

#### **Green Finance Department**

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We welcome your feedback and views on this report. April 2021

#### **Acknowledgements**

The report was prepared by the Green Bond Working Group in Industrial Bank's Green Finance Department and reviewed by its senior management.

The report was designed by YinGuanTianXia.

2020

# **Green Bond Impact Report**<sup>1</sup>

Industrial Bank Co., Ltd.



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## **Introduction: About IB**

Industrial Bank Co., Ltd. (hereinafter referred to as Industrial Bank or IB) was founded in 1988 and listed on the Shanghai Stock Exchange in 2007 (stock code: 601166). It's one of the first joint-stock commercial banks approved by the State Council and the People's Bank of China. It's a listed company with branches covering all the provinces in Mainland China and 8 major subsidiaries in different financial sub-areas, including commercial banking, trust, financial lease, funds, futures, asset management, consumer finance, research and consulting, and digital finance covered, ranking among the top 30 banks in the world and Fortune Global 500.

#### **Banking as Its Main Business**







### **Green Finance Practice of IB**

2020 has been a year of challenges for everyone. Meanwhile, an agenda of "green recovery" has start taking place in many governments' crisis recovery package, as such win-win strategy is essential to long term development. As the world's largest energy consumer and GHG emitter, China is fully aware of the potential impacts of pollutions and climate change and is committed to addressing this global issue. In September 2020, China has officially declared the goal to achieve carbon neutrality by 2060 and to align China with the 1.5 °C scenario.

As for IB, its effort to explore new path of combining commercialbanking with environmental judgements started over a decade ago. IB was the first commercial bank in China to fully embrace sustainable development and Green finance. The Bank announced the adoption of the Equator Principles in 2008, becoming the first bank in China that integrated an advanced international environmental and social risk management framework into its daily business. In China, as the Vice Secretary-General of the Green Finance Committee (GFC) established under China Financial Forum, the Bank has been proactively promoting Green finance as part of the national agenda, contributing to the drafting of several key policies.

In order to serve the different financing demands of its clients in environment friendly area, IB has innovatively mobilized its branches and subsidiaries to provide not only traditional loan financing, but also other types of financial tools, including debt underwriting, equity investment, financing leasing and securitization.

To ensure a robust and balanced development in green finance, IB has also established a well-functioning organization. At the senior management level, the President of the Bank heads three steering committees in sustainable development, green finance and equator principles. At the headquarters level, the Green Finance Department, originally set up in 2009 as the Sustainable Finance Center, is the leading coordinator, implementer and promotor for the Bank and all its subsidiaries. Currently the Green Finance Department consists of six professional teams, responsible respectively for industry research, product innovation, marketing, environmental and social risk management and brand building. At the branch level, there are around 40 professional green finance business teams in tier 1 branch offices covering the whole country, with approximately 200 green finance specialists in total. Also, relevant KPIs for green financial business development have been incorporated into the comprehensive annual performance evaluation to encourage branches and subsidiaries to explore more green finance opportunities. Reserved business resources and preferential policies are arranged on an annual basis to promote green finance, including specified credit scale, risk assets, bond funds and differentiated authorization policies, etc.





Being a first mover and a one-stop financial service provider in green finance, IB's effort obtains significant return. In 2020, IB's Green Financing Portfolio totaled RMB 1.16 trillion<sup>2</sup> and IB had 29829 Green Finance Corporate Clients. Both figures have been growing at over 30% CAGR since 2013.







Green Financing Portfolio totaled

Amount of Green Finance Corporate Clients

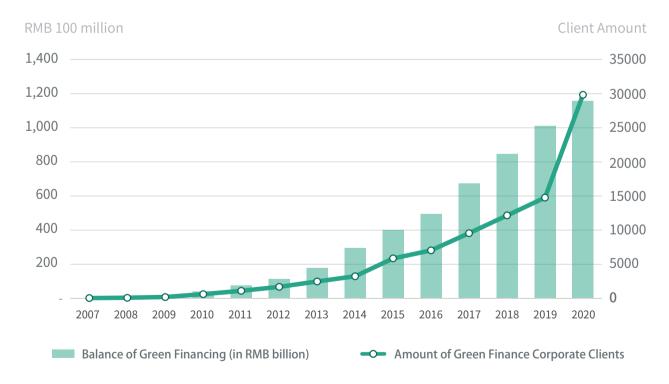
Size of portfolio and amount of clients growth rate since 2013 (CAGR)

