

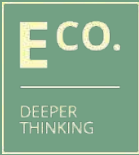


Workshop 1: The integration of green bonds processes into governance and use of the excel sheet screening tool / calculations tool

Engagement of International Consulting Company for designing the Model Framework Structure and Content for the issuance of Green Bonds in Armenia (Green Bond Framework)



Time	Topic	Presenter
11:00 11:10	Opening remarks and welcome	Gayane Gabrielyan - Deputy Minister, Ministry of Environment
11:10 11:20	Introduction to the green bond issuance and reporting processes	Seth Landau - Team Leader, E Co.
11:20 11:30	Use of proceeds / Project evaluation and selection criteria (screening tool) Management of proceeds	Tamara Trumbic - Deputy Team Leader, E Co.
11:30 11:40	Allocation and impact reporting and GHG calculation tool	Miodrag Grujic - GHG Calculations Expert, E Co.
11:40 11:50	Aligning internal processes with the requirements of external review	Seth Landau - Team Leader, E Co. Yves Speeckaert - Green Bonds Expert, DAI / Emergy Capital Markets Sarl
11:50 12:00	Questions Answers, and Discussions	



Introduction to green bonds issuance and reporting processes

Seth Landau



Advantages of green bonds

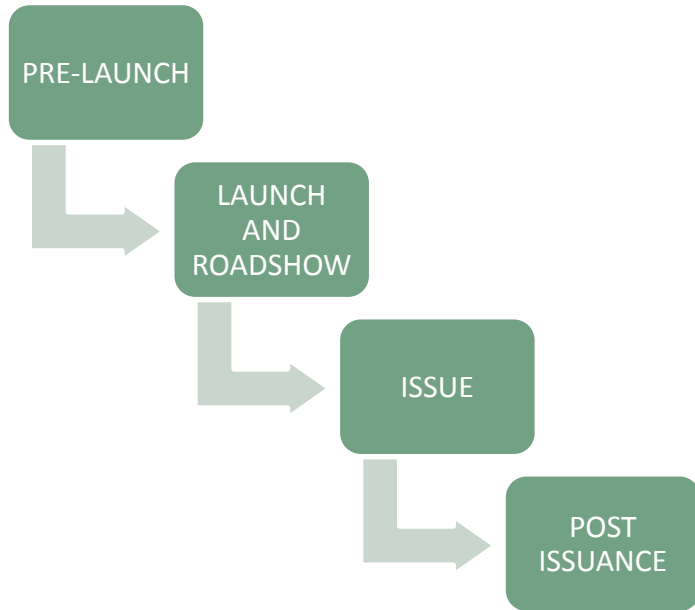
- Flexibility of the instrument (reflected in terms of the issuer requirements, types of issuances, and the terms of issuances)
- New low-cost financing channel and ability to attract institutional capital, Lower interest rate, pricing advantages (can be observed as a result of the green label), long term repayment/refinancing profile, lower cost of capital
- Access to international capital, Investor diversification
- Increased efficiency/transparency in financial infrastructure using certification and audits by reputable institutions
- Green bond, an attractive debt instrument for small and medium-size utilities



Opportunities of green bonds

- ✓ **Strong investor interest and momentum for growth / exponential curve of green capital with more capital than yesterday but less than tomorrow - Growing market - doubling every year, currently strong over-subscription ($D > O$)**
- ✓ **Presence of favourable governmental policies combined with a worldwide momentum and an improving legal framework.**
- ✓ **Social / Citizen / Customers pressure on companies for taking sustainable actions to ever go greener.**
- ✓ **Financial markets and investors are requested to evolve and adapt and finance the transition to low-carbon and climate resilient growth.**
- ✓ **Option for investors to achieve a greater diversification of portfolios**

