

Cover Page for CTF Project/Program Approval Request <sup>[a]</sup> Dedicated Private Sector Programs (DPSP-III)			
1. Country/Region	Colombia	2. CIF Project ID#	XCTFCO736A
3. Public or Private	Public	✓	
	Private		
4. Project/Program Title	Business Financing and Energy Efficiency		
5. Is this a private sector program composed of sub-projects?	Yes		
	No	✓	
6. Financial Products, Terms and Amounts			
Financial Product		USD (million)	EUR (million) <sup>[b]</sup>
Grant		1.000	
Fee on grant		0.050	
MPIS (for private sector only)			
Public sector loan	Harder terms	8.000	
	Softer terms		
Senior loan			
Senior loans in local currency hedged			
Subordinated debt / mezzanine instruments with income participation			
Second loss guarantees			
Equity			
Subordinated debt/mezzanine instruments with convertible features			
Convertible grants and contingent recovery grants			
Contingent recovery loans			
First loss guarantees			
Other (please specify)			
Total		9.050	
7. Implementing MDB(s)	Inter-American Development Bank		
8. National Implementing Agency	Bancóldex		
9. MDB Focal Point	Claudio Alatorre (calatorre@iadb.org)		
10. Brief Description of Project/Program (including objectives and expected outcomes) <sup>[c]</sup>			
The sectors that drive the consumption of primary energy sources in Colombia are industry, agriculture and residential <sup>1</sup> . Altogether they represented about 80.4% of the primary energy sources consumed in 2017. Small and Medium Enterprises (SMEs) play an important role in this demand as they use approximately 41% and 26% of the energy consumed in the commercial and industrial			

<sup>1</sup> Balance Energético de Colombia (2017).

sectors, respectively. Recent studies estimate that the use of energy-efficient equipment would generate annual savings of 3,099 TJ in the commercial sector and 15,535 TJ in the industrial sector, plus an important impact on productivity, as energy represents between 2 and 7% of the total production costs of the companies.<sup>2</sup>

According to data from the Ministry of Commerce, Industry and Tourism, the SMEs in Colombia comprise 92% of the companies, generate 80% of employment and contribute to 45% of the GDP. However, they lack access to modern technologies and experience difficulties migrating to more productive business models, largely because of their low levels of investment as a result of their limited access to credit.<sup>3</sup> Indeed, recent studies<sup>4</sup> indicate that only 28% of the SMEs use formal credit products and 23% some level of informal credit. Furthermore, the credit issued to SMEs by financial intermediaries only represented 22.6% of the total granted by the financial system in 2018.<sup>5</sup>

The objective of the Program is to support SMEs in Colombia to reduce their energy consumption, and consequently GHG emissions, by increasing the availability of adequate financial products and schemes for energy efficiency (EE) investments. The Program is aligned with the government's efforts to promote the rational use of energy and EE outlined in the *Indicative Energy Efficiency Action Plan 2017 – 2022 (PAI PROURE)*, and measures like the prohibition of incandescent luminaires (*Decree 3450 of 2008*), the standard on labeling of equipment (*Resolution 41021 of September 18 of 2015*) and the *Law 1715 of 2014* that established tax and tariff incentives for energy-efficient equipment and renewable energy. It is also aligned with Colombia's Nationally-Determined Contribution's (NDCs) pledge to reduce 66.5 million tons of CO<sub>2e</sub> by 2030, equivalent to 20% below the baseline of emissions, and up to 99.7 million tons by 2030 with international support.

The Program will provide [Clean Technology Fund](#) (CTF) concessional loan resources blended with IDB resources to facilitate Bancóldex, a national development bank, financing EE projects in SMEs for: (i) replacement of outdated equipment in existing facilities (brownfield projects); and (ii) installation of high efficient equipment in new facilities (greenfield projects). Eligible technologies will be those with paybacks periods in the 2-7 year range, mainly but not limited to motors, LED lighting, air conditioning, refrigeration, solar panels, industrial ovens and boilers.

A unique feature of the Program will be the use of a series of risk mitigation mechanisms developed by the IDB under the Energy Savings Insurance (ESI) scheme<sup>6</sup> and already tested by Bancóldex for EE projects in the Hotels, Clinics and Hospitals (HCH) sectors. The mechanisms include a technical validation of the projects by an independent party, a performance contract, an insurance that covers the expected energy savings, and a preferential rate that works as incentive for the extra documentation the projects require.

<sup>2</sup> Encuesta Anual Manufacturera

<sup>3</sup> According to a study made by Banca de Oportunidades in 2017, as of June 2017, only 757,610 companies reported having at least one financial product.

<sup>4</sup> Estudio de Demanda de Inclusión Financiera (2014) and Encuesta de Micro establecimientos del DANE (2016)

<sup>5</sup> Figures from Datacredito Experian (2018).

<sup>6</sup> This strategy was recognized by the International Climate Finance Lab as one of the most promising financial strategies in terms of its potential to attract and leverage private investment in energy efficiency. See [Energy Savings Insurance. The Global Innovation Lab for Climate Finance.](#)

The Bancóldex's HCH Program, approved by the CTF Trust-Fund Committee in June 2013, and by the IDB Board in September 2013, offered financing for EE projects with a USD 20 million loan from IDB-CTF. The line operated until March 2019 and supported 43 operations, seven of them with ESI.

The proposed Program will be implemented by Bancóldex, whose core responsibilities include the provision of financial and non-financial solutions to support the productivity and competitiveness of SMEs, contribute to environmental protection and mitigating climate change. Over the last years Bancóldex has successfully tested and implemented various initiatives in these fronts mainly: (i) *Competitive SMEs and productive scale-up*, (ii) *Green Microfinances*, (iii) *Sustainable Development and Energy Efficiency*,<sup>7</sup> and (iv) *Financing Innovation in Cooperation with Asobancaria* (2016).

The proposed loan operation combined with co-financing from Bancóldex would contribute to expanding the financing offer for EE technology investment projects presented by Colombian SMEs. In line with the above, the program will provide long or short-term credit through individual sub-loans delivered to final beneficiaries through Bancóldex to local financial institutions (FIs). Financing to eligible projects will be provided up to 100% and may or may not include investments other than the equipment itself, such as infrastructure. CTF funding combined with the risk mitigation instruments will help improve terms and conditions of the sub-loans, thus lowering the cost of borrowing for beneficiaries.

CTF grant resources will finance a series of technical cooperation (TC) activities to support the overall implementation of the program, including: (i) awareness and capacity building for technology providers, FIs and other market actors, (ii) improving the ESI tools by standardizing and optimizing the validations tools, tailoring the insurance product according to the demand of specific sectors and technologies, (iii) development of incentives for promoting case studies in sectors beyond HCH, and (iv) enhancing competences related to execution, monitoring, and reporting within FIs.

#### 11. Consistency with CTF investment criteria

(1) Potential GHG emissions savings	The program is expected to result in emission reductions of 7,900 tons of CO <sub>2</sub> e per year, on the maximum year over the course of the program; 15,800 tons of CO <sub>2</sub> e accumulated over the 4 years of execution of the program; and 158,000 tons of CO <sub>2</sub> e over the lifetime of the projects (20 years).
(2) Cost-effectiveness	Based on GHG emission reductions of 158,000 tons of CO <sub>2</sub> e over the lifetime of the equipment, the unit abatement cost of the Program is estimated at: (i) <b>USD 57.3 per ton of CO<sub>2</sub>e</b> considering only the total CTF contribution (USD 9.05 million); and (ii) <b>USD 108 per ton of CO<sub>2</sub>e</b> , when total project costs are considered

<sup>7</sup> This is the case of the Green Microfinance Line 2019 which seeks to provide tools that support the micro and small business sector in their investment projects that help mitigate the environmental impact of their activity, with a total allocation of COP \$ 50,000,000,000.