RMB 1.16 trillion<sup>2</sup>

29829

30%

#### Green Financing Portfolio and Amount of Corporate Clients



<sup>&</sup>lt;sup>2</sup> Including loans, debt investment, bond investment, financing leasing, managed class assets, and equity investment that aligned with IB's green financing standards (the "IB green finance standards"). IB green finance standards is a series of self-developed standards which are drafted based on domestic and international green finance standards and industrial standards.





IB's Green Financing Portfolio in 2019 is expected to realize the following environmental impacts per year:



Tce Reduction: 30.39 million tons



CO<sub>2</sub> Emission Reduction: **84.72** million tons

COD

**4.15** million tons

NH<sub>3</sub>-n

NH<sub>3</sub>-n Emission Reduction: **219.0** thousand tons



**SO<sub>2</sub>** 

SO<sub>2</sub> Emission Reduction: **998.1** thousand tons

**NO**x

NO<sub>x</sub> Emission Reduction: **118.7** thousand tons



Solid Waste Recycling: **45.96** million tons



Water Saving: **410.47** million tons



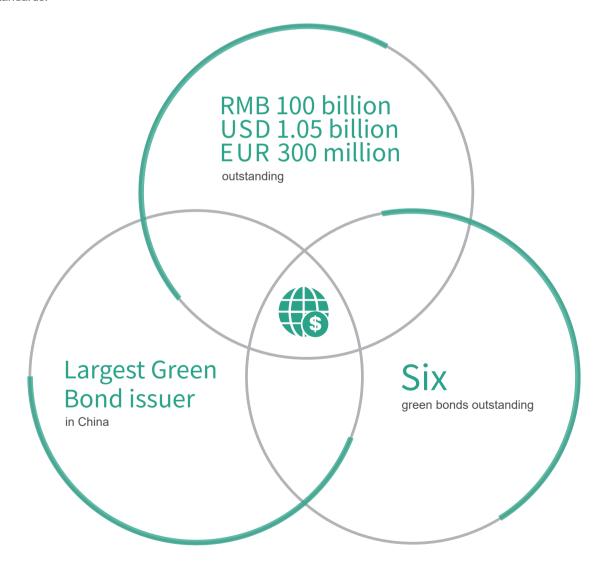




### **Green Bonds Issuance**

IB treats green bonds as a further elaboration of the Bank's sustainable development strategy. They serve the purposes of providing long-term, stable fund for IB to finance its green projects as well as delivering the bank's consistent effort in Green Finance to its investors and support them to meet their goals in the expanding green economy.

IB issued the first Green finance bond in China in 2016. By the end of 2020, IB has six green bonds outstanding, including RMB 100 billion listed domestically, USD 1.05 billion listed in Hong Kong/Macao and EUR 300 million in Luxembourg. Funds are raised to financeand refinance projects inrenewable energy, energy efficiency, low carbon and low emission transportation, sustainable water and wastewater management, sustainable marine economy, marine environmental protection and coastal climate change adaption, and other industries that are included in Chinese domestic and international green bond standards.







### Green Bond Issued under the Green Bond Framework for IB

In 2018, IB announced *Green Bond Framework for Industrial Bank Co., Ltd.* (the "Framework"), which defines the use of proceeds, project evaluation and selection process, management of proceeds and reporting of IB's offshore green bonds.<sup>3</sup> As of Dec 31<sup>st</sup> 2020, two offshore green bond issued under the framework remains outstanding, which include three tranches with a total value of USD 1393.93 million equivalent