Green Bond Issuance process

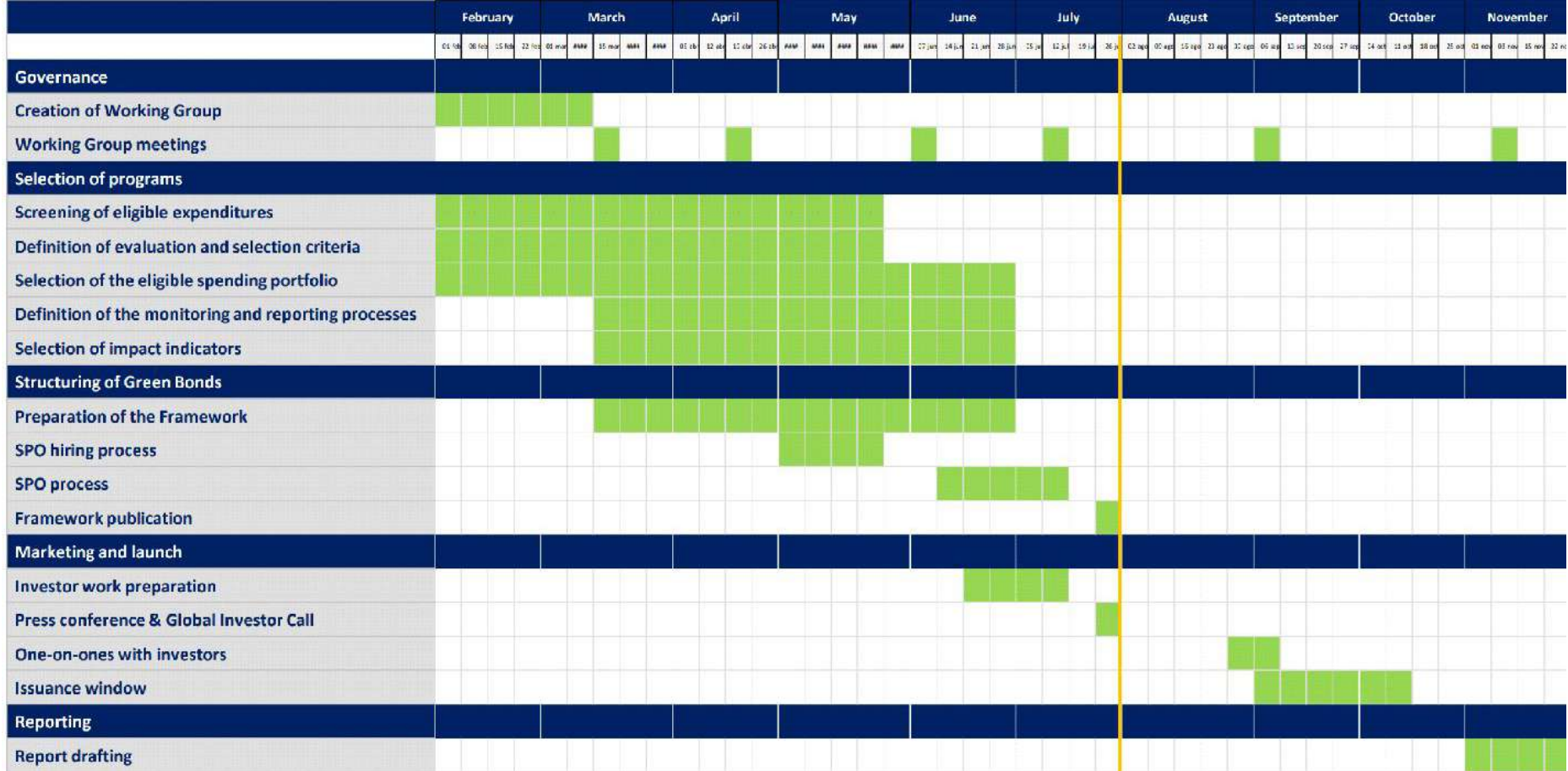


Parties involved :

- Lawyers
- Lead manager
- Paying agents, fiscal agent
- Auditors, register, listing agent
- Central Securities Depositor
- Stock Exchange
- External Reviewer

Documents :

- Prospectus
- Subscription agreement
- Fiscal agreement
- Signing and closing memorandum
- Bond Framework
- External reviews (pre/post issuance)
- Allocation and/or Impact reporting



Green Bond Issuance process: Timetable example

Estimated costs of climate (mitigation) measures in Armenia

Climate mitigation sectors (Armenia)	Estimated amount, USD million
Renewable energy (hydropower plants, wind plants, solar plants)	1,395
Combined-cycle gas turbine plants	1,200
Energy efficiency for residential buildings	1,200
Energy efficiency for public buildings	294
Energy efficiency for industrial buildings	144
Transport	265
Waste management	174
Total	4,672

Green bonds standards

- Several widely recognized international standards have emerged □ used for assessing suitability of ‘green investments and activities’, accompanied by certification schemes

<https://www.climatebonds.net/standard>

Climate Bonds INITIATIVE



2011

https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/eu-green-bond-standard_en



EU Green Bonds
Standard

2014

2020



<https://www.icmagroup.org/sustainable-finance/the-principles-guidelines-and-handbooks/green-bond-principles-gbp/>

Green bonds standards

- Components of **green bonds frameworks**
- A green bond standard can include various components - currently there is no complete consensus in the market on what should be included within ‘a standard’
- Green bonds frameworks mainly differ based on:

Project categories

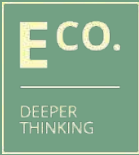
- Sectors available
- Types of projects and eligibility
- Indicators and metrics

Reporting requirements

- Reference to the framework
- Allocation reporting
- Impact reporting

External review / verification requirements

- External review
- Accreditation of external reviewers
- Publication of external review



Use of proceeds / Project evaluation and selection criteria (screening tool) / Management of proceeds

Tamara Trumbić



Green bond standards

Comparing list of eligible sectors through different standards



CBI Green Bonds Standard	ICMA Green Bonds Principles	EU Green Bonds Standard
Bioenergy; Geothermal energy; Marine renewable energy; Solar energy; Wind energy	Renewable energy	Electricity, gas, steam and air conditioning supply
Buildings	Energy efficiency	Buildings
	Pollution prevention and control	Manufacturing
Agriculture; Protected agriculture; Forestry	Sustainable management of living natural resources	Agriculture and forestry
Land conservation & restoration	Terrestrial and aquatic biodiversity conservation	
Low carbon transport; Shipping	Clean transportation	Transport
Waste Management; Water Infrastructure	Sustainable water management (including clean and/or drinking water)	Water, waste and sewerage remediation
Climate Resilience Principles (see here)	Climate Adaptation	
	Eco-efficient products, production technologies and processes	ICT

ICMA sectors and eligibility criteria

The Bank's Green Bond Framework is aligned with ICMA GB Principle.

