# Green bonds issued on October 16, 2017 Environmental Impact (March 2023)

Category		Projects	Annual Energy Production (Unit: MWh) <sup>1</sup>	Mizuho's Contribution <sup>3</sup> to Expected CO <sub>2</sub> Emission Reductions (Unit: tons of CO <sub>2</sub> /year) <sup>2</sup>
Renewable Energy	Solar	10	1,831,541	258,476
	Wind	5	4,582,456	236,954
	Biomass	1	1,201,316	132,394
Total		16	7,615,313	627,824

### **Renewable Energy**

Notes:

- 1. Total production for all projects.
- 2. Annual expected CO<sub>2</sub> emission reductions are based on the concept of Avoided Emissions under <u>PCAF</u> Guidance. We use the emission factors of fossil fuels that are consumed to generate the biggest electricity in the region that the project is located, and calculate CO<sub>2</sub> emission reductions contributed by the renewable power projects that Mizuho finance.
- 3. Calculated by multiplying the project expected CO<sub>2</sub> emission reductions by the ratio of Mizuho's outstanding debt of the total project cost (Mizuho's Attribution Factor). Mizuho's Attribution Factor is in line with <u>PCAF</u> Guidance.

## **Environmental Impact (March 2022)**

Category		Projects	Annual Energy Production (Unit: MWh) <sup>1</sup>	Mizuho's Contribution <sup>3</sup> to Expected CO <sub>2</sub> Emission Reductions (Unit: tons of CO <sub>2</sub> /year) <sup>2</sup>
	Solar	7	1,564,860	321,603
Renewable Energy	Wind	4	4,459,324	232,224
	Biomass	1	1,201,316	83,879
Total		12	7,225,500	637,706

#### **Renewable Energy**

Notes:

- 1. Total production for all projects.
- 2. Annual expected CO<sub>2</sub> emission reductions are based on the concept of Avoided Emissions under <u>PCAF</u> Guidance. We use the emission factors of fossil fuels that are consumed to generate the biggest electricity in the region that the project is located, and calculate CO<sub>2</sub> emission reductions contributed by the renewable power projects that Mizuho finance.
- 3. Calculated by multiplying the project expected CO<sub>2</sub> emission reductions by the ratio of Mizuho's outstanding debt of the total project cost (Mizuho's Attribution Factor). Mizuho's Attribution Factor is in line with <u>PCAF</u> Guidance.

## **Environmental Impact (March 2021)**

Category		Projects	Annual Energy Production (Unit: MWh) <sup>1</sup>	Mizuho's Contribution <sup>3</sup> to Expected CO <sub>2</sub> Emission Reductions (Unit: tons of CO <sub>2</sub> /year) <sup>2</sup>
Renewable Energy	Solar	6	1,409,757	328,279
	Wind	3	4,188,371	233,310
	Biomass	1	1,204,171	65,291
Total		10	6,802,299	626,880

#### **Renewable Energy**

Notes:

- 1. Total production for all projects.
- 2. Annual expected CO<sub>2</sub> emission reductions are based on the concept of Avoided Emissions under <u>PCAF</u> Guidance. We use the emission factors of fossil fuels that are consumed to generate the biggest electricity in the region that the project is located, and calculate CO<sub>2</sub> emission reductions contributed by the renewable power projects that Mizuho finance.
- 3. Calculated by multiplying the project expected CO<sub>2</sub> emission reductions by the ratio of Mizuho's outstanding debt of the total project cost (Mizuho's Attribution Factor). Mizuho's Attribution Factor is in line with <u>PCAF</u> Guidance.