Bond Name	2018 Gre	2020 Green Bond (Blue Bond)			
Issue Type		nd			
Issue Format		MTN Reg S			
Issue Rating		Baa2 (Moody's)			
ISIN	XS1898122301	XS1898123374	XS2244313685		
Issue Date	2018-11-20	2018-11-20	2020-11-6		
Maturity Date	2021-11-20	2021-11-20	2023-11-6		
Issue	USD 3Y FRN	EUR 3Y FRN	USD 3Y FR		
Size	USD \$600,000,000.00	EUR €300,000,000.00	USD \$450,000,000.00		
Issue Price	100	100	99.81		
Benchmark	3-Month USD LIBOR	3-Month EUR EURIBOR	I		
Coupon Rate	3M-LIBOR + 85bps	3M-EURIBOR + 85bps	1.125%		
Listing Venue	HKEX	LuxSE	HKEX/MOX		
Use of Proceeds	To finance and refina eligible G as defined in	To finance and/or refinance Eligible Green Assets which are water and/or marine related, as defined in the Green Bond Framework			
Allocated Proceeds (in millon USD)	943	450.00			
Unallocated Proceeds (in million USD)	943	450.00			
% of proceeds allocated	100	100%			
Special features	Climate Bonds Ce	"Blue Bond" with use of proceess focus on water-related assets			

<sup>&</sup>lt;sup>3</sup> IB's RMB 130 billion domestically issued green financial bonds, which are traded on China Inter-Bank Bond Market, are not issued under the framework but are subjected to green bonds regulatory requirements proposed by Chinese domestic financial regulators, including People's Bank of China (PBoC,中国人民银行) and China Banking and Insurance Regulatory Commission (CBIRC,中国银行保险监督管理委员会). Corresponding green bond reports are posted on <a href="https://www.chinabond.com.cn">www.chinabond.com.cn</a> as of regulatory requirements.



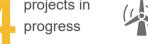


# **Impact Report Highlights**



### **Renewable Energy Projects**











588.40 renewable capacity from wind power generators



34,314.92 tons of burned standard coal equivalent avoided

SO<sub>2</sub>40.31 tons

of SO<sub>2</sub> emission equivalent avoided per year



13,600 tons

of lime ash avoided per year



1880.78 GWh annual renewable energy generated



96,442.78 tons of CO<sub>2</sub> emission equivalent avoided per year

NOx

of NOx emission equivalent avoided per year



# **Low Carbon and Low Emission Transportation**









89.38 KM of track built



43,935.45 tons of CO<sub>2</sub> emission equivalent avoidedper year



1,345.64 million Passengers to be transported per year by 2045







### Sustainable Marine Economy, Marine Environmental Protection and Coastal Climate Change Adaption

projects in progress







14 LIFE BELOW WATER





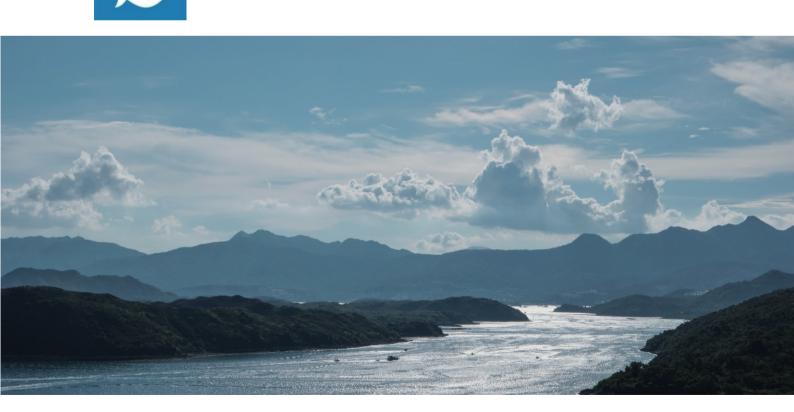


of Dam/LeveesConstruction and Reinforcement



 $682.00 \, \, {}_{thousand \, m^3/day}$ 

Wastewater Treatment Capacity



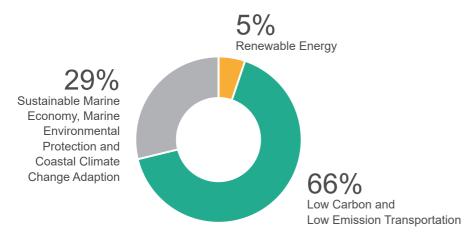




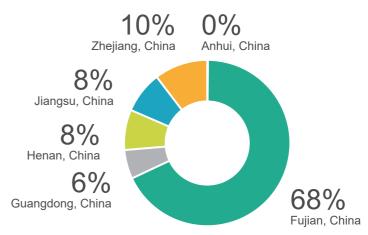
## **Allocation of Proceeds**

RMB 9563.61 million (USD 1.05 billion and EUR 300 million), which accounts for 100.00% of the total fund raised by the Green Bonds, had been allocated to four Renewable Energy, three Low Carbon and Low Emission Transportation projects and eleven Sustainable Marine Economy, Marine Environmental Protection and Coastal Climate Change Adaption projects by Dec 31st, 2020. Unallocated proceeds during the year (if any) were kept in Industrial Bank's general account with no temporary investments.