Category	Eligible Areas
Renewable Energy	Production, Transmission, Appliances and Products
Energy Efficiency	New and Refurbished Buildings, Energy Storage, District Heating, Smart Grids, Appliances and Products
Pollution Prevention and Control	Reduction of Air Emissions, GHG Control, Soil Remediation, Waste Prevention, Waste Reduction, Waste Recycling and Energy/Emission-Efficient Waste to Energy
Environmentally Sustainable Management of Living Natural Resources and Land Use	Environmentally Sustainable Agriculture; Environmentally Sustainable Animal Husbandry; Climate Smart Farm Inputs such as Biological Crop Protection or Drip-Irrigation; Environmentally Sustainable Fishery and Aquaculture; Environmentally Sustainable Forestry, Including Afforestation or Reforestation, and Preservation or Restoration of Natural Landscapes
Terrestrial and Aquatic Biodiversity Conservation	Protection of Coastal, Marine and Watershed Environments
Clean Transportation	Electric, Hybrid, Public, Rail, Non-Motorised, Multi-Modal Transportation, Infrastructure for Clean Energy Vehicles and Reduction of Harmful Emission
Sustainable Water and Wastewater Management	Sustainable Infrastructure for Clean and/or Drinking Water, Wastewater Treatment, Sustainable Urban Drainage Systems and River Training and Other Forms of Flooding Mitigation
Climate Change Adaptation	Efforts to Make Infrastructure More Resilient to Impacts of Climate Change, as well as Information Support Systems, such as Climate Observation and Early Warning Systems
Circular Economy Adapted Products, Production Technologies and Processes	The Design and Introduction of Reusable, Recyclable and Refurbished Materials, Components and Products; Circular Tools and Services); and/or Certified Eco-Efficient Products
Green Buildings	Buildings that meet Regional, National or Internationally Recognised Standards or Certifications for Environmental Performance

Use of proceeds

- First, a use-of proceeds approach (and the subsequent verification) allows for an exceptional degree of transparency and enables bond markets to become an essential item in green and climate mitigation finance.
- Clarity on use-of-proceeds tends to facilitate impact reporting that aligns real economy investments and outcomes with financing.
- All designated eligible green projects should provide clear environmental benefits, which will have to be assessed and quantified by the issuer (or in the case of more complex projects, the project applicant submits extensive technical documentation from which the environmental and climate impacts are visible) and demonstrated to the investors.
- The issuer has to provide an estimate of the share of financing vs. refinancing, and if possible, also clarify which investments or portfolios may be refinanced, and which would be the maximum look-back period for refinanced eligible green projects.

Management of proceeds

- The net proceeds of green bond should be credited to a sub-account, moved to a sub-portfolio or otherwise tracked by the bank in an appropriate manner. Also, green bond proceeds shall be attested to by the issuer in a formal internal process linked to the issuer's lending and investment operations for eligible green projects.
- As long as the green bond is outstanding, the balance of the tracked net proceeds should be periodically adjusted to match allocations to eligible green projects made during that period. The issuer should notify investors of the intended types of temporary placements for the balance of the retained net proceeds.
- The proceeds of green bonds can be managed in two ways: 1) per bond (bond-by-bond approach) or 2) on an aggregated basis for multiple green bonds (portfolio approach).
- The GBP recommends that an issuer's management of proceeds is supplemented by the use of an external auditor, or SPO, to verify the internal tracking method and the allocation of funds from the green bond proceeds (see Key Recommendations section below).

Role of the issuer

The issuer of a green bond (bank) should clearly communicate to investors:

- The environmental sustainability objectives of the eligible green projects;
- The process by which the issuer determines how the projects fit within the eligible green projects categories and
- Complementary information on processes by which the issuer identifies and manages perceived social and environmental risks associated with the relevant project(s).

Issuers are also encouraged to:

- Position the information communicated above within the context of the issuer's overarching objectives, strategy, policy and/or processes relating to environmental sustainability.
- Provide information, if relevant, on the alignment of projects with official or market-based taxonomies, related eligibility criteria, including if applicable, exclusion criteria; and also disclose any green standards or certifications referenced in project selection.
- Have a process in place to identify mitigants to known material risks of negative social and/or environmental impacts from the relevant project(s). Such mitigants may include clear and relevant trade-off analysis undertaken and monitoring required where the issuer assesses the potential risks to be meaningful.

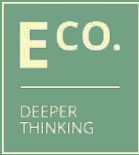


Green project

The ICMA Green Bond Principles explicitly recognise several broad categories of eligibility for Green Projects, which contribute to environmental objectives such as:

- climate change mitigation
- climate change adaptation
- natural resource conservation
- biodiversity conservation
- pollution prevention and control.

Green projects may include assets, investments and other related and supporting expenditures such as R&D that may relate to more than one category and/or environmental objective. Also, green projects definition may vary depending on sector and geography.



Tool - General sheet

Miodrag Grujić



Investment screening - general sheet

Applicant data

The image shows a screenshot of an Excel spreadsheet. The title bar indicates 'Tool v0-9-1 - Excel'. The ribbon is set to 'Home', and the 'Font' group is active, showing 'Calibri' font and size '11'. The spreadsheet content is as follows:

	A	B	C	D	E	F	G	H	I	J	K	L	M
1		GREEN BONDS QUESTIONNAIRE											
2		INVESTMENT SCREENING											
3		<i>This is a checklist to see if investments are in line with green bonds standards</i>											
4		GENERAL DATA											
5		Name of client/applicant (company):											
6													
7		Address:											
8													
9		Phone:											
10													
11		Email:											
12													
13		Description of activities of the company:											
14													

Investment screening - general sheet

Investment data - I

INVESTMENT DATA	
Name of investment:	
The investment belongs to the following eligible green project categories (ICMA): (select maximum three)	
<ul style="list-style-type: none"> Renewable Energy Energy Efficiency Pollution Prevention and Control Environmentally Sustainable Management of Living Natural Resources and Land Use Terrestrial and Aquatic Biodiversity Conservation Clean Transportation Sustainable Water and Wastewater Management Climate Change Adaptation 	<ul style="list-style-type: none"> Energy production, transmission, appliances and products Energy transmission Appliances and products New buildings Refurbished buildings Energy storage District heating

Investment screening - general sheet

Investment data - II

Investment descriptions				
Currency of investment:	AMD			
Value of investment:	EUR	AMD		-
Financing from project owner:	EUR	AMD		-
Financing from bank:	EUR	AMD		-
Financing from other sources:	EUR	AMD		Name of source
	EUR	AMD	-	Name of source
	EUR	AMD		Name of source
Share of bank financing in the total value of the investment:				
Expected date of investment start:				
Expected date of investment completion:				
Form of financing:				
Nature of what is being financed:				