	(USD 9.05 million from CTF + USD 8 million co-finance by IDB)
(3) Demonstration potential at scale	<p>A preliminary market study<sup>8</sup> has indicated that the substitution of air conditioners, motors, luminaires, industrial refrigerators, ovens, and boilers in SMEs, could require private funding of about USD400 million.</p> <p>The Program will use diverse financial and non-financial mechanisms to mitigate risks and demonstrate the commercial viability of financing EE investments for SMEs. In parallel, the Program will seek the use of additional schemes to scale-up EE investments such as facilitating the credit to projects that use either individual ESI tools like the validation methodologies or the performance contract, or a combination of them. The Program will also devote important efforts to enhance the capacity of commercial banks on these instruments and their benefits in order to address operational barriers not previously addressed in other programs.</p>
(4) Development impact	<p>The proposed Program is expected to have an important transformational effect in the EE market by introducing and disseminating a series of tools that will allow technology providers to differentiate themselves among competitors by guaranteeing energy savings. Furthermore, as more insurance companies are expected to enter into the market, it is envisaged that they will start offering new insurance products either tailored to the sectors they cover or in combination to the traditional services they offer in infrastructure projects.</p> <p>It is also expected that the program will create new jobs not only related to the investment themselves, but also those associated to the technical services that will be required for the validation of projects. This will be mainly qualified jobs that will improve the qualification of technology providers, insures, validating entities and to some extent LFIs.</p>
(5) Implementation potential	<p>The proposed Program will be implemented by Bancóldex, a National Development Bank that is specialized in supporting the improvement of the productivity and competitiveness of SMEs, by deploying environmental and climate change financial and non-financial instruments. The bank has developed an important technical and commercial capacity by its own</p>

<sup>8</sup> Market study on the potential demand for investments in energy efficiency. Corpoema 2019.

	initiatives like: (i) <i>Competitive SMEs and productive scale-up</i> , (ii) <i>Green Microfinances</i> , and (iii) <i>Sustainable Development and Energy Efficiency</i> . All these expertise and resources will be available for the implementation of the proposed line of credit.
(6) Additional costs and risk premium	The use of risk mitigation tools involves the generation and collection of new technical documents that need to be produced by the technology providers and investors and that must be processed by the validating entities, insurance companies and in some cases FIs. The EE investments require funding that facilitate the financing of these transaction costs or provide grants to cover services—like the validation of projects or the cost of insurance premiums—for a specific number of projects and that minimize their impact in the overall costs of the projects.
<b>Additional CTF investment criteria for private sector projects/ programs</b>	
(7) Financial sustainability	<p>As indicated earlier it is estimated that private funding required for financing the demand of investment of EE projects in SMEs, not including solar, is about USD 400 million. Therefore, it is estimated that the program will contribute to finance about 4% of the potential demand. The expansion of the program to several sectors is expected to raise interest from additional private investors and technology suppliers, especially considering that the initiative is aligned with the National Development Plan 2019-2022 and the Indicative Energy Efficiency Action Plan 2017-2022.</p> <p>The leadership and experience of Bancóldex as implementing agency is expected to give confidence in the sustainability of the Program and to guarantee the competitiveness of the credit conditions by local FIs. Furthermore, it is envisaged that prior to the disbursement of the full amount of the loan, Bancóldex will establish new lines of credit for financing additional EE projects funded either with its own capital or with IDB resources.</p>
(8) Effective utilization of concessional finance (including a detailed analysis on how the proposal meets the minimum concessionality principles, and on how it is aligned with the blended concessional finance principles)	The Bancóldex line of credit on clinics, hotels and hospitals offered financing for EE projects with a USD 20 million loan from IDB-CTF. This line was open to EE projects implemented with or without the ESI model, which generated a market disadvantage for ESI projects as they required a deeper technical review. To incentivize the use of the insurance and other risk mitigation tools, grants from a technical cooperation were used to cover the costs of the validation and Bancóldex offered a differential rate to the end beneficiary that ranged between

	<p>0.5% to 1.5%. The line of credit closed in March 2019 with 43 EE projects financed, seven of them ESI.</p> <p>As Bancóldex will continue financing projects with and without insurance, it is reasonable to assume that a level of concessionality similar to the one for the previous line will be required to meet the market's demands, and that a lower level of concessionality would be insufficient to attract the demand of SMEs. Therefore, Bancóldex concessional finance will be focused in creating the conditions and incentives for the acceptance by SMEs of the higher transaction costs of the tools associated to the ESI model.</p>
(9) Mitigation of market distortions	<p>Although there is a market for EE in Colombia, currently there is no active market for financing EE projects that use risk mitigation instruments similar to the ones implemented by Bancóldex, so no potential distortions are foreseen.</p> <p>The Program will develop tools to mitigate risks and will seek the use of alternate schemes to scale-up EE investments such as the individual or combined use of single tools like the validation methodologies or the performance contract. By making available all the tools to the public, and providing capacity building to the market players, the program expects to avoid market distortions.</p>
(10) Risks	<p>There are minor environmental and social risks associated to the implementation of the program. Bancóldex will apply an existing environmental and social risk management system (ESMS) to identify, analyze, manage and monitor potential risks. The ESMS will be enhanced to address particular ESMS risks in the context of these sub-loans.</p>
<b>12. For DPSP projects/programs in non-CTF countries, explain consistency with FIP, PPCR, or SREP Investment Criteria and/or national energy policy and strategy</b>	
<p>The Program is aligned with the National Development Plan 2019-2022 objectives that promote non-conventional renewable energies and EE, technological reconversion for a sustainable and low-carbon industry, sectoral commitment to mitigate climate change, and financial instruments to incentivize the productive sector in its transition to sustainability. Moreover, the Program concurs with the government's efforts to promote the rational use of energy and EE, as described in the <i>Indicative Energy Efficiency Action Plan 2017 – 2022 (PAI PROURE)</i>, which sets voluntary EE sectoral targets. It is also consistent with the principles of the <i>Law 1715 of 2014</i> that established tax and tariff incentives for energy-efficient equipment and renewable energy as well as the Colombia's Energy and Gas Regulatory Commission (CREG) <a href="#">Resolution 030</a> of 2018, that regulates distributed solar generation (up to 100 kW) and distributed generation from renewable sources (between 100 kW and 1 MW). Finally, the Program is aligned with Colombia's NDC</p>	

pledge to reduce 66.5 million tons of CO<sub>2</sub>e by 2030, equivalent to 20% below the baseline of emissions, and up to 99.7 million tons by 2030 with international support.

### 13. Stakeholder Engagement

The main beneficiaries of the Program will be SMEs, private investors, technology providers, local financial institutions, validating entities and insurance companies. Bancóldex will use its well-established communication channels and relationship with associations of the private sectors to promote a wider dissemination of the Program. A selected group of companies already familiar with the risk mitigations tools and financial scheme and the Program will be involved in the dissemination efforts, mainly for the presentation of case studies. A second layer of stakeholders involve public institutions from the energy sectors including the Ministry of Mines and Energy (MME), the Ministry of Environment and Sustainable Development (MADS), the Mining and Energy Planning Unit (UPME), the Energy and Gas Regulatory Commission (CREG), and the Institute for Planning and Promotion of Energy Solutions for Non-Interconnected Zones (IPSE).

### 14. Gender Considerations

It is estimated that 40% of the SMSE in Colombia are owned by women. Considering this and the fact that the program is intended for SMEs, a positive benefit for woman-led business is expected in the different sectors to be covered by the credit line. Nevertheless, as the program includes capacity building tasks, a special emphasis will be placed on how to facilitate the dialogue between women and FIs and on promoting equal employment opportunities during the implementation of projects. From the reporting perspective the project will map women-led businesses that will benefit from the line of credit.

### 15. For projects/programs with activities in countries assessed as being at moderate or high risk of debt distress, macro-economic analysis to evaluate the potential for the CTF project or program to impact the country's debt sustainability

Not applicable

### 16. For public sector projects/programs, analysis of how the project/program facilitates private sector investment

The Program takes advantage of the experience of Bancóldex in implementing financing solutions and green investments for SMEs as well as its expertise in implementing previous IDB-CTF Programs oriented to provide climate friendly solutions to the private sector.

The Program will promote a wider participation of stakeholders from private institutions and continue providing technical support for the proper technical and financial evaluation of the proposed projects through technical cooperation activities.