### **Allocation of Proceeds by Sector**



### **Allocation of Proceeds by Region**



### **Allocation of Proceeds by Sector and Region**

Ref. No	Туре	Categoty	Location	Allocation	Allocated Amount (RMB million)	Allocated Amount (USD million eq.) 4
Project 1		Onshore Wind Power	Fujian, China	ı, China 2018 Green Bond		11.91
Project 2	Renewable		Fujian, China	2018 Green Bond	153.74	22.15
Project 3	Energy		Fujian, China	2020 Green Bond (Blue Bond)	194.00	28.97
Project 4		Offshore Wind Power	Fujian, China	2020 Green Bond (Blue Bond)	66.05	9.86
	Subtotal	,			496.41	72.90





# **Allocation of Proceeds by Sector and Region**

Ref. No	Туре	Categoty	Location	Allocation	Allocated Amount (RMB million)	Allocated Amount (USD million eq.) 4
Project 5				2018 Green Bond	750.00	108.08
Project 6	Low Carbon and Low Emission Transportation	Metro	Guangdong, China	2018 Green Bond	420.00	60.52
Project 7			Fujian, China	2018 Green Bond	5,143.87	741.27
	Subtotal				6,313.87	909.87
Project 8			Jiangsu, China	2020 Green Bond (Blue Bond)	195.00	29.12
Project 9		Coastal Area Flood Control Facilities	Fujian, China	2020 Green Bond (Blue Bond)	343.00	51.22
Project 10		Construction	Fujian, China	2020 Green Bond (Blue Bond)	506.18	75.59
Project 11	Sustainable Marine		Zhejiang, China	2020 Green Bond (Blue Bond)	134.00	20.01
Project 12	Economy, Marine Environmental		Jiangsu, China	2020 Green Bond (Blue Bond)	135.00	20.16
Project 13	Protection and		Zhejiang, China	2020 Green Bond (Blue Bond)	173.50	25.91
Project 14	Coastal Climate Change Adaption	Coastal Sewage	Zhejiang, China	2020 Green Bond (Blue Bond)	600.00	89.60
Project 15		Treatment	Zhejiang, China	2020 Green Bond (Blue Bond)	85.00	12.69
Project 16			Guangdong, China 2020 Green		120.00	17.92
Project 17			Jiangsu, China	2020 Green Bond (Blue Bond)	447.00	66.75
Project 18	-1	Port Pollution Prevention	Anhui, China	2020 Green Bond (Blue Bond)	14.65	2.19
	Subtotal				2,753.33	411.17
	Total Allocation				9,563.61	1,393.93

 $<sup>^4</sup>$  Exchange rate applied:  $\$  Y =0.1441 for 2018 issues and 0.1493 for 2020 issues