Form of financing:

New investment/financing green projects

Refinancing green projects

Other forms

Nature of what is being financed:

Physical assets

Financial green assets (mortgage loans)

Research and development

Lending real estate

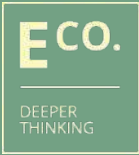
Refinancing

Investment screening - general sheet

Investment data - III

Type of investment/sector:
<u>Industry - efficient processes and reduction of CO2 emissions</u>
<u>Energy efficiency in new buildings</u>
<u>Renewable energy sources - solar photovoltaic installations</u>
<u>Renewable energy sources - solar water heating installations</u>
<u>Renewable energy sources - bioenergy</u>
<u>Renewable energy sources - geothermal energy</u>
<u>Renewable energy sources - small hydro power plants</u>
<u>Renewable energy sources - wind</u>
<u>Transport - electric vehicles - passenger cars and commercial vehicles</u>
<u>Transport - electric buses</u>
<u>Industry - efficient processes and reduction of CO2 emissions</u>
<u>Water infrastructure</u>
<u>Sustainable agriculture</u>
<u>Forestry</u>
<u>Waste - sustainable waste management</u>

Alignment with Nationally Determined Contribution (NDC) objectives:
Is this investment aligned with central objective of the Paris Agreement? <i>("Holding the increase in the global average temperature to well below 2°C above preindustrial level and pursuing efforts to limit the temperature increase to 1.5°C above preindustrial levels, recognizing that this would significantly reduce the risks and impacts of climate change")</i>
Is this investment aligned with national NDC objectives? <i>(40% reduction from 1990 GHG emission levels by 2030)</i>
How is it aligned? (Through which of the following sector?)
Please specify:
Results
Does this investment meet requirements for green bonds standards? YES/NO



Tool - through sectoral sheets

Miodrag Grujić



Sectoral sheets - some principles

Clicking on one of the types of investments / sectors, automatically switches to a new sheet:
dedicated to that type of investment

Type of investment/sector:

Industry - efficient processes and reduction of CO2 emissions				
Energy efficiency in new buildings				
Renewable energy sources - solar photovoltaic installations				
Renewable energy sources - solar water heating installations				
Renewable energy sources - biomass				
Renewable energy sources - geothermal energy				
Renewable energy sources - small hydro power plants				
Renewable energy sources - wind				
Transport - electric vehicles - passenger cars and commercial vehicles				
Transport - electric buses				
Industry - efficient processes and reduction of CO2 emissions				
Water infrastructure				
Sustainable agriculture				
Forestry				

General Buildings-renewal buildings-new transport t-cars transport t-buses solar PV solar WH Wind Hydro Bioenergy < ... +

Sectoral sheets - some principles

- If the answer to all green questions is “yes”, the answer to the question of compliance with GB standards becomes “yes” automatically.

	A	B	C	D	E
6	New buildings				
7	Compliance with green bonds standards	Does this investment meet requirements for green bonds standards? YES/NO	YES		
8					
9	Objective	Question/criteria	Answers		Notes (if applicable)
10	Energy consumption	Does this investment provide energy consumption that is at least equivalent to energy class A?	Yes/No	Yes	
11	Reduction of GHG emissions	Does this investment provide reduction of GHG emissions compared to EAU scenario that includes fossil fuels, e.g. natural gas?	Yes/No	Yes	
12	Purpose of building	The investment / building is not intended for the extraction, storage, transportation or production of fossil fuels?	Yes/No	Yes	
13	Use of renewable energy	Does this investment include use of renewable energy sources by more than 20% of the total energy use, e.g. biomass, biogas, geothermal energy, solar energy?	Yes/No	Yes	
14	EE measures	Does this investment include efficient envelope?	Yes/No	Yes	
15		Does this investment include use of efficient heating or cooling system?	Yes/No	Yes	
16		Does this investment include use of efficient appliances/equipment?	Yes/No	Yes	
17		Does this investment include use of efficient lighting?	Yes/No	Yes	
18	Potential for waste reduction	Does this investment recycle waste from demolition or construction?	Yes/No	Yes	
19	Potential for water savings	Does this investment reduce use of water (e.g. thorough installation of water-efficient appliances)?	Yes/No	Yes	
20	Protection of nature	The investment / building is not built in protected natural areas?	Yes/No	Yes	
21	Potential for climate change adaptation	Does this investment contribute to climate change adaptation? (examples: green roof, green walls, etc.)	Yes/No	Yes	
22					

Required to be yes to qualify

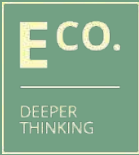
Useful for understanding the project

“yellow parts” can be used to “assess” how green the project is in case there are competing projects.

Sectoral sheets - some principles

- Only one answer “no” to green questions is sufficient to generate answer “no” to the question of compliance with GB standards.