### 17. Indicators and Targets

#### Project/Program Timeline

Expected start date of implementation <sup>[d]</sup>	March 2020
Expected end date of implementation <sup>[d]</sup>	March 2024
Expected investment lifetime in years (for estimating lifetime targets)	20 years



Core Indicators		Targets <sup>[e]</sup>
GHG emissions reduced or avoided over lifetime (tons of CO <sub>2</sub> -eq)		158,000
Annual GHG emissions reduced or avoided (tons of CO <sub>2</sub> -eq/year) (specify: upon completion of the project/program / on the maximum year / on a representative year)	On the maximum year	7,900
Installed capacity of renewable energy (MW)		2.3
Energy savings cumulative over lifetime of investment (MWh)		1,020,000
Annual energy savings (MWh/year) (specify: upon completion of the project/program / on the maximum year / on a representative year)	On the maximum year	51,000
Identify relevant development impact indicator(s)		Targets
Jobs to be created		TBD
<b>18. Co-financing</b>		
	Please specify as appropriate	Amount (in million USD)
MDB 1	IDB	8.0
MDB 2 (if any)		
Government		
Private Sector		2.8
Bilateral		
Others (please specify)		
<b>Total</b>		10.8
<b>19. Expected Date of MDB Approval</b>		
February 2020		

**NOTES:**

[a] This cover page is to be completed and submitted together with the MDB project/program proposal when requesting CTF funding approval by the Trust Fund Committee.

[b] For products denominated in EUR, please also provide USD equivalent in the column to the left

[c] Please provide the information in the cover page or indicate page/section numbers in the accompanying project/program proposal where such information can be found.

[d] Insert "not applicable" (N/A) if dates cannot be determined at the time of submission (e.g. private sector programs)

[e] Insert value N/A if indicator is not applicable to the project/program.



## **BUSINESS FINANCING AND ENERGY EFFICIENCY**

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ACRONYMS AND ABBREVIATIONS	
AOP	Annual Operating Plan
ASOBANCARIA	<i>Asociación Bancaria y de Entidades Financieras de Colombia</i>
Bancóldex	<i>Banco de Comercio Exterior de Colombia S. A.</i>
BAU	business-as-usual
CAF	Banco de Desarrollo de América Latina (Development Bank of Latin America)
CAPEX	capital expenditure
CBA	Cost-benefit analysis
CTF	Clean Technology Fund
DPSP	Dedicated Private Sector Program (CTF)
E&S	environmental and social
EA	executing agency
ECLAC	Economic Cooperation for Latin America and the Caribbean
ESHS	Environmental, Social, Health and Safety
ESI	Environmental Sustainability Index
ESMR	Environmental and Social Management Report
ESMS	Environmental and Social Risk Management System
FI	financial institution
GDP	Gross Domestic Product
GHG	greenhouse gas
ICCT	International Council on Clean Transportation
IDB	Inter-American Development Bank
IEA	International Energy Agency
IFI	intermediary financial institution
IMF	International Monetary Fund
IRR	internal rate of return
LAC	Latin America and the Caribbean
MEF	Ministry of Economy and Finance
MSME	micro, small and medium-sized enterprise
NAMA	Nationally Appropriate Mitigation Action
NDB	National Development Bank
NDC	Nationally Determined Contributions
NPV	net present value
OC	Ordinary Capital
OPEX	operating costs
OR	Operational Regulations
MEP	Monitoring and Evaluation Plan
PMR	Progress Monitoring Report
RE	renewable energy
TC	Technical Cooperation Activity
ton CO <sub>2</sub> e	ton of carbon dioxide equivalent
UNFCCC	United Nations Framework Convention of Climate Change

INTER-AMERICAN DEVELOPMENT BANK

**COLOMBIA**

**BUSINESS FINANCING AND ENERGY EFFICIENCY**

**(CO-L1255)**

**SECOND INDIVIDUAL OPERATION UNDER THE CONDITIONAL CREDIT LINE  
FOR INVESTMENT PROJECTS (CCLIP) FOR PRODUCTIVE BUSINESS  
FINANCING**

**(CO-O0004)**

**PROPOSAL FOR OPERATIONS DEVELOPMENT**

This document has been prepared by the following project team consisting of: Omar Villacorta (IFD/CMF), Team Leader; Alvaro Concha (IFD/CMF), Alternate Team Leader; Isabelle Braly, Maria Netto, Sebastián Vargas, Rodrigo Chaparro, Ximena Jaramillo, Javier Gavilanez y Fanny Porras (IFD/CMF); Alexandra Planas (INE/ENE); Giovanni Leo Frisari (CSD/CCS); Jacqueline Bueso (SPD/SDV); Mylenna Cardenas y Eugenio Hillman (VPC/FMP); Louis Chretien (LEG/SGO); Claudio Alatorre (CSD/CCS).

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**PROJECT SUMMARY**  
**COLOMBIA**  
**BUSINESS FINANCING AND ENERGY EFFICIENCY**  
**(CO-L1255)**  
**SECOND INDIVIDUAL OPERATION UNDER THE CONDITIONAL CREDIT LINE FOR INVESTMENT**  
**PROJECTS (CCLIP) FOR PRODUCTIVE BUSINESS FINANCING**  
**(CO-O0004)**

Financial Terms and Conditions				
<b>Borrower:</b> Banco de Comercio Exterior de Colombia S. A. (Bancóldex)			<b>Amortization period:</b>	20 years
<b>Guarantor:</b> Republic of Colombia			<b>Disbursement period:</b>	4 years
<b>Executing agency:</b> Bancóldex			<b>Grace period:</b>	10,5 years
Source	Amount (US\$)	%	Administrative fee (Single payment):	0,45%
<b>Clean Technology Fund (CTF)<sup>(a)</sup>:</b>	8.000.000	50	<b>Interest Rate:</b>	0,75% fixed
<b>Local:</b>	8.000.000	50		
<b>Total:</b>	16.000.000	50	<b>Approval currency:</b>	U.S. Dollars (US\$)
Project Scheme				
<b>Project Objective/Description:</b> The objective of the second program under CCLIP CO-O0004 is to support efforts in Colombia to promote energy efficiency projects in the business sector, and thus reduce Greenhouse Gas (GHG) emissions, through greater availability of long-term financing in the financial system.				
<b>Special contractual conditions precedent to the first disbursement:</b> A special contractual condition precedent to the first disbursement of the loan will be the approval of the Credit Regulations for this program by Bancóldex, with the Bank's prior no objection ( <b>¶Error! Reference source not found.4</b> ).				
<b>Exceptions to Bank's policies:</b> Approval of a partial waiver of the Bank's Policy on Guarantees Required from the Borrower (Operational Policy OP-303) is sought from the Board of Executive Directors so that the Republic of Colombia guarantees only the loan payment obligations, including interest and fees ( <b>¶Error! Reference source not found.7</b> ).				
Strategic Alignment				
<b>Challenges<sup>(e)</sup>:</b>	SI <input type="checkbox"/>	PI <input checked="" type="checkbox"/>	EI <input type="checkbox"/>	
<b>Crosscutting themes <sup>(f)</sup>:</b>	GD <input type="checkbox"/>	CC <input checked="" type="checkbox"/>	IC <input type="checkbox"/>	

<sup>(a)</sup> Please see document GN-2571, Proposal for the Establishment for a Clean Technology Fund in the Inter-American Development Bank.

<sup>(e)</sup> SI (Social Inclusion and Equality); PI (Productivity and Innovation); and EI (Economic Integration).

<sup>(f)</sup> GD (Gender Equality and Diversity); CC (Climate Change and Environmental Sustainability); y IC (Institutional Capacity and Rule of Law).

