Hanwha Energy USA Green Bond Impact Report

August 2020

Introduction

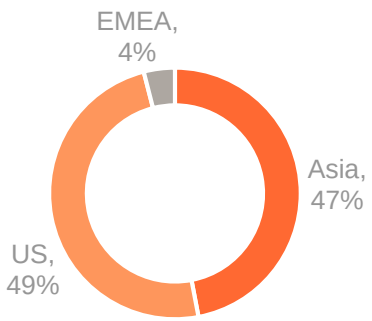
Hanwha Energy USA Holdings Corporation ("Hanwha Energy USA"), which was recently renamed from 174 Power Global, is a U.S. based solar project development company arm of Hanwha Group, a Fortune Global 500 firm and the 7th largest conglomerate in South Korea with primary businesses in the chemical, aerospace, mechatronics, solar energy and finance sectors.

The Company supplies the entire photovoltaic value chain, from cell production to crystalline solar modules to turnkey solar power stations. While Hanwha Energy USA is an independent development business, it has access to all the resources, expertise and experience of Hanwha Group.

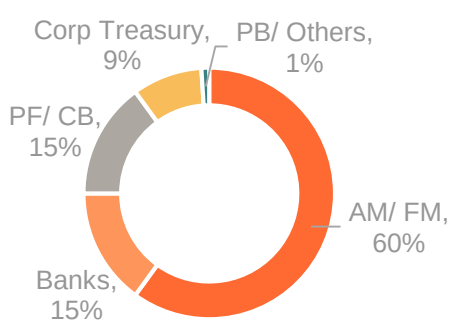
Green Bond Key Figures

Issuer	Hanwha Energy USA Holdings Corporation
Guarantor	Korea Development Bank
Issue Rating	Aa2 (Moody's)
Issue Date	30 July, 2019
Format	Guaranteed Senior Unsecured Green Bond
Amount Issued	USD 300 million
Tenor	3-year
Coupon	2.375%
Use of Proceeds	Under Hanwha Energy USA's Green Bond Framework
ISIN	144A: US41135WAA99 Reg S: USU3821WAA54

Allocation Distribution by Geography



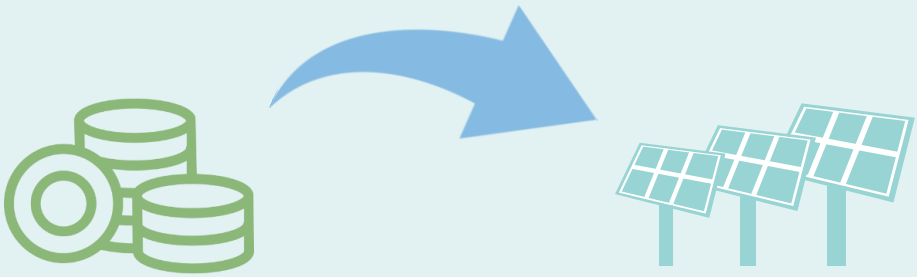
Allocation Distribution by Investor Type



Key Highlights

Allocation Overview

Total proceeds of USD300mn from Hanwha Energy USA's KDB-Guaranteed Senior Unsecured Green Bond ("Hanwha Green Bond") have been **fully allocated to 16 solar power projects** as of July 31, 2020.



USD300mn **16 Solar Power Projects**

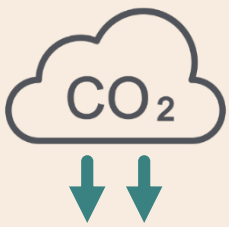
Environmental Impact Overview*

Expected to construct:

3,454 megawatts in renewable energy capacity

Expected to reduce:

267,020 metric tons of CO_2 per year



Expected to generate:

638,797 megawatt hours of renewable energy per year

*The expected annual CO_2 emission reduction and expected annual renewable energy production are based on prorated share of the overall impact by Hanwha Green Bond; renewable energy capacity is project basis

Impact Reporting

Solar Power Projects	Region	Energy Installed Capacity	Project Total		Hanwha Green Bond's Share	
			Exp. Energy Produced	Exp. CO_2 Avoided	Exp. Energy Produced	Exp. CO_2 Avoided
		MWdc	Mwh/year	tCO_2/year	Mwh/year	tCO_2/year
Laguna	Mexico	126	230,870	103,891	74	33
Imeson	FL, US	9	16,556	6,921	600	251
Oberon 1A	TX, US	194	356,147	148,869	267,369	111,760
Oberon 1B	TX, US	37	68,617	28,682	50,621	21,160
Project A*	TX, US	100	183,960	76,895	2,242	937
Project B*	OR, US	68	125,093	52,289	5,541	2,316
Project C*	NV, US	164	301,694	126,108	490	205
Project D*	TX, US	242	445,183	186,087	1,160	485
Project E*	CO, US	183	336,647	140,718	363	152
Project F*	AZ, US	1,200	2,207,520	922,743	290,458	121,411
Project G*	VA, US	79	145,328	60,747	500	209
Project H*	VA, US	79	145,328	60,747	894	374
Project I*	OR, US	63	115,895	48,444	164	68
Project J*	UT, US	295	542,682	226,841	405	169
Project K*	CA, US	532	978,667	409,083	3,091	1,292
Project L*	NV, US	84	154,526	64,592	14,823	6,196
	Total	**3,454**	**6,354,714**	**2,663,658**	**638,797**	**267,020**

