



ANNUAL REPORT 2020

Driving investment in sustainable energy



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INTRODUCTION

OUR MISSION AND VISION

Established in 2001, BASE is a Swiss not-for-profit foundation and a Specialized Partner of United Nations Environment.

Our mission at BASE is to develop innovative, actionable financial strategies and market-driven solutions to unlock investment in sustainable energy and to tackle climate change. Around the world, we work with all markets and segments including those that are challenging and underserved.

Our vision is a world where markets are transformed, and sustainable energy and climate change solutions are the norm, not the exception.

OUR APPROACH

BASE combines expertise in technology, markets, economics, finance and business development to deliver effective solutions for every project. BASE builds bridges between sectors and actors at the nexus between sustainable energy, finance and international development. BASE seeks deeper solutions beyond the low hanging fruit, including markets that are challenging and underserved. The actionable solutions that we design, develop and implement seek to be disruptive, self-sustaining and replicable.

We develop innovative ideas and tailored market-driven solutions for public and private organisations. This involves more than just making financing available. BASE uses an integrated approach to drive investments in sustainable energy solutions and focuses on strategies that overcome key market barriers.

BASE meets its mission by delivering services in the following three service areas:

- > Financial mechanisms and business models

- > Green financing programmes for financial institutions and others
- > Knowledge products and exchange.

THE PROBLEM

The need to reduce the financing gap to address climate change has never been more urgent.

Investment in low carbon energy, energy efficiency, and climate change adaptation are vastly insufficient to meet the global targets set out in the Paris Agreement and the Sustainable Development Goals. Greenhouse gas emissions are on the rise despite government commitments, which must now increase well beyond current carbon-cutting plans.

USD 110 trillion will be needed for investment in energy efficiency, renewable energy, and the electrification of heat and transport measures to meet the targets agreed upon in the Paris Agreement and limit the rise in global temperatures to well below 2 degrees Celsius above pre-industrial levels. This amount is significantly higher than the USD 95 trillion in currently stated commitments for climate actions from Paris Agreement signatory countries.

The financing needed to achieve stated and new goals is available from public and private sources but is not currently being effectively channelled to sustainable energy and climate change efforts. A recent Climate Policy Institute report indicates that mobilised climate finance in 2018 was only USD 546 billion. As a result, an average of USD 3.3 trillion of financing is required annually to stay on track for collectively realising the international climate objectives.



HIGHLIGHTS OF 2020

The year 2020 was marked by the unprecedented COVID-19 pandemic, which has given rise to unparalleled economic, political and social challenges. The crisis highlighted the shortcomings of energy access efforts and their impact on health.

Despite this, in 2020, BASE worked closely with the United Nations Environment Programme, development agencies, development banks and other partners from around the world to pursue its mission. BASE and its partners launched several new initiatives, growing our portfolio of projects and shifting many activities to the virtual format.

BASE worked in the following countries:

- > Africa: Ghana, Nigeria, Rwanda, Senegal and South Africa.
- > Asia: India and Lebanon.
- > Europe: Belgium, Italy, Portugal, The Netherlands, and Spain.
- > Latin America: Argentina, Bahamas, Barbados, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Grenada, Jamaica, Mexico, Panama, Paraguay, Peru, Saint Lucia and Uruguay.

The map provides an overview of the country programmes by BASE and partners. In the following section, a selection of BASE's highlight programmes of the year of 2020 is presented.

BASE'S 2020 WORK AROUND THE WORLD



BASE'S PROGRAMMES

FINANCING RENEWABLE ENERGY



BASE develops innovative business models and financing mechanisms to unlock investment in renewable energy solutions for rural and urban areas, commercial, public and residential sectors.



RENEWABLE ENERGY

INDIA RENEWABLE ENERGY IN BUILDINGS PROGRAMME

Supporting the integration of renewable energy in buildings in India.

DESCRIPTION

BASE is part of the project consortium led by the International Institute for Energy Conservation (IIEC) to design, demonstrate and monitor innovative, building-integrated renewable energy technologies suitable and affordable for local conditions, and applicable to buildings in India. Two technologies have been selected: biomethanation (biogas) and rooftop solar photovoltaics.

BASE is currently working on the development of business models and financing instruments that can be used to scale up the selected technologies. BASE is supporting IIEC in establishing partnerships between public and private sector agencies in India and Switzerland.

EXPECTED IMPACTS

The programme is expected to demonstrate in two pilot buildings (identified potential buildings: food wholesale enterprise and hospital) the integration of renewable energy technologies, engage technology providers and financing institutions in a business model, and provide financial mechanisms. BASE is also helping formulate guidelines and procedures to facilitate the implementation of the proposed models and financing structures, and drive discussion on building regulation.

PERIOD

2019 - 2021

COUNTRIES

India

PARTNERS

NA

FUNDER

IIEC and SDC

ROLE OF BASE

Providing support in technologies, business models and financing strategies.

BASE'S PROGRAMMES

FINANCING ENERGY EFFICIENCY



BASE develops innovative business models and financing mechanisms to mobilise investments in energy efficiency, including sustainable cooling solutions, for enterprises, public buildings and households.



ENERGY EFFICIENCY

ENERGY SAVINGS INSURANCE EUROPE

Scaling up investments in energy efficiency in SMEs in Europe.

DESCRIPTION

BASE received funding from the European Commission's Horizon 2020 Programme for replicating the ESI model, a mechanism developed by BASE and already operational in Latin America (in partnership with the InterAmerican Development Bank), in Europe.

