

# CLIMATE INVESTMENT FUNDS

CTF/TFC.22/4  
January 8, 2019

---

Meeting of the CTF Trust Fund Committee  
Ouarzazate, Morocco  
Thursday, January 31, 2019

**CTF RESULTS REPORT**

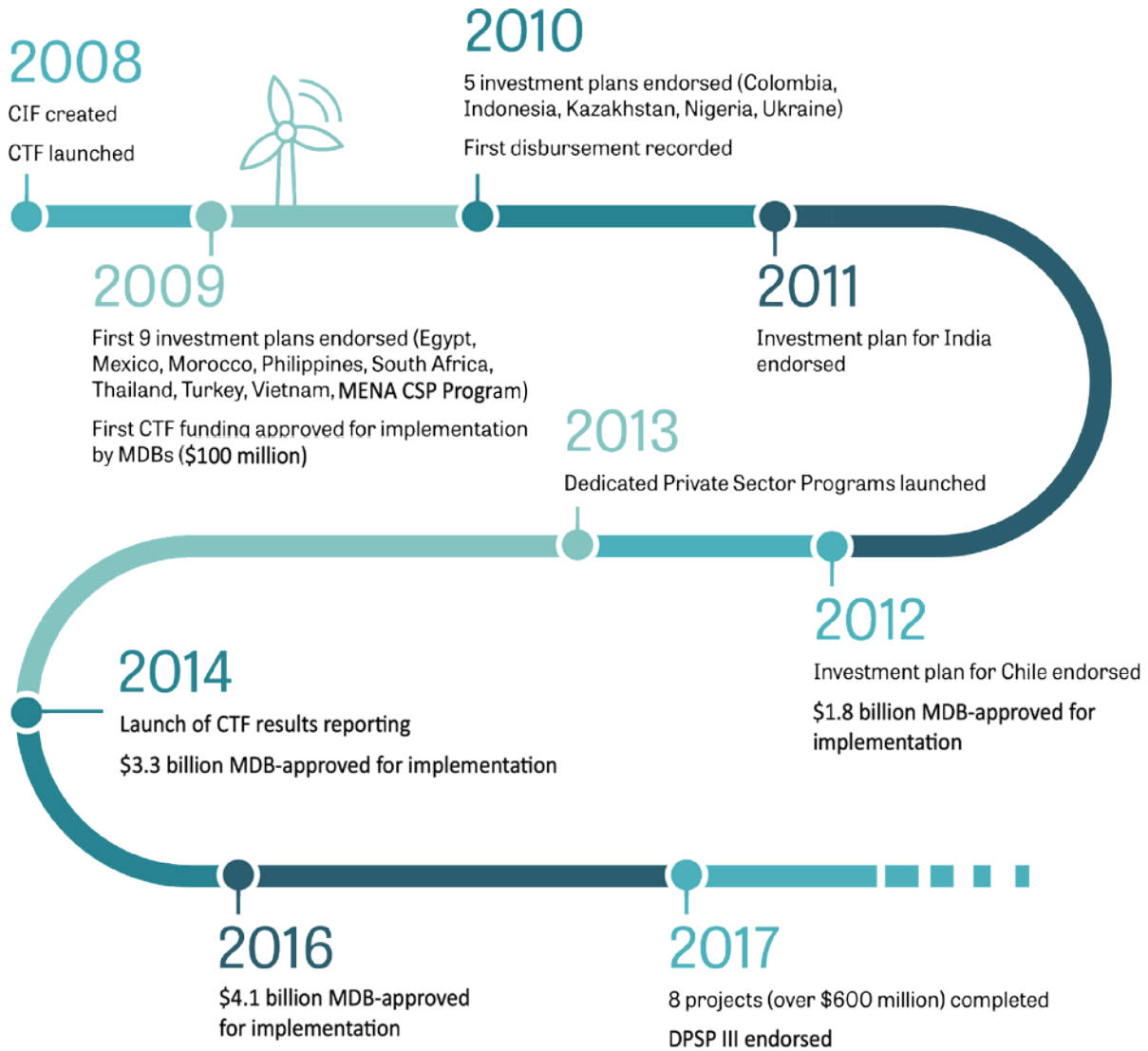
**PROPOSED DECISION**

The CTF Trust Fund Committee reviewed document, CTF/TFC.22/4, CTF Results Report, and welcomes the progress that has been made in implementing CTF-financed activities leading to results on the ground.



4	Introduction
10	Global Overview
13	Co-benefits Highlights
14	Lessons from Completed Projects
26	Results Progression
28	Private and Public Sector
30	Topics of Further Interest
32	Data Annexes

## Clean Technology Fund Timeline



The Clean Technology Fund (CTF) provides scaled-up financing to contribute to the demonstration, deployment, and transfer of low carbon technologies with a significant potential for long-term greenhouse gas emissions (GHG) reductions. It provides concessional financing, channeled through six partner multilateral development banks (MDBs), to large-scale, country-led projects and programs in renewable energy, energy efficiency, and sustainable transport. CTF supports countries and regions through strategic investment plans, including 15 country investment plans, one regional program (concentrated solar power in the Middle East and North Africa), and three phases of the Dedicated Private Sector Programs (DPSP).

### Countries

This CTF Results Report is based on results originating from projects and programs in the following countries: Chile, Colombia, Egypt, Haiti<sup>1</sup>, Honduras<sup>2</sup>, India, Indonesia, Kazakhstan, Mexico, Morocco, Nicaragua<sup>3</sup>, Nigeria, Philippines, South Africa, Thailand, Turkey, Ukraine, and Vietnam.

For the purposes of this report, these countries are grouped into the following regions (with the number in parentheses denoting the number of CTF projects in each location):

- *Africa (AFR)*: Egypt (1), Morocco (5), Nigeria (1), South Africa (4)
- *Asia (ASIA)*: India (7), Indonesia (4), the Philippines (6), Thailand (3), Vietnam (3)
- *Europe and Central Asia (ECA)*: Kazakhstan (5), Turkey (9), Ukraine (8)
- *Latin America and the Caribbean (LAC)*: Chile (4), Colombia (9), Haiti (1), Honduras (1), Mexico (8), Nicaragua (1)

### Scope

This report is based on 85 MDB-approved projects/programs reporting over a one-year period<sup>4</sup> (the complete set of MDB-approved projects) and is divided into three main sections: a global overview of the results across the five core indicators, followed by details on a regional and public-private sector basis, and finally, topics that may be of further interest to the readers based on findings of the current reporting cycle, including lessons from fully disbursed projects. Within the set of 85 reporting projects/programs (amounting to USD 4.7 billion in CTF funding), the World Bank has the largest share of CTF-funding at 33 percent of the total funding allocation,<sup>5</sup> followed by the Asian Development Bank (ADB) (19 percent), African Development Bank (AfDB) (17 percent), Inter-American Development Bank (IDB) (13 percent), European Bank for Reconstruction and Development (EBRD) (10 percent), and the International Finance Corporation (IFC) (8 percent).

By funding, the CTF portfolio consists of 71 percent renewable energy projects, 14 percent energy efficiency projects, 10 percent transport projects, and 5 percent combined renewable energy/energy efficiency projects, as shown in Figure 1. Funding is split approximately two-thirds for public sector projects and one third for private sector projects. By region, Asia has the largest share of funding, at 33 percent, while Africa has 28 percent, Latin America and the Caribbean 20 percent, and Europe and Central Asia 19 percent.<sup>6</sup>

<sup>1</sup> Haiti is a non-CTF country but has benefited from CTF through DPSP.

<sup>2</sup> Honduras is a non-CTF country but has benefited from CTF through DPSP.

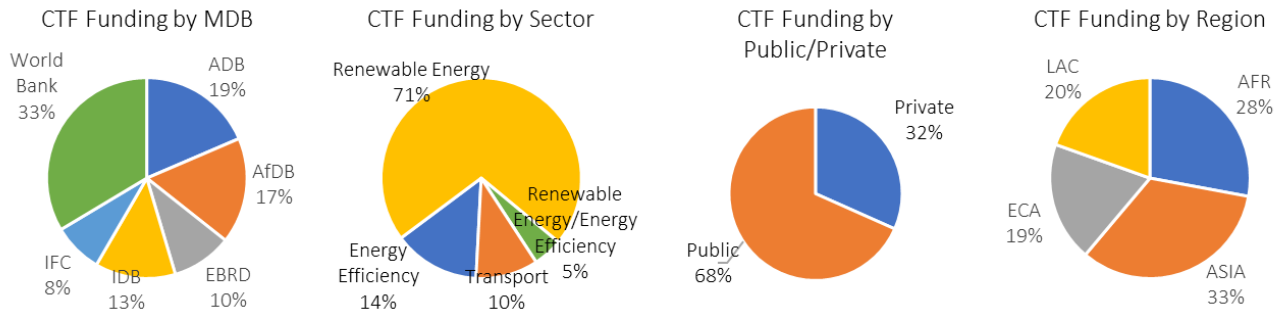
<sup>3</sup> Nicaragua is a non-CTF country but has benefited from CTF through DPSP.

<sup>4</sup> Reporting year: Depending on the MDB, the reporting year “RY2018” covers the period from January 1, 2017 to December 31, 2017 (AfDB, ADB, EBRD, IDB, and IFC) or July 1, 2017 to June 30, 2018 (IBRD).

<sup>5</sup> These percentages differ from those listed in the CTF Semi-Annual Operational Report (SAR) as the set of projects represented by the two reports differs: the CTF Results Report is based on eligible MDB-approved projects reporting results, and SAR is based on Trust Fund Committee-approved projects.

<sup>6</sup> See note 5.

**Figure 1: Distribution of CTF MDB-approved funding by MDB, sector, public/private, and region**



## Approach

The results presented herein are based on the [CTF Revised Results Framework](#)<sup>7</sup>, which includes the following core indicators measured at the project level and reported on annually:

- Tons of greenhouse gas emissions reduced or avoided (tCO<sub>2</sub>e)
- Volume of direct finance leveraged through CTF funding, disaggregated by public and private finance (USD million, USD M)
- Installed capacity as a result of CTF interventions (Megawatt, MW)
- Number of additional passengers, disaggregated by men and women if feasible, using low carbon transport as a result of CTF intervention (passengers per day)
- Annual energy savings as a result of CTF interventions (Gigawatt hours, GWh)

Each project and program is also required to identify and report on at least one indicator for a development co-benefit. It may include, but is not limited to, access to energy or health and employment co-benefits, preferably disaggregated by gender.

The MDBs collect results data on an annual basis following the [CTF Monitoring and Reporting Toolkit](#)<sup>8</sup> and using a template provided by the CIF Administrative Unit. The template lists indicators for projects and programs approved by the corresponding cut-off date for reporting. The MDB completes these by July 31 each year. The data are then collated, clarified, analyzed, and presented in the Results Report.

## Summary of progress

The following graphic summarizes progress for the CTF portfolio, broken down by indicator and region. Total CTF investments of USD 4.7 billion have mobilized a cumulative total of USD 18.4 billion in co-financing. These investments have resulted in a cumulative 51.0 MtCO<sub>2</sub>e in GHG emissions reductions since the first projects were approved in 2009. In addition, CTF investments have resulted in 4.8 GW of installed renewable energy generation capacity, 4,439 GWh in annual energy savings<sup>9</sup>, and 487,188 passengers per day using low carbon public transit.

<sup>7</sup> See <https://www.climateinvestmentfunds.org/documents/revised-ctf-results-framework>

<sup>8</sup> See [https://www.climateinvestmentfunds.org/sites/cif\\_enc/files/knowledge-documents/ctf\\_monitoring\\_and\\_reporting\\_toolkit\\_version\\_4.6\\_\\_0.pdf](https://www.climateinvestmentfunds.org/sites/cif_enc/files/knowledge-documents/ctf_monitoring_and_reporting_toolkit_version_4.6__0.pdf)

<sup>9</sup> Results for RY2018, Annual energy savings differ by year as the portfolio matures.

# Where do we stand?

Total CTF investments of



have mobilized co-financing of



Resulting in



in GHG emissions reductions, and



of renewable energy installed capacity



in annual energy savings



additional passengers per day using low-carbon public transit

2018 CTF Results Report

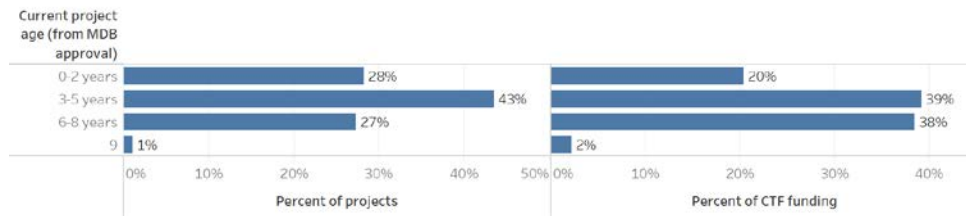
Note: The first projects in the portfolio were approved in 2009, while the most recent were approved in 2017. Therefore, the time period covered by these results (particularly cumulative emissions reductions, co-financing, and installed capacity results) varies from RY2009-RY2018 (for the oldest projects) to RY2018 alone (for the newest).



## Portfolio maturity

The first CTF projects to be MDB-approved reached this milestone in 2009, and the most recent in RY2018. The relative maturity of projects impacts achieved results, with older projects typically closer to achieving targets than younger projects. Figure 7 shows the age from MDB approval of the CTF portfolio, by project count and by funding amount. The majority of projects (by count) are in the three to five-year age range, with slightly smaller portions in the zero to two-year range and over six-year range.