# **Eligible Projects Summary**

# Renewable Energy

Quantitative Relationships	(a)	(b)	(c)	(d)	(e)	(f) <sup>5</sup>	(g)	(h)	(i)	(j)	(k)=(i)*(g)	(1)	(m)=(l)*(g)	(n)	(o)=(n)*(g)	(p)	(q)=(g)*(g)	(r)	(s)
	Asset Information Proceeds Allocation						Impact Factors								.1				
lef. No &	Categoty	Location	Project Description			IB current share	1		Tce avoided (tons/yr)		r) CO² Emission Eq. avoided (tons/yr)		SO <sup>2</sup> Emission Eq. avoided (ton/yr)		NOx Emission Eq. avoided (tons/yr)		Other Impacts		
	1	/	1	1	1	1	1	Project level	Project level	Project level	IB share	Project level	IB share	Project level	IB share	Project level	IB share	Project level	
roject 1	Onshore Wind	Fujian, China	This onshore wind power project locates in south-eastern China with a site area about 5.0km². The project plans to install 20 sets of 2.0MW wind power generator sets with a construction scale of 40MW. The annual power output is 84.69 GWh with 2059.09 GEAH (Generating Equipment Availability Hours) when running at full capacity.	338.26	82.63	11.91	24.43%	40.00	84.69	26,200.00	6,399.74	76,400.00	18,661.83	10.09	2.68	14.41	3.82	I	
roject 2	Power	Fujian, China	This onshore wind power project locates in south-eastern China. The project plans to install 24 sets of 2.0MW wind power generator sets and one 110kV booster station. The annual power output is 116.23 GWh with 2333.54 GEAH (Generating Equipment Availability Hours) when running at full capacity.	442.79	153.74	22.15	34.72%	48.40	116.23	36,500.00	12,672.91	103,900.00	36,074.39	30.90	11.49	39.20	14.57	lime ash avoided 13,600 tons	
oject 3	Offshore Wind	Fujian, China	This offshore wind power project locates near the coastline of south-eastern China. The project plans to install 50 sets of 6.0MW offshore wind power generator sets and one onshore 220kV booster station. The annual power output is 1057.95 GWh with 3526 GEAH (Generating Equipment Availability Hours) when running at full capacity.	5,276.61	194.00	28.97	3.68%	300.00	1,057.96	319,200.00	11,735.72	939,100.00	34,526.98	570.00	20.96	280.00	10.29	1	
roject 4	Power	Fujian, China	This offshore wind power project locates near the coastline of south-eastern China. The project plans to install 40 sets of 5.0MW offshore wind power generator sets and one 220kV booster station. The annual power output is 621.905 GWh with 3109 GEAH (Generating Equipment Availability Hours) when running at full capacity.	3,690.00	66.05	9.86	1.79%	200.00	621.90	195,900.00	3,506.56	401,100.00	7,179.58	290.00	5.19	270.00	4.83	1	
tal	/	/	1	9,747.66	496.41	72.90	1	588.40	1,880.78	577,800.00	34,314.92	1,520,500.00	96,442.78	900.99	40.31	603.61	33.52	/	

 $<sup>^5\,\</sup>text{Exchange}$  rate applied: \$/ \text{Y} =0.1441 for 2018 issues and 0.1493 for 2020 issues





# **Eligible Projects Summary**

# **Low Carbon and Low Emission Transportation**

		<u> </u>				<u> </u>	<u> </u>		<u> </u>		<u> </u>	Y	<u> </u>	Y
Low Carbon and Low Emission Transportation	(a)	(b)	(c)	(d)	(e)t	(f) <sup>6</sup>	(g)	(h)	(i)	(j)	(k)	(I)=(k)*(g)	(m)	(n)=(m)*(g)
			Asset Information		Proceeds	Allocation	•			•	Impact Factors			***************************************
Ref. No &	Categoty	Location	Project Description	Total investment (RMB million)	Allocated Amount (RMB million)	Allocated Amount (USD million eq.) 1	IB current share	Length of track (km)	Passenger Transported by 2020 (million/yr)	Passenger Transported by 2045 (million/yr)	CO2 Emission Ed by 2020 (tons/yr)		CO2 Emission Eq by 2045 (tons/yr)	. avoided
	/	1	1	1	1	1	1	Project level	Project level	Project level	Project level	IB share	Project level	IB share
Project 5		Zhengzhou, Henan, China	This electrified urban metro project locates in one of the major city in central China. The project is 9.461 km in length and contains 6 underground stations. The cost of the construction of stations is not covered by this green bond offering. The project is designed to meet the growing needs of urban transportation and reduce local people's reliance on other carbon-intensive transportations.	5,836.44	750.00	108.08	12.85%	9.46	53.15	117.78	5,130.36	659.27	47,741.82	6,134.97
Project 6	Metro	Guangzhou, Guangdong, China	This electrified urban metro project locates in one of the major coastal city in south-eastern China. The project is 43.2 km in length and contains 32 underground stations. The transportation capacity is expected to reach 1.24 million passengers per day in 2021 and 2.45 million passengers per day in 2043. The project is designed as a ring line around the most populated area of the city in order to meet the growing demand of urban transportation and to reduce local people's high reliance on carbon-intensive transportations, especially private automobiles and motorcycles.	42,058.43	420.00	60.52	1.00%	43.20	451.51	895.71	142,415.92	1,422.18	407,568.03	4,070.02
Project 7		Xiamen, Fujian, China	This electrified urban metro project locates in one of the major coastal city in south-eastern China. The project is designed to connect the local high-speed railway station and the new city airport which is currently under construction. It is expected to benefit both local residence and regional travelers. The project is 36.7 km in length, which includes 29.2km underground section and 6.92km elevated section. The project also contains 26 stations. The transportation capacity is expected to reach 400 thousand passengers per day in 2023 and 910 thousand passengers per day in 2045.	29,133.84	5,143.87	741.27	17.66%	36.72	146.58	332.15	33,082.41	5,841.03	191,042.60	33,730.46
 Total /	/	/		77,028.71	6,313.87	909.87	1	89.38	651.24	1,345.64	180,628.70	7,922.47	646,352.45	43,935.45

