

# Green Bonds

For financing investments in renewable energy and energy efficiency in ASEAN

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# Singapore Government's 'Green' Targets

Singapore government has made clear its intentions to 'green' the country with the following targets:

- ▶ to reduce emissions intensity by 36% from 2005 levels by 2030;
- ▶ to stabilize emissions, aiming for them to peak around 65 MtCO<sub>2</sub>e in 2030;
- ▶ to increase solar power to 1 gigawatt-peak (GWp) beyond 2020.

# Introduction to Green Bonds

- ▶ Proceedings from green bonds can be used to fund only low carbon projects.
- ▶ The market for green bonds has grown rapidly, from US\$ 3.4 billion in 2012 to US\$ 156 billion in 2017.
- ▶ The European Investment Bank and the World Bank were the first to issue green bonds in 2007 and 2008 respectively.
- ▶ China is now the world's largest issuer of green bonds and issued US\$ 34 billion and US\$ 31 billion worth of green bonds in 2016 and 2017 respectively.

## Advantages of green bonds as a source of finance



### **Green bond Buyer**

Meets green investment  
mandate  
Global warming  
awareness



### **Green bond Issuer**

Reputation  
Claim sustainability  
Attracts ethical investors



### **Rest of the World**

Achieve other climate  
change mitigation goals  
Reduce global  
temperature rise



### **Government**

Reduce pollution  
Energy security  
Sustainable growth

# Policy Impetus: Green Bond Grant Scheme

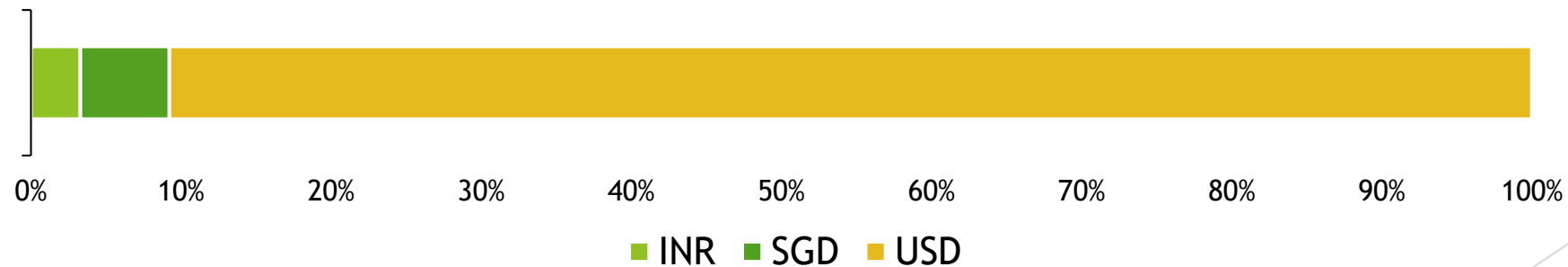


- ▶ Reduces the cost of issuance of green bonds by covering the cost of external review which is a mandatory requirement for labeling bonds as 'green'. This external review is not required for generic bonds.
- ▶ GBGS covers the entire reviewing cost up till S\$100,000 and is only available till May 2020.