## I. PROJECT DESCRIPTION AND RESULTS MONITORING

### A. Background, problem to be addressed and rationale

- 1.1 This program is the second of the Condition Credit Line for Investment Projects (CCLIP) for Productive Business Financing with *Banco de Comercio Exterior de Colombia S.A. (Bancóldex)*, approved by the Executive Directors Committee on December 11, 2019, for an amount of US\$600 million. The first program for Productive Business Financing (4939/OC-CO) was approved on December 11, 2019, for an amount of US\$60 million.
- 1.2 **Macroeconomic Context.** In the last 20 years, Colombia has shown a positive change in its macroeconomic indicators, becoming a middle-income economy, such as Argentina, Brazil, México, Peru and Costa Rica. Between 2000 and 2016, investment, mostly from the private sector, increased from 14% to 27% of the Gross Domestic Product (GDP) and savings from 16% to 18% of the GDP<sup>9</sup>. The annual capital flows grew substantially, from US\$3.000 million in the 90s to US\$21.000 million on average between 2009 and 2016. The country's current account benefited from the increase of foreign direct investment, as well as from low international interest rates and the confidence foreign investors that resulted in an increase of investments in securities and stocks<sup>10</sup>.
- 1.3 The productive structure of Colombia is based mainly on the extractive apparatus for the exportation of petroleum and coal<sup>11</sup>. As a result of the great importance of the extractive industry in the country's balance of trade, the economic activity maintains a close relationship with the electric energy demand, which maintained a variation of around 3,3% in 2018. By observing the electric and thermal energy consumption, according to the data from the *Unidad de Planeación Minero Energética (UPME)*<sup>12</sup>, the industrial sector consumed 32,44% of the total of primary energetic products in 2017, followed by the agricultural sector (27,42%) and residential sector (20,56%). In 2017, the energy costs represented between 2% and 7%<sup>13</sup> of the total production costs of the average company in the sector<sup>14</sup>.
- 1.4 **Institutional Framework and Strategic Use of Energy.** Colombia has a National Energy Plan<sup>15</sup> and an Indicative Action Plan for Energy Efficiency (PAI PROURE)<sup>16</sup>. The efficient use of energy and the promotion of alternative energy sources is considered as strategic and fundamental for the development of all commercial and industrial activities, as well as for the welfare of households, with energy efficiency being a mechanism to ensure the energy supply, that is based mainly on the adoption of new technologies and good consumption habits. The indicative saving goals for 2017-2022 presented in the PAI PROURE, forecast a potential energy saving of

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<sup>9</sup> National Administrative Department of Statistics (2017). "*Formación Bruta de Capital*". Integrated Economic Accounts. Bogota.

<sup>10</sup> Through this manner, between 2010 and 2016, this type of investment went from US\$6.429 million (1,1% of GDP) to US\$8.900 million (3,1% of GDP).

<sup>11</sup> According to data from National Administrative Department of Statistics (DANE), the fuels and mineral oils had a weight of 58% within the total export basket in June 2019.

<sup>12</sup> UPME (2017). "*Balance Energético de Colombia*".

<sup>13</sup> To determine the energy consumption by size of companies, the definition set forth in Decree 957 of 2019, issued by the *Ministerio de Comercio, Industria y Turismo*, is used, where the classification is based on the annual revenues of companies.

<sup>14</sup> DANE (2017). "*Encuesta Anual Manufacturera*".

<sup>15</sup> UPME. (2015). "*Plan Energético Nacional: Ideario Energético 2050*".

<sup>16</sup> UPME. (2016). "*Plan de Acción Indicativo de Eficiencia Energética PAI PROURE 2017 – 2022*".

- 9,05%, from the total current consumption; this percentage would represent a saving of 699.678 Tera Jules (TJ) if various energy efficiency measures were to be implemented de in different economic sectors.
- 1.5 In regulatory matters, the country has advanced in the promotion of the rational use of energy and energy efficiency by forbidding the use of incandescent lightbulbs (Decree 3450 from September 12, 2008), requiring labels of energy efficiency in equipment (Resolution 41021 from September 28, 2015) and the entry into force of Law 1715 from 2014 that established tax and customs incentives for equipment, machinery, and services that are energy efficient or that operate with non-conventional sources of energy. Between the entry into force of the law and May 31, 2019, a total of 613 projects have been processed before the UPME to enjoy the tax benefit. From those, 425 have been approved and most of them were destined to companies in the tertiary sector<sup>17</sup>.
- 1.6 Colombia's commitment under the Paris Agreement in terms of mitigation is to reduce Greenhouse Gas emissions (GHG) by 20% by 2030<sup>18</sup>. Of the 240 million metric tons of CO<sub>2</sub> emitted by the country, 130 million correspond to the agricultural sector, 70 million to the energy sector<sup>19</sup> and the rest is split between waste and industrial processes<sup>20</sup>. Pursuant to the National Strategy for the Climate Change Financing, the investment required in the 2017-2030 period for the mitigation of climate change is US\$1.470 million annually. Of that total, 14% is targeted toward the industrial sector.
- 1.7 **Productive Structure and Energy Sustainability.** Colombia has a strong business fabric, but it is concentrated on small companies that are simultaneously the least productive. 92% of the 1,3 million of active companies in the country are micro-enterprises; the remaining 8% consists of 99 thousand Small and Medium Enterprises (SMEs) and 7 thousand large companies<sup>21</sup>. The productivity of micro-enterprises is particularly lagging. In 2015, the productivity of these companies was 16% of that recorded in large enterprises. This figure was 43% for small enterprises and 51% for medium sized enterprises<sup>22</sup>. Country's efforts continue focused on the development of companies of small size as they generate 80% of private employment and contribute 35% to the GDP. However, Colombia is working to structurally transform the productivity of the business park by using an approach of modern development.
- 1.8 According to data from the Final Energy Balance of Colombia for 2017<sup>23</sup>, the total of the industrial sector consumes 24% of the energy demanded in the country. On the

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<sup>17</sup> UPME. (2019). "*Informe Mensual – Solicitud de certificación de proyectos de fuentes no convencionales de energía (FNCE)*".

<sup>18</sup> The decision of the 20% is mainly due to cost-benefit in economic terms, the measures are aimed at the modernization and transformation of the economy without a cost greater than US\$20 per ton of CO<sub>2</sub>.

<sup>19</sup> The Indicative Action Plan for Energy Efficiency and Rational Use and Efficiency Energy Program 2017-2022, define strategic and sectoral actions that allow to achieve goals in terms of energy efficiency in a way that contributes to the energy safety and compliance with international environmental commitments. The Plan estimates that, through the use of energy efficiency measures, energy consumption savings could be obtained in the range of 699.678 Tera Jules during 2017-2022 period and establishes that the indicative savings goals in the transportation, tertiary and residential sectors.

<sup>20</sup> Instituto de Hidrología, Meteorología y Estudios Ambientales (2016). "*Proyecto Informe Bial de Actualización*".

<sup>21</sup> Confecámaras (2016). "*Nacimiento y Supervivencia de las empresas en Colombia*". Cuadernos de Análisis Económico.

<sup>22</sup> OECD/UN/UNIDO (2019). "Production Transformation Policy Review of Colombia: Unleashing Productivity", OECD Development Pathways". OECD Publishing

<sup>23</sup> UPME (2017). "*Balance Energético de Colombia*".



other side, the tertiary sector, which covers services and commerce, consumes 5% of the total energy of the country. Despite the consumption percentage is small, it is important to mention that the segments of these sectors include establishments in which the energy consumption costs have an important weight over total operational costs.

- 1.9 At the level of stratification by company size, SMEs consume between 53% and 56% of the energy consumed by sector. These numbers show that investments by SMEs in clean technologies, besides having a positive impact to reduce GHG emissions, have a clear potential to save costs for resource optimization, profitability generation, and market competitiveness, as well as a greater business prestige<sup>24</sup>. In the case of energy efficiency, the analysis of Energy International Agency concludes that these investments have multiple benefits for SMEs<sup>25</sup>, however, financing gaps to SMEs prevent greater investments<sup>26</sup>.
- 1.10 According to potential energy savings estimates for the commercial and industrial sectors, if the SMEs use efficient equipment, in other words, operate with the latest technology equipment, they will achieve a saving of 11.543 TJ per year. The savings potentials consider the distribution of the use of energy that characterizes each economic, and by this, the prioritization of intervention is based on the needs and specific type of company. Specifically, the most interesting opportunities have been identified in the financing of air conditioning, engines, lighting, refrigeration, ovens, and boilers, among others<sup>27</sup>.
- 1.11 **Investments in clean technologies.** In 2017, 66.2% of all Colombian entrepreneurs affirmed that their businesses were affected by climate events. For this reason, more than 80% of entrepreneurs have considered in their business plans and business development strategies matters such as environmental impact (84,8%), access and efficient use of water (81,5%), access and efficient use of energy (80,8%). Among the three reasons that entrepreneurs use to have involved within their strategies certain lines of actions associated with this issue are current or future regulation, reputational and institutional image damages and reduction of costs<sup>28</sup>.
- 1.12 Despite the above, Colombian businesses face challenges to access modern technologies and to migrate to new more productive business models, in part, largely, because of low levels of investment as a result of their limited access to credit. 46,3% of businesses in the country still finance their investment with own capital<sup>29</sup>. The outlook is more acute for SMEs because the participation of this type of portfolio

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<sup>24</sup> McLaughlin, L. (2015). "ISO 50001: Energy Management Systems – A Practical Guide for SMEs". United Nations Industrial Development Organization.