The project aims to motivate Small and Medium-sized Enterprises (SMEs) in Italy, Portugal and Spain to invest in energy-efficient equipment using a comprehensive strategy that includes mechanisms to reduce risk perception on the return of investment, facilitate financing, and position energy efficiency as an attractive investment opportunity. The model is integrated by different means that include a standardised contract, energy efficiency insurance, project validation processes, suitable financing products, and a detailed marketing strategy.

The ESI Europe project is delivered through the engagement of local insurance companies, financial institutions and a validation entity for each ESI model element to the market. Technology providers and associations of potential clients (e.g. hotel association of Portugal) are then engaged in adopting the ESI model in their transactions. The objective is that technology providers use the ESI model as a tool to convince their clients to invest in energy efficiency. Therefore, the model becomes self-sustaining in the long-term.

A Management Information Systems (MIS) will also be available as part of the project, to register, track the evaluation, monitor, and report energy efficient project investments. It is developed in blockchain, making it one of the first global applications of the technology in energy efficiency.

BASE has created a commercial brand for the ESI Europe project, "GoSafe with ESI", which has been registered at the European Union Intellectual Property Office. The consortium partners in Italy, Portugal and Spain are building the pipeline of energy efficiency investment projects using GoSafe with ESI and also delivering capacity building activities for the



PERIOD

2018 - 2021

COUNTRIES

Italy, Portugal and Spain.

PARTNERS

BCSD, EnergyLab and FIRE.

FUNDER

European Commission

ROLE OF BASE

Programme coordinator



different key actors in the market: technology providers, financial institutions and SMEs.

In 2020, due to the COVID-19 pandemic, the efforts of mobilising investments in energy efficiency in the three countries have been impacted. The consortium shifted to a digital inbound strategy for marketing and promotion, with the creation of additional content and social media accounts to communicate with potential clients and technology providers in Italy, Portugal and Spain in the local languages. The European Commission granted an extension of one additional year for the project duration, to be concluded in January 2022.

The project also includes the development of long-lasting tools for the replication of the ESI model, the ESI Europe toolkit, and communication and dissemination activities through articles, videos and participation in events and webinars.

EXPECTED IMPACTS

The programme is expected to mobilise EUR 62 million during project period, reduce 27,481 tCO₂ emissions a year (93.6 GWh/y of primary energy saved) and engage 1,665 stakeholders to be trained and with increased capacity.



ENERGY EFFICIENCY

RWANDA AND CARIBBEAN COOLING INITIATIVE

Supporting the transition to environmentally friendly and energy efficient refrigeration and air conditioning technologies in Rwanda and the Caribbean.

DESCRIPTION

The Caribbean Cooling Initiative (C-COOL) and Rwanda Cooling Initiative (R-COOL) were launched in early 2018 with the aim to support the transition of these markets to environmentally friendly and energy efficient refrigeration and air conditioning technologies. C-COOL and R-COOL resulted in the creation of National Cooling Strategies including policy recommendations such as for Minimum Energy Performance Standards (MEPS) and labeling, as well as the development of a financial mechanism for the Caribbean and one for Rwanda.

BASE was in charge of developing an effective financing strategy to scale up investment in energy efficient cooling systems in the Caribbean and in Rwanda. Based on findings from market assessments conducted in 2018 and 2019, BASE developed the financial mechanism “Coolease” in Rwanda, and the financial mechanism “Cooling as a Service (CaaS)” in Dominican Republic and Jamaica in collaboration with local, regional and global technology providers, investments funds, and other partners.

Cooling as a Service in the Caribbean

The key implementation partners in Dominican Republic was the global air-conditioning solution provider Daikin Applied Latin America (Daikin) and its local subsidiary SAEG.

In Dominican Republic, the technical, legal, fiscal, economic and financial components of Cooling as a Service were developed in close collaboration with Daikin Applied Latin America and their local Dominican subsidiary SAEG.

In Jamaica, conversations with the Development Bank of Jamaica and other investors, as well as with the local utilities (JPS) showed strong interest to push the model in the country. Initial potential projects, such as the Sangster International Airport, were under consideration in early 2020

PERIOD

2018 - 2020

COUNTRIES

Bahamas, Dominican Republic, Jamaica Barbados, Rwanda and Saint Lucia.

PARTNERS

UNEP and U4E

FUNDER

K-CEP and UNEP

ROLE OF BASE

Lead the development of the financial mechanisms.



when the pandemic inhibited opportunities to leverage the mechanism. The key local partners including CAC Jamaica and CABEF are continuing to refine and present the solution to potential customers, mainly in the hotel sector, with the intention to pilot the model in the country. A toolkit including contractual arrangements, economic models, funding structures and explanatory documentation were developed and made publicly available to enable stakeholders from other countries within and beyond the scope of C-COOL to implement the models. Events, workshops and webinars were organised to raise awareness and build capacity about the financial mechanism.

Coolease in Rwanda

In Rwanda, BASE engaged the Business Development Fund of Rwanda (BDF) and the Green Fund of Rwanda (FONERWA) to develop the financial mechanism Coolease in collaboration with local, regional and global technology providers, and other partners. The leasing product for energy efficient air-conditioning and refrigeration was designed within BDF's leasing unit and the Green Guarantee Fund by FONERWA was positioned to support the mechanism. The funding structure, internal processes and eligibility criteria for the mechanism were defined with BASE' support. The Coolease financial mechanism for commercial customers was met with a lot of enthusiasm, as the launch meeting included Minister of Environment Dr. Vincent Biruta who gave opening remarks, C-level executive representatives from the government and the private sector, including the development bank of Rwanda, investment funds, commercial banks, utilities and technology providers with thorough press coverage.

