Co-Lender:** Banque Marocaine du Commerce Exterieur (BMCE) EUR 67m
- **Structure:** Senior secured limited-recourse project finance structure. Loan in local currency (MAD)

...what they said

“We are proud to be structuring the Khalladi wind project with the EBRD and BMCE; of special merit is the EBRD’s continuous support to Moroccan authorities which makes projects such as the Khalladi wind project possible.”

– Rajit Nanda, ACWA Power’s Chief Investment Officer

Location



2014 - Ma'an Solar Programme Jordan



Financing construction and operation of four solar power plants totalling 60 MW, as part of Jordan's first round of solar IPPs. The initiative is so far the largest collection of privately-owned solar PV projects to be realised in the Middle East and North Africa region and is already serving as a template for several neighbouring countries.

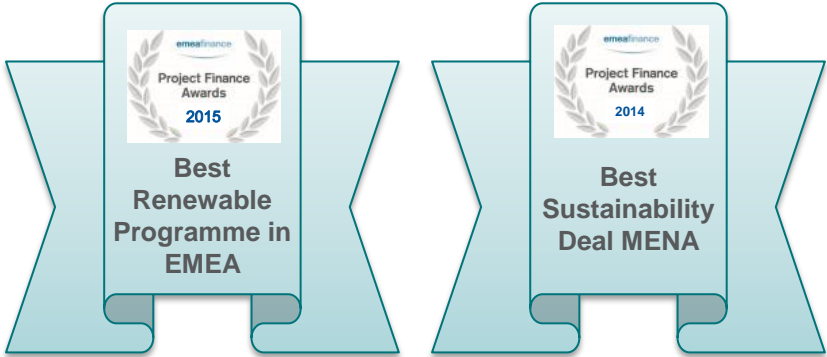
Key Facts

- **Borrower:** Four separate private companies
- **Sponsors:** SunEdison and Scatec
- **Project Size:** US\$ 200 million
- **EBRD finance:** US\$75 million
- **Co-Financiers:** OPIC US\$ 25m, Proparco US\$ 50m
- **Structure:** Senior loans to private operators on a secured limited recourse basis.

...what they said

“This successful partnering with EBRD, Scatec Solar, EJRE and their partners will contribute not only to reducing Jordan's dependency on fossil fuels while securing its energy needs, but also to fighting climate change on a broader, more global scale.”

- Claude Périou, Chief Executive Officer of PROPARCO



Location