Figure 7: CIF portfolio maturity by project and funding amounts



## Key points

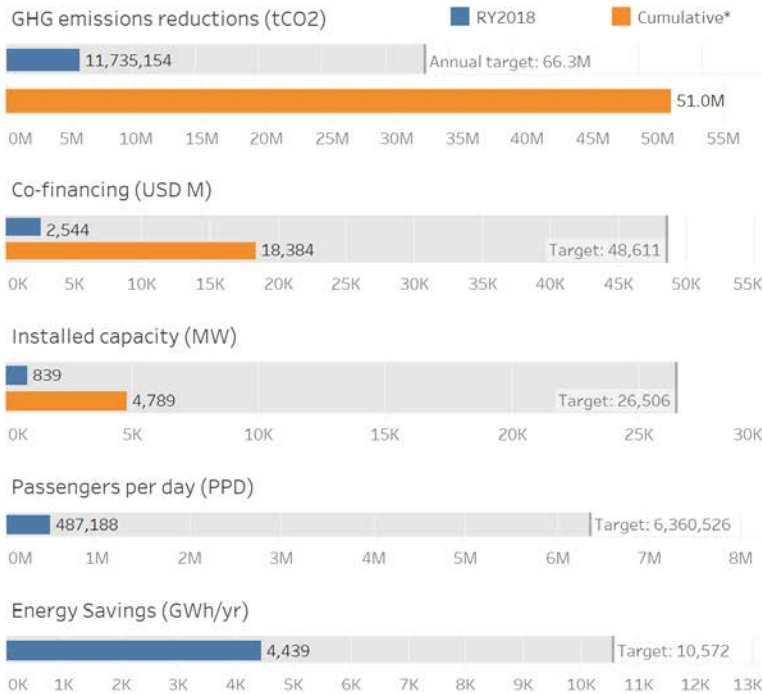
- **Indicators:** Tons of greenhouse gas emissions reduced or avoided (tCO<sub>2</sub>e) and volume of direct finance leveraged through CTF funding are core indicators that every project and program must report on, while reporting on installed capacity, number of additional passengers using low carbon transport, and annual energy savings depends on the nature of the project (i.e., whether the project involves renewable energy, transport, or energy efficiency measures).
- **Reporting:** Projects report indicators according to the best available information. In some cases, information is based on direct measurements or evidence, such as MW of installed capacity. In other cases, it is based on ex-ante engineering estimates (e.g., number of houses built, multiplied by estimated energy savings per house). In many cases, data are obtained through a combination of direct measurements and ex-ante estimates. Results reporting may change from one year to the next as better information becomes available.
- **Reporting year (RY):** Reporting year, abbreviated “RY” throughout the report, refers to the one-year reporting period associated with that year. RY2018 is the most recent reporting year and refers either to July 1, 2017-June 30, 2018 or January 1, 2017-December 31, 2017, depending on the reporting cycle of the MDB.
- **Actuals:** Actuals refers to the actual results reported by a project for the latest 12-month reporting period. Actual (cumulative) refers to total (actual) results since the project started reporting results.
- **Targets:** In case of GHG reductions or energy savings, targets refer to amounts expected to be achieved on an annual basis (although GHG reductions have a corresponding lifetime target as well). For other indicators, targets refer to absolute results expected to be achieved during the course of the project. The words “target results” and “expected results” are used interchangeably. They refer to a mix of targets for public sector projects (from MDB board-approved documents) and for private sector programs (from Trust Fund Committee (TFC)-approved documents).
- **Co-financing:** Different MDBs take different approaches to reporting on actual co-financing. This includes establishing milestones when MDBs recognize co-financing and identifying the relevant co-financing amounts. While some MDBs report the full amount once a project is approved by the respective board, others do not report until the project reaches financial close or starts operation. Some co-financing figures may not be reported for confidentiality reasons.
- **GHG reductions:** MDBs use harmonized methodologies for estimating GHG emission reductions, but aggregated data are subject to further refinement as MDBs continue developing these harmonized methodologies.

- *Co-benefits indicators:* For more holistic insight into the impact of CTF funding, co-benefit indicators have been included, which look beyond the primary required indicators. These have been aggregated and presented on a regional level and only include results from those projects that have reported these (60 percent of all projects covered in this report). Co-benefits vary by project and may include indicators like reduced local air pollution and employment.
- *Analysis:* The analysis is based on both annual (for the latest RY) as well as cumulative results reported as of the current period. The graphs on cumulative emissions reductions, as well as sources of co-financing and installed capacity by technology are based on cumulative results reported thus far.
- *Online reporting:* Results data from RY2018 will be uploaded to the [CTF's results database](#)<sup>10</sup>, an online platform that provides convenient open access to CTF results data since 2016. It builds on the World Bank Open Data platform. The development of a single, integrated system for CIF project data collection and results reporting (the CIF Collaboration Hub or CCH) continues to progress. The beta version of this integrated platform is under detailed review.

---

<sup>10</sup> See <https://finances.worldbank.org/Projects/2017-Climate-Investment-Funds-Clean-Technology-Fun/kjmm-ifbk>

## CTF portfolio results summary



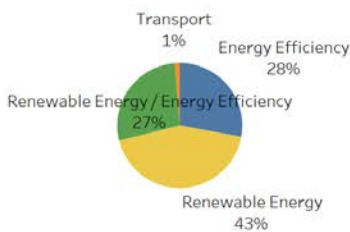
Countries with CTF projects



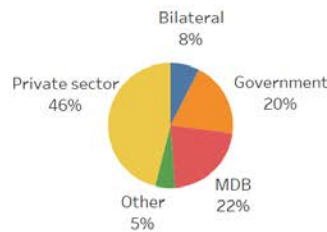
(GHG reductions/ Energy savings) Targets ANNUAL  
(Co-financing/ Installed capacity) Targets CUMULATIVE  
(PPD) Passengers per day UPON IMPLEMENTATION

\*Cumulative numbers cover the period 2009-present

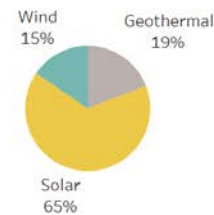
GHG reductions (tCO<sub>2</sub>) by source, annual (RY2018)



Co-financing by source (US\$M), annual (RY2018)



New installed capacity (MW), annual (RY2018)



**2.3 million**  
cars off the road  
in 2018

### GHG emissions reductions

With 32 of the 85 projects reporting achieved<sup>12</sup> annual results in RY2018 (see Annex 1 for full results), annual GHG emissions reductions for RY2018 total 11.7 MtCO<sub>2</sub><sup>13</sup>, equivalent to taking 2.3 million cars off the road.<sup>14</sup> Cumulatively, projects have resulted in 51.0 MtCO<sub>2</sub> in GHG emissions reductions. Almost half of projects and programs (36 of 85) are resulting in GHG emission reductions. As shown in the Figure 2, the majority of

<sup>11</sup> The overall count of projects has remained the same as in RY2017, as one project was cancelled, and one project that had been previously included in reporting was not MDB approved by deadline.

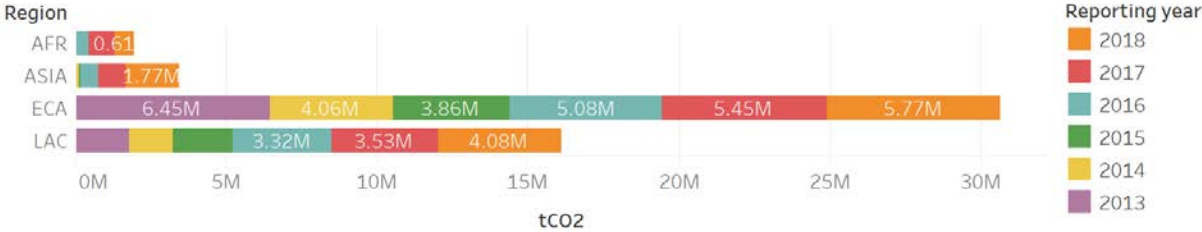
<sup>12</sup> For the purposes of this report, “achieved” refers to projects that have reported actual results for the indicator in question that are more than zero.

<sup>13</sup> Throughout this report, MtCO<sub>2</sub> refers to million tons of CO<sub>2</sub>.

<sup>14</sup> Source: US EPA Greenhouse Gas Equivalencies Calculator <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

cumulative emissions reductions can be attributed to projects in Europe and Central Asia with 60 percent and the Latin America and the Caribbean region (LAC) with 29 percent.

**Figure 2: GHG emissions reductions by year and region (tCO<sub>2</sub>)**



RY2018 GHG emissions reductions are attributable primarily to renewable energy projects (43 percent), followed by energy efficiency projects (28 percent), combined renewable energy/energy efficiency<sup>15</sup> (27 percent), and transport (1 percent). As in RY2017, almost half of RY2018 GHG emissions reductions came from just two projects: the Private Sector Renewable Energy and Energy Efficiency Project in Turkey (World Bank) with 27 percent of the total and Renewable Energy Financing Facility in Mexico (IDB) with 15 percent.<sup>16</sup> The Private Sector Renewable Energy and Energy Efficiency Project in Turkey also performs well cumulatively, producing 39 percent of the cumulative GHG emissions reductions of the portfolio, followed by the Efficient Lighting and Appliance Project in Mexico (World Bank), which has produced 8 percent of cumulative GHG emissions reductions.<sup>17</sup>

**USD 2.5Bn**  
in RY2018  
co-financing,  
equal to the GDP  
of **Bhutan**

**Co-financing**

In total, on a cumulative basis (2009-2018), 30 percent of over \$18 billion in co-financing has been provided by MDBs, and 20 percent by both governments and the private sector. Bilateral institutions have provided 14 percent, and other organizations<sup>18</sup>, 15 percent.

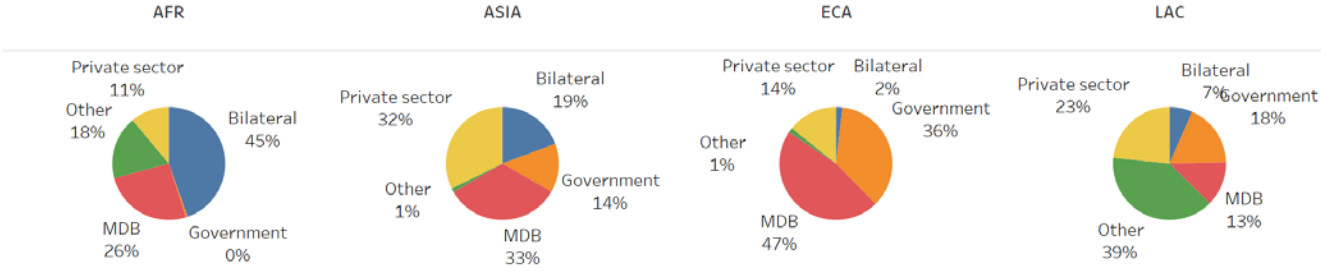
RY2018 co-financing amounted to USD 2.5 billion over a one-year period, equivalent to the GDP of Bhutan. The largest portion of RY2018 funding was from the private sector. During RY2018, one project, the Shared Infrastructure for Solar Parks project in India (IBRD), leveraged USD 870 million in total financing or 34 percent of the reporting year’s total.

Sources and amounts of co-financing vary by region, as shown in Figure 3. Cumulatively, Africa has received the largest portion of funding from bilateral institutions, while Asia and Europe and Central Asia have received most of their cumulative co-financing from MDB sources, and LAC from the private sector. Bilaterals comprised the majority of co-financing for the AfDB- and IBRD-implemented renewable energy facilities in Morocco, and therefore account for a large share of the total co-financing leveraged in the Africa region. In Asia, relatively large contributions by the private sector to the Shared Infrastructure for Solar Parks project in India (IBRD) and by MDBs in the Distribution Efficiency project in Vietnam (IBRD) drive the distribution of co-financing in the region. In Europe and Central Asia, more than one-third of the overall total was contributed by government sources to the Turkish Private Sector Renewable Energy and Energy Efficiency project (IBRD). One third of the

<sup>15</sup> Renewable energy/energy efficiency projects include those that support both renewable energy and energy efficiency activities.  
<sup>16</sup> These projects are in the 90<sup>th</sup> and 75<sup>th</sup> percentile of CTF project funding amounts respectively, which partially accounts for their large contribution to overall annual GHG emissions reductions for the portfolio. They were also both approved in FY2009, making them some of the most mature projects in the portfolio.  
<sup>17</sup> These two projects contribute a large share of overall results partially because of their maturity (they were approved in 2009 and 2010 respectively and have both reached completion).  
<sup>18</sup> Other institutions include, for example, the European Investment Bank, KfW, and the EU Neighborhood Investment Facility.

total co-financing for the LAC region was leveraged from Other sources for the Mexico Renewable Energy Program (IDB) account for the large share that this category contributes to overall co-financing for the region.

**Figure 3: Cumulative co-financing by region and source**



As indicated in Figure 4, LAC leveraged the largest amount of co-financing on a cumulative basis (USD 5.3 billion), while Asia leveraged the most in RY2018 (USD 1.4 billion). ECA is closest to achieving the co-financing target, at 66 percent of the cumulative target level.