 $<sup>^{\</sup>rm 6}$  Exchange rate applied: \$/  $\rm Y$  =0.1441 for 2018 issues and 0.1493 for 2020 issues





# **Eligible Projects Summary**

# Sustainable Marine Economy, Marine Environmental Protection and Coastal Climate Change Adaption

Quantitative Relationships	(a)	(b)	(c)		(e)	(f) <sup>7</sup>	(g)=(e)/(d)	(h)	(i)	(j)	(k)
			Asset Information		Proceeds	Allocation	4	1	Impact	Factors	
Ref. No & Reported level	Categoty	Location	Total investment (RMB million)	Total investment (RMB million)	Allocated Amount (RMB million)	Allocated Amount (USD million eq.) 1	IB current share	River Training (km)	Construction or Reinforcement of Dam and Levees (km)	Construction or Renovation of Wastewater Treatment Capacity (thous m3/d)	Construction of Wastewater Pipelines (km)
	1	1	I .	1	1	1	1	Project level	Project level	Project level	Project level
Project 8		Jiangsu, China	This is a river training project locates in eastern China. The project aims to recover the ecological functions and enhance the capacity of flood control of 33 local small rivers by conducting river training, trees planting and ecological retaining wall construction.	1,215.16	195.00	29.12	16.05%	128.81			
Project 9	Flood Control Facilities Construction Fujian, China Fujian, China		This is a river training project locates in southeastern China. The purpose of the project is to enhance local flood mitigation capacity when facing extreme climate conditions. The project includes river training to 9 local rivers.	932.31	343.00	51.22	36.79%	131.30			
Project 10			This is a river training project locates in southeastern China. The project consists of river training, levee construction and water ecosystem recovery.	1,614.65	506.18	75.59	31.35%	16.00	22.27		
Project 11		Zhejiang, China	This is a flood mitigation project locates in eastern China. The project intend enhance flood mitigation capacity of local rivers by constructing and reinforcing dam and levees.	835.16	134.00	20.01	16.04%		12.13		
Project 12		Jiangsu, China	The Project consists of a sewage treatment facility and wastewater pipelines.	491.77	135.00	20.16	27.45%			150.00	67.18
Project 13		Zhejiang, China	The Project is a sewage treatment facility locals in eastern China	395.59	173.50	25.91	43.86%			250.00	
Project 14	Coastal Sewage	Zhejiang, China	The Project is a sewage treatment facility locals in eastern China	1,320.00	600.00	89.60	45.45%			86.00	
Project 15	Treatment	Zhejiang, China	The Project is a sewage treatment facility locals in eastern China	1,304.55	85.00	12.69	6.52%			86.00	
Project 16		Guangdong, China	The Project is a sewage treatment facility locals in southern China	247.18	120.00	17.92	48.55%			110.00	
Project 17		Jiangsu, China  This is a wastewater pineline construction project for a mid-size city in eastern China. The project consists construction of 391 wastewater pineline and anxillary facilities.		800.00	447.00	66.75	55.88%				391.73
Project 18	Port Pollution Prevention	Anhui, China	The project will construct air pollution wand water treatment facility for one of the largest port in northern China.	62.00	14.65	2.19	23.63%				
Total	\	1		9,218.36	2,753.33	411.17		276.11	34.40	682.00	458.91





### **Honor and Awards**

#### LARGEST FINANCIAL CORPORATE DEAL OF 2019 and LARGEST 10-YEAR FINANCIAL CORPORATE ISSUER by

Climate Bond Initiative ("CBI"), part of its 5th Annual "Green Bond Pioneer Awards", on June 2020.