New buildings		Compliance with green bonds standards		
Objective		Question/criteria	Answer	Notes, if applicable
Compliance with green bonds standards	Does this investment meet requirements for green bonds standards? YES/NO	NO		
Energy consumption	Does this investment provide energy consumption that is at least equivalent to energy class A?	Yes/No	Yes	
Reduction of GHG emissions	Does this investment provide reduction of GHG emissions compared to BAU scenario that includes fossil fuels, e.g. natural gas?	Yes/No	Yes	
Purpose of building	The investment / building is not intended for the extraction, storage, transport or production of fossil fuels?	Yes/No	No	
Use of renewable energy	Does this investment include use of renewable energy sources by more than 30% of the total energy (not optional) (biomass, hydro, geothermal energy, solar energy)?	Yes/No	Yes	
EE measured	Does this investment include efficient envelope?	Yes/No	Yes	
	Does this investment include use of efficient heating and cooling system?	Yes/No	Yes	
	Does this investment include use of efficient appliances/equipment?	Yes/No	Yes	
	Does this investment include use of efficient lighting?	Yes/No	Yes	
Potential for waste reduction	Does this investment recycle waste from demolition or construction?	Yes/No	Yes	
Potential for water savings	Does this investment reduce use of water (e.g. through installation of water efficient appliances)?	Yes/No	Yes	
Protection of nature	The investment / building is not built in protected natural areas?	Yes/No	Yes	
Potential for climate change adaptation	Does this investment contribute to climate change adaptation? (examples: green roof, green walls, etc.)	Yes/No	Yes	



Allocation and impact reporting and GHG calculation tool

Miodrag Grujić & Tamara Trumbić



Sectoral sheets - GHG calculation

- For most sectors (mitigation), a relatively simple model for calculating GHG emissions has been developed so that bank can estimate the impact of investments.

	A	B	C
25			
26	Base case (BAU scenario - building with average energy consumption in Armenia)		
27		Unit	Value
28	Total floor area	m ²	3,000
29	Base case fuel for heating	N/A	Natural gas
30	Base case energy consumption for heating	MWh/year	4,0
31	Base case energy consumption for heating per m ²	kWh/m ² /year	1,50
32	GHG emissions for heating per MWh	tonnes CO ₂ eq/MWh	0,20,0
33	GHG emissions for heating per year	tonnes CO ₂ eq/year	80,84
34	Base case energy consumption for cooling	MWh/year	9,0
35	Base case energy consumption for cooling per m ²	kWh/m ² /year	3,0
36	GHG emissions for cooling per MWh	tonnes CO ₂ eq/MWh	0,2010
37	GHG emissions for cooling per year	tonnes CO ₂ eq/year	18,09
38	Base case energy consumption for lighting	MWh/year	18
39	Base case energy consumption for lighting per m ²	kWh/m ² /year	6
40	GHG emissions for lighting per MWh	tonnes CO ₂ eq/MWh	0,2010
41	GHG emissions for lighting per year	tonnes CO ₂ eq/year	3,62
42	Energy consumption per year	MWh/year	5,8
43	Specific energy consumption per m ²	kWh/m ² /year	1,96
44	GHG emissions per year	tonnes CO ₂ eq/year	112,59
45			

	Proposed case (comparison with building with average energy consumption in Armenia)		
46			
47	Total floor area	m ²	3,000
48	Proposed case fuel for heating	N/A	Natural gas
49	Energy consumption for heating per m ²	kWh/m ² /year	9,0
50	Energy consumption for heating per year	MWh/year	2,50,00
51	GHG emissions for heating per MWh	tonnes CO ₂ eq/MWh	0,2020
52	GHG emissions for heating per year	tonnes CO ₂ eq/year	50,29
53	Energy consumption for cooling per m ²	kWh/m ² /year	2,0
54	Energy consumption for cooling per year	MWh/year	60,00
55	GHG emissions for cooling per MWh	tonnes CO ₂ eq/MWh	0,2010
56	GHG emissions for cooling per year	tonnes CO ₂ eq/year	12,09
57	Energy consumption for lighting per m ²	kWh/m ² /year	2
58	Energy consumption for lighting per year	MWh/year	6,00
59	GHG emissions for lighting per MWh	tonnes CO ₂ eq/MWh	0,2010
60	GHG emissions for lighting per year	tonnes CO ₂ eq/year	1,21
61	Energy consumption per year	kWh/year	219,00
62	Specific energy consumption per m ²	kWh/m ² /year	0,073
63	Reduction in energy consumption for heating	kWh/year	800,00
64	Reduction in energy consumption for cooling	kWh/year	9,0
65	Reduction in energy consumption for lighting	kWh/year	9
66	Reduction in final energy consumption	kWh/year	1,19
67	Reduction in final energy consumption	kWh/m ² /year	0,113
68	GHG emissions per year	tonnes CO ₂ eq/year	44,10
69	GHG emissions savings per year	tonnes CO ₂ eq/year	68,13
70	Lifetime of investments	Years	15
71	GHG emissions over lifetime of investments	tonnes CO ₂ eq	1026,4
72	Percentage of GHG savings per year	%	86,78
73			
74			

GHG emissions per MWh	tonnes CO ₂ eq/MWh
Natural gas	0,2020
Electricity**	0,2010
Wood	0,0000
Coal***	0,3510

***Coal-Anthracite

https://www.irena.org/RENA/Documents/Statistical_Profiles/Eurasia/Armenia_Eurasia_RE_SP.pdf

Input from investment data

General assumptions (they may be different)

Sectoral sheets - some notes

- Specific measurable ICMA indicators were used where they exist.
- For types of investments where ICMA indicators are only generalized, criteria have been developed in line with ICMA standards, i.e. they are not the opposite of them.
- Mandatory criteria mainly relate to GHG emissions, reduction of fossil fuel use, sustainability, impact on climate change and the environment.
- The calculation of GHG emissions takes into account the total emission savings over the entire life cycle of the investment.
- GHG calculation developed for renewable sources, buildings and transport sector
- Some criteria are very specific, and some are only descriptive.
- There is potential for the development of tools for additional sectors, with or without GHG emissions calculations, depending on the bank's policies and intentions.

Allocation reporting

- Issuers should keep readily updated information on the use of proceeds *to be renewed each year until full allocation* and on a timely basis in case of material developments.
- Annual report should contain:
 - a list of the projects to which green bond proceeds have been allocated,
 - a brief description of the projects, the amounts allocated, and their expected impact
 - The Investment screening tool for investment evaluation and selection can be used to for collection of this information.
- If confidentiality requirements, competitive considerations, or a large number of underlying projects ▫ limit the amount of detail available for presentation
- Information can then be presented in generic terms or on an aggregated portfolio basis (e.g. percentage allocated to certain project categories).