<sup>25</sup> International Energy Agency (IEA) (2015) "Accelerating EE in Small and Medium-Sized Enterprises". According to this study, the benefits for the SMEs are: (i) reduction in energy costs and, therefore, profitability and competitiveness; (ii) reduction in the exposure to volatility of the energy prices; and (iii) contribution to broader policy objectives, such as increase employment opportunities, expand the market of efficient goods and services in the use of energy, improve the energy safety, reduce the GHG emission and postpone the investments in the generation of additional energy.

<sup>26</sup> In addition to longer terms, for a better attention of the demand, the CEs must generate and adopt special risks mitigation tools and systems for collection and monitoring of environmental information.

<sup>27</sup> CORPOEMA (2019). "Financiamiento de Eficiencia Energética en las PYME". BID.

<sup>28</sup> Misión de Crecimiento Verde: <https://www.dnp.gov.co/Crecimiento-Verde/Paginas/Misi%C3%B3n-de-crecimiento-verde.aspx>

<sup>29</sup> Surveys to companies from the World Bank to Colombia 2017: <http://www.enterprisesurveys.org/>

within the total business portfolio in the banking sector represents only 32%<sup>30</sup>, an index lagging behind other regional and international benchmarks<sup>31</sup>, and only 38% of the SMEs requested credits before a Credit Establishment (CE)<sup>32</sup>. International Finance Corporation (IFC), estimates that the financing gap of the SMEs in Colombia amounts to US\$38 billion.

- 1.13 From the supply's point of view, in addition to the typical obstacles of information asymmetries or scarce type of security admitted, there is a material problem in the structure of liabilities. Approximately, 60% of liabilities of Banks are short-term, so long-term financing is disincentivized due to liquidity mismatches<sup>33</sup>. As a result, the *Asociación Bancaria y de Entidades Financieras de Colombia* (ASOBANCARIA) reported at the end of 2017 that the loan portfolio in the banking system for energy efficiency, renewable energy, clean production, and sustainable construction, among others, amounts to US\$533 million, although this number represents only a 0,4% of the total loan portfolio.
- 1.14 **Other challenges about the financing of energy efficiency.** The CE of the first floor of the financial system confirm their interest to grant climate and energy efficiency financing to companies and SMEs, but they acknowledge that the obstacles are diverse, with an emphasis on:
- a. **Importance in the line of business of CE.** The CEs must understand the importance to design line of credits destined to finance projects of energy efficiency with conditions different to the ones offered to finance traditional investments: (i) competitive interest rates with exclusive benefits, (ii) amortization matching the return periods and cash flows generated by investments, and (iii) grace periods that allow the entrepreneur to start paying the loan once the solution installed is operating, among others.
  - b. **Specialized knowledge in the CEs.** The CEs have few operational staff with knowledge in environmental impact or energy efficiency, as well as financing and non-financing tools to support the execution of this type of project. This knowledge is required to advise the entrepreneurs on the advantages of these investments and on the financing offer available if any.
  - c. **Generation and use of non-financing tools.** Risks perceived in investments in clean technologies are high among CEs, entrepreneurs, and suppliers of technologies and equipment. While there are certain tools in the market to measure energy savings, validate and verify the installation of equipment and to provide financial coverage in the event that expected results are not achieved<sup>34</sup>, there still exists a space for the development of tools to incentivize this type of investments.

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<sup>30</sup> Financial Superintendence of Colombia (2018). Dynamic of the regional portfolio and foral financing to SMEs. *PyMEs. Seminario Macroeconómico y III Feria de Servicios Empresariales – Asociación Nacional de Instituciones Financieras*.

<sup>31</sup> According to the Organisation for Economic Cooperation and Development (2018). "Financing SME and Entrepreneurs 2018. An OECD Scorecard", this is an indicator lagging behind different regional and international benchmarks. For example, in Brazil, the portfolio in this segment represent 37% of the total corporate portfolio, a participation in which the countries of the OECD have 42%.

<sup>32</sup> According to publications by the National Association of Financial Institutions: Large Survey to microenterprises and Large Survey to SMEs, both in 2018

<sup>33</sup> Calculations based on the financial statements published by the Financial Superintendence of Colombia.

<sup>34</sup> As the *Programa Seguro de Ahorros de Energía* promoted by IDB (ATN/CF-15453-RG).

- d. **Prioritization of investments within the company.** Since efficiency energy projects generally require investments in fixed assets of relatively large amounts, it is common that entrepreneurs prioritize other types of investments directly related to the business model. This behavior is explained partially due to the lack of knowledge on the positive impacts in financial, productive, reputation and competitive terms, associated with investment to improve the performance in the use of energy resources.

- 1.15 **Banco de Comercio Exterior de Colombia (Bancóldex).** The Public Development Bank (PDB) called to attend the business financing in Colombia is the *Banco de Comercio Exterior de Colombia* (Bancóldex)<sup>35</sup>, an institution that has evolved over time in terms of the main objective<sup>36</sup>. From being created to exclusively promote exportations in 1967, it evolved to have a credit-centered focus for the micro, small and medium enterprise (MSMEs) in early 2000s<sup>37</sup>, and to have today a multi-purpose objective with which serves from the second- and first-floor national companies of all sizes, through rediscount lines, private equity funds, project structuring, factoring, international interbank operations, and training and consulting<sup>38</sup>. The participation of the MSMEs in the totality of disbursements of Bancóldex has represented historically 50% of resources. This business segment takes advantage of Bancóldex's long-term resources to replace short-term loans in projects for the investment in fixed assets. A study of MSMEs that accessed loans from CEs through Bancóldex's programs demonstrated increases of 24% in sales, 11% in employment, 70% in investment and 10% in productivity, over a 4-year period of observation<sup>39</sup>.
- 1.16 In the last years, Bancóldex has satisfactorily created credit lines for the increase of the investments of SMEs in projects for the promotion of energy efficiency and mitigation of climate change. Some examples include i) Competitive SMEs and productive scaling, ii) green microfinance and; iii) sustainable development and energy efficiency. Likewise, in 2016 it worked with ASOBANCARIA to pilot a program whose objective was to generate financial schemes to take advantage of business opportunities and sustainable innovation. Finally, Bancóldex leads the green Protocol of Colombia, a platform that promotes dialogue and consensus in the financial sector of sustainability<sup>40</sup>.
- 1.17 **Justification.** The barriers to investments in energy efficiency projects require an intervention that promotes the potential demand by using a combination of the following elements:

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<sup>35</sup> Ocampo, J. A. et al. (2018). "La Banca Nacional de Desarrollo en Colombia". *Ensayos sobre Política Económica. Banco de la República*.

<sup>36</sup> PDBs in Colombia are organized in a system of four institutions with specialty in sectors. In addition to Bancóldex, there is *Fondo para el Financiamiento del Sector Agropecuario (Finagro)*, *Financiera de Desarrollo Territorio (Findeter)*, *Financiera de Desarrollo Nacional (FDN)*.

<sup>37</sup> Bancóldex developed in this second phase of evolutions various megaprojects such as: *Banca de las Oportunidades*, *Programas de Transformación Productiva*, and *Innpulsa*.

<sup>38</sup> Zuleta, L.A. (2018). "Inclusión Financiera de la Pequeña y Mediana Empresa en Colombia". *Serie Financiamiento para el Desarrollo. Comisión Económica para América Latina y el Caribe*.

<sup>39</sup> Eslava, et al. (2012a). "Second-tier governments banks and firm performance: micro-evidence from Colombia", y Eslava, et al. (2012b). "Restricciones de crédito y desempeño empresarial: evidencia de un programa de crédito público en Colombia".