BDF and FONERWA have a strong interest in piloting the mechanism, and through 2020 have refined a working plan to anchor, set up and operationalise the leasing unit, onboarding coolease as one of the products. BDF has taken ownership of the coolease product, ensuring continuity beyond the R-COOL program and successful roll-out.

EXPECTED IMPACTS

The programme put in place a financing strategy that is able to scale up investments in energy efficient cooling systems, and engage financial institutions and technology providers. The program is expected to mobilise funding to energy efficient cooling systems and reduce CO2 emissions.



ENERGY EFFICIENCY

COOLING AS A SERVICE INITIATIVE

Scaling up investments in clean and energy efficient cooling systems .

DESCRIPTION

BASE has been leading the Cooling as a Service (CaaS) Initiative, launched in 2018, with the aim to scale up the adoption of clean and efficient cooling. The CaaS Initiative is part of the efforts supported by the Kigali Cooling Efficiency Program (K-CEP) to phase-out harmful cooling refrigerants from the market.

The CaaS model developed by BASE allows customers to pay a fixed fee per unit of service consumed, without the need to invest in or to take any risk related to the performance of the equipment. Meanwhile, the ownership of the system remains with the technology provider, who remains responsible for all operating costs. The model is designed to overcome key market barriers while aligning the incentives of businesses, the people and the planet, and also incentivising a circular economy. The model includes financial structures to recapitalise CaaS providers.

In 2020, BASE implemented the following components:

- > BASE has developed tools to enable companies to adopt the model. A toolkit composed of a standardised contract and pricing model, as well as explanatory material, are available for free on the CaaS website. The toolkit was downloaded by 220+ organisations in 2020. BASE has been working with technology providers and investment funds to test the model in Latin America, Africa, and Asia in a variety of sectors and industries, from industrial refrigeration and commercial air-conditioning to off-grid cold storage for agricultural and healthcare applications. BASE launched the CaaS Incubator programme in 2020, onboarding 5 companies located in Argentina, Costa Rica, Grenada, India and Nigeria to implement the model in their operations.
- > BASE has created partnerships with different actors to establish the CaaS Alliance, which today includes more than 50+ organisations, including global, regional and local technology providers such as Daikin, Johnson Controls, Trane; investment funds such as Respons-



PERIOD

2018 - 2021

COUNTRIES

India, Mexico and South Africa.

PARTNERS

NA

FUNDER

K-CEP

ROLE OF BASE

Programme coordinator



Ability and SDCL; and networks such as the World Green Building Council and the World Bank's ESMAP to help raise awareness about the model.

- > The programme includes the goal to spread the word about the model and build capacity through events, workshops, webinars, publications (articles, case studies), audiovisual material (podcasts, videos) and collaborations with networks. BASE organised a physical CaaS match-making event in Cape Town, Africa in March 2020. On 1 December, BASE hosted the Global CaaS E-Summit, exposing the value of servitisation in cooling and beyond. The Summit welcomed 1100+ registrations, and recorded 16 hours of content from 50 speakers. BASE also released a video together with BBC Storyworks showcasing CaaS, and launched the CaaS website presenting several case studies, explanatory material including the CaaS 2-min video, and frequent news and articles. The CaaS initiative and the model attracted significant attention at a global scale and were referenced in publications from sources including the World Economic Forum and the Economist Intelligence Unit.

The endorsement of the model by the Global Innovation Lab for Climate Finance (The Lab) in 2019 also continued to play an important role in 2020 to increase the visibility of the Initiative.

EXPECTED IMPACTS

The programme is expected to mobilise USD 15-45 million towards energy efficient cooling through pilot and demonstration projects. The programme is also expected to further mobilise USD 10-30 million within 5 years after the project period.

So far, CaaS projects implemented by partners of the CaaS Alliance since the CaaS Initiative was launched have saved a total of 12'600tCO₂ per year from energy efficiency improvements. CaaS projects expected to be implemented in 2019/2021 by CaaS incubator companies and other companies that BASE supported are projected to save a total of 5'850tCO₂ per year from energy efficiency improvements.



ENERGY EFFICIENCY

RWANDA COOLING FINANCE INITIATIVE

Supporting the transition to energy-efficient and climate-friendly domestic refrigeration and room air conditioning solutions in Rwanda.

DESCRIPTION

BASE is working alongside United for Efficiency (U4E) initiative and partnering with Rwanda Environment Management Authority (REMA), Rwanda Energy Group (REG), and Energy Utility Corporation Limited (EUCL) to deploy Rwanda Cooling Finance Initiative On-bill financing (RCOOL On-bill). The initiative endeavours to scale up investments in new energy-efficient and climate-friendly domestic refrigeration and room air conditioning solutions in Rwanda, prepared as part of the second phase of the Rwanda Cooling initiative (R-COOL).

R-COOL FI On-bill financing is an innovative mechanism that allows Rwandan households to obtain green loans from partner financial institutions and facilitates low-risk credit recovery through their electricity bills. RCOOL On-bill includes complementary components, notably the proper disposal of used appliances, product testing, monitoring and verification, policy considerations, and awareness campaigns.

RCOOL On-bill overcomes key barriers such as the burden of upfront investment, and thus reduces the need for stringent credit assessment and collaterals. A simple review of bill payment history, electricity consumption and other basic information is used to determine eligibility for financing. RCOOL On-bill is a one-stop solution for the EUCL's electricity utility residential customers. It helps them connect with partner local financial institutions and vendors who both act as credit facilitators, undertake the initial processing of the customer information and application, aligned with RCOOL On-bill eligibility criteria and requirements set by REMA.