**Figure 4: Cumulative and RY2018 co-financing by region compared to target levels (US\$ Million)**



**Installed capacity**

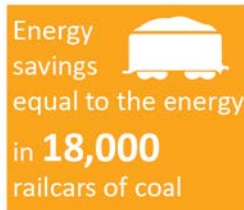
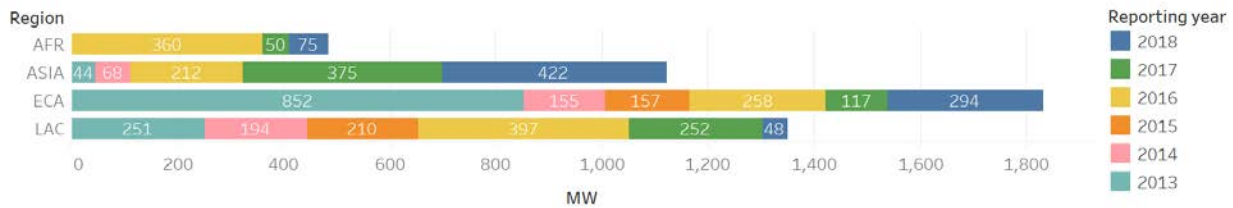
Of the 56 CTF projects with an installed capacity target, 27 have reported achieved results for this indicator. The total, cumulative installed capacity across the portfolio of CTF projects is 4,789 MW, equivalent to the total installed capacity of Croatia.<sup>19</sup> Of the total cumulative installed capacity, 839 MW came online in the RY2018 reporting cycle. To date, 18 percent of the target installed capacity has been implemented with 934 MW of that capacity from the Turkish Private Sector Renewable Energy and Energy Efficiency Project (World Bank).

For RY2018, the largest amount of installed capacity is in the solar sector, with 549 MW in RY2018. Wind accounts for the largest portion of cumulative installed capacity at 1,802 MW overall.

Figure 5 shows cumulative installed capacity by region and reporting year. Europe and Central Asia has the largest amount of cumulative installed capacity (38 percent). Asia brought online the largest amount of installed capacity in RY2018 (50 percent). The largest single contributor to RY2018 installed capacity was the Shared Infrastructure for Solar Parks project in India (World Bank) at 250 MW.

<sup>19</sup> 4.9 GW in 2016, the most recent value at US EIA, 2018. <https://www.eia.gov/beta/international/data/browser/>

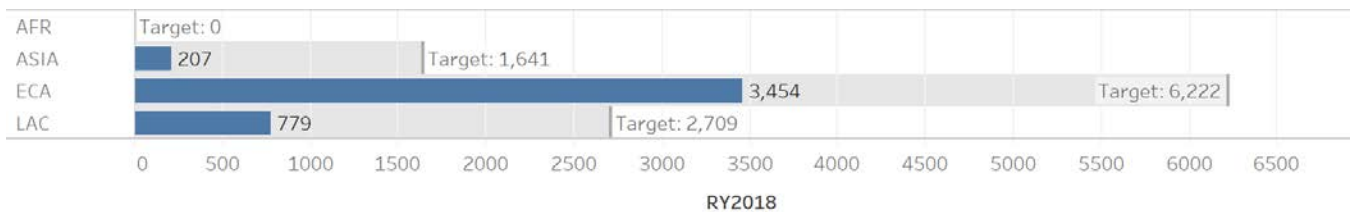
**Figure 5: Installed capacity by region and reporting year (MW)**



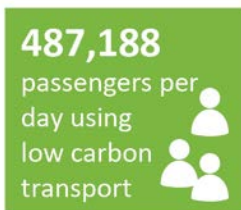
### Energy Savings

Twenty-nine CTF projects have a target for energy savings, and 16 have reported achieved results for this indicator. Energy savings for CTF-financed projects in RY2018 totaled 4,439 GWh, the amount of energy produced from burning more than 18,000 railcars worth of coal<sup>20</sup>. These reported energy savings were primarily in Europe and Central Asia (78 percent). The Private Sector Sustainable Energy Financing Facility (TurSEFF) project in Turkey (EBRD) accounts for the largest portion of RY2018 energy savings at 34 percent of the total, followed by the Private Sector Renewable Energy and Energy Efficiency Project in Turkey (IBRD) at 32 percent. Aggregated over the entire portfolio, annual energy savings are at 42 percent of the target level. As shown in Figure 6, Europe and Central Asia the closest to achieving regional target energy savings at 56 percent of the target level.

**Figure 6: Energy savings by region (GWh)**



### Passengers per day



Of the nine projects with passengers per day targets, two reported achieved results in RY2018<sup>21</sup>. The Technological Transformation Program for Bogota's Integrated Public Transport System (BOGOTA SITP) in Colombia (IDB) and the Mexico Urban Transport Transformation Project (World Bank) reported 487,188 passengers per day using low carbon transport in RY2018. Overall, the portfolio is at 8 percent of the target level.

### Co-benefits highlights:

In addition to the five core CTF indicators, MDBs have designated dozens of environmental, social, and other co-benefits expected to result from CTF projects. Co-benefits are selected based on the individual project's anticipated impacts<sup>22</sup> and include the following:

<sup>20</sup> <https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

<sup>21</sup> These two projects were approved in FY2010 and RY2014, while the remainder of the projects were approved later on average (RY2012, RY2015, RY2016, and RY2017)

<sup>22</sup> Between one and ten co-benefits indicators are designated for each project. Where available, details on a project's targeted co-benefits can be found in official project documents. There is no mandated reporting of results for co-benefits indicators. See <https://www.climateinvestmentfunds.org/projects>

- Employment
- Energy security
- Annual reductions in fossil fuel imports
- Number of firms implementing new performance-based energy contracts
- Commercial/industrial sites implementing self-supply renewable solutions with direct CTF support
- Reductions in operating costs
- Reduction of local pollutants and resulting public health improvements
- Reduction in oil imports
- Increased competitiveness of the corporate/SME sector
- Increased capacity of the local banking sector to finance commercial investments in sustainable energy
- Demonstration of commercial viability of sustainable energy finance
- Improved financial sustainability of state-owned utilities
- Reduction in electricity cost
- Diversification of country energy mix
- Continuing support to sector reform and contribution to government objectives
- Increased local manufacturing through local content requirements
- Fostering rural development and involving communities
- Participation by historically disadvantaged citizens and marginalized regions
- Improved access to finance
- Better quality housing
- Strengthening local manufacturing capacity
- Improving the reliability of electricity supply
- Reduction of traffic accidents and congestion
- Reduced power losses
- Increased access to electricity

### Lessons compiled from projects with Implementation Completion Reports

Some fully-disbursed projects have reached closure and an Implementation Completion Report (ICR) or Project Completion Report (PCR) for the project has been prepared.<sup>23</sup> These documents are designed to satisfy accountability needs and provide lessons from completed operations. In some cases, an independent review of an ICR (an ICR review or ICRR) is also completed. The following lessons can be drawn from all three types of documents.

There were six projects for which at least one type of completion document was prepared and shared with the CIF Administrative Unit. Among these documents, at least two common themes are present: the need for strong policy/institutional support on the partner side and monitoring and evaluation (M&E) support on the side of the international financial institution (IFI). Four<sup>24</sup> of the six projects had documents that specifically mentioned the need for technical cooperation and capacity building around M&E activities and suggested the need for an institution responsible for ensuring consistent M&E design, standards, and activities across IFIs and borrowers. Three<sup>25</sup> of six projects cited strong government support—in the form of supporting policies and institutions that were implemented or created prior to project commencement—as a reason for success.

Figure 9 lists projects for which an Implementation Completion Report has been prepared and shared with the CIF Administrative Unit. The following section details lessons learned in each project, drawing from ICRs and ICRRs (in the case of World Bank projects) and PCRs (for IDB projects).

<sup>23</sup> ICRs are completed shortly after completion of an operation and are circulated to the respective MDB Board within six months of a project's closing date.



<sup>24</sup> Turkey: Private Sector Renewable Energy and Energy Efficiency Project; MENA CSP: Ouarzazate I Concentrated Solar Power Project; Mexico: "Ecocasa" Program (Mexico Energy Efficiency Program Part II); and Mexico: Renewable Energy Program, Proposal III

<sup>25</sup> Turkey: Private Sector Renewable Energy and Energy Efficiency Project; Mexico: Efficient Lighting and Appliances Project; MENA CSP: Ouarzazate I Concentrated Solar Power Project

Figure 9: Summary of CTF projects with an ICR, ICRR, or PCR

Project	Region	Sector	Public/Private	CTF/Total resources (USD M)	Unique attributes
Turkey: Private Sector Renewable Energy and Energy Efficiency Project	ECA	Renewable Energy and Energy Efficiency	Public	100M/1,400	
Mexico: Efficient Lighting and Appliances Project	LAC	Energy Efficiency	Public	50/663	
India: Development Policy Loan to Promote Inclusive Green Growth and Sustainable Development in Himachal Pradesh	ASIA	Renewable Energy	Public	100/NA	Demonstration case for development policy lending
MENA CSP: Ouarzazate I Concentrated Solar Power Project	AFR	Renewable Energy	Public	97/853	Public-Private Partnership
Mexico: "Ecocasa" Program (Mexico Energy Efficiency Program Part II)	LAC	Energy Efficiency	Public	52/250	Received the ALIDE Green Award and Momentum for Change UNFCCC
Mexico: Renewable Energy Program, Proposal III	LAC	Renewable Energy	Public	71/2,530	

### Turkey: Private Sector Renewable Energy and Energy Efficiency Project (World Bank)<sup>26</sup>

**Sector:**  Renewable Energy and  Energy Efficiency

**Private/Public:** Public

**Project development objective:** The project goal was to help increase privately owned and operated energy production from indigenous renewable sources<sup>27</sup> within the market-based framework of the Turkish Electricity Market Law and enhance energy efficiency, thereby helping to reduce greenhouse gas emissions.

**Mechanism:** The project consisted of a single component designed to use World Bank (USD 500 million) and CTF (USD 100 million) resources to provide credit lines to two financial intermediaries in Turkey—the Turkish Development Bank (TKB) and Turkish Industrial Development Bank (TSKB)—to finance renewable energy and energy efficiency investments (“sub-projects”).

<sup>26</sup> Sources: <http://documents.worldbank.org/curated/en/799701498842988254/Turkey-Private-Sector-Renewable-Energy-and-Energy-Efficiency-Project> and <http://documents.worldbank.org/curated/en/670411510945091527/Turkey-PVT-SECTOR-RE-and-EE>

<sup>27</sup> As opposed to foreign and/or fossil fuel sources.



**Achievement of objectives:**

Objective	Efficacy rating
To help increase privately owned and operated energy production from indigenous renewable sources within the market-based framework of the Turkish Electricity Market Law	Substantial
To enhance energy efficiency	Modest
To reduce GHG emissions	Substantial

**Outcome rating:** Satisfactory

**ICRR lessons learned**

- Policy and regulatory support is essential for credit lines to have a transformational and sustainable impact.** While the project successfully addressed the key constraint of a lack of availability of long-term finance, conducive policies on the part of the Government, such as the Feed-In Tariff (FiT) regime and purchase guarantees, were essential to create demand among project sub-sponsors for investment in renewable energy and energy efficiency. Similarly, the development of solar capacity was supported by an amendment in 2013 of Turkey's Unlicensed Generation Regulation, exempting small solar power generation (capacity of up to 1 MW) from licensing obligations, and making them FiT eligible. More specific policy and regulatory support (e.g., through a streamlining of permits and licensing) under the project would have further improved the impact of the credit lines by helping to remove barriers for less prevalent technologies, which in turn could have helped attract more commercial financing.
- Credit lines can be made more effective with technical assistance (TA),** especially to enable project participants to meet safeguards requirements. Financial intermediaries are likely to have different levels of capacity, so TA provided in parallel with the participation of other donors can usefully complement the bank's own capacity building activities (e.g., in the carrying out of energy audits and feasibility studies). TA provided to the private sector and government can be useful in stimulating a broader interest in project activities (e.g., in energy efficiency), and in disseminating results, which may encourage the participation of other commercial lending institutions. If TA is financed in parallel by other donors, as was the case in this project, continued coordination with these donors is needed to ensure the TA is complementary to the bank's own capacity building activities.
- Specific guidance (in the Project Appraisal Document and the Operations Manual) is needed for M&E to ensure consistency across FIs involved.** If multiple FIs are involved in a project, specific guidance should be provided in the Operations Manual on M&E methodologies and assumptions to ensure consistent use of results indicators.

**Mexico: Efficient Lighting and Appliances Project (World Bank)<sup>28</sup>**

**Sector:**  Energy Efficiency

**Private/Public:** Public

**Project development objective:** The project goal was to promote Mexico’s efficient use of energy and to mitigate climate change by increasing the use of energy-efficient technologies at the residential level.

**Mechanism:**

Component 1: Replacement of incandescent bulbs (IBs) with compact fluorescent lamps (CFLs) in the low and medium residential sector (total cost: USD 70 million, of which World Bank funded USD 55 million, Government of Mexico (GoM) funded USD 15 million). CFL replacement program comprised the purchase and replacement of about 45 million CFLs as well as the collection and proper disposal of the replaced IBs. Approximately 11 million low to middle income households were involved in this program.

Component 2: Incentives to encourage replacement of old and inefficient appliances in the residential sector (total cost: USD 603. million, composed of World Bank USD 195 million, CTF USD 50 million, NAFIN USD 127 million, GoM USD 55 million, and consumers USD 176 million, complemented by a USD 35 million Guarantee Facility (GF), of which USD 30 million was funded by GoM and USD 5 million by GEF.