<sup>40</sup> The Green Protocol is an initiative lead by ASOBANCARIA and has all the support from the national government. The Protocol focuses on generating different acts that make part of the financial industry, a commitment with sustainability and the implementation of standards that are aligned with this principle, not only in the inside of the organization, but also in the performance of financing activities and promotion of different industries in the country.

- a. **First, the proposed loan operation would provide Bancóldex with additional medium- and long-term resources** funded by CTF, that combined with Bancóldex's counterpart, would contribute to expanding the financing offer to investment projects in energy efficiency technology presented by Colombian companies subject to credit through first floor CEs.
  - b. **Second, the operation will be accompanied by the implementation of incentives mechanism generated in the activities of the CT CO-T1538**, an operation that has the CTF resources for the preparation and execution of the loan. CO-T1538 resources will impact directly on the operativity of Bancóldex, but also will be allocated in a comprehensive manner to the entire clean technology financing ecosystem of the country (¶1.20).
- 1.18 **Sectoral Experience and lessons learned**<sup>41</sup>. The most important sources of experience and lessons learned come from CCLIP CO-X1007 approved in 2008 and closed in 2018, and pilot programs for climate financing approved as of 2013 with resources administered by the CTF. Under CCLIP CO-X1007 Bancóldex pursued the objective to “support efforts of the Colombian government to strengthen the competitiveness of the productive sector by financing of investment projects, productive reconversion, and export development”, through four programs: loan 2080/OC-CO in the amount of US\$100 million in 2008, loan 2193/OC-CO in the amount of US\$200 million in 2009, loan 2949/OC-CO in the amount of US\$200 million in 2013, and loan 4439/OC-CO in the amount of US\$90,7 million in 2017. In 2013, in parallel with CCLIP CO-X1007, Bancóldex developed pilot programs for the financing of energy efficiency (loan 2983/TC-CO in the amount of US\$10 million; 2013), sustainable transportation (loan 3003/TC-CO in the amount of US\$40 million; 2013) and renewable energy in non-interconnected zones (loan 3661/TC-CO in the amount of US\$9,3 million; 2016)<sup>42</sup>. Among the most significant lessons learned from CCLIP CO-X1007 and pilot programs, are: (i) the close support to Bancóldex for the efficient allocation of resources in scenarios where the execution of parallel programs is common; (ii) the constant supply of market information that allows Bancóldex and the CEs to early recognize unexpected changes in the demand to take appropriate actions; and (iii) the improvement of information systems and the establishment of a discipline for the monitoring and evaluation of results. Each of the elements aforementioned has been strengthened through Technical Cooperation (TC), in particular for the generation of green financing capacities (ATN/TC-13728-CO, ATN/TC-14011-CO, ATN/TC-15151-CO, ATN/TC-15364-CO), as well as the resources from the CT regional have served for the implementation of a scheme that ensures energy savings to accompany the financing of energy efficiency (ATN/CF-15453-RG), and assistance in the structuring and issuance of green and social bonds (ATN/SU-15599-RG)<sup>43</sup>.
- 1.19 **Complementarity with other IDB Group interventions.** This operation will complement the operation 4939/OC-CO, the first program under CCLIP CO-O0004, given that Component 2 will facilitate the investment in MSME in energy efficiency

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<sup>41</sup> In Section IV of the Framework Document to Support SMEs and Access and Financial Supervision (GN-2768-7), you may find lessons learned by the Bank at a regional level in this sector.

<sup>42</sup> The resources under administration of the CTF are characterized by its terms and conditions of high concession.

<sup>43</sup> In August 2017 and May 2018, Bancóldex was the first PDB of the country that issued green (US\$67 million) and social (US\$133 million) bonds, with an oversubscription exceeding two or four times the securities issued.

- projects. If appropriate, Bancóldex will mix the ordinary capital resources of Component 2 of 4939/OC-CO with the CTF resources managed by the IDB in CO-L1255 to double the volume of a financing supply in better conditions than those offered in the market. The program will also complement 3747/TC-CO regarding the identification of energy efficiency financing opportunities within Component 2, since a series of businesses, that could be subject to financing by the CEs with access to the resources of Bancóldex, have been identified in San Andres.
- 1.20 **Technical Cooperation.** As previously indicated, the CT CO-T1538 is being developed to help in the preparation and execution of the proposed program. CT resources will be used to (i) identify and monitor a portfolio of energy efficiency projects, (ii) design and execute financial incentives, (iii) measure and verify energy savings in funded projects, and (iv) carry out studies and investigations for dialogue and awareness in groups interested in the energy efficiency market in Colombia.
- 1.21 **Strategic Alignment.** The program is consistent with the Update to the Institutional Strategy (UIS) 2010-2020 (AB-3008) and is aligned with the Productivity and Innovation development challenge since it will facilitate access to financing for microenterprises and SMEs; and with the crosscutting theme of Climate Change and Environmental Sustainability, taking into account that 100% of the program's resources will be invested in climate change mitigation activities, according to [joint methodology of multilateral development banks for estimation of climate financing](#). These resources contribute to the IDB Group's climate financing goal. In the same line, the program is consistent with the Climate Change Sector Framework. The program is also aligned with the crosscutting theme of Gender Equality and Diversity, by promoting the measurement of sub-loans for women entrepreneurs. The program will contribute to the Corporate Results Framework (CRF) 2016-2019 (GN-2727-6), as it will increase the number of micro/small/medium-sized companies financed and it will contribute to the reduction of emissions with financing support from the IDB Group (millions of annual tons of CO2 equivalent). Furthermore, the program is consistent with the Support to SMEs and Financial Access/Supervision Sector Framework Document (document GN-2768-7), under the pillar on improving the efficiency and scope of bank credit intermediation to the productive sector. The program is aligned with the Country Strategy with Colombia 2019-2022 (GN-2972), by contributing to the strategic objective "Stimulate Innovation and Business and Agricultural Development" and with the transversal aspect of "Climate Change".
- B. Objectives, Components, and Cost**
- 1.22 **Objectives.** The general objective of the second program under CCLIP CO-O0004 is to support efforts in Colombia to reduce Greenhouse Gas (GHG) emissions. The specific objective is to increase access to medium and long-term credit in the financial system to ultimately promote the financing of energy efficiency projects in the business sector.
- 1.23 **Single financing component (US\$16 million).** The program will be developed through a single financing component to provide medium and long-term financing for energy efficiency projects. Program resources will be channeled to the first-floor Bancóldex's CE clients through the second-floor rediscount mechanism.
- 1.24 **Eligible Beneficiaries.** Program beneficiaries will be companies from all sectors of the economy with limited access to medium and long-term credit needed to make investments in energy efficiency. The program will be especially focused on SMEs and will not discriminate against beneficiaries in the micro- and large enterprise

segments with investment projects that have demonstrated effects in reducing CO2 emissions. The program will monitor the participation of women in financed companies, in leadership and management positions, or as their owners.

- 1.25 **Eligible Credit Establishments (CE).** The subprojects will be financed by local CEs that have business relationship with Bancóldex and comply with all its screening criteria and assessment process. Subprojects financed by CEs must fulfill with the criteria detailed in the Credit Regulations (CR) of the loan program, including the provisions established in the socio-environmental management scheme.

### C. Key Performance Indicators

- 1.26 The impact of the program will be a reduction in CO2 emissions associated with program investments in long-term energy efficiency projects. The results will be (i) energy savings achieved by investments in energy efficiency; (ii) CO2 emissions avoided during program execution (short term) thanks to financed investments; (iii) average term of loans to final beneficiaries; and (iv) Bancóldex's energy efficiency financing portfolio. The product will be the number of program funds allocated to eligible beneficiaries (see Annex II).
- 1.27 **Economic Analysis.** The Economic Analysis of the Project estimates the benefits of the program through the projected flows of energy savings achieved as a result of financed investments, and through the estimated economic value for CO2 emissions avoided as a result of those investments. Then, subtracting the costs associated with these investments and discounting future flows at a rate of 12%, a Net Present Value (NPV) equal to US\$2.03 million and an internal rate of return (IRR) equal to 16% is reached. Additionally, a sensitivity analysis was performed in which the program was proven to be robust under scenarios with extreme changes of key parameters such as efficiency factors, investment costs, carbon prices, among others.