Impact reporting

- The GBP suggest the use of qualitative or, where feasible, quantitative performance metrics. Also, the key underlying methodology or assumptions used for quantification shall be elaborated.
- Issuers can decide whether they should report on the impact at the project or portfolio level, which can depend on the type and size of the project. Moreover, the issuers should refer to and adopt, where possible, the guidance and impact reporting templates provided in the Harmonised Framework for Impact Reporting.
- The use of a summary, which reflects the main characteristics of a Green Bond or a Green Bond programme, and illustrates its key features in alignment with the four core components of the GBP, may help inform market participants. To that end, a template can be found in the sustainable finance section of ICMA's website which once completed can be made available online for market information.

Impact reporting

Illustrative Summary Template for Project-by-Project Report:

Renewable Energy (RE)	Signed Amount <u>a/</u>	Share of Total Project Financing <u>b/</u>	Eligibility for green bonds	RE component	Allocated Amount <u>c/</u>	Project lifetime <u>d/</u>	#2) Annual generation (electricity / other)		#3) a) Renewable energy capacity added	#3) b) Renewable energy capacity rehabilitated	#1) Annual GHG emissions reduced/avoided <u>e/</u>	Other Indicators
Project name <u>f/</u>	currency	%	% of signed amount	% of signed amount	currency	in years	MW/ GWh	GJ/ TJ	MW	MW	in tonnes of CO ₂ equivalent	
e.g. Project 2	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	Capacity of RE plant(s) to be served by transmission systems (MW) XX t CO ₂ eq. Absolute annual project emissions.

Illustrative Summary Template for Portfolio-based Report³¹:

Renewable Energy (RE)	Signed Amount <u>a/</u>	Share of Total Portfolio Financing <u>b/</u>	Eligibility for green bonds	RE component	Allocated Amount <u>c/</u>	Average portfolio lifetime <u>d/</u>	#2) Annual generation (electricity/other), possibly per unit of financing		#3) a) Renewable energy capacity added (possibly per unit of financing)	#3) b) Renewable energy capacity rehabilitated (possibly per unit of financing)	#1) Annual GHG emissions reduced/avoided (possibly per unit of financing) <u>e/</u>	Other Indicators (possibly per unit of financing)
Portfolio name	currency	%	%	%	currency	years	MWh/ GWh	GJ/TJ	MW	MW	in tonnes of CO ₂ equivalent	
e.g. Portfolio 2	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	XX	Capacity of RE plant(s) to be served by transmission systems (MW) XX t CO ₂ eq. Absolute annual portfolio emissions.



Aligning internal processes with the requirements of external review

Seth Landau / Yves Speeckaert





Recommendations for setting internal project cycle for green bond issuance

- Communicate what are eligible “green projects” to investors / public
- Build technical appraisal team for larger investments / portfolio approval
- Check-lists and reporting forms for smaller investments (with trainings and a central person who can answer questions)
- Reinforce / build off of existing environmental and social safeguarding system

- Keep evidence / track the projects
- Ensure that the green project criteria is embedded within the loan contract
- Follow updates on GB standards and national regulations



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ecoltdgroup.com



Workshop 2: The role of Second Party Opinion, external review service providers in the bond issuance process

Engagement of International Consulting Company for designing the Model Framework Structure and Content for the issuance of Green Bonds in Armenia (Green Bond Framework)



-
- External review
 - What is an SPO, SPO Process and costs
 - Certification process and reporting requirement
 - Sustainalytics : SPO Process, Requirements, case study

Green bonds standards

- Components of **green bonds frameworks**
- A green bond standard can include various components - currently there is no complete consensus in the market on what should be included within ‘a standard’
- Green bonds frameworks mainly differ based on:

Project categories

- Sectors available
- Types of projects and eligibility
- Indicators and metrics

Reporting requirements

- Reference to the framework
- Allocation reporting
- Impact reporting

External review / verification requirements

- External review
- Accreditation of external reviewers
- Publication of external review

The need for External review

- More than 80% of the global market share of all bonds have been issued with an external review of which about 40% done by an SPO in 2019.
- The SPO and verification audits (pre and post issuance verification) are both done by external review providers in order to verify and improve the transparency of a Green/Sustainability/Social Bond issuance and future verifications (depends on the standards).
- External reviewers can also provide support for companies and institutions in issuing green bonds, advise on the eligibility criteria (definition) of projects to be financed.

What is an SPO ?

- An SPO acts as an independent, external reviewer on green, social, or sustainability bonds or loans
- The main role of the SPO is to confirm the compliance with the UoP standards (asset identification and definition of the eligibility criteria of projects, allocation and impact reporting approach) and provide an assessment of issuer's green bond framework, analysing the “greenness” of eligible assets it is considered a useful tool for both investors and issuers
- This external review done by an SPO is then published and publically available

SPO Process and costs

- SPO review process happens during the structuration process of the bond and takes about 2 to 3 months. The SPO review can be requested once the framework of the bond is designed.
- The process vary depending on the SPO chosen
- The cost also vary depending on the SPO and on bond itself (such as Use of Proceeds, size of the bond, size of the projects,...) however the range is very similar (20 000€ to 40 000€)

Is the SPO Mandatory ?

- SPO can be either a mandatory (as it is the case for EU GB standard) or a recommended step (as for CBI Green Bond standard), according to the followed standard, to pursue the issuance process.
- SPO enables to strengthen and reinforce the credibility towards the greenness of a bond and its projects, and certify it complies with the standard requirements.