*Projects under development

Calculation Methodology

The calculation approach as indicated in "EIB Methodology for the Assessment of Project GHG Emissions and Emission Variations Version 11.1" dated July 2020 was used to compute expected CO_2 emissions avoided. Country-specific combined margins for intermittent electricity generation were used as relevant baselines.

Source: EIB Methodology for the Assessment of Project GHG Emissions and Emission Variations available at: https://www.eib.org/attachments/strategies/eib_project_carbon_footprint_methodologies_en.pdf

Framework Overview

Use of Proceeds	The financing and/or investments in renewable energy: - Development, construction, installation, maintenance, and the procurement of parts of **solar energy production units** - Development, construction and maintenance of dedicated **transmission and distribution networks and the supporting infrastructures** such as inverters and transformers.
Evaluation and Selection of Projects	The projects are reviewed by the Investment Committee, which is led by the Business Planning and Strategy team, through a three-step process: - **Pre-Deal Request Committee ("Pre-DRC")**: evaluate the possibility of project development based on assessment of economic feasibility and environmental impact - **Deal Request Committee ("DRC")**: review and approve main contracts - **Global Investment Committee("GIC")**: conduct the final reviews After selection, Business Planning and Strategy team coordinates with the Development Team to continuously monitor whether the project developments remain in line with the Framework
Management of Proceeds	A ledger is established to record the allocation of proceeds. The ledger contains the following information: - Green Bonds details: pricing date, maturity date, principal amount of proceeds, coupon, ISIN number, etc. - Allocation of Proceeds: list of eligible green projects, amount allocated and unallocated proceeds, total project cost, etc Any proceeds temporarily unallocated are placed in short-term liquid money instruments such as cash and market securities according to the internal investment guidelines.
Reporting	On an annual basis until full allocation of proceeds and on a timely basis in case of material changes, Hanwha Energy USA will provide a dedicated green bond report with allocation and impact reporting

Assurance obtained from Sustainalytics on the Green Bond Framework

SUSTAINALYTICS

Sustainalytics is of the opinion that the Hanwha Energy USA Green Bond Framework is credible and impactful and aligns with the four core components of the Green Bond Principles 2018.

Notes: Framework and Second Party Opinion available at *https://174powerglobal.com/sustainability/*;
impact report available at [insert website]

Featured Projects

Oberon 1A Solar Power Project

- **Location:** Texas, USA
- **Capacity:** 194MWdc
- **Project Site Area:** ~514 hectare
- **Commercial Operation Date:** Jun 2020
- **Project Value:** USD 206mn

155 USD million
Total allocated amount

356 GWh/year
Project expected energy production

148,869 tCO^2/year
Project expected total CO2 emissions avoided

Laguna Solar Power Project

- **Location:** Coahuila, MX
- **Capacity:** 126MWdc
- **Project Site Area:** 229 hectare
- **Commercial Operation Date:** 2019
- **Project Value:** USD 117mn

38k USD
Total allocated amount

231 GWh/year
Project expected energy production

103,891 tCO^2/year
Project expected total CO2 emissions avoided

Hanwha Group's Commitment to Clean Energy

- As the first in Korea, Hanwha Group began implementing "ECO-2000" program, the group-level environment & safety activities, in 1991. In 2000, Hanwha Group announced "ECO-YHES," as the group-level environment, safety and health policy, which now serves as an overarching value pursued by the Hanwha Group to fulfill its social responsibilities and to achieve sustainable growth.

Happy Sunshine

Hanwha Group has implemented the "Happy Sunshine" campaign across the nation every year since 2011. Through Happy Sunshine, Hanwha has donated a total of 1,779KW solar power generation systems to 254 welfare centers in South Korea to help them save utility costs.

Solar Forest

Hanwha Solar Forest is an innovative campaign through which smartphone users are able to plant virtual trees through their mobile devices and in return. Hanwha Group donated an 80kWh solar PV generation facility to the Baijitan National Nature Reserve in Ningxia, China a regional partner of the UNCCD to create a 100% sustainable solar-powered plantation.

Eco-Friendly Aquarium

Hanwha Group has opened Hanwha Aqua Planet in Yeosu in South Korea that is equipped with a rooftop solar power system that supplies clean and sustainable energy to the facility. Open year-round, the eco-friendly aquarium has raised public awareness on the positive impact of solar energy.