## II. FINANCING STRUCTURE AND MAIN RISKS

### A. Financing Instruments

- 2.1 **Source of Funds.** The second proposed operation under CCLIP CO-O0004 will consist of a global credit to Bancóldex for up to US\$8.000.000 from the CFT resources managed by IDB and will have a counterpart of US\$8.000.000 of Bancóldex.
- 2.1 **Disbursement plan.** According to preliminary estimates, the program resources will be disbursed within four years from the effective date of the loan agreement. Resources provided by IDB will comply with a 1:1 ratio with the counterpart resources of Bancóldex:

**Chart 2. Preliminary Disbursement Estimate**  
(US\$ Million and %)

	Year 1	Year 2	Year 3	Year 4	Final
Single Component	3	3	1	1	8
BID/CTF	3	3	1	1	8
Bancóldex	6	6	2	2	16
Accumulation BID/CTF	6	12	14	16	
Accumulation BID/CTF %	37,5%	75,0%	87,5%	100%	

2.2 **Compliance with eligibility criteria of the second program under the CCLIP.** The second program complies with the eligibility criteria of the individual operations of loan under CCLIP MM-I defined in the policy (GN-2246-13), since:

- a. Bancóldex has the institutional capacity that has been previously evaluated<sup>44</sup>, with results of high average classification, a satisfactory level of achievement of development objectives and low levels of risk. The evaluation was complemented with the analysis of the Project Risks Management matrix. The results of the risk analysis performed showed exogenous or market factors that could have an impact on the results of the first program, for which the corresponding mitigation measures have been identified (§2.4 and §2.5). Bancóldex has experience with programs similar to those proposed, specifically with the programs CO-L1124, CO-L1161 and CO-L1228 program.
- b. The objective of the second program contributes to the achievement of the multisectoral objective of CCLIP (§Error! Reference source not found.).
- c. The second program is contemplated in the sectors of the CCLIP CO-O0004.
- d. The second program includes actions that must be taken to mitigate the risks identified in the Project Risk Management Matrix (§Error! Reference source not found. y §Error! Reference source not found.5).

#### **B. Environmental and Social Risks**

2.3 According to the Bank's Environment and Safeguards Compliance Policy (OP-703), Directive B.13, the program cannot be classified *ex-ante* because it is a financial intermediation operation. Environmental and social due diligence was carried out in compliance with Directive B.13, analyzing the potential socio-environmental risks and impacts in eligible sub-loans and the capacity of Bancóldex as Executing Agency (EA) to manage them. According to the due diligence results, the program has a low financial intermediation risk (FI-3); considering the magnitude of potential socio-environmental risks and impacts of energy efficiency investment projects in companies, mostly SMEs. No category A or B project, according to the IDB classification, will be eligible for funding under the program. This program will be managed with an Environmental and Social Management System (ESMS), similar to other systems used in previous programs with Bancóldex. The socio-environmental requirements detailed in this document will be included in the CR of the program

#### **C. Fiduciary Risks**

2.4 The evaluation of the institutional capacity of Bancóldex identified that it has the capacity to carry out the fiduciary management activities of the loan program. The fiduciary risk has therefore been determined as low, mainly because Bancóldex has the necessary organizational structure, regulations, systems and human talent. Bancóldex's recent experience as executor of loans CO-L1161 and CO-L1228 is satisfactory.

#### **D. Other Risks and Key Matters of the Project**

2.5 **Development.** The risk of limited demand for financing for energy efficiency investment projects is a risk with a medium probability of occurrence. Although the team has sized a potential demand, that could be met with the project resources

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<sup>44</sup> SECI was applied to Bancóldex during April and May 2019. The evaluation based on the Institutional Capacity Analysis Platform (ICAP) is being carried out and will conclude in February 2020.



under a conservative scenario, investments in this type of fixed asset to generate energy savings are not common in the Colombian market. A mitigating action will be implemented taking advantage of the resources of CT CO-T1538 by creating incentives that can boost the demand of companies through the revision of the economic benefits for the adoption of energy-efficient equipment and the security of having energy savings that can be monetized to cover the loan for such investments.

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### III. IMPLEMENTATION AND MANAGEMENT PLAN

#### A. Summary of Implementation Arrangements

- 3.1 **Borrower, Executing Agency (EA) and Guarantor.** Bancóldex will be the borrower and the EA of the loan and will provide the administrative, fiduciary and control functions necessary to maintain effective program management. The Republic of Colombia will act as a guarantor of the loan.
- 3.2 **Execution and Management.** The program will be managed by the Financial and Administrative Vice-Presidency, supported by the Office of New Products and Services, the Commercial Vice-Presidency and the Risk Vice-Presidency. The Financial and Administrative Vice-Presidency will be responsible for coordinating the necessary arrangements for the execution of the program, including (i) preparation, implementation and coordination of the annual operational plans; (ii) budgeting, program accounting, financial administration, reports and disbursement requests; (iii) preparation of technical, execution and financial reports; (iv) monitoring and evaluation of the program; (v) evaluation of the program at the end of the execution period; (vi) hiring the external auditor and implementation of recommendations, and (vii) point of contact with the IDB for the program.
- 3.3 **Credit Regulations (RC).** The program CR will establish the terms and conditions related to the execution of the program, including the specific characteristics of the sub-loans subject to financing, treatment for sub-loan amounts, monitoring of socio-environmental aspects, limitation of destination of use of resources, and other conditions such as the requirements of environmental and social management, fiduciary obligations, and monitoring and evaluation requirements. The CR cannot be modified without the written consent of the IDB.
- 3.4 **A special contractual condition precedent to the first disbursement of the loan will be the approval of the Credit Regulations for this program by Bancóldex, with the Bank's prior no objection.** This condition is justified because the CR will include the detail of the guidelines that will be adopted in the single component of the program and the socio-environmental conditions as set out in Annex B of the Environmental and Social Management Report (ESMR).
- 3.5 **Disbursement mechanism.** Program resources will be disbursed from the IDB to Bancóldex through the reimbursement modality<sup>45</sup>. Disbursements will be made to reimburse Bancóldex for transfers made to CEs that have loan quotas with Bancóldex and that have submitted sub-loan agreements in compliance with the eligibility conditions set forth in the CR of the program. The verification of disbursements will be carried out ex-post, subject to the on-site review of the sub-loans granted.

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<sup>45</sup> However, all disbursement modalities in the Financial Management Guide OP-273-6, or in the current IDB policies, will be available to Bancóldex if the IDB approves their use.

- 3.6 **Financial statements and audit.** The audit of the program's financial statements will be carried out in accordance with the procedure previously agreed with the Bank. The EA will submit within 120 days following the close of each fiscal year of the project, during the original disbursement period, or its extensions, the audited financial statements of the program, duly issued by an independent audit firm acceptable to the Bank.
- 3.7 **Waivers to the Bank's policies.** As in the first CCLIP program, this second program requires a partial waiver to the Bank's Policy "Guarantees Required from the Borrower" (OP 303), so the Republic of Colombia will only guarantee the financial obligations derived from the Loan Agreement. This request is consistent with the provisions set forth in Decree 2681 and Article 40 of Law 80 of the Republic of Colombia.

**B. Summary of Results Monitoring Arrangements**

- 3.8 **Monitoring.** This program will follow the general procedures established by the Bank for the monitoring and evaluation of investment operations, based on the indicators of the Results Matrix, agreed between the EA and the Bank, and the Evaluation and Monitoring Plan. The program will be monitored through periodic reports prepared by the EA, being responsible for the supervision and management of the program. The costs of monitoring this operation will be covered with EA's own resources. The Bank will make periodic visits to accompany and monitor the execution of the program.
- 3.9 **Evaluation.** The EA and the Bank will carry out an evaluation that will measure progress in meeting the objectives of the program and its results based on the Results Matrix in order to identify any relevant corrective action. The costs of this evaluation will be covered with EA's own resources. The EA will provide all the information necessary for the Bank to prepare a PCR, which will be carried out once all disbursements have been fully justified. The evaluation method that is proposed to apply follows an ex-post cost-benefit analysis of the program. As explained in the Monitoring and Evaluation Plan, this methodology will allow analyzing the realized value of energy savings and the reduction of CO2 emissions.
- 3.10 **Information.** Bancóldex will compile and retain all the information, indicators and parameters required to prepare the PCR and any ex-post evaluation that the Bank wishes to perform.