Reporting Requirements

Each type of standard broadly has reporting across the 3 main areas listed below;

- 1. Allocation Reporting** (includes : total proceeds, amount allocated as of the end of the reporting period, breakdown by activities (e.g. renewable energy (solar and wind), public transport), Allocation reporting should also reference the environmental objectives, and provide information on the geographical distribution of the Green Projects with information)
- 2. Eligibility Reporting** (confirmation that the Nominated Projects & Assets continue to meet the relevant eligibility requirements and information on the environmental characteristics or performance of Nominated Projects & Assets which is prescribed by the relevant Sector Eligibility Criteria)
- 3. Impact Reporting:** provides the expected or actual outcomes or impacts of the Nominated Projects & Assets with respect to the climate-related objectives of the Bond. Uses qualitative performance indicators and, where feasible, quantitative performance measures of the outcomes or impacts of the Nominated Projects & Assets related to the climate-related objectives of the Bond. Also provide the methods and the key underlying assumptions used in preparation of the performance indicators and metrics)

The external review of those reports can be a mandatory process or just a recommendation step.



SUSTAINALYTICS

a Morningstar company

Sustainalytics' Second-Party Opinions

Enrico Tessadro

Senior Manager, Sustainable Finance Solutions

July 7, 2022



Who We Are

- A Morningstar company dedicated to responsible investment with over 25 years' experience in ESG research and ratings
- 1,000+ clients, including asset managers & owners, financial institutions and corporations
- 1,000+ professional staff and presence in 17 countries
- Leading Second-Party Opinion provider



What We Do

- Sustainalytics' primary business is to support the world's foremost investors to incorporate Environmental, Social, and Governance (ESG) insights into their investment decision making processes.
- As the responsible investment sector has grown and matured, there has been more demand for ESG research and products for new uses, like integrating ESG data into capital raising activities.
- The Sustainable Corporate Solutions team provides services tailored for issuers, corporates and the banks who support them, in helping them answer the question: "How can I attract responsible investors/lenders to finance my bonds or my company?"
- Sustainalytics is the largest Second-Party Opinion provider.

Investor Solutions

Sustainable Corporate Solutions

Civil Society & Academia

ESG Ratings	Index Services	Green, Social & Sustainable Instruments	ESG Ratings License for Issuers	Civil Society & Academia
<ul style="list-style-type: none"> » ESG Integration » Screening and sustainability benchmarking of portfolios » Thematic Investing for fund or index creation » Engagement and Voting » Strategy Development (ESG Integration, PRI Implementation) 	<ul style="list-style-type: none"> » Provision of ESG data to create best-in-class or thematic indexes 	<ul style="list-style-type: none"> » Label your issuance as green, social, or SDG through a second-party opinion from Sustainalytics » Confirm to investors that projects financed post-issuance are aligned with the framework » Report on impact of projects financed through your issuance to investors 	<ul style="list-style-type: none"> » Commercialize ESG ratings for use in debt instruments » Benchmark sustainability performance relative to peers » Create an ESG rating 	<ul style="list-style-type: none"> » Sustainability Research & Rankings » Academic Program

Second-Party Opinion

Overview of Sustainalytics' Second-Party Opinion

Section 1: Alignment of the Framework with ICMA

Principles

- Alignment of use of proceeds eligibility criteria with Sustainalytics' Taxonomy & market practice
- Alignment of the Framework with project evaluation, management of proceeds and reporting
- Alignment with EU Taxonomy if applicable

Section 2: Issuer's sustainability strategy and performance

- Sustainability strategy
- Risk management

Section 3: Impact of the projects

- Positive impact of use of proceeds in the local/global context

Second-Party Opinion

Banco Bradesco S.A. Sustainable Finance Framework

Evaluation Summary

Sustainalytics is of the opinion that the Banco Bradesco S.A. Sustainable Finance Framework is credible and impactful and aligns with the Sustainability Bond Guidelines 2021, Green Bond Principles 2021, and Social Bond Principles 2021. This assessment is based on the following:



USE OF PROCEEDS The eligible categories for the use of proceeds – Renewable Energy, Energy Efficiency, Sustainable Crops, Sustainable Transportation, Green Buildings, Sustainable Water and Wastewater Management, Pollution Prevention and Control, Financial Inclusion, and Digital Inclusion – are aligned with those recognized by the Green Bond Principles and the Social Bond Principles. Sustainalytics considers that investments in the eligible categories are expected to contribute to the transition to a low-carbon economy and support the socio-economic development of Brazil and to advance the UN Sustainable Development Goals, specifically SDGs 2, 6, 7, 8, 9, 11, 12, and 15.



PROJECT EVALUATION / SELECTION Banco Bradesco S.A.'s Corporate Sustainability department will be responsible for the project evaluation and selection process. Banco Bradesco S.A. has adopted an Internal Social and Environmental Risk Standard which is applicable to all allocation decisions made under the Framework. Sustainalytics considers this process to be in line with market practice.



MANAGEMENT OF PROCEEDS Banco Bradesco S.A.'s Treasury Department will be responsible for the allocation and management of bond proceeds. Banco Bradesco S.A. intends to allocate the bond proceeds within 36 months after each issuance. The unallocated proceeds will be temporarily held or invested in cash or cash equivalents. This is in line with market practice.



REPORTING Banco Bradesco S.A. intends to report on the allocation and impact of proceeds on its website on an annual basis until full allocation. Allocation reporting will include project-level allocation details for project financing and category-level allocation details for corporate financing, period of reporting, total disbursements made in that period, and the balance and temporary use of unallocated proceeds. Banco Bradesco S.A. is also committed to reporting on relevant quantitative impact and has provided indicative metrics within the Framework. Sustainalytics views Banco Bradesco S.A.'s allocation and impact reporting as aligned with market practice.



