



Hanwha Solutions

Green Bond Allocation and Impact Report

July 2022

Table of Content

1. Background of Hanwha Solutions	2
2. Hanwha Solutions Green Financing Framework	2
3. Hanwha Solutions Green Bonds	2
4. Allocation Reporting.....	3
5. Impact Reporting	4
6. Summary of Hanwha Solutions Green Financing Framework	4
6.1. Use of Proceeds	4
6.2. Process for Evaluation and Selection of Projects	5
6.3. Management of Proceeds	5
6.4. Reporting	5

1. Background of Hanwha Solutions

Hanwha Solutions (the “**Company**” or “**HSC**”) is a leading solar power, chemical, and advanced materials company focusing on providing sustainable energy and materials solutions. Hanwha Solutions was renamed as Hanwha Solutions after the merger of Hanwha Chemical, Hanwha Q CELLS, and Hanwha Advanced Materials in 2020.

Hanwha Q CELLS is one of the world’s largest and most recognized photovoltaic manufacturers for its high-performance, high-quality solar cells and modules. It is headquartered in Seoul, South Korea (Global Executive HQ) and Thalheim, Germany (Technology & Innovation HQ) with its diverse international manufacturing facilities in the U.S., Malaysia, China, and South Korea. Q CELLS offers the full spectrum of photovoltaic products, applications and solutions, from cells and modules to kits to systems to large-scale solar power plants. Through its growing global business network spanning Europe, North America, Asia, South America, Africa and the Middle East, Q CELLS provides excellent services and long-term partnerships to its customers in the utility, commercial, governmental and residential markets. For more information, visit: <http://www.q-cells.com>

The Company is an affiliate of the Hanwha Group (the “**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.

2. Hanwha Solutions Green Financing Framework

In March 2021, Hanwha Solutions set up a Green Financing Framework, under which HSC and its subsidiaries (belonging to photovoltaic business for renewable energy) can issue Green Bonds, Loans and other debt instruments (“Green Financing Instruments”).

The Green Financing Framework is aligned with the green finance principles listed below:

- International Capital Market Association (“ICMA”) Green Bond Principles (“GBP”) 2018¹,
- ASEAN Green Bond Standards (“GBS”), issued by the ASEAN Capital Markets Forum (ACMF) in October 2018², and/or
- Loan Market Association (“LMA”) Green Loan Principles (“GLP”) 2021³

The Framework obtained a Second Party Opinion from Sustainalytics, which confirmed that the Framework is credible and impactful and aligns with the four core components of the GBP, GLP and ASEAN GBS.

3. Hanwha Solutions Green Bonds

On 13 April 2021, Hanwha Solutions issued its inaugural green bond via a 3-year CNH 1 billion green dim sum bond issuance, that was guaranteed by the Credit Guarantee & Investment Facility (“CGIF”), a trust fund of the Asian Development Bank.⁴ Bond proceeds would be utilized for eligible green projects under the Green Financing Framework.

On 24 August 2021, Hanwha Q Cells Malaysia issued a 3-year MYR 150 million ASEAN Green Bond that was 100% credit-wrapped by CGIF. Hanwha Q CELLS Malaysia is a solar PV manufacturer operating in Malaysia that is 100% owned by Hanwha Solutions Corporation. Hanwha Q CELLS Malaysia will use the bond proceeds for eligible green projects under the Green Financing Framework.⁵

¹ In alignment with ICMA Green Bond Principles, June 2018, <https://www.icmagroup.org/green-social-and-sustainability-bonds/green-bond-principles-gbp/>

² In alignment with ACMF Green Bond Standards, October 2018, <https://www.theacmf.org/initiatives/sustainable-finance/asean-green-bond-standards>

³ In alignment with LMA Green Loan Principles, February 2021, <https://www.lsta.org/content/green-loan-principles/>

⁴ https://www.cgif-abmi.org/storage/2021/09/05HSC_Press-Release_04192021.pdf

⁵ <https://asianbondsonline.adb.org/documents/cgif-supports-hanwha-q-cells.pdf>

Issuer	Hanwha Solutions Corporation	Hanwha Q Cells Malaysia Sdn Bhd
Guarantor	Credit Guarantee and Investment Facility (“CGIF”), a trust fund of the Asian Development Bank	
Structure	Senior unsecured, unconditionally and irrevocably guaranteed by CGIF, Reg S	Senior unsecured, unconditionally and irrevocably guaranteed by CGIF
Issue Rating	AA (S&P)	AAA (RAM Ratings)
Currency	CNH	MYR
Size (m)	1,000	150
USD equivalent (m)	153	36
Pricing Date	13 April 2021	24 August 2021
Issue Date	19 April 2021	1 September 2021
Maturity	19 April 2024	30 August 2024
Tenor	3-year	3-year
Coupon	3.00%	3.05%
Use of Proceeds	To finance and/or refinance, in whole or in part, of new or existing projects in Eligible Green Projects in accordance with the Issuer’s Green Financing Framework	To finance and/or refinance, in whole or in part, of new or existing projects in accordance with the Issuer’s ASEAN Green Bonds Framework which is aligned with the ASEAN Green Bonds Standards
Listing	SGX	-
Governing Law	English Law	Malaysian Law
ISIN	HK0000722261	MYBUG2103078

4. Allocation Reporting

Use of Proceeds – Allocation Table

ICMA GBP Eligible Categories	Issue Amount	Amount of Proceeds Allocated	Percentage of Proceeds Allocated	Share of Financing vs. Refinancing	Details / Notes
Renewable Energy <i>“Investment in Q CELLS Division and its subsidiaries for production of solar cells and modules”</i>	CNH 1,000mn	CNH 1,000mn	100%	100% Refinancing	Refinancing of subsidiary company loan
	MYR 150mn *	MYR 150mn *	100%	100% Financing	Hanwha Q Cells Malaysia is a pure play company that makes solar photovoltaic cells and modules.