RCOOL On-bill was launched during an inception mission to Rwanda in June 2019 with key government agencies and stakeholders. A presentation of the mechanism was done in front of an executive audience including CEOs of REG, EUCL and the Minister of Environment. In the successive months, a market assessment including an extensive household

PERIOD

2018 - 2020

COUNTRIES

Rwanda

PARTNERS

UNEP, U4E and BRD

FUNDER

K-CEP and UNEP

ROLE OF BASE

Leading development of the financial mechanism.



survey was conducted to identify the barriers and opportunities for domestic cooling in the residential sector. In December 2019, key findings were presented informing the proposed design of RCOOL On-bill. The concept was validated during in-country stakeholder consultations with public institutions, technology providers, and local financial institutions.

By December 2020, RCOOL On-bill was successfully operationalised. It was agreed that REMA will be playing the lead compliance role and sustaining the programme in the market beyond the technical assistance project. Banks and Vendors' Terms and conditions for participation, Measurement, Reporting and Verification (MRV) guidelines, as well as product and customer application processes were fully developed and finalised. In addition, a credit scoring formula including customer credit eligibility criteria was successfully tested and validated with EUCL, and potential partner local financial institutions and vendors were engaged and applied to join the programme in 2021.

EXPECTED IMPACTS

The programme expects to unlock USD 1 million in financing from local partner financial institutions through the mechanism, and finance about 3000 energy efficient and climate-friendly refrigerators or AC units by 2024. 250kg of harmful refrigerant and foam blowing gases are expected to be removed and the programme shall reach potential savings of energy consumption of up to 376'000 kWh/year by 2024. This would lead to achieving a total amount of indirect CO₂ emissions saving of 177 tonnes/year of CO₂ and a total lifetime amount of direct CO₂ emissions saving of 5'318 tonnes of CO₂ by 2024.



ENERGY EFFICIENCY

ECOFRIDGES INITIATIVE IN WEST AFRICA

Supporting the adoption of clean and energy efficient domestic refrigerators and room ACs in Ghana and Senegal.

DESCRIPTION

As part of K-CEP's 3rd window, BASE is working alongside UNEP's United for Efficiency (U4E) initiative and partnering with the governments of Senegal and Ghana to design, develop and implement innovative financial mechanisms for residential sector to accelerate the switch to energy-efficient and climate-friendly domestic refrigeration and room air conditioning solutions in the region.

In Ghana, ECOFRIDGES Green On-wage financing (GO) is a bank loan product designed to address the short to medium term financing needs of public and private sector employees through salary deductions to support the replacement of used but operational equipment with a certified cooling systems solution without the burden of upfront investment and the need for collaterals. The employer entity is the guarantor of the salaried customer's loan and the mechanism reduces the need for stringent credit assessment and collaterals.

In Senegal, ECOFRIDGES On-bill financing gives consumers the option to finance the purchase through monthly deductions on their prepaid electricity meter payments. With the support from AEME, BASE and U4E secured a partnership with the public electricity utility - SENELEC and kickstarted the operationalisation of the mechanism in 2020.

By December 2020, both ECOFRIDGES GO and ECOFRIDGES Senegal were successfully operationalised. On the one hand, standardised agreements including terms and conditions for participation, measurement, reporting and verification guidelines, as well as product and customer application processes were fully developed and finalised with the respective partner government institutions (i.e. AEME, DEEC, and Energy Commission) who will be playing lead compliance roles and sustaining the programs in the respective markets beyond the technical assistance project. On the other hand, partners successfully developed, tested, and finalised customer credit eligibility criteria, structured concessional green loan products, set up credit facilities, and signed finance and partnership



PERIOD

2018 - 2021

COUNTRIES

Ghana and Senegal

PARTNERS

UNEP, U4E, AEME, DEEC, and Energy Commission.

FUNDER

K-CEP and UNEP

ROLE OF BASE

Leading development of financial mechanism



agreements through the programs.

ECOFRIDGES GO was launched in October 2020 with the Energy Commission, selected partner local financial institutions (i.e. CalBank, Eco-bank, Letshego), and participating vendors. ECOFRIDGES Senegal is expected to be launched in Q2 2021. Both programs will be available to end-customers throughout 2021.

EXPECTED IMPACTS

ECOFRIDGES GO and ECOFRIDGES Senegal expect to unlock USD 25 million in financing from partner local financial institutions through the mechanisms and finance about 35'000 energy efficient and climate friendly refrigerators or AC units by 2024. 2'500kg of harmful refrigerant and foam blowing gases are expected to be removed and the programs shall reach potential savings of energy consumption of up to 9'500 MWh/year by 2024. This would lead to achieving a total amount of indirect CO2 emissions saving of 4'000 tonnes/year of CO2 and a total lifetime amount of direct CO2 emissions saving of 70'000 tonnes of CO2 by 2024



ENERGY EFFICIENCY

EFFICIENCY AS A SERVICE INITIATIVE

Unlocking investment in energy efficiency through servitisation in Europe.

DESCRIPTION

In June 2020, BASE launched the Efficiency as a Service (EaaS) project along with AGORIA, ANESE and Innoenergy, funded by the European Union's Horizon 2020 research and innovation programme. The project aims to develop and deploy the servitisation (or pay-per-use) model and a financial structure to enable the transition and accelerate the market adoption of energy-efficient solutions by Small and Medium-sized Enterprises (SMEs) in Belgium, the Netherlands and Spain. EaaS builds on the learnings and tools developed by CaaS, going further beyond to cover all clean and efficient equipments, and tailor the model to the European market.