**Achievement of objectives**

Objective	Efficacy Rating
To promote the borrower’s efficient use of energy and to mitigate climate change by increasing the use of energy efficient technologies at the residential level.	Substantial

**Outcome rating:** Satisfactory

**ICRR lessons learned**

- **Strong government commitment can considerably improve prospects for achieving the project development objective.** Even before project preparation, Mexico had already developed a national strategy that laid the groundwork for implementing energy efficiency and climate change investment programs and took the essential policy and institutional steps to achieve program goals.
- **A full package of financing instruments at design can aid in successful implementation.** The project design included a combination of features, such as financial, institutional, and proportional instruments for addressing barriers to adopting energy efficiency measures. The design incorporated incentives to low income households through concessional financing.
- **Promotional campaigns can be effective in National Energy Efficiency Programs.** An active and sustained promotional program in building awareness of the importance of energy savings proved to be effective in bringing about a change in the way Mexico’s population consumed energy. The campaign engaged the national media outlets in conjunction with household-to-household consumer visits by appliance suppliers.
- **Innovative procurement strategy can aid in making more efficient use of resources.** The awarded contractor was responsible not only for supplying CFLs but also for distributing them through major retail stores and collecting and disposing of the replaced IBs. This approach allowed bidders to benefit from economies of scale.

<sup>28</sup> Sources: <http://documents.worldbank.org/curated/en/770671469672145946/Mexico-Efficient-Lighting-and-Appliances-Project> and <http://documents.worldbank.org/curated/en/959221472852941772/Mexico-MX-Efficient-lighting-and-appliances>

## India: Development Policy Loan to Promote Inclusive Green Growth and Sustainable Development in Himachal Pradesh (World Bank)<sup>29</sup>

Sector:  Renewable Energy

Private/Public: Public

**Project development objective:** The overarching objective of this development policy loan (DPL) was to support the implementation of critical structural, fiscal, and administrative reforms needed to achieve sustainable and rapid economic growth and inclusive development over the medium term, while sustaining the environmental heritage of the state of Himachal Pradesh (HP). The priority areas for the operation were fiscal adjustment and promotion of environmentally sustainable development, with particular reference to the development of hydropower. The overall program also supported reforms to enhance growth and employment, especially in the private sector, and improve governance and public administration.

**Mechanism:** The priority areas for the operation—in accordance with GoHP’s own reform program—were revenue mobilization and expenditure compression, public financial management, debt management, modernization of procurement, improvement of budget execution, transparency, institutional strengthening for better sustainability of hydropower development, catchment area treatments, tourist sector development, environmental planning and management, private sector business environment, governance, and public administration.

### Achievement of objectives:

Objective	Efficacy rating
Achieve fiscal sustainability while creating fiscal space for financing the state's development vision	Modest
Achieve policy and administrative reforms to raise additional revenue, improve efficiency and reduce compliance costs	Modest
Achieve improved composition of public spending over the medium term towards priority growth enhancing areas	Modest
Achieve improved liabilities management and attain debt sustainability	Substantial
Strengthen the financial management architecture of government, delegate greater financial authority to line departments, and improve budget execution	Substantial
Institutionalize an efficient procurement system focused on improving outcomes	Substantial
Strengthen public finance accounting and institutions of accountability oversight	Substantial
Institutionalize development of HPs hydropower potential to address environmental impact and assure greater sustainability	Substantial
Strengthen the state's capacity towards hydropower planning and risk management, utilize and manage hydro revenues, and share benefits with communities	Modest
Increase the internal efficiency of the HPSEB	Substantial
Develop the tourism sector as a prime engine of growth and livelihoods	Modest
Achieve policy and institutional reforms to promote sustainable development and improve protection of environmental assets	Modest
Prevent muck and eroded material resulting from construction from being indiscriminately thrown on the hill slopes	Substantial

<sup>29</sup> Sources: <http://documents.worldbank.org/curated/en/776101468043450015/India-First-Himachal-Pradesh-Development-Policy-Loan-and-Credit-Project> and <http://documents.worldbank.org/curated/en/871231475069801377/India-Himachal-Pradesh-Development-Policy-Loan-1>

Improve service delivery of the public sector training system and facilitate private sector participation in training provision to improve employability of educated youth	Modest
Promote private sector participation and reduce the burden on the state as a provider of employment	Substantial
Reform the civil service and enhance administrative efficiency	Substantial
Improve transparency in Government, and better accountability of service providers	Substantial

**Outcome rating:** Moderately Satisfactory

#### ICRR lessons learned

- **A separate DPL specifically for a set of important and substantial sectoral development issues is more likely to lead to focused attention on those issues than when they are included in an omnibus program.** It is tempting to embark on complex development policy loans that cover all or a large part of a government development program. While the hydropower and environmental components were closely related, as a group they were not tightly related to the project's fiscal and governance objectives and, therefore, not absolutely necessary for the other components in the DPL. They increased implementation complexity to the DPL.
- **To achieve adequate M&E arrangements in programs, it is necessary to have an institution, however small, responsible for ensuring consistent design and standards for M&E.** In this project, the M&E system was an aggregate of individual systems for each stakeholder (mainly GoHP departments) without any coordination of M&E design, standards, or processes.
- **To achieve the implementation of studies within the short time span of a DPL, their terms of reference should be agreed with the Government at negotiations and included in the project document** An important cause for delay in completing numerous studies is difficulty in reaching agreement on terms of reference. For only one of the studies (Environmental Master Plan) did the first tranche conditions require the completion of the terms of reference, although the study was still not completed on time.

**MENA CSP: Ouarzazate I Concentrated Solar Power Project (World Bank/AfDB)<sup>30</sup>**



**Sector:** Renewable Energy

**Private/Public:** Public

**Project development objective:** The project goal was to support the Moroccan Solar Agency (MASEN) in the development of the 500 MW Noor Ouarzazate concentrated solar power (CSP) plant by financing the first phase (160 MW gross) through a public-private partnership (PPP), to increase power generation from solar power and mitigate GHG emissions and local environment impact.

**Mechanism:** The project consisted of a USD 97 million loan from the CTF (as part of USD 853 million in total project financing) focused on the development and construction of the first 160 MW phase of the 500 MW Noor-Ouarzazate Complex. An additional USD 200 million Cost Mitigation Mechanism loan from the World Bank proved unnecessary after favorable project bidding results and was rolled over into the broader Noor-Ouarzazate Complex Project.

**Achievement of objectives:**

**Notable achievement:**  
 At the global level, the project has had a transformational effect by demonstrating the viability of CSP power generation in emerging economies and contributing to a significant drop in costs. As the first phase of the world’s largest CSP plant, the project contributed significantly to scaling-up deployment of CSP globally and had a strong learning effect that led to verified reductions in the costs, both in capital costs and, by reducing perceived risks, in financing costs. The Noor Ouarzazate complex hosts energy and utility officials from all over the world, and its success has helped to spur new projects elsewhere, including the 700 MW CSP plant to be built at Dubai’s Mohammed bin Rashid Al Maktoum Solar Park, the 150 MW Aurora plant in South Australia, Chile’s 110 MW Atacama solar tower plant, as well as over a dozen 50 to 100 MW pilot plants now being constructed under China’s pilot program. Building in part on the Noor project experience, developers of the Dubai and South Australia projects were able to offer bids of under 10 US cents per kilowatt-hour (kWh). Morocco was, and still is, well suited to shift the global technology cost curve, facilitating its long-term economic viability and making it more attractive regionally and globally.

Objective	Efficacy rating
Increase power generation from solar power	High efficacy
Mitigate GHG emissions and local environment impact	High efficacy

**Overall outcome:** Highly Satisfactory

<sup>30</sup> Sources: <http://documents.worldbank.org/curated/en/290781535683312705/Morocco-MA-Ouarzazate-Concentrated-Solar-Power> and <http://documents.worldbank.org/curated/en/503371525382384008/Morocco-Ouarzazate-Concentrated-Solar-Power-Project>

## ICRR lessons learned

- **Innovative project structuring that combines balanced risk allocation with cost reduction can provide a conducive investment climate for the public-private partnerships.** Given the high technological risk inherent to this project, the government shouldered several risks usually taken by the private sector in standard PPPs, including provision of common infrastructures, as well as financial and technological risks. A streamlined tender process was used to reduce the costs to developers through transparent tender processes and clear procurement rules, as well as the availability of background technical, social, and environmental studies. The tender process also reduced the costs of funding for the project by securing financing from several IFIs at concessional rates. The parastatal nature of MASEN allowed such structuring, which positively impacted overall implementation.
- **Strong government commitment is a prerequisite for energy transitions.** The Government's commitment to the increased role of renewables in the country's energy mix, and its support to the implementing agency, MASEN, provided the right institutional basis for this project. Government support materialized through a general convention before project commencement and through a specific convention for this project. The government support mechanism is being maintained for the subsequent CSP projects (Noor II and III.)

**Mexico: "Ecocasa" Program (Mexico Energy Efficiency Program Part II) (IDB)**

**Sector:**  Energy Efficiency

**Private/Public:** Public

**Project development objective:** The three objectives of the program were: 1) to scale-up the investments into the development of a low-carbon housing market by providing lines of credit and guarantee products to local financial institutions (LFIs), 2) to provide access to green housing and, therefore, energy savings to the population not covered by the existing Hipoteca Verde (Green Mortgage) program, and 3) to transform the housing construction market towards low-carbon housing with energy saving and GHG emission reduction potential.

**Mechanism:** The IDB made available a total of USD 99.5 million through two mechanisms: a CTF concessional loan of USD 49.5 million and a loan of USD 50 million from the IDB’s ordinary capital. The executing agency was Mexico’s Federal Mortgage Society (SHF).

**Achievement of objectives:**

Objective	Efficacy rating
Building of 30,935 low-carbon houses through the provision of CTF financing to real estate developers through the SHF	Substantial
Building of 8,065 homes with IDB ordinary capital resources that meet the requirements of the Hipoteca Verde program of the Institute of the National Fund for Workers’ Housing (INFONAVIT)	Substantial
Reduction of 1.85 million tons of CO <sub>2</sub> e (according to ex-ante engineering estimates)	Substantial

**Overall outcome:**

The Ecocasa program offered innovative solutions for green housing, addressing the growing housing demand and contributing to achieving Mexico’s commitments to the mitigation of climate change. The program was based on a simulation model (DEEVi) that forecasted energy savings, GHG emission reductions, and comfort levels vis-à-vis a baseline. According to these ex-ante estimates, the program offered:

- A reduction of 41.7 percent in electricity consumption per home built or financed, from 71.0 kWh/m<sup>2</sup> to 41.42 kWh/m<sup>2</sup>. This means 5.44 kWh/m<sup>2</sup> less electricity consumption as compared to the original plan.
- A decrease in electricity costs per participating family of 33.3 percent, or just 0.7 percent below the established reduction goal of 34 percent.
- A reduction in GHG emissions per home built or financed of 29.7 percent (compared to an original goal of 30percent).
- A lifetime (40-year) GHG emission reduction that is 8.2 percent higher than originally projected.

**Other relevant outcomes:**

- The original program considered that IDB ordinary capital resources would be directed towards mortgage credits by SHF to workers that are not affiliated to INFONAVIT. However, unfavorable conditions in this market led the SHF to request redirecting USD 50 million from component 2 of the program toward the construction of new housing.


- The knowledge of SHF regarding the prevailing unfavorable conditions in the target mortgage market, as well as its good communication with IDB, positively impacted the execution of the program, increasing the financial liquidity of construction companies and reactivating the construction market.
- The original design of the Ecocasa program envisaged an **impact evaluation**, with CTF resources budgeted for this purpose. It was decided to carry out a quasi-experimental evaluation of two housing developments in the north of the country: one control and one that had been partially financed during the pilot phase of the Ecocasa program (at a time when the DEEVi simulation model had not yet been implemented, nor were the requirements established in terms of thermal comfort). Rather than evaluating the program, this study set a precedent for future evaluation initiatives and revealed valuable lessons that guided the design of the full Ecocasa program. For example, while the number of air-conditioned dwellings in the sample was too small to draw statistically significant conclusions, the study did not detect energy savings in homes with eco-technologies. This lack of observed energy savings could be due to actual air conditioning use being different from the assumptions of energy simulation models. The evaluation found no difference in the level of comfort between the homes of the control group and the homes with eco-technologies.

#### **Lessons learned:**

- In order to achieve a long-term impact, it is necessary that energy efficiency in housing is incorporated into the **national housing policy**, through standards or financing mechanisms.
- The implementation of energy efficiency in housing involves a **high degree of complexity in its design**, mainly because of technical aspects related to eco-technologies and construction materials used for sustainable housing, as well as the definition, measurement, and monitoring of the indicators to make it viable.
- In addition, the large number of variable involved and the difficulty in using Engineering models to accurately predict outcomes means that there is a need to ensure flexibility during implementation. In Ecocasa, there was a need to modify the requirements for water consumption and comfort level, since it was not feasible to attain the levels originally defined.
- In hot climate locations, the low-income houses supported by Ecocasa are delivered to the purchasers without air conditioners (AC), but a fraction of these household will eventually purchase an AC. Since at the time of building a house it is unknown whether it will or will not have an AC, the measures included when it is built should ideally lead to higher energy efficiency (if the house will have AC) and to improved comfort (especially if the house will not have AC). Since these measures are not necessarily the same, the experience of Ecocasa shows the need to achieve some balance between both objectives.
- The Engineering model in Ecocasa took into account that only a fraction of households will eventually purchase an AC. However, these models need to be improved so that they predict more accurately the energy savings (due to thermal insulation and other measures) for those houses with air conditioning. Models assume that air conditioners are large enough to keep the whole house cool, and that they are kept on all day to maintain the temperature at the desired setting. The reality is far from these assumptions. More information is needed on the actual behavior of households when purchasing and operating such devices.