Mr. Xinjian Chen, Vice President of Industrial Bank, said, "China Industrial Bank is honored to receive this prestigious reward from CBI. Since 2016, CIB has issued 136.5 billion RMB worth onshore and offshore green bonds. The proceeds have been allocated to over 1000 green projects, generating significant environmental and social impacts. The recognitions and support from market participants will continuously motivate CIB as well as more and more financial institutions to take parts in the transition towards a green and low carbon economy."

For more information, please visit CBI's official website: www.climatebonds.net

# **5th Green Bond Pioneer Awards**

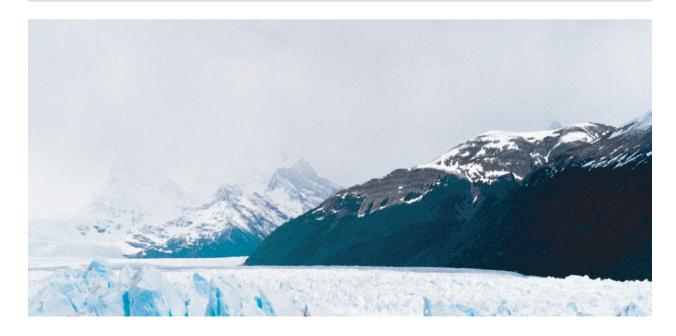
Climate Bonds Initiative

Largest Financial Corporate Green Bond Deal of 2019 & Largest Financial Corporate Green Bond Issuer over the last 10 years

awarded to Industrial Bank Co. (China)



China Industrial Bank China Industrial Bank has been nominated as the winner of the 2019 Largest Financial Corporate Deal and the Largest 10 - Year Financial Corporate Issuer awards. The Industrial Bank is one of China's top 10 banks. Its July 2019, two - billion Chinese yuan (USD 3bn) deal was the issuer's 11th since its entrance to the green bond sphere in 2016. The Bank's commitment to climate finance has brought it to a total of just over 13 billion USD of green issuance to date. The Bank is an active proponent of green bonds in China and beyond, subscribing also to the Equator Principles to manage environmental and social risks in funded projects.







# Third-Party engagements, Disclosure and reporting



#### Framework SPO:

IB has engaged Sustainalyticsto act as an external reviewer and second-party opinion ("SPO") provider of this Green Bond Framework (Version 2020.10) for Green Bond Principles ("GBP") alignment. Sustainalytics finds the Framework to be "credible and impactful and aligns with the four core components of the Green Bond Principles 2018".





#### **Pre-issuance Certifications:**

The Green Bonds issued on Nov 20th 2018 are Climate Bonds Certified(pre-issuance).

The USD tranche has also obtained Hong Kong Quality Assurance Agency ("HKQAA") Green Finance Certification (pre-issuance).



#### **Post-issuance Certifications:**

IB has engaged Sustainalytics as an independent third party to provide Assessment Reports (the "Assessment Reports") on its Green Bond Impact Report 2020, which provide information on allocation and impacts.





The framework, Second Opinion report, Certifications, Verification Letter, Letter of Approving and Assessment Report are publicly available on IB's website at: www.cib.com.cn/en/aboutCIB/about/notice/.





# **Appendix 1: Impact Reporting Methodology**

#### **Ex-ante Projections**

Environmental impact data reported for IB's general green finance portfolio as well as green bond allocation are ex-ante estimations during project design mostly for directproject impacts once projects are at normaloperating capacity. They are prepared using the combination of national standards and IB's self-developed methodology. IB commits to reflect the environmental effect of eligible assets at its best effort, but does not guarantee the accuracy of data and applicability of the methodologies.