The programme includes several components:

- > Establishing and mainstreaming the servitisation financial model by standardising its key components (enabling tools) accessible to stakeholders. This includes providing a standardised servitisation contract in each target country, putting an economic and pricing modelling tool in place, and establishing a financing structure for the capitalisation of technology providers.
- > Building a pipeline of energy efficiency investments in each country that will serve as demonstration projects to attract the interest of key stakeholders. This implies engaging technology providers, financial institutions and funds, organising investors roundtables and matchmaking events between investors, technology providers and SMEs.
- > Institutionalising the servitisation model by establishing agreements and work programmes with national centres that can expand and support local stakeholders in the long-term to raise awareness among technology providers, financial organisations, and clients on the benefits of servitisation contracts for energy efficiency.



PERIOD

2020 - 2023

COUNTRIES

Belgium, The Netherlands and Spain

PARTNERS

AGORIA, ANESE, Innoenergy.

FUNDER

European Commission

ROLE OF BASE

Programme coordinator



By the end of 2020, BASE and partners finalised a market assessment for each of the target countries to gain a deep understanding of the supply and demand for energy efficiency finance, and to identify the most promising sectors to focus the programme and the technologies that would be prioritised.

BASE and partners also developed the standardised servitisation contractual arrangement (legal, taxes, servitisation framework), which helps technology providers transition from a typical sale of an energy efficiency project to a pay-per-use contract. Additionally, it provides a clear and transparent contractual framework that comprises and regulates all important aspects of servitisation and ensures a balanced agreement between a customer and a provider.

EXPECTED IMPACTS

The programme is expected to mobilise EUR 42.7 million during the project period by implementing 505 servitisation projects, reducing 14,253 tCO₂ emissions a year (27 GWh/y of primary energy saved).



ENERGY EFFICIENCY

EFFICIENCY FOR SMES IN COLOMBIA AND PERU

Mobilising SME investment in environmental efficient technologies in Colombia and Peru.

DESCRIPTION

The project aimed to design a financing instrument for each country to support and motivate Small and Medium-sized Enterprises (SMEs) in Peru and Colombia to invest in energy efficiency. The financing strategy aims to transform the market, provide a sustainable strategy and engage technology providers, government and financial institutions.

BASE supported the Swiss State Secretariat for Economic Affairs (SECO) to structure and successfully leverage the funding of SECO with other investors to a total of USD 45 million. BASE held workshops with actors in Colombia and Peru to discuss and receive feedback on the proposed national strategies. Both of the strategies proposed have been very well accepted by the key market actors and the local public authorities, and there is a strong interest in their implementation.

In Colombia, a payment guarantee was proposed to motivate the providers to offer servitisation model for SMEs to facilitate access to energy efficiency equipment. The government of Colombia has committed to leverage the funds of SECO and manage the payment guarantee.

In Peru, a credit guarantee was proposed to facilitate access to credit to SMEs to acquire energy efficiency and other environmentally friendly technologies.

SECO has approved the funds to start developing and implementing the financing instrument in Peru in 2020; the financing instrument in Colombia is on-hold until further notice. BASE will support the development and implementation phase of the instrument in Peru.

EXPECTED IMPACTS

The programme is expected to mobilise USD 70 million and reduce 83,000 tCO₂/yr.

PERIOD

2020 - 2022

COUNTRIES

Colombia and Peru

PARTNERS

NA

FUNDER

SECO

ROLE OF BASE

Programme lead

BASE'S PROGRAMMES

FINANCING ELECTRIC MOBILITY



BASE develops tailor-made business models and financing mechanisms, working closely with the public sector, to make investment in hybrid and electric mobility solutions in cities more attractive to investors.



ELECTRIC MOBILITY

FINANCING FOR ELECTRIC BUSES IN SAN JOSE

Supporting the government of Costa Rica in developing business models and financing mechanisms for the massification of electric buses.

DESCRIPTION

BASE is supporting the Inter-American Development Bank (IDB) and the Presidency of Costa Rica on the transition programme of the current diesel bus fleet into electric. The programme has been divided in two stages:

The first stage of the project provides technical assistance for the implementation of a pilot test programme of 11 electric buses by providing technical guidelines to the involved operators on vehicle specifications based on technical evaluations such as road and route characteristics, operational logistics and charging infrastructure. The guidelines include an economic evaluation to justify each option and a protocol to standardise proposed tests.

During 2020, the team developed a manual with recommendations on vehicle safety specifications. Accordingly, they performed on route evaluations with GPS equipment to estimate the energy consumption of the electric buses, and thereby determine the implementation feasibility along selected routes. However, since transportation services were heavily impacted by reduction in demand due to the COVID-19 pandemic, the results obtained indicated a high level of uncertainty. The team recommended reconducting evaluations once the passenger demand stabilised in order to capture the real cost and efficiency of the vehicles. The project is expected to resume by the second semester of 2021.

The second stage of the project provides short-, medium- and long-term business models and financial mechanisms for the transition and massification of electric buses in the country. The road map was proposed alongside three technical reports on market and policy, financial and economic evaluations, business models, and risk mitigation instruments.

EXPECTED IMPACTS

For the first stage, the project is expected to mitigate uncertainties in electric technology and enable the investment of USD 4 million for the

PERIOD

2019 - 2020

COUNTRIES

Costa Rica

PARTNERS

NA

FUNDER

IDB

ROLE OF BASE

Leading the technical and financial expertise.



purchase of 11 electric vehicles.