**Mexico:** Renewable Energy Program, Proposal III (IDB)

**Sector:**  Renewable Energy

**Private/Public:** Public

**Project development objective:** The program goal was to contribute to Mexico’s drive to increase the share of renewable energy sources in its overall generation and to reduce GHG emissions. This was achieved by pursuing two specific and interconnected objectives: 1) scaling up investment in renewable energy generation projects and 2) contributing to familiarizing the Mexican banking sector with these kinds of investment opportunities, by demonstrating their viability and mobilizing resources from financial institutions. The program provided financial resources to eligible projects in competitive conditions through the provision of direct loans to developers of renewable energy generation projects and by making contingent credit lines available to projects to cover for cash flow shortages over the life of the project.

**Mechanism:** Whereas the previous renewable energy proposals under the Mexico CTF Investment Plan sought to support the development of a few projects via direct financing by the private sector window of the IDB and by IFC, the third proposal, with USD 70 million of CTF resources aimed at accelerating and scaling up the availability of finance to a larger number of projects by engaging a key institution, Nacional Financiera (NAFIN), a national development bank. NAFIN, directly or through intermediary financial institutions or other intermediaries, verified the eligibility of the sub-borrower, as well as the use and destination of the final loan, and monitored compliance with the requirements established in the Loan Agreement and the corresponding legal provisions.

**Achievement of objectives:**

Objective	Efficacy rating
Seven renewable energy plants with a capacity of 899 MW financed in strategic regions of Mexico for the generation of energy under the modality of small producer, self-supply and export.	Substantial
Overall increase in the generation capacity from renewable energy of 3,024 MW (impact indicator)	Substantial
21 financial institutions participated in the financial structuring of the projects (11 more than the initial target of 10)	Substantial

**Overall outcome:**

The seven renewable energy plants generate every year approximately 3,100 GWh and mitigate approximately 1.8 MtCO<sub>2</sub>e of GHG emissions. These results are higher than the expected outcomes at the moment of program preparation. The program has contributed to increasing the participation of local commercial financial institutions in the financing of renewable energy projects, and this, in turn, has led to the growth of the renewable electricity capacity in Mexico.

**Additional outcomes:**

- **Concessional resources from the program positioned the funds below the levels of perceived risk, obtaining adequate interest rates and repayment terms to financially structure these projects.**

- The modality of contingent credit lines was not used, since **the financial and economic evaluation of the projects and the off-taker clauses allowed the achievement of expected income flows** under current electricity rates.
- **Projects located on private property and ejidos generated 4,404 jobs** during construction and 84 during the operation.
- The program was **negotiated and operated in a timely and coordinated manner** with relevant stakeholders **allowing the integration of an important portfolio of projects**, assuming reasonable costs and risks and making long-term resources available to promoters and financial intermediaries for the financing of investment projects.

#### **Lessons learned**

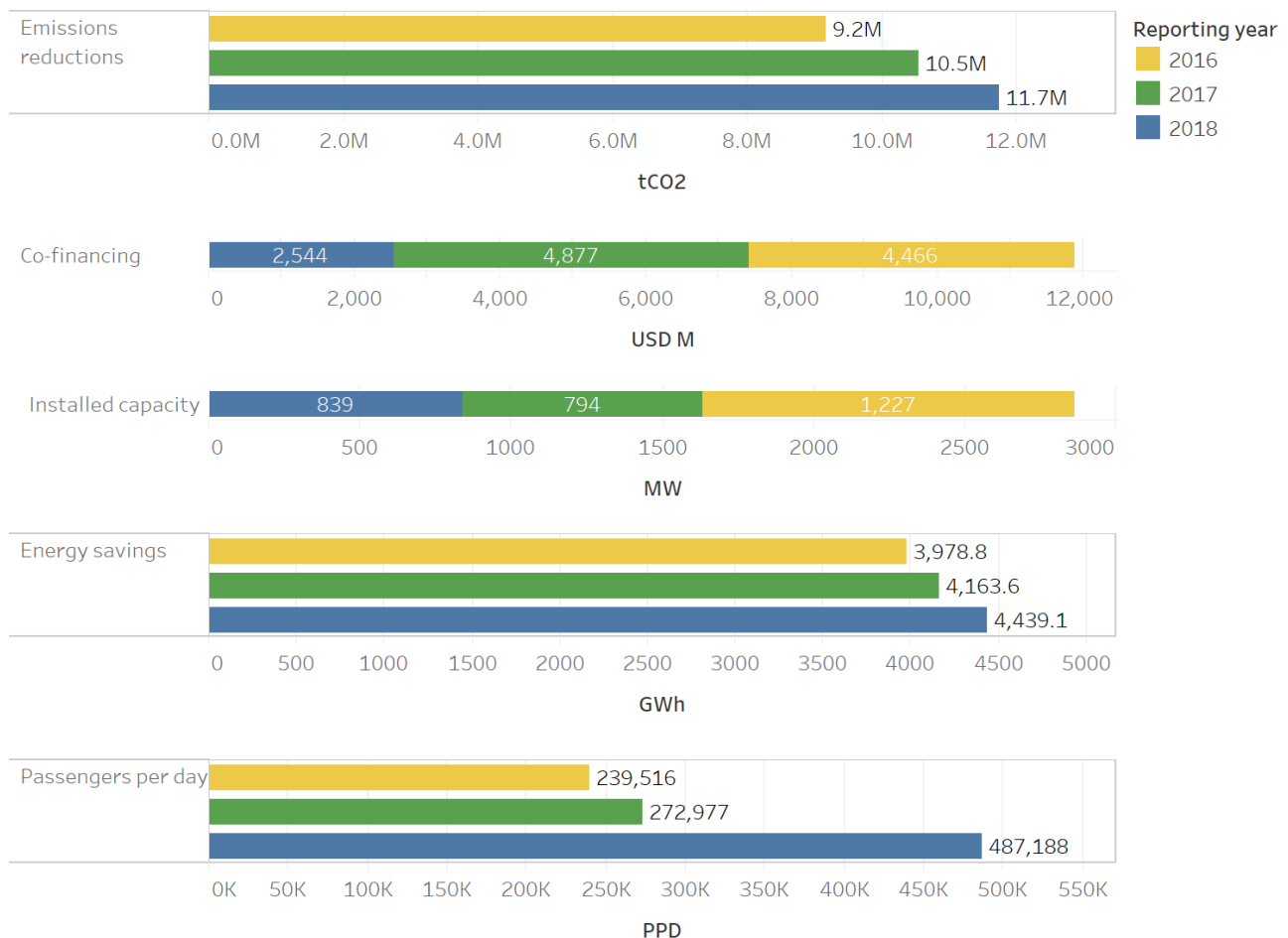
- The **availability of grant resources** for technical cooperation activities enabled the institutional strengthening of NAFIN, which was essential for the success of the Program.
- It is essential for projects like this to carry out an **accurate initial diagnosis** of the executing agency's capacity to gather relevant information for program monitoring and evaluation.
- It is important to ensure **transparency in the way in which concessional resources are used**. Such transparency enabled this project to ensure an effective use of concessional resources.

## Results Progression

The following section is based on RY2016 to RY2018 data for the 85 projects currently reporting results. It should be noted that RY2016 and RY2017 figures were adjusted to account for new data that were not available when the 2016 and 2017 reports were released. Figure 10 shows year on year comparisons for the five core CTF indicators.

Note that the amounts of incremental funding leveraged and capacity installed vary by year depending on the maturity of individual projects. No new installed capacity or co-financing are added once a project has reached maturity, while emissions reductions, energy savings, and passengers per day are expected to continue to progress throughout a project's lifetime.

Figure 10. Results progression for previous three reporting years, by indicator



**GHG emissions reductions:** There was a 11 percent increase in GHG emissions reductions between RY2017 and RY2018. This is driven primarily by the Indonesia Geothermal Clean Energy Investment Project (World Bank) more than tripling annual GHG emissions reductions. Another large contributor was the Mexico Renewable Energy Program, Proposal III (IDB), which saw an increase from its RY2017 annual reductions.

Stable or improving trends in GHG emissions reductions can be seen in 18 of 20 projects that have reported achieved reductions in all three years.

**Co-financing:** Year-on-year co-financing was lower in RY2018 than in RY2017, as additional projects were reaching maturity.<sup>31</sup> Cumulative co-financing continued to rise.

**Installed capacity:** RY2018 saw a slightly higher level of renewable energy installed capacity than RY2017. Cumulative installed capacity increased by 21 percent between RY2017 and RY2018 to reach 4,789 MW.<sup>32</sup>

**Energy savings:** There was a 7 percent increase in annual energy savings between RY2017 and RY2018, from 4,164 GWh to 4,439 GWh. From RY2017 to RY2018 there were increases in energy savings in two projects<sup>33</sup>, while three more reported achieved energy savings for the first time in RY2018.

**Passengers per day:** After the first achieved results for passenger numbers were reported in RY2016, passengers per day have increased in RY2017 and RY2018. The Technological Transformation Program for Bogota's Integrated Public Transport System (BOGOTA SITP) in Colombia (IDB) reported 68,975 and the Mexico Urban Transport Transformation project (IBRD) reported 418,213 passengers per day.

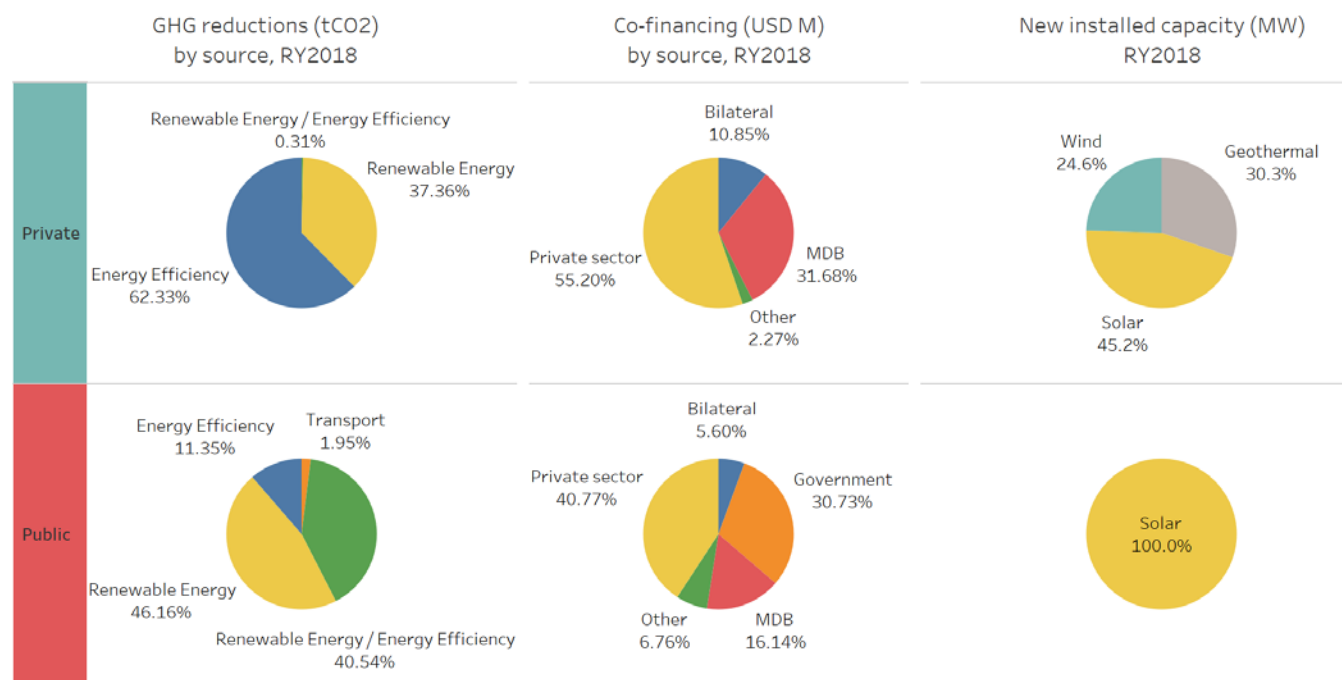
---

<sup>31</sup> For example, the Turkish Private Sector Renewable Energy and Energy Efficiency Project (IBRD) leveraged over USD 2 billion in RY2017, and no new co-financing in RY2018.

<sup>32</sup> See CTF Portfolio Results Summary on p. 9.