## Part B. TC Document CO-T1538

### I. Basic Information for TC

▪ Country/Region:	Colombia
▪ TC Name:	Consolidating the Energy Financing Ecosystem in Colombia
▪ TC Number:	CO-T1538
▪ Team Leader/Members:	Omar Villacorta, IFD/CMF, team leader; Alvaro Concha IFD/CMF, alternate team leader; Claudia Marquez, IFD/CMF; Ximena Jaramillo, CMF/CCO; Fanny Eliana Porras, IFD/CMF; Claudio Alatorre, CSD/CCS; Louis-Francois Chretien, LEG/SGO
▪ Taxonomy:	Operational Support
▪ If Operational Support TC, give number and name of Operation Supported by the TC:	CO-L1255 Business Financing and Energy Efficiency
▪ Date of TC Abstract authorization:	January 2020
▪ Beneficiary:	Small and Medium Enterprises (SMEs) that have viable projects in energy efficiency that require financing
▪ Executing Agency:	Component 1: Banco de Comercio Exterior de Colombia Bancoldex (US\$1,250,000) Component 2: Inter-American Development Bank -IDB (US\$1,750,000)
▪ Donors providing funding:	Clean Technology Fund (CTF)
▪ IDB Funding Requested:	US\$1.000.000
▪ Local counterpart funding, if any:	US\$0
▪ Disbursement period:	60 months
▪ Required start date:	March 15, 2020
▪ Types of consultants:	Firms and individual consultants
▪ Prepared by Unit:	IFD/CMF
▪ Unit of Disbursement Responsibility:	Institutions for Development Sector (IFD/IFD)
▪ TC Included in Country Strategy:	Yes
▪ TC included in CPD:	Yes
▪ General Norm (GN-2972)	Productivity and Innovation; Climate Change and Environmental Sustainability; and Gender Equality

### II. Objectives and Justification of the TC

- 2.1 The sectors that drive the consumption of primary energy sources in Colombia are industry, agriculture and residential<sup>46</sup>. Altogether they represented about 80.4% of the primary energy sources consumed in 2017. Small and Medium Enterprises (SMEs) play an important role in this demand as they use approximately 41% and 26% of the energy consumed in the commercial and industrial sectors, respectively. Recent studies estimate that the use of used efficient equipment would generate annual savings of 3,099 TJ in the commercial sector and

<sup>46</sup> Balance Energético de Colombia (2017)

15,535 TJ in the industrial sector, plus an important impact on productivity as energy represents between 2 and 7% of the total production costs of the companies<sup>47</sup>.

- 2.2 According to data from the Ministry of Commerce, Industry and Tourism, the SMEs in Colombia comprise 92% of the companies, generate 80% of employment and contribute to 45% in the GDP. However, they lack access to modern technologies and experience difficulties migrating to more productive business models, largely because of their low levels of investment as a result of their limited access to credit<sup>48</sup>. Indeed, recent studies<sup>49</sup> indicate that only 28% of the SMEs have formal credit products and 23% some level of informal credit. The credit issued to SMEs by financial intermediaries only represented 22.6% of the total granted by the financial system in 2018<sup>50</sup>. Furthermore, resources managed by banks are mostly of short-term nature. At present, 60% of bank liabilities are short-term, giving rise to disincentives for long-term financing due to liquidity mismatches.
- 2.3 The objective of the TC project is to support SMEs in Colombia to reduce its energy consumption, and consequently GHG emissions, by increasing the availability of adequate financial products and schemes for energy efficiency investments. The project will benefit: (i) Bancoldex directly through resources for pipeline creation and supply of financial incentives to SME, and (ii) the entire energy efficiency market in Colombia by designing and launching new financial instruments to mitigate financial risks, standardizing and optimizing the validations tools, tailoring training materials to enhance the capacity of commercial banks and to promote market demand and knowledge generation. The CT project is aligned with the government's efforts to promote the rational use of energy and energy efficiency outlined.
- 2.4 Bancoldex is a National Development Bank whose core responsibilities include to provide financial and non-financial solutions to support the productivity and competitiveness of SMEs. Over the last years Bancoldex has successfully tested and implemented various initiatives aiming to contribute to environmental protection and mitigating climate change: i) Competitive SMEs and productive scale-up, ii) Green microfinance programs, iii) Sustainable development and energy efficiency credit lines, and iv) Financing innovation in cooperation with the local banking association (ASOBANCARIA).

### III. Description of Activities/Components and Budget

- 3.1 **Component 1: Enhancing Bancoldex energy efficiency portfolio (Bancoldex: US\$350,000)**
  - 3.1.1 Activity 1: Creation of pipeline: Identification and monitoring of SME energy efficiency bankable projects to be financed by first floor financial institutions using Bancoldex funding.
  - 3.1.2 Activity 2: Success fees: Support in the selection and launching of pilot projects to be supported by Bancoldex energy efficiency credit line, as well as success fees (in the form of reduced interest rates) for financed SME projects that would prove to save energy.
- 3.2 **Component 2: Strengthening the Energy Efficiency (EE) Financing Ecosystem (IDB: US\$650,000)**
  - 3.1.3 Activity 1. Partial guarantee mechanisms. Development of feasibility studies for the design and implementation of partial guarantee mechanisms for energy efficiency that will further leverage private funds and incentivize commercial banks to finance SMEs projects.
  - 3.1.4 Activity 2. Insurance for financial risk mitigation. Expansion of the Energy Savings Insurance (ESI) scheme used by Bancoldex to several other sectors and technologies (currently focused only in the hotel sector).

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<sup>47</sup> Encuesta Anual Manufacturera

<sup>48</sup> Banca de Oportunidades (2017)

<sup>49</sup> Demanda de Inclusión Financiera (2014) and Encuesta de Micro establecimientos- DANE (2016)

<sup>50</sup> Datacredito Experian (2018)

- 3.1.5 Activity 3. Cross sector collaboration. Implementation of studies to analyze financial needs in sectors such as energy, transport, agrobusiness, etc., and to discuss results with energy efficiency institutional stakeholders.
- 3.2.1 Activity 4. Institutional strengthening. Implementation of in-house training courses for Bancoldex and first floor market players such as: financial Institutions, insurance companies, technology providers, validators, among others.
- 3.2.2 Activity 5. Dissemination of lesson learned. Documentation of experiences, case studies, best practices and lessons learned throughout the implementation of the CTF project.

#### IV. Indicative Budget

Component / Activity	Total Funding US\$
<b>Component 1</b>	<b>350,000</b>
Activity 1: Creation of pipeline	50,000
Activity 2: Success fees	300,000
<b>Component 2</b>	<b>650,000</b>
Activity 1: Partial guarantee mechanisms	150,000
Activity 2: Insurance for financial risk mitigation	150,000
Activity 3: Cross sector collaboration	100,000
Activity 4: Institutional strengthening	150,000
Activity 5: Dissemination of lesson learned	100,000
<b>Total</b>	<b>1,000,000</b>

#### V. Executing Agency and Executing Structure

- 5.1 As per the request of the Government of Colombia, the TC will be executed by Bancoldex (Component 1), and by the IDB (Component 2), through IFD/CMF. Bancoldex will be responsible for Component 1 and will lead the necessary arrangements for proper execution as the activities are in line with its core business. The activities in Component 2 require the combination of research and creation of dialogue between public and private stakeholders in the financial system of Colombia and the energy efficiency sector. The IDB will execute the contracts and consultancies for the analytical work and the coordination among several parties in Component 2. This is justified given the nature the activities, which require deep understanding of the subject of energy efficiency financing, and the ability to summon stakeholders at a national level.

#### VI. Major Issues

- 6.1 Given that the work proposed by this TC is highly technical, there is a risk of not obtaining good quality results if the work carried out by consultants is not properly monitored. For this reason, peer reviewers will be asked to review the products developed. In addition, part of the CT resources would be allocated to generate consultations with technical and services providers before the design/consultancy products are finalized to ensure that they reflect the concerns of key stakeholders and are of high quality.