* Issued by Hanwha Q CELLS Malaysia Sdn. Bhd.

5. Impact Reporting

Below are key impact indicators related to the eligible green project categories that are financed under the green bonds. Below indicates the breakdown of production across all production sites Korea, USA, Malaysia and China in FY2021.

Eligible Green Project Categories	Eligible Projects	Impact Indicators (FY2021)		
		Number of Q.ANTUM solar cells/modules produced (number per year)	Annual renewable energy production (equivalent in GW)	Annual production capacity (in GW)
Renewable Energy	<ul style="list-style-type: none"> Investment in Q CELLS Division and its subsidiaries for production of solar cells and modules 	Cell: 1,383,886,262,000 Module: 21,220,329,000	Cell: 8.36GW Module: 8.65GW	Cell: 10GW Module: 12.4GW

Detailed Breakdown



Type	Site	Production		Capacity
		Number ('000)	GW	GW
Cell	China	401,123,535	2.46	3.20
	Korea	672,650,669	4.05	4.50
	Malaysia	310,112,058	1.85	2.30
	Total	1,383,886,262	8.36	10.00
Module	China	5,900,094	2.42	3.90
	Korea	8,723,362	3.61	4.50
	Malaysia	3,274,465	1.32	2.30
	US	3,322,408	1.30	1.70
	Total	21,220,329	8.65	12.40

6. Summary of Hanwha Solutions Green Financing Framework

6.1. Use of Proceeds

The Company and its subsidiaries (belonging to photovoltaic business for renewable energy) will allocate an amount at least equivalent to the net proceeds of the Green Financing Instruments issued under this Framework to finance and/or re-finance, in whole or in part, green projects which meet the eligibility criteria of the following Eligible Green Project categories ("Eligible Green Projects"), as defined as below.

A maximum 3 year look-back period would apply for refinanced projects and we expect to be fully allocated within 1 year from the issuance of the Green Financing Instrument.

Eligible Green Project category	Eligibility Criteria	Eligible Projects	Relevant UN Sustainable Development Goals (SDG)
Renewable Energy	Expenditures for, and refinancing of, the Company's renewable energy/clean energy business, including:	<ul style="list-style-type: none"> Investment in Q CELLS Division and its subsidiaries for 	 

Eligible Green Project category	Eligibility Criteria	Eligible Projects	Relevant UN Sustainable Development Goals (SDG)
	<ul style="list-style-type: none"> • Solar Cells and Solar Modules under its Q CELLS Division and its subsidiaries and R&D in solar cell and module production • Investment in solar power generation assets (including building and operation) and downstream distribution of energy based on solar power generation • Investment in green hydrogen businesses and/or projects, including R&D in green hydrogen production, storage and distribution. • Acquisition⁶ and investment into assets in relation to green hydrogen businesses including assets for hydrogen storage and distribution 	<ul style="list-style-type: none"> • production of solar cells and modules and R&D • Acquisition of solar power generation assets and investments into solar energy retail business • R&D of Green Hydrogen Electrolysis Technology by Chemical Division • Acquisition and investment in assets for hydrogen storage and distribution 	

6.2. Process for Evaluation and Selection of Projects

Hanwha Solutions and its subsidiaries (belonging to photovoltaic business for renewable energy) have established the Green Financing Working Group (“GFWG”) with responsibility for governing and implementing the initiatives set out in the Framework. The GFWG is composed of Accounting Team, Planning Team, Legal Team and Environment & Safety Team, while being coordinated by International Finance Team or Finance Team.

The GFWG will:

- Ratify eligible business and projects, which are initially proposed by constituent team members
- Undertake regular monitoring of the asset pool to ensure the eligibility of businesses and projects, whilst replacing any ineligible businesses and projects with eligible new green assets
- Facilitate regular reporting on any Green issuance in alignment with our Reporting commitments
- Manage any future updates to this Framework
- Ensure that the approval of Eligible Green Projects will follow the Company’s existing credit/loan/ investment approval processes

6.3. Management of Proceeds

A dedicated ledger (the “Ledger”) will be established to record the allocation of Proceeds. The GFWG will track the Proceeds via a formal internal process to ensure linkage to Eligible Green Projects.

Any proceeds temporarily unallocated will be placed in short-term liquid money instruments such as cash and market securities according to the Company’s investment guidelines.

6.4. Reporting

On an annual basis until full allocation of proceeds to Eligible Green Projects and on a timely basis in case of material changes, Hanwha Solutions and its subsidiaries (belonging to photovoltaic business for renewable energy) will provide a dedicated green bond report.

⁶ If acquisition of a business is involved for allocated proceeds, Hanwha Solutions would use a pro-rata allocation of green proceeds based on % book value of eligible green assets within the acquired company’s balance sheet