<sup>33</sup> The Residential Energy Efficiency Finance Facility (TuREEFF) and Extension in Turkey (EBRD) and the Energy Efficiency Program, Part 1 in Mexico (IDB)

## CTF portfolio results summary: Comparison of public sector and private sector portfolio



## Private sector

## Public sector

**GHG emissions reductions:**

Share reporting achieved results in RY2018 (number of total)

19 of 41 private sector projects

13 of 44 public sector projects

Largest contributor in RY2018 (amount, share)

Residential Energy Efficiency Finance Facility (EBRD) at 1,390,485 tCO<sub>2</sub> (37 percent of the RY2018 actual)Private Sector Renewable Energy and Energy Efficiency Project in Turkey (World Bank)<sup>34</sup> at more than 3 MtCO<sub>2</sub>/yr (41 percent of the RY2018 actual)**Co-financing:**

Share leveraging co-financing in RY2018

10 of 41 projects

19 of 44 projects

Largest amount leveraged RY2018 (share)

The Geothermal Risk Mitigation Program in Chile (IDB) at USD 353 million (38 percent of the RY2018 total)

The Shared Infrastructure for Solar Parks project in India (World Bank) at USD 870 million (61 percent of the RY2018 total)

Largest amount leveraged cumulatively (share)

The Private Sector Geothermal Program in Indonesia (ADB) USD

The Private Sector Renewable Energy and Energy Efficiency Project

<sup>34</sup> Note that while the project is aimed at catalyzing private sector investments in renewable energy and energy efficiency, the project is implemented in cooperation with the Development Bank of Turkey and Industrial Development Bank of Turkey and, therefore, falls under the public sector designation within the CTF portfolio.

	1,151 million (19 percent of the cumulative total)	in Turkey (World Bank) at USD 3,000 million (25 percent of the cumulative total)
Source of largest portion of RY2018 financing (percent)	Private sector, 55 percent	Private sector, 41 percent
Cumulative co-financing percent of target	53 percent	33 percent
<b>Installed capacity:</b>		
Share with new capacity in RY2018	9 of 41 projects reported new installed capacity in RY2018	3 of 44 projects reported new installed capacity in RY2018
Largest amount of RY2018 installed capacity	The SEMed Private Renewable Energy Framework (a regional project implemented by EBRD) reported the largest amount of new installed capacity at 120 MW, 23 percent of the RY2018 total.	The Shared Infrastructure for Solar Parks project in India (World Bank) reported the largest amount of new installed capacity at 250 MW, 81 percent of the RY2018 total.
Largest amount of cumulative installed capacity	The Residential Energy Efficiency Finance Facility (TuREEFF) in Turkey (EBRD) has reported the largest amount of cumulative installed capacity at 334 MW, 16 percent of the cumulative total.	The Private Sector RE and EE Project (Turkey, IBRD) has reported the largest amount of cumulative installed capacity at 934 MW, 35 percent of the cumulative total.
Technology with largest share of RY2018 new capacity	Solar at 45 percent of new installed capacity.	Solar at 100 percent of new installed capacity
Cumulative percent of target	48 percent	12 percent
<b>Energy savings:</b>		
Share with energy savings in RY2018	7 of 41 projects reported energy savings in RY2018	5 of 44 projects reported energy savings in RY2017
Largest contributor (share)	The Private Sector Sustainable Energy Financing Facility (Turkey, EBRD) produced the largest amount of RY2018 energy savings at 1,509 GWh/yr, 71 percent of the total.	The Private Sector RE and EE Project (Turkey, World Bank) produced the largest amount of RY2018 energy savings at 1424 GWh/yr, 61 percent of the total.
Percent of target	42 percent	71 percent
<b>Passengers per day:</b>		
Share reporting achieved results	NA (There are no private sector projects targeting passengers per day).	Two projects reported 487,188 passengers per day.
Percent of target	NA	8 percent

### **Online reporting**

Results data from RY2018 will be uploaded to the [CTF's results database](#)<sup>35</sup>, an online platform that provides convenient open access to CTF results data since 2016. It builds on the World Bank Open Data platform. The development of a single, integrated system for CIF project data collection and results reporting, the CIF Collaboration Hub (CCH), continues to progress. The beta version of this integrated platform is under detailed review.

### **International Financial Institutions (IFI) Working Group on GHG Harmonization**

In response to the CTF Trust Fund Committee request that MDBs report every two years, beginning in 2014, “on the current and planned work of each MDB in GHG analysis and the development and application of methodology for estimating GHG emissions reduction and their joint efforts to harmonize GHG estimation methodology among the MDBs,” a status update was compiled and presented to the CTF Trust Fund Committee as an information document at the December 2016 meeting. An information document on GHG accounting by MDBs/IFIs will be presented at the January 2019 CTF Trust Fund Committee meeting.

### **Revision of the CTF M&R Toolkit**

Multiple MDBs have requested additional guidance on CTF results reporting, including methodology on the passengers per day indicator and timing of co-financing reporting. These issues will be considered in the revision of the CTF toolkit.

### **Evaluation and Learning (E&L) Initiative**

The importance of the CIF learning objectives is widely acknowledged, and the Evaluation and Learning (E&L) Special Initiative is undertaking a number of activities aimed at generating and applying CIF knowledge. The E&L activities meet an urgent need to increase the evaluative work within CIF, capture real-time learning, and facilitate sharing of lessons learned and good practice to improve effective delivery and achievement of results. Key CIF stakeholders consider E&L work to be important for both accountability and learning to support continuous improvement. The E&L call for proposals sought ideas from CIF implementing institutions and stakeholder community for strategic, demand-driven evaluation and learning work that addresses the topic of transformational change.

Several E&L activities are delivering findings related to key themes in CTF. This includes assessing the impact of concessional finance in leveraging private sector action in renewable energy, analyzing the role of the CIF programmatic approach in catalyzing sector-wide results, and exploring synergies and complementarities with other climate funds among other topics.

The *Evaluation of the CIF Programmatic Approach* has delivered emerging findings on the use and relevance of this delivery modality for CTF. It notes that in CTF, the CIF Programmatic Approach allowed countries and MDBs to be more effective in linking public and private sector investments through a coordinated approach, and that predictable finance and grants allowed the MDBs and governments to develop more innovative projects. Similarly, the Transformational Change Phase I Portfolio Analysis identified key primary barriers addressed by CTF financing, demonstrating in particular its role and importance in providing risk-bearing capital. It also found that CTF investment criteria encouraged applicant countries to take a systems perspective in country investment plans and project proposals, and that there are potential signals of transformative systems change and scaling occurring in several countries.

---

<sup>35</sup> See <https://finances.worldbank.org/Projects/2017-Climate-Investment-Funds-Clean-Technology-Fun/kjmm-ifbk>

Various other E&L activities implemented through the E&L call for proposals are also being undertaken and beginning to yield results. For example, an activity implemented by the World Bank CTF/SREP Focal Point Team to review the effectiveness of various financing instruments (namely, grants, concessional loans, and contingent financing, and where applicable, equity) in facilitating the mobilization of private capital for the scale-up of grid connected solar power, delivered early findings in fiscal year 2018. Among other insights, a survey implemented through the project found that private investors prefer to finance the development and infrastructure costs of solar projects provided that payment risk is acceptable or adequately mitigated, rules of the game are transparent (e.g., a clear legal framework and/or bankable contracts), and capital can be raised in local currency or revenues indexed to an international currency to mitigate foreign exchange risk.

Still other E&L activities are evaluating the role of CTF concessional financing to overcome investments barriers and help scale-up low carbon technologies, both in past experience and in potential future markets, in collaboration with Bloomberg New Energy Finance (BNEF); opportunities and mechanisms for financing the scale-up of rooftop solar for the SME sector in India; and country-level lessons learned and experiences regarding complementarity and synergies amongst international climate funds. Additional information on these and other activities can be found in the [Evaluation and Learning Special Initiative FY18 Annual Report and FY19 Work Plan](#)<sup>36</sup>.

---

<sup>36</sup> Evaluation and Learning Special Initiative FY18 Annual Report and FY19 Work Plan, Joint CTF-SCF/TFC.19/5, May 2018.



Annex 1: Summary of Results (2018)<sup>37</sup>

Country	Project	Public/ Private	MDB	CTF USD M	Emissions reductions			Co-financing			Installed capacity			Passengers per day		Energy savings		
					RY2018	Cumulati ve	Target	RY2018	Cumulati ve	Target	RY2018	Cumulati ve	Target	RY2018	Target	RY2018	Cumulati ve	Target
Chile	Concentrated Solar Power Project	Private	IDB	67			129,300			359			50					
Chile	Energy Efficiency and Self-Supply Renewable Energy Program (PEEERA)	Private	IDB	25	5,275	7,889	92,000			110			36			11	16	87
Chile	Geothermal Risk Mitigation Program (MiRiG) – Amendment and additional resources	Private	IDB	75	50,474	50,474	290,000			500	48	48	100					
Chile	Large-Scale Photo-Voltaic Program	Private	IDB	25	150,707	477,256	185,000		185	335			72	155				
Colombia	Efficient Energy Demand Management in Non-Interconnected Zones- San Andrés, Providencia and Santa Catalina Archipelago Pilot Program	Public	IDB	11			9,425			93								12
Colombia	Energy Efficiency Financing Program for the Services Sector	Public	IDB	11	6	6	15,276			20								69
Colombia	Innovative Instruments to Foster Energy Efficiency in SMEs in Colombia	Private	IDB	5						38								142

<sup>37</sup> For private sector programs, targets refer to TFC approved proposal, while for public sector projects, targets refer to MDB approved documents. Redacted areas in some private sector projects contain confidential data.

Country	Project	Public/ Private	MDB	CTF USD M	Emissions reductions			Co-financing			Installed capacity			Passengers per day		Energy savings		
					RY2018	Cumulati ve	Target	RY2018	Cumulati ve	Target	RY2018	Cumulati ve	Target	RY2018	Target	RY2018	Cumulati ve	Target
Colombia	Renewable Energy Financing for Non-Interconnected Zones(NIZs)	Public	IDB	11			37,290					16						
Colombia	Renewable Energy Program for Colombia	Private	IDB	10			19,000		34		20							
Colombia	Strategic Public Transportation Systems (SETP) Program	Public	IDB	20			86,000		361									
Colombia	Sustainable Energy Finance Program	Private	IFC	7			440,000	20	103									
Colombia	Technological Transformation Program for Bogota's Integrated Public Transport System	Public	IDB	40	4,540	15,294	7,062	63	40				68,975	368,514				
Colombia	Utility Scale RE-Geothermal-Financing and Risk Transfer Program for Geothermal Power	Public	IDB	10			165,000		100		50							
DPSP-Regional	Energy Efficiency and Self-Supply Renewable Energy Program	Private	IDB	20	6,419	8,196	80,000		100		35					13	17	43
DPSP-Regional	Renewable Energy Mini-grids and Distributed Power Generation	Private	ADB	34	613	2,759	71,000	12	60	3	5	30						
DPSP-Regional	SEMed Private Renewable Energy Framework (SPREF)	Private	EBRD	35			675,000	70	885	120	120	432						
DPSP-Regional	Utility Scale Renewable Energy: Geothermal - Sustainable Energy	Public	IDB	20			250,000		200		62							

Country	Project	Public/ Private	MDB	CTF USD M	Emissions reductions			Co-financing			Installed capacity			Passengers per day		Energy savings		
					RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Target	RY2018	Cumulative	Target
	Facility for the Eastern Caribbean																	
DPSP-Regional	Utility Scale Solar Photovoltaic Sub-Program	Private	IFC	35			70,000			140			90					
Egypt	Wind Power Development Project	Public	IBRD	150			1,400,000	1	30	654			790					
Haiti	Modern Energy for All	Public	IBRD	16			60,000			48			10					
Honduras	Utility-Scale Solar PV Sub-Program	Private	IFC	20	75,144	174,400	70,000		189	160		82	80					
India	Development Policy Loan to Promote Inclusive Green Growth and Sustainable Development in Himachal Pradesh	Public	IBRD	100	470,000	1,410,000	3,780,000		113	2,058		135	1,334					
India	Grid-Connected Rooftop Solar Program	Public	IBRD	125			1	137	263	675	56	60	400					
India	Partial Risk Sharing Facility for Energy Efficiency	Public	IBRD	25	27	27	733,657	5	17	145						29	29	1,002
India	Proposed Loan Power Grid Corporation of India Limited Solar Power Transmission Sector Project Guaranteed by India	Public	ADB	50			7,060,273	5	5	400			4,200					
India	Rajasthan Renewable Energy Transmission Investment Program (Multi-tranche Financing Facility / MFF)	Public	ADB	200			5,400,000		44	600			4,300					

Country	Project	Public/ Private	MDB	CTF USD M	Emissions reductions			Co-financing			Installed capacity			Passengers per day		Energy savings		
					RY2018	Cumulati ve	Target	RY2018	Cumulati ve	Target	RY2018	Cumulati ve	Target	RY2018	Target	RY2018	Cumulati ve	Target
India	Shared Infrastructure for Solar Parks	Public	IBRD	50	342	342	4,800,000	870	870	4,420	250	250	3,500					
India	Solar Rooftop Investment Program Guaranteed by India	Public	ADB	175			441,700	25	25	830	4	4	400					
Indonesia	Geothermal Clean Energy Investment Project	Public	IBRD	125	1,063,333	1,368,888	1,100,000	7	129	450		150	150					
Indonesia	Geothermal Electricity Finance (IGEF) Program	Private	IFC	50			3,700,000			2,270			660					
Indonesia	Geothermal Energy Upstream Development Project	Public	IBRD	50			330,000	1	1	445			65					
Indonesia	Private Sector Geothermal Energy Program	Private	ADB	150			4,400,000	168	1,131	2,450	109	214	750					
Kazakhstan	District Heating Modernisation Framework (DHMFF)	Private	EBRD	34	105,300	515,285	400,000		118	100						107	903	1,200
Kazakhstan	Kazakh Railways: Sustainable Energy Program	Private	EBRD	1			80,000			45								
Kazakhstan	Renewable Energy Finance Facility (KAZREFF)	Private	EBRD	39	151,561	273,231	270,000	70	223		50	100	65				78	
Kazakhstan	Waste Management Framework (KWMF) + Extension	Private	EBRD	27		250,000	300,000		21	90			65			106	40	
Kazakhstan	Yermentau Large Wind Power Plant	Private	EBRD	26			150,000		88	97			50					