#### **Regulations and Standards Applied**

Environmental impacts are either directly extracted from or calculated by data provided in "Project feasible study reports (项目可行性研究报告)", which is prepared by professional third-parties as a prerequisite for all project investment according to national regulation. IB will only approve project financing whose feasible study reports as well as environmental impacts projections has been reviewed and approved by National and Local Development and Reform Commission (NDRC, 国家发展改革委员会) or other official agencies. The calculation of environmental impacts based on "Project feasible study reports" has applied the following standards:

Guidelines for Calculation Energy Saving and Emission Reduction for Green Credit Projects (绿色信贷项目节能减排量测算指引) byChina Banking and Insurance Regulatory Commission's (CBIRC, 中国银行保险监督管理委员会)

General Technical Rules for measurement and verification of energy saving GB\_T 28750-2012(节能量测量和验证技术通则) and General Principles for calculation of the comprehensive energy consumption GB\_T 2589-2008 (综合能耗计算通则) by China Administration of Quality Supervision, Inspection and Quarantine (AQSIQ, 中国国家质量监督检验检疫总局).

The method involves calculation of baseline settings, absolute and relative emission, and is similar to EIB Carbon Footprint Methodology.

#### **GHG Emission avoid projection in Transportation Projects**

In order to make comparison between environmental benefit of Low Carbon and Low Emission Transportation Projects, IB has introduced the EIB Carbon Footprint Methodology to calculate GHG emission avoided, considering the complexity and absence of a widely accepted methodology globally. The projection involves estimation of Baseline scenario and calculation of Absolute and Relative Emission. Absolute emission of projects is calculated by estimated energy consumption (kWh) of projects multiplied by weighted average CO2 emission intensity (g/kWh)within local electric power grid. Baseline emission is calculated by multiplying estimated total transportation capacity in distance (transportation capacity in number of passengers per year \* average distance per trip) with baseline weighted average CO2 emission intensity (g/KM per passenger) in local area. Local residence's transportation pattern data (from local authorizes, survey or other creditable sources, if available) are used to calculate baseline weighted average CO2 emission intensities (g/KM per passenger) of each project. Due to insufficient data source and a lack of universal methodology to calculate GHG emission reduction for the railway industry, the GHG Emission avoid projections may deviate from real word scenario and should be used for reference purpose only.

#### Reporting for co-financed projects

IB usually co-finance projects with local business owners or other lenders. In order to more accurately reflect IB's participations in environmental benefits generated by these projects, IB reports environmental impacts at both project level and IB share level. Dividable impact factors, including burned coal avoided, CO2 emission reduction, SO2 emission reduction and NOx emission reduction are reported at both project level and IB share level on a pro rata basis. IB share level is calculated by Project level impact result\*(Amount allocated/Total investment).Non-dividable impact factors, including generatorcapacity, annual power output, length of tracks,passengers transported per year,length of river training, length of dam and levees,capacity of wastewater treatment capacity, and length of wastewater pipelinesare reported at project level only.



# **Appendix 2: List of Abbreviations**

СВІ	Climate Bond Initiative
CBIRC	China Banking and Insurance Regulatory Commission
CO2	Carbon dioxide
COD	Chemical oxygen demand
eq.	Equivalent
EUR	Euro
EURIBOR	Euro Interbank Offered Rate
FRN	Floating-Rate Note
GBP	Green Bond Principles
GEAH	Generating Equipment Availability Hours
GFC	China Green Finance Committee
GHE	Greenhouse effect
GHG	Greenhouse gas
GWh	Gigawatt hours (equal to 1,000 MWh or 1,000,000 kWh)
HKQAA	Hong Kong Quality Assurance Agency
IB, or Indsutrial Bank	Industrial Bank Co., Ltd.
km	Kilometers
km2	Square kilometers
kV	Kilovolts
kW	Kilowatt
kWh	Kilowatt hours
LIBOR	London Inter-bank Offered Rate
MTN	Medium Term Note
MW	Megawatts
MWh	Megawatts hours
NH3-n	Ammonia nitrogen
NOx	Nitrogen oxide
PBoC	People's Bank of China
Reg S	Regulation S
RMB	Renminbi
S02	Sulfur dioxide
SPO	Second party opinion
tce	Tons of coal equivalent
USD	US dollar
yr	years