Evaluation date	January 7, 2022
Issuer Location	São Paulo, Brazil

Report Sections	
Introduction	2
Sustainalytics' Opinion	3
Appendices	13

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48 Transition Bonds

Sustainalytics' approach to assessing transition bonds

- Financing activities that contribute to carbon reduction in hard-to abate sectors
- Targeted at carbon intensive sectors for which low-carbon solutions are generally not yet available at scale

ISSUANCE-LEVEL CONSIDERATIONS

- a) Use of proceeds: Alignment of financed business activities and projects with Sustainalytics' transition eligibility criteria
- b) Project evaluation and selection
- c) Management of proceeds
- d) Allocation and impact reporting

ISSUER-LEVEL CONSIDERATIONS

- a) Alignment of the issuer's transition strategy and commitments with internationally established decarbonization pathways
- b) Alignment of the use of proceeds with the issuer's strategy and implementation plan

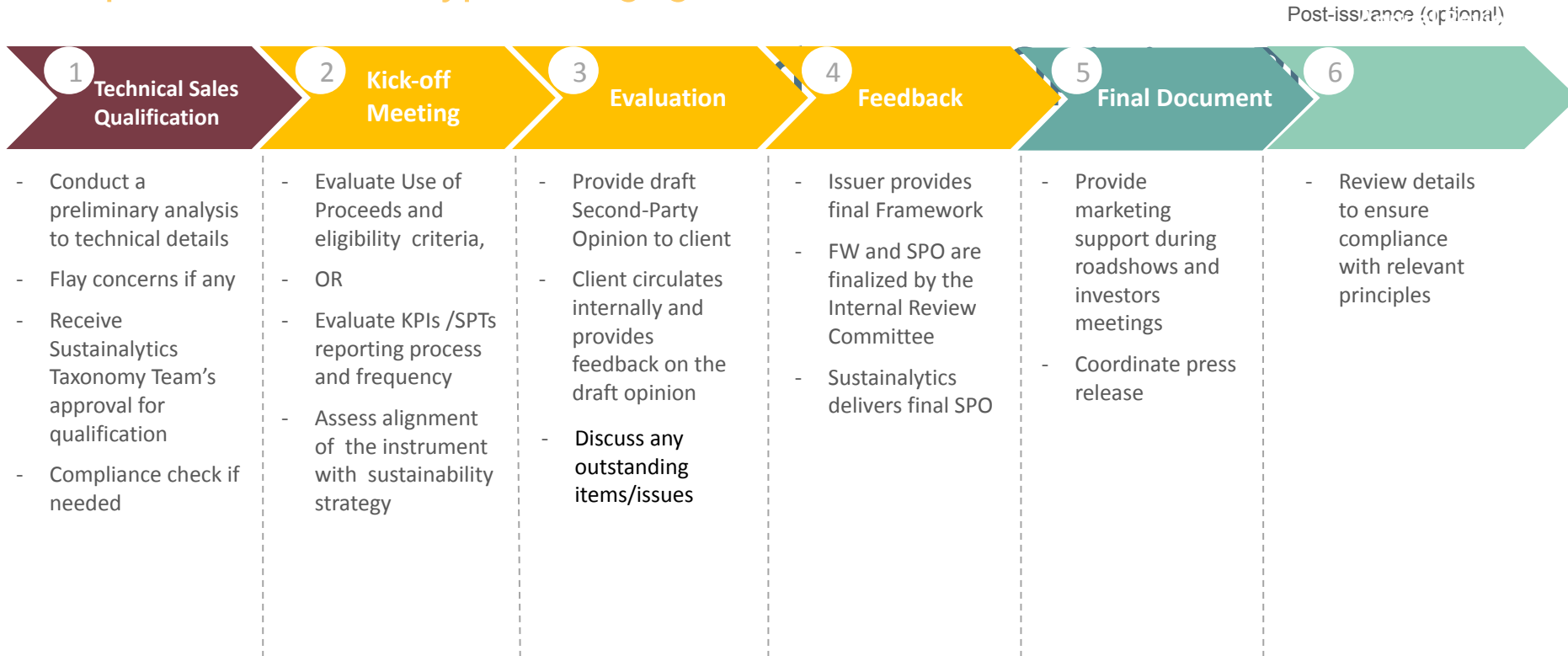


Climate Transition Finance Handbook
Guidance for issuers
December 2020



Second-Party Opinion Process

Steps included in a typical engagement



Second-Party Opinion Examples



Sustainalytics' Experience



Bank Polski





Questions Answers, and Discussions





Certification of Green Bonds

The **Certification Process** has three distinct phases that are aligned with the normal process for issuing and maintaining a bond, loan or other debt instrument. This allows the *Certification Mark* to be used during the pricing and marketing of the bond or the negotiation of the loan or other debt instrument..

- 1. Pre-Issuance Certification:** Assessment and Certification of the Issuer's internal processes, including its selection process for projects & assets, internal tracking of proceeds, and the allocation system for net proceeds. This phase includes the Issuer preparing a Green Bond Framework and a list of eligible projects & assets; verification of the framework and the list by an Approved Verifier; production of a Verifier's Report; Pre-Issuance Certification is valid until Post Issuance Certification is awarded.
- 2. Post-Issuance Certification:** Assessment and Certification of the bond, loan or other debt instrument after it has been issued or has closed. This phase includes preparation of post-issuance updates; verification of the information by an Approved Verifier; production of a Verifier's Report; and provision of certification documents to the Climate Bonds Standard Secretariat.
- 3. Ongoing Certification:** Maintenance of the Certification based on ongoing conformance with the Post-Issuance Requirements of the Climate Bonds Standard



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