For the second stage (currently finalising), the programme supported the development of enabling instruments such as the low energy tariff for electric buses and the extension of current concessions from 7 years to 15 years to make the investment feasible. Furthermore, the technical recommendations have accelerated the implementation of the electronic collection system and identified a group of transport companies capable of investing on an extended pilot project of 81 vehicles to increase information on operation and infrastructure.

The implementation of the road map, aligned with government plans and objectives, will enable the investment of USD 25.2 millions by 2024 and transform the entire transport fleet into electric by 2036. These targets require an investment of approximately USD 1.3 billion for the implementations of 4,117 buses, consequently reducing approximately 180,000 tCO₂ per year.

If Costa Rica's government and institutions accelerate the transition stage, it is highly likely that the country will follow the steps of Colombia, where BASE's support in 2019 was key to the implementation of approximately 1,500 electric vehicles by 2020 in Bogota.

BASE'S PROGRAMMES

CLIMATE FINANCE



BASE supports financial institutions and others to access climate finance and develop effective green finance products for climate change mitigation and adaptation.



CLIMATE FINANCE

GREEN CREDIT LINES IN LATIN AMERICA

Developing a green climate financing facility for financial institutions in Latin America.

DESCRIPTION

BASE supported CAF – the Development Bank of Latin America – to develop a Green Climate Fund (GCF) proposal for 16 local financial institutions in six different countries across Latin America. BASE has designed the programme and the financing structure for the project.

After a long evaluation process, the Funding Proposal “Green Climate Financing Facility for Local Financial Institutions in Latin-America” has been approved by the Board of the GCF.

The Programme will provide LFIs with access to a green finance credit line. It will also implement four grant-funded sub-components with a focus on education, awareness raising and technical support. This includes matchmaking between LFIs, technology service providers, and solution providers (e.g., MSMEs and farmers), performance-based payments for solution providers, technical support and capacity building, and monitoring and reporting.

BASE continues to support different organisations and public authorities in accessing climate finance, and to strengthen its experience and track record in this type of support.

EXPECTED IMPACTS

The core objective of the Programme is to reduce GHG emissions in Latin America by 10.7 million tonnes of carbon dioxide equivalent (MtCO₂eq) in emissions, through locally financed and developed climate change projects for MSMEs in the renewable energy, energy efficiency and land use sectors.

The total value of the project is \$150.2 million, of which \$95 million is structured as loans and \$5.2 million as grants. This project is expected to mobilise investment of around USD 200 million.

PERIOD

2017 - 2020

COUNTRIES

Chile, Ecuador, Panama, Paraguay, Peru and Uruguay

PARTNERS

Unique

FUNDER

CAF

ROLE OF BASE

Leading the full GCF proposal



CLIMATE FINANCE

REVOLVING LOAN FUND FOR EFFICIENCY IN COSTA RICA

Supporting CABEI (Central America Bank for Economic Integration) to design a financial strategy to scale up energy efficient equipment in public buildings.

DESCRIPTION

BASE is supporting the UNEP, the Central American Bank for Economic Integration (CABEI) and the Ministry of Environment and Energy of Costa Rica to design a revolving loan fund for the project development of a market for energy efficient lighting, air conditioners and refrigerators in Costa Rica. The project aims to accelerate improvements in energy efficiency under public procurement programs and to reduce energy consumption and CO2 emissions.

The design of the energy efficiency revolving loan fund (EE-RLF) will include the assessment of the legal, financial and operational aspects of the revolving loan fund to ensure the sustainability of small, medium and large-scale replacement programs in the public sector and the deployment of accounting, auditing and control systems to ensure its transparency.

During 2020, the market study and the legal pre-feasibility analysis for the proposed business models were completed. The market study identified a potential energy savings in the public sector of approximately 323 GWh/year, 50% of the energy consumed by the market segment with an average paid back: Lighting (3.25 years), air conditioning (3.8 years) and refrigeration (7.5 years).

The legal analysis has demonstrated a variety of laws and regulations governing public procurements and public credit in Costa Rica. Even though it is possible for public entities to take traditional loans or leasing, the procedures are long and, in most cases, unknown as financing is not the traditional path to procure energy efficiency projects for the public sector. Currently, the team is identifying fast track alternatives through agreement frameworks, the new law of public procurement (under approval by the legislative assembly) or by proposing an executive regulation that enables mechanisms such as servitization.

PERIOD

2018 - 2021

COUNTRIES

Global

PARTNERS

NA

FUNDER

UNEP

ROLE OF BASE

Providing expertise in developing a financial strategy and a revolving fund.



EXPECTED IMPACTS

It is expected for the revolving fund to reach the 380 registered public institutions including central government, municipalities and decentralized institutions. During the pilot stage the projects will be financed by CABEL using USD 1 million as incentive to support public entities in replacing inefficient equipment by high efficient systems. The development of the financial mechanism will unlock a potential investment of approximately USD 294 millions required to finance efficient lighting, air conditioning and refrigeration and will reduce the electricity consumption and emissions of the market segment by 50%, 323 GWh/year and 11,800 tCO₂ respectively.



CLIMATE FINANCE

GREEN NEIGHBOURHOOD APPROACH IN LEBANON

Designing a financing strategy to finance green neighbourhoods in Lebanon and engage the public and private sector in providing services and financing.