Country	Project	Public/ Private	MDB	CTF USD M	Emissions reductions			Co-financing			Installed capacity			Passengers per day		Energy savings		
					RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Target	RY2018	Cumulative	Target
MENA-CSP	Noor II and III Concentrated Solar Power Project	Public	IBRD + AfDB	238			521,670	1,301	2,439		350							
MENA-CSP	Ouarzazate I Concentrated Solar Power Project	Public	IBRD + AfDB	197		257,555	240,000	716	1,230		160	160						
Mexico	"Ecocasa" Program (Mexico Energy Efficiency Program Part II)	Public	IDB	52	6,836	17,416	25,000	217	160						16	40	36	
Mexico	Efficient Lighting and Appliances Project	Public	IBRD	50	747,600	3,994,007	616,800	956	663						677	4,979	1,200	
Mexico	Energy Efficiency Program, Part 1	Private	IDB	22	29,069	49,863	327,700	13	19	63					62	104	1,120	
Mexico	Geothermal Financing and Risk Transfer Facility	Public	IDB	54			1,100,000	12	1,211		300							
Mexico	Private Sector Wind Development	Private	IFC	16	77,418	652,037	180,000	180	172		68	68						
Mexico	Renewable Energy Program	Private	IDB	53	479,748	3,595,812	900,000	575	650		251	350						
Mexico	Renewable Energy Program, Proposal III	Public	IDB	71	1,811,139	5,413,902	2,011,242	2,026	2,430		899	1,000						
Mexico	Urban Transport Transformation Project	Public	IBRD	200	150,000	586,464	1,960,000	614	735		372		418,213	684,213				
Morocco	Clean and Efficient Energy Project	Public	IBRD	25			78,018	52	84	134		75						
Morocco	Midelt or Tata CSP Project	Public	IBRD + AfDB	25			700,000		2,248		800							
Morocco	One Wind Energy Plan	Public	AfDB	125			4,047,500	44	191	2,710		1,100						

Country	Project	Public/ Private	MDB	CTF USD M	Emissions reductions			Co-financing			Installed capacity			Passengers per day		Energy savings		
					RY2018	Cumulati ve	Target	RY2018	Cumulati ve	Target	RY2018	Cumulati ve	Target	RY2018	Target	RY2018	Cumulati ve	Target
Nicaragua	Geothermal Exploration and Transmission Improvement Program under the PINIC	Public	IDB	10			110,655			16			22					
Nigeria	Line of Credit for Renewable Energy and Energy Efficiency Projects	Private	AFDB	25			158,580		1	271			107					
Philippines	Cebu Bus Rapid Transit Project	Public	IBRD	26			193,000		12	204								
Philippines	Market Transformation through Introduction of Energy Efficient Electric Vehicles Project	Public	ADB	13			269,000			399								
Philippines	Metro Manila BRT-Line 1 Project	Public	IBRD	24			206,892			86								
Philippines	REAP and Expansion of the Approved Philippines Renewable Energy Accelerator Program (REAP)	Private	IFC	26			230,000			330			155					
Philippines	Renewable Energy Development (PHRED)	Public	IBRD	45			523,370											162
Philippines	Sustainable Energy Finance Program	Private	IFC	4			300,000			63								63
South Africa	Energy Efficiency Program	Private	IFC	3			78,667		9	7								
South Africa	Eskom Renewable Support Project - CSP	Public	IBRD + AfDB	264			570,000		1	415			100					

Country	Project	Public/ Private	MDB	CTF USD M	Emissions reductions			Co-financing			Installed capacity			Passengers per day		Energy savings		
					RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Target	RY2018	Cumulative	Target
South Africa	Eskom Renewable Support Project - Wind	Public	IBRD + AfDB	86	315,000	851,000	238,000	30	225	787		100	100					
South Africa	Expansion of the Approved South Africa Sustainable Energy Acceleration Program (SEAP)	Private	IFC	58			470,000			700			100					
South Africa	Sustainable Energy Acceleration Program	Private	AfDB	39			360,000		525	350	75	75	125					
South Africa	Sustainable Energy Acceleration Program	Private	IFC	43	290,955	802,240	360,000		1,501	305		150	125					
Thailand	Private Sector Renewable Energy Program	Private	ADB	100	78,138	456,522	1,000,000		424	1,097		178	520					
Thailand	Renewable Energy Accelerator Program	Private	IFC	6	11,598	64,294	13,800		27			15	12					
Thailand	Sustainable Energy Finance Program (TSEF)	Private	IFC	5		822	42,900			16								
Turkey	Commercializing Sustainable Energy Finance Phase II (CSEF II)	Private	IFC	30			14,000			390								30
Turkey	Commercializing Sustainable Energy Finance Program	Private	IFC	22	145,800	779,300	280,000		95	80							508	220
Turkey	Financial Innovation for Renewable Energy (FIRE)	Private	IFC	18			62,000			102			75					
Turkey	Geothermal Development Lending Facility (GeoDELFF)	Private	EBRD	25			240,000	10	10	303			50					400
Turkey	Geothermal Development Project	Public	IBRD	40			260,371		31				208					

Country	Project	Public/ Private	MDB	CTF USD M	Emissions reductions			Co-financing			Installed capacity			Passengers per day		Energy savings		
					RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Target	RY2018	Cumulative	Target
Turkey	Private Sector Renewable Energy and Energy Efficiency Project	Public	IBRD	100	3,214, 583	20,881,0 82	3,507,00 0		3,000	1,450		933	951			1,424	9,636	1,382
Turkey	Private Sector Sustainable Energy Financing Facility (TurSEFF) + Extension	Private	EBRD	50	702,03 7	3,031,32 2	750,000		902	200	104	323				1,509	8,538	
Turkey	Renewable Energy Integration Project	Public	IBRD	50			690,000	109	206	1,025			600					
Turkey	Residential Energy Efficiency Finance Facility (TuREEFF) + Extension	Private	EBRD	70	1,390, 485	4,312,94 7	540,000	161	678	795		230				412	2,007	1,210
Ukraine	District Heating Energy Efficiency Project	Public	IBRD	51			278,812	10	22	332								360
Ukraine	Novoazovsk Wind Project	Private	EBRD	21		255,000	106,000		116	43		33	33				709	
Ukraine	Renewable Energy Program	Private	IFC	36			41,291			67			45					
Ukraine	Renewables Direct Lending Facility	Private	EBRD	27	31,890	312,034	350,000		155	49	10	84	115				582	
Ukraine	Residential Energy Efficiency Finance Lending Facility (UREEFF)	Private	EBRD	24			50,000			136								130
Ukraine	Second Power Transmission Project	Public	IBRD	49			2,800,00 0	4	18	1,733			1,100					430
Ukraine	Second Urban Infrastructure Project (UIP-2)	Public	IBRD	50			475,392	17	27	300								470
Ukraine	Sustainable Energy Lending Facility (USELF) Replenishment	Private	EBRD	28	24,059	24,059	250,000	33	33	113	10	10	60					



Country	Project	Public/ Private	MDB	CTF USD M	Emissions reductions			Co-financing			Installed capacity			Passengers per day		Energy savings		
					RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Target	RY2018	Cumulative	Target
Ukraine	Ukraine Green City Programme	Private	EBRD	51			350,000	51	81	227						1	1	350
Vietnam	Distribution Efficiency Project	Public	IBRD	30	145,057	145,057	269,148	20	424	770						178	178	414
Vietnam	Ha Noi Sustainable Urban Transport Program	Public	ADB	100			8,400	109	306	1,336								
Vietnam	Sustainable Urban Transport for Ho Chi Minh City Mass Rapid Transit Line 2 Project	Public	ADB	50			4,025	3	23	1,391								

## Annex 2: Direct Finance Leveraged by Source (USD M)

Country	Project	Public/ Private	MDB	USD M CTF	MDB			Government			Private sector			Bilateral			Other		
					2018	Cumulative	Target	2018	Cumulative	Target	2018	Cumulative	Target	2018	Cumulative	Target	2018	Cumulative	Target
Chile	Concentrated Solar Power Project	Private	IDB	67			66		20		130		143						
Chile	Energy Efficiency and Self-Supply Renewable Energy Program (PEEERA)	Private	IDB	25	5	5	22			5	5	88	5	5					
Chile	Geothermal Risk Mitigation Program (MiRiG) – Amendment and additional resources	Private	IDB	75			140			353	353	220						140	
Chile	Large-Scale Photo-Voltaic Program	Private	IDB	25		50					91		44						

Country	Project	Public/ Private	MDB	USD M CTF	MDB			Government			Private sector			Bilateral			Other		
					2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target
Colombi a	Efficient Energy Demand Management in Non-Interconnected Zones-San Andrés, Providencia and Santa Catalina Archipelago Pilot Program	Public	IDB	11			91											3	
Colombi a	Energy Efficiency Financing Program for the Services Sector	Public	IDB	11			10				10								
Colombi a	Innovative Instruments to Foster Energy Efficiency in SMEs in Colombia	Private	IDB	5			22				15		1						
Colombi a	Renewable Energy Financing for Non-Interconnected Zones(NIZs)	Public	IDB	11															
Colombi a	Renewable Energy Program for Colombia	Private	IDB	10			10				24								
Colombi a	Strategic Public Transportation Systems (SETP) Program	Public	IDB	20			300		61										
Colombi a	Sustainable Energy Finance Program	Private	IFC	7			48				54								
Colombi a	Technological Transformation Program for Bogota's Integrated Public Transport System	Public	IDB	40							63	40							
Colombi a	Utility Scale RE-Geothermal-Financing and Risk Transfer Program for Geothermal Power	Public	IDB	10															
DPSP- Regional	Energy Efficiency and Self-Supply Renewable Energy Program	Private	IDB	20		9	50					50							

Country	Project	Public/ Private	MDB	USD M CTF	MDB			Government			Private sector			Bilateral			Other		
					2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target
DPSP- Regional	Renewable Energy Mini-grids and Distributed Power Generation	Private	ADB	34							12	60							
DPSP- Regional	SEMed Private Renewable Energy Framework (SPREF)	Private	EBRD	35		76	250					3		617					
DPSP- Regional	Utility Scale Renewable Energy: Geothermal - Sustainable Energy Facility for the Eastern Caribbean	Public	IDB	20															
DPSP- Regional	Utility Scale Solar Photovoltaic Sub-Program	Private	IFC	35			35					55						50	
Egypt	Wind Power Development Project	Public	IBRD	150	1	26	70		62			450		71					
Haiti	Modern Energy for All	Public	IBRD	16								48							
Honduras	Utility-Scale Solar PV Sub-Program	Private	IFC	20		46	25					63	60				81	95	
India	Development Policy Loan to Promote Inclusive Green Growth and Sustainable Development in Himachal Pradesh	Public	IBRD	100		100	100		185			13	1,958						
India	Grid-Connected Rooftop Solar Program	Public	IBRD	125	28	155	500		2		100	100	150				9	9	23
India	Partial Risk Sharing Facility for Energy Efficiency	Public	IBRD	25							4	4	127				1	13	18
India	Proposed Loan Power Grid Corporation of India Limited Solar Power Transmission Sector Project Guaranteed by India	Public	ADB	50	5	5	175		225										
India	Rajasthan Renewable Energy Transmission Investment	Public	ADB	200		44	300		300										

Country	Project	Public/ Private	MDB	USD M CTF	MDB			Government			Private sector			Bilateral			Other		
					2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target
	Program (Multi-tranche Financing Facility / MFF)																		
India	Shared Infrastructure for Solar Parks	Public	IBRD	50	5	5	420	310	310	500	555	555	3,500						
India	Solar Rooftop Investment Program Guaranteed by India	Public	ADB	175	25	25	330						200					300	
Indonesia	Geothermal Clean Energy Investment Project	Public	IBRD	125	7	129	175			275									
Indonesia	Geothermal Electricity Finance (IGEF) Program	Private	IFC	50			30												
Indonesia	Geothermal Energy Upstream Development Project	Public	IBRD	50			150			49			240			1	1	6	
Indonesia	Private Sector Geothermal Energy Program	Private	ADB	150	6	226	350			400	64	353	1,100	96	550	600	2	22	
Kazakhstan	District Heating Modernisation Framework (DHMFF)	Private	EBRD	34		73	100		18			39							
Kazakhstan	Kazakh Railways: Sustainable Energy Program	Private	EBRD	1		25	45												
Kazakhstan	Renewable Energy Finance Facility (KAZREFF)	Private	EBRD	39	46	130	76				24	70					24	39	
Kazakhstan	Waste Management Framework (KWMF) + Extension	Private	EBRD	27		13	90					8							
Kazakhstan	Yermentau Large Wind Power Plant	Private	EBRD	26		62	73					26						24	
MENA-CSP	Noor II and III Concentrated Solar Power Project	Public	IBRD + AfDB	238		207	535			357				831	1,547			263	
MENA-CSP	Ouarzazate I Concentrated Solar Power Project	Public	IBRD + AfDB	197		134	445					126		418	406			40 379	