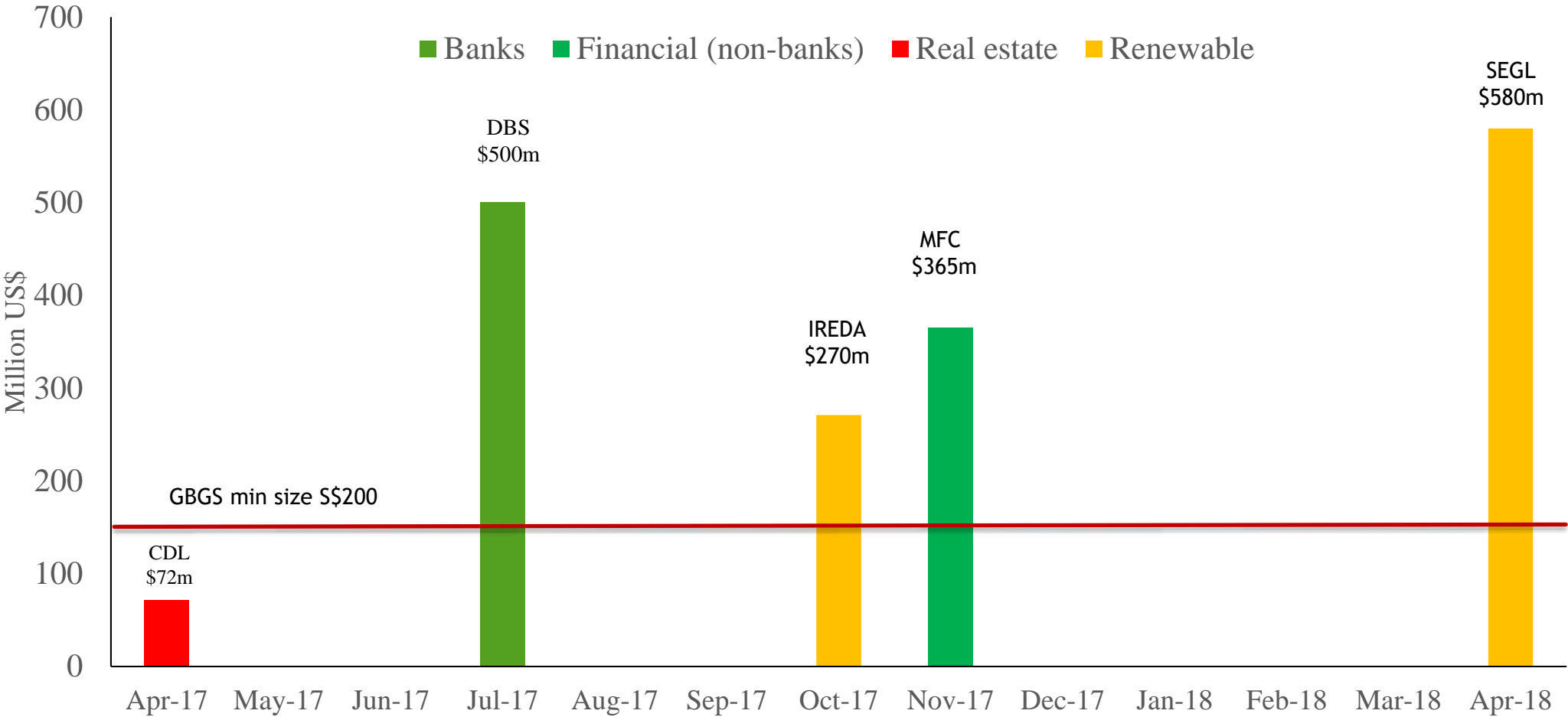
# Green Bond Currencies

- ▶ The most popular currency to list bonds on the SGX is the USD. USD listed bonds offer more liquidity and safety to investors based in the US.
- ▶ Other than Singapore Dollars, bonds on the SGX have also been issued in Indonesian Rupiah, the Indian Rupee and the Philippine Peso.

Bond Issuing Currency on SGX



# Green Bond Issuances in Singapore



# Sindicatum Renewable Energy (SRE)

- ▶ SRE is a fully integrated independent power producer that develops, owns and operates its facilities in Southeast and South Asia
- ▶ Green bonds issued include - two denominated in INR totalling to 2.5 Billion (USD 40 million) and one in PHP with face value 1.06 Billion (USD 20 million). Both of these bonds are payable in USD.
- ▶ Proceeds will be used by SRE to refinance debt from FMO and Proparco to fund the acquisition and construction of wind and solar projects in the Philippines and in India.

The logo for Sindicatum renewable energy is located inside a white circle on the right side of the slide. It features the word "Sindicatum" in blue and "renewable energy" in green, with a thin green line separating the two words.

Sindicatum  
renewable energy



# City Developments Limited (CDL)

- ▶ CDL is a leading global real estate operating company. Through its wholly-owned subsidiary CDL Properties (CDLP), it became the first Singaporean company to issue a green bond.
- ▶ The two-year bond raised S\$100 million at 1.98% fixed rate due 2019.
- ▶ Proceeds will be used to repay a S\$100 million loan extended by the parent company CDL to CDLP.
- ▶ Republic Plaza, owned by CDLP, is a premium Grade A office building. It was awarded the highest Green Mark Platinum Rating by the Building and Construction Authority.



# DBS Bank

- ▶ DBS is a multinational banking and financial services corporation headquartered in Singapore.
- ▶ DBS issued a \$ 500 million floating rate green bonds due 2022. The bonds bear a quarterly coupon of 3-month USD LIBOR + 0.62%.
- ▶ Proceeds from the green bonds towards green assets comprising DBS' financing of Marina Bay Financial Centre Tower Centre 3 (MBFC T3) certified Green Mark Platinum by the Building and Construction Authority.



# Manulife Financial Corporation

- ▶ Manulife is a global financial services group.
- ▶ It issued S\$ 500 million worth of green bonds at a 3.0% coupon due November 2029. The Notes will bear interest at a fixed rate of 3.00% until November 21, 2024 and thereafter at a rate of 0.832% over the then-prevailing five-year SGD Swap Rate.
- ▶ The proceeds from this green bond issuance will be used to finance renewable energy, green buildings and other green assets.