DESCRIPTION

BASE is developing a proposal to the Green Climate Fund (GCF) that aims to put in place financial support and implement a Programme that supports neighbourhoods in Lebanon to transform into green neighbourhoods. The programme would include a strategy to engage the private sector, municipalities and households. Furthermore, it aims to engage with and work in close collaboration with the local utility to align current initiatives, efforts and regulation (e.g. Electricite du Liban net metering policy).

The general objective of this initiative is to design a programme to support high-densely populated (lower-middle income) Lebanese neighbourhoods to become more resilient to negative impacts caused by climate effects. In this way, they can be enabled, as community centres, to reduce Greenhouse Gas (GHG) emissions, drive climate action, partake in sustainable development, and generate the conditions to improve the well-being of their population. The project will also support the economy to build back greener and better after the Covid-19 health and economic crisis.

The funding proposal aims to build a programme that provides mitigation and adaptation measures that can be replicated and scaled up to different densely populated cities in Lebanon.

EXPECTED IMPACTS

The programme is expected to develop a market assessment and a financing strategy and business model that is able to provide mitigation and adaptation measures for high density populated neighborhoods in Lebanon. The funding proposal will be put in place to be evaluated by the GCF in 2022. The GCF Proposal is expected to be somewhere between USD 30-50 million.

PERIOD

2019 - 2020

COUNTRIES

Lebanon

PARTNERS

UNEP, Lebanese Center for Energy Conservation, Politecnico di Milano

FUNDER

UNEP

ROLE OF BASE

Leading the writing of the GCF proposal and the market assessment.



CLIMATE FINANCE

GREEN CREDIT LINES FOR SMES IN PANAMA

Supporting a commercial bank in Panama in the development of their green and SME financial strategy.

DESCRIPTION

The overall objective is to support a commercial bank based in Panama, St. George Bank, on strengthening their sustainability policy, environmental and social risk management system, propose credit strategy for Small and Medium-sized Enterprises (SME), as well as the identification and management of green investments in that segment.

BASE has supported the bank in the following:

- Design and implement simplified SME credit analysis and approval processes in St. Georges;
- Design a Sustainability Policy and a Corporate Sustainability Plan that sets out the general vision, the long-term objectives and the actions that must be carried out by the bank in the short and mid-term;
- Design processes for identifying green investments in SMEs;
- Analyse and propose policies, processes, and risks to improve the identification and management of social, environmental and climatic risks associated with SMEs;

EXPECTED IMPACTS

The Bank is already implementing the Sustainability Policy and a Corporate Sustainability Plan that was proposed to the Bank Board by the BASE team.

The Bank has been implementing the proposed changes to address SME and green financing. Due to COVID-19, the implementation has been slow.

PERIOD

2019 - 2020

COUNTRIES

Panama

PARTNERS

NA

FUNDER

IDB Invest

ROLE OF BASE

Programme lead



CLIMATE FINANCE

GREEN CREDIT LINES FOR SMES IN GUATEMALA

Supporting a commercial bank in Guatemala in the development of their green and SME financial strategy.

DESCRIPTION

The overall objective of the project is to support a commercial bank based in Guatemala, Banco Industrial, with strengthening their sustainability policy, enhancing their environmental and social risk management system, proposing credit strategy for Small and Medium-sized Enterprises (SME), as well as helping with the identification and management of green investments in that segment.

BASE has been working with the bank in the following :

- Design and implement simplified SME credit analysis and approval processes in St. Georges;
- Design a Sustainability Policy and a Corporate Sustainability Plan that sets out the general vision, the long-term objectives and the actions that must be carried out by the bank in the short and mid-term;
- Design processes for identifying green investments in SMEs;
- Analyse and propose policies, processes, and risks to improve the identification and management of social, environmental and climatic risks associated with SMEs;

EXPECTED IMPACTS

The programme expects the bank to implement sustainability policies, incorporate social and environmental aspects in its risk assessment, strengthen access to credit for SMEs in Guatemala, establish a process to build the green portfolio of the Bank and put in place Measurement, Reporting and Verification (MRV) of greenhouse gas (GHG) mitigation. Additionally, it aims to build the capacity of key staff to implement recommendations, and raise awareness and interest to implement a dedicated green financing product. It is expected that the bank will build a green portfolio in 2022.

PERIOD

2020 - 2021

COUNTRIES

Guatemala

PARTNERS

NA

FUNDER

IDB Invest

ROLE OF BASE

Programme lead



VISIBILITY

Communication has increasingly become a priority for BASE's work.

Through our media engagement, social media and events, we provide a platform to share news of our projects and sustainable energy and climate change solutions around the world.

WEBSITE AND SOCIAL MEDIA

BASE maintains an up-to-date website and corporate social media accounts. These channels provide an opportunity to communicate success and promote the work that BASE does around the world.

Our social media platforms continued to share daily news, data and stories of success to a combined audience across LinkedIn and Twitter.

In 2020, BASE gained 1,694 followers on LinkedIn, reaching 2,942 corporate LinkedIn followers, and had a total of 116,624 impressions. On Twitter BASE gained 172 followers, reaching a total of 679, and had a total of 124,516 impressions

BASE has also increased its use of videos and other visual products to deliver information about our projects. This year BASE realised a short film on the global impact of Cooling as a Service, produced by BBC StoryWorks Commercial Productions as part of WorldGreen BC's collective of films on green buildings, "Building a Better Future". All the videos can be found on our Youtube channel.

EVENTS AND PUBLICATIONS

In 2020 alone, more than 100 news articles were tracked referencing BASE and/or our projects around

the world. Coverage throughout the year appeared in influential publications such as the World Economic Forum and Carbon Brief. BASE has also contributed to reports such as: SEforALL's "Sustainable cold chains needed for equitable COVID-19 vaccine distribution" and SSF's "Financing the low-carbon economy: instruments, barriers and recommendations".

Due to the COVID pandemic, many of the events have been postponed or cancelled. Nevertheless, BASE still was able to use critical moments and events in 2020 to deliver key messages on our projects and the need of investment on sustainable energy and climate change solutions.

- > BASE presented at Conferencia Internacional sobre Ciudades Sostenibles (CICS2020) to share practical experiences of innovative business models to unlock investments in energy-efficient equipment for sustainable buildings.
- > BASE presented at the EXPO Construir LATAM virtual event the Cooling as a Service initiative and how this innovative business model can improve sustainability in buildings.
- > BASE presented at the "Cities Climate Action Projects" webinar organised by the World Green Building Council about net zero carbon buildings and the role of buildings to help achieve the SDGs and the Paris Agreement.
- > BASE presented at the digital Industrial Efficiency 2020 conference organised by the European Council for an Energy Efficient Economy (eceee).

Besides participating in several events, in 2020 BASE put a lot of efforts in organising webinars and virtual events to communicate and disseminate its projects.



PARTNERSHIPS

Partners are essential to our solutions.

Our work would not be possible without the support and collaboration of our excellent partners. Together we deliver effective solutions to each project and address the complex challenges of climate change and sustainable energy.

TESTIMONIALS

A few words from our partners...

"In a warming world, access to sustainable cooling is not a luxury. It is an issue of equity and a service that must be delivered to all to achieve SDG7. BASE continuously demonstrates how innovative business models and financial mechanisms can support access to sustainable and affordable cooling solutions for the most vulnerable."

Damilola Ogunbiyi, CEO and Special Representative of the UN Secretary-General for Sustainable Energy for All and Co-Chair of UN-Energy

"Solutions are urgently needed that help scale up affordable climate-friendly cooling. This requires addressing financial needs and thinking about how to meet customer cooling needs. The BASE Cooling as a Service (CaaS) initiative does exactly this and in just over a year has become the most important and impactful CaaS effort globally. More companies both buying and selling cooling can reap the benefits of CaaS, and in the process pollution of our precious climate can be drastically cut."

Dan Hamza-Goodacre, Executive Director of Kigali Cooling Efficiency Programme (K-CEP).

"BASE's support of the Cooling as a Service Alliance has been instrumental in moving this innovative business model towards the tipping point of market adoption. The education and advocacy platform from 2019 has provided a solid foundation to launch application tools and case studies in 2020 making it easier than ever before to adopt sustainable cooling practices all across the globe."

Justin Taylor, CEO of Kaer

"BASE was instrumental in supporting the development of the key elements of the Energy Savings Insurance (ESI) Program and over the last years has been a strong IDB ally for the consolidation and expansion of ESI to several countries in different regions."

Maria Netto, Financial Markets Principal and Climate Change Specialist at the IDB

"BASE's work on Servitisation brings a key component to achieve Systemic Efficiency in the built environment. We look forward to further our collaboration with BASE in implementing innovative climate finance solutions to accelerate the path to Net-Zero Carbon Cities."

Kristen Panerali, Head of Electricity Industry at WEF



OUTLOOK OF 2021

In order to address the targets set out in the Global Sustainable Development Goals and the Paris Accords to the United Nations Framework Convention on Climate Change, continued efforts and new innovations will be needed in order to scale investment in sustainable energy and climate change solutions.

Thus, in 2021, BASE will formally broaden its mandate from sustainable energy to include all climate change solutions. This reflects the growing global need to scale up financing for adaptation, and the rising importance of climate change mitigation in other sectors including land use and agriculture. This change also reflects our ambition to bring what we have learnt about innovative financing for sustainable energy, to address the challenges of climate change adaptation, and land use sector climate change mitigation.

- > BASE is using the insights from its work in 2020, combined with important lessons learned from each of our projects, to further focus our activities in 2021.
- > BASE will explore and develop new innovations, and knowledge sharing and exchange products in the field of financing mechanisms and business models for sustainable energy and climate change solutions.
- > BASE will strengthen its communication and social media presence to enable further outreach.
- > BASE will develop and explore new partnerships, to gain access to new opportunities and to build new successful projects.

BASE is seeking new projects and the following list provides a summary of the initiatives currently being

planned or pursued by BASE for 2021:

- > BASE was awarded funding for the European Commission Horizon 2020 programme to expand the ESI Europe model to another three European countries: Croatia, Greece and Slovakia. This project will explore the use of blockchain technology and smart contracts for energy efficiency.
- > BASE was awarded the Inclusive Growth and Recovery Challenge by data.org partnership with the Rockefeller Foundation and the Mastercard Center for Inclusive Growth. BASE will create an open access, data- science-based mobile application: Your Virtual Cold-Chain Assistant, to enable smallholders access sustainable cooling facilities and pre and post harvest expertise and market intelligence
- > BASE was awarded by Convergence Finance a feasibility study grant, for the development of a remittance-based financing vehicle that aims to advance climate action and sustainable infrastructure development in the Pacific Islands.
- > BASE will provide technical services for the implementation of Green Climate Fund Readiness projects with CTCN through the UNEP on national frameworks for leapfrogging energy efficient appliances and equipment in Malawi, Namibia, Zambia, and Zimbabwe.
- > In 2021, BASE will continue to look for opportunities to develop new climate finance innovations, in particular in new fields of adaptation, agriculture and digitalisation and to roll out its flagship initiatives in new markets where they have the potential to have a positive impact.





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