# Star Energy Geothermal Limited (SEGL)

- ▶ SEGL is an independent energy company with its base of operations in Indonesia.
- ▶ It issued and listed a green bond worth USD \$ 580 million on the SGX. First corporate firm to issue a green bond from Indonesia on the SGX and the third overall.
- ▶ The coupon rate is 6.75% and the tenure is 15 years till April 2033.
- ▶ Proceeds will be used to refinance debt that SEGL had accelerated to take on more funds to acquire two of Chevron's geothermal assets.



# Indian Renewable Energy Development Agency (IREDA)

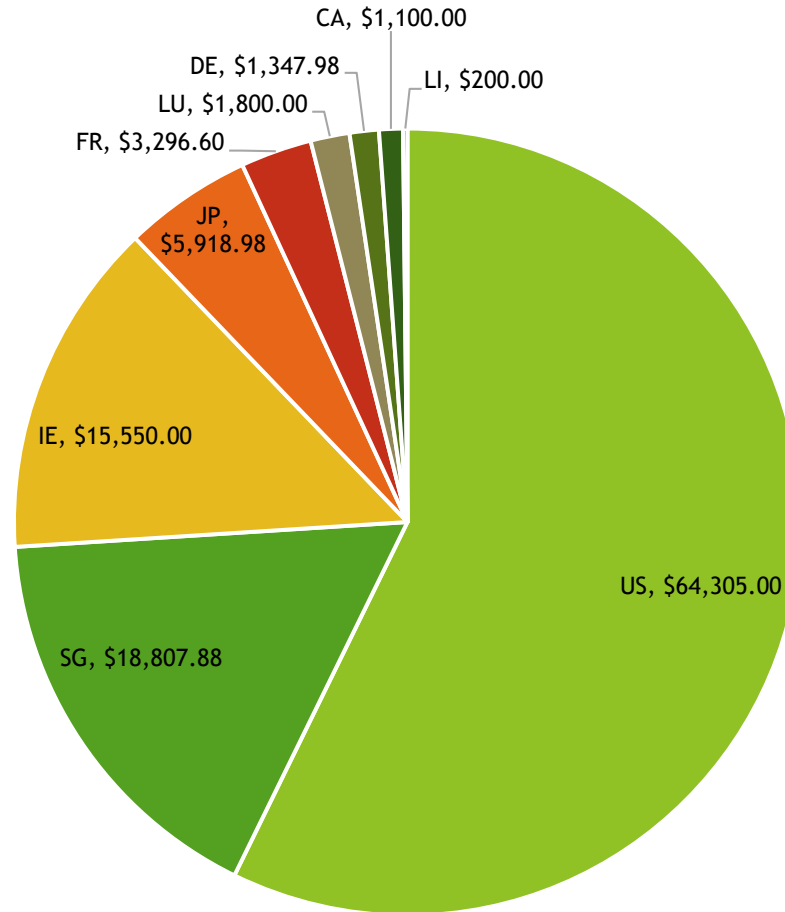
- ▶ IREDA is an Indian government owned entity that extends financial assistance for development of renewable energy and energy conservation projects.
- ▶ It raised USD \$300 million via a five-year rupee-denominated bond dual-listed on the SGX and the LSE. The bond carries an annualised coupon of 7.125% and is due in the year 2022
- ▶ IREDA will utilise the funds to finance renewable energy projects in India.



इरेडा  
IREDA

# Green Bond Beneficiaries

- ▶ Both Singaporean and foreign investors have purchased bonds to finance local and international low carbon projects.
- ▶ Certain Singapore Investment Funds have been active in purchasing green bonds. The Phillip Money Market Investment Fund, Nikko AM Shenton Short Term Bond Fund, Deutsche Lion Bond Fund and Lionglobal investments hold green bonds.



# Green Bond Beneficiaries

- ▶ USD-denominated green bonds listed on the SGX have been purchased by beneficiaries in the United States of America, Singapore, Ireland, Japan, France, Luxembourg, Germany, Canada and Liechtenstein.
- ▶ The largest investment has been made by investors in the United States of America, which is about 57% of all USD listed bonds on the SGX.
- ▶ The second largest investment has been made by funds in Singapore, that have purchased 17% of all listed green bonds.
- ▶ But most green bond investments can be seen to have been coming from outside ASEAN, with investors in ASEAN other than in Singapore investing very little in green bonds<sup>[1]</sup>.

# Questions and Answers