Country	Project	Public/ Private	MDB	USD M CTF	MDB			Government			Private sector			Bilateral			Other		
					2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target
Mexico	"Ecocasa" Program (Mexico Energy Efficiency Program Part II)	Public	IDB	52		50	50				50			190	110		9		
Mexico	Efficient Lighting and Appliances Project	Public	IBRD	50		251	251		603	230		96	176				7	7	
Mexico	Energy Efficiency Program, Part 1	Private	IDB	22	10	15	24				3	4	39						
Mexico	Geothermal Financing and Risk Transfer Facility	Public	IDB	54			54		12	66			1,091						
Mexico	Private Sector Wind Development	Private	IFC	16			60											60	
Mexico	Renewable Energy Program	Private	IDB	53		81	70		45			327		112			10	580	
Mexico	Renewable Energy Program, Proposal III	Public	IDB	71		122	70		204	70							1,700	2,290	
Mexico	Urban Transport Transformation Project	Public	IBRD	200		52	150		98	351		183	234			98	281	585	
Morocco	Clean and Efficient Energy Project	Public	IBRD	25	41	75	125	11	11	9									
Morocco	Midelt or Tata CSP Project	Public	IBRD + AfDB	25			440			26			344		168			1,270	
Morocco	One Wind Energy Plan	Public	AfDB	125	44	191	512			87			1,498		613				
Nicaragua	Geothermal Exploration and Transmission Improvement Program under the PINIC	Public	IDB	10			13			4									
Nigeria	Line of Credit for Renewable Energy and Energy Efficiency Projects	Private	AfDB	25		1	75						196						
Philippines	Cebu Bus Rapid Transit Project	Public	IBRD	26		12	116			88									
Philippines	Market Transformation through Introduction of	Public	ADB	13			300			99									

Country	Project	Public/ Private	MDB	USD M CTF	MDB		Government			Private sector			Bilateral			Other		
					2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive
	Energy Efficient Electric Vehicles Project																	
Philippines	Metro Manila BRT-Line 1 Project	Public	IBRD	24			41		45									
Philippines	REAP and Expansion of the Approved Philippines Renewable Energy Accelerator Program (REAP)	Private	IFC	26			105				265		75					
Philippines	Renewable Energy Development (PHRED)	Public	IBRD	45							500							
Philippines	Sustainable Energy Finance Program	Private	IFC	4			54				155							
South Africa	Energy Efficiency Program	Private	IFC	3		9	7											
South Africa	Eskom Renewable Support Project - CSP	Public	IBRD + AfDB	264			415											
South Africa	Eskom Renewable Support Project - Wind	Public	IBRD + AfDB	86		36	110	4	42				123	635				
South Africa	Expansion of the Approved South Africa Sustainable Energy Acceleration Program (SEAP)	Private	IFC	58			90				610							
South Africa	Sustainable Energy Acceleration Program	Private	AfDB	39	55	113					214						253	
South Africa	Sustainable Energy Acceleration Program	Private	IFC	43			78											228
Thailand	Private Sector Renewable Energy Program	Private	ADB	100		173	292				251	805						
Thailand	Renewable Energy Accelerator Program	Private	IFC	6		9					17							

Country	Project	Public/ Private	MDB	USD M CTF	MDB			Government			Private sector			Bilateral			Other		
					2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target
Thailand	Sustainable Energy Finance Program (TSEF)	Private	IFC	5	5	16													
Turkey	Commercializing Sustainable Energy Finance Phase II (CSEF II)	Private	IFC	30		100					290								
Turkey	Commercializing Sustainable Energy Finance Program	Private	IFC	22	95	80													
Turkey	Financial Innovation for Renewable Energy (FIRE)	Private	IFC	18		30					72								
Turkey	Geothermal Development Lending Facility (GeoDELF)	Private	EBRD	25		100				10	10	100		3		3			
Turkey	Geothermal Development Project	Public	IBRD	40	31	60						302					15		
Turkey	Private Sector Renewable Energy and Energy Efficiency Project	Public	IBRD	100	951	1,000		2,049	450										
Turkey	Private Sector Sustainable Energy Financing Facility (TurSEFF) + Extension	Private	EBRD	50	418	200					374		110						
Turkey	Renewable Energy Integration Project	Public	IBRD	50	51	148	300	58	58	125		600							
Turkey	Residential Energy Efficiency Finance Facility (TuREEFF) + Extension	Private	EBRD	70	120	482	332				41	180	90		350		16	23	
Ukraine	District Heating Energy Efficiency Project	Public	IBRD	51	10	22	332												
Ukraine	Novoazovsk Wind Project	Private	EBRD	21	45	43					71								
Ukraine	Renewable Energy Program	Private	IFC	36														67	
Ukraine	Renewables Direct Lending Facility	Private	EBRD	27	91	22					54	19					9	8	
Ukraine	Residential Energy Efficiency Finance Lending Facility (UREEFF)	Private	EBRD	24			100					10			26				

Country	Project	Public/ Private	MDB	USD M CTF	MDB			Government			Private sector			Bilateral			Other		
					2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target	2018	Cumulat ive	Target
Ukraine	Second Power Transmission Project	Public	IBRD	49	4	18	333					1,400							
Ukraine	Second Urban Infrastructure Project (UIP-2)	Public	IBRD	50	17	27	300												
Ukraine	Sustainable Energy Lending Facility (USELF)	Private	EBRD	28	21	21	68				12	12	41				5		
Ukraine	Ukraine Green City Programme	Private	EBRD	51	32	51	155									19	30	72	
Vietnam	Distribution Efficiency Project	Public	IBRD	30	21	419	449			314				5	8				
Vietnam	Ha Noi Sustainable Urban Transport Program	Public	ADB	100		28	362	19	61	251				89	216	723			
Vietnam	Sustainable Urban Transport for Ho Chi Minh City Mass Rapid Transit Line 2 Project	Public	ADB	50	2	14	550		8	333				1	10	508			

### Annex 3: Installed Capacity by Technology (MW)

Country	Project name	Public/ Private	MDB	CTF USD M	Total			Solar			Wind			Hydro			Geothermal			Other		
					RY2018	Cumulati ve	Target	RY2018	Cumulati ve	Target	RY2018	Cumulati ve	Target	RY2018	Cumulati ve	Target	RY2018	Cumulati ve	Target	RY2018	Cumulati ve	Target
Chile	Concentrated Solar Power Project	Private	IDB	67			50			50												
Chile	Energy Efficiency and Self-Supply Renewable Energy Program (PEEERA)	Private	IDB	25			36														36	
Chile	Geothermal Risk Mitigation Program (MiRiG) –	Private	IDB	75	48	48	100							48	48	100						



Country	Project name	Public / Private	MDB	CTF USD M	Total			Solar			Wind			Hydro			Geothermal			Other		
					RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target
	Amendment and additional resources																					
Chile	Large-Scale Photo-Voltaic Program	Private	IDB	25	72	155		72	155													
Colombia	Efficient Energy Demand Management in Non-Interconnected Zones-San Andrés, Providencia and Santa Catalina Archipelago Pilot Program	Public	IDB	11																		
Colombia	Energy Efficiency Financing Program for the Services Sector	Public	IDB	11																		
Colombia	Innovative Instruments to Foster Energy Efficiency in SMEs in Colombia	Private	IDB	5																		
Colombia	Renewable Energy Financing for Non-Interconnected Zones(NIZs)	Public	IDB	11		16																16
Colombia	Renewable Energy Program for Colombia	Private	IDB	10		20																20
Colombia	Strategic Public Transportation Systems (SETP) Program	Public	IDB	20																		
Colombia	Sustainable Energy Finance Program	Private	IFC	7																		
Colombia	Technological Transformation Program for Bogota's Integrated Public Transport System	Public	IDB	40																		
Colombia	Utility Scale RE-Geothermal-Financing and	Public	IDB	10		50																

Country	Project name	Public / Private	MDB	CTF USD M	Total			Solar			Wind			Hydro			Geothermal			Other		
					RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target
	Risk Transfer Program for Geothermal Power																					
DPSP-Regional	Energy Efficiency and Self-Supply Renewable Energy Program	Private	IDB	20			35															35
DPSP-Regional	Renewable Energy Mini-grids and Distributed Power Generation	Private	ADB	34	3	5	30	3	5	30												30
DPSP-Regional	SEMed Private Renewable Energy Framework (SPREF)	Private	EBRD	35	120	120	432				120	120										432
DPSP-Regional	Utility Scale Renewable Energy: Geothermal - Sustainable Energy Facility for the Eastern Caribbean	Public	IDB	20			62											62				
DPSP-Regional	Utility Scale Solar Photovoltaic Sub-Program	Private	IFC	35			90			90												
Egypt	Wind Power Development Project	Public	IBRD	150			790					790										
Haiti	Modern Energy for All	Public	IBRD	16			10															10
Honduras	Utility-Scale Solar PV Sub-Program	Private	IFC	20		82	80		82	80												
India	Development Policy Loan to Promote Inclusive Green Growth and Sustainable Development in Himachal Pradesh	Public	IBRD	100		135	1,334							135	1,334							
India	Grid-Connected Rooftop Solar Program	Public	IBRD	125	56	60	400	56	60	400												
India	Partial Risk Sharing Facility for Energy Efficiency	Public	IBRD	25																		
India	Proposed Loan Power Grid Corporation of India	Public	ADB	50			4,200			4,200												

Country	Project name	Public / Private	MDB	CTF USD M	Total			Solar			Wind			Hydro			Geothermal			Other		
					RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target
	Limited Solar Power Transmission Sector Project Guaranteed by India																					
India	Rajasthan Renewable Energy Transmission Investment Program (Multi-tranche Financing Facility / MFF)	Public	ADB	200			4,300															4,300
India	Shared Infrastructure for Solar Parks	Public	IBRD	50	250	250	3,500	250	250	3,500												
India	Solar Rooftop Investment Program Guaranteed by India	Public	ADB	175	4	4	400	4	4	400												
Indonesia	Geothermal Clean Energy Investment Project	Public	IBRD	125		150	150									150	150					
Indonesia	Geothermal Electricity Finance (IGEF) Program	Private	IFC	50			660										660					
Indonesia	Geothermal Energy Upstream Development Project	Public	IBRD	50			65										65					
Indonesia	Private Sector Geothermal Energy Program	Private	ADB	150	109	214	750								109	214	750					
Kazakhstan	District Heating Modernisation Framework (DHMFF)	Private	EBRD	34																		
Kazakhstan	Kazakh Railways: Sustainable Energy Program	Private	EBRD	1																		
Kazakhstan	Renewable Energy Finance Facility (KAZREFF)	Private	EBRD	39	50	100	65	50	100													65
Kazakhstan	Waste Management Framework (KWMF) + Extension	Private	EBRD	27			65															65

Country	Project name	Public / Private	MDB	CTF USD M	Total			Solar			Wind			Hydro			Geothermal			Other		
					RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target
Kazakhstan	Yermentau Large Wind Power Plant	Private	EBRD	26		50				50												
MENA-CSP	Noor II and III Concentrated Solar Power Project	Public	IBRD + AfDB	238		350			350													
MENA-CSP	Ouarzazate I Concentrated Solar Power Project	Public	IBRD + AfDB	197	160	160		160	160													
Mexico	"Ecocasa" Program (Mexico Energy Efficiency Program Part II)	Public	IDB	52																		
Mexico	Efficient Lighting and Appliances Project	Public	IBRD	50																		
Mexico	Energy Efficiency Program, Part 1	Private	IDB	22																		
Mexico	Geothermal Financing and Risk Transfer Facility	Public	IDB	54		300										300						
Mexico	Private Sector Wind Development	Private	IFC	16	68	68				68												
Mexico	Renewable Energy Program	Private	IDB	53	251	350				251											350	
Mexico	Renewable Energy Program, Proposal III	Public	IDB	71	899	1,000		30		869											1,000	
Mexico	Urban Transport Transformation Project	Public	IBRD	200	372																	
Morocco	Clean and Efficient Energy Project	Public	IBRD	25		75			75													
Morocco	Midelt or Tata CSP Project	Public	IBRD + AfDB	25		800			800													
Morocco	One Wind Energy Plan	Public	AfDB	125		1,100				750			350									

Country	Project name	Public / Private	MDB	CTF USD M	Total			Solar			Wind			Hydro			Geothermal			Other		
					RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target
Nicaragua	Geothermal Exploration and Transmission Improvement Program under the PINIC	Public	IDB	10			22												22			
Nigeria	Line of Credit for Renewable Energy and Energy Efficiency Projects	Private	AFDB	25			107														107	
Philippines	Cebu Bus Rapid Transit Project	Public	IBRD	26																		
Philippines	Market Transformation through Introduction of Energy Efficient Electric Vehicles Project	Public	ADB	13																		
Philippines	Metro Manila BRT-Line 1 Project	Public	IBRD	24																		
Philippines	REAP and Expansion of the Approved Philippines Renewable Energy Accelerator Program (REAP)	Private	IFC	26			155		110												155	
Philippines	Renewable Energy Development (PHRED)	Public	IBRD	45																		
Philippines	Sustainable Energy Finance Program	Private	IFC	4																		
South Africa	Energy Efficiency Program	Private	IFC	3																		
South Africa	Eskom Renewable Support Project - CSP	Public	IBRD + AfDB	264			100		100													
South Africa	Eskom Renewable Support Project - Wind	Public	IBRD + AfDB	86		100	100				100	100										

Country	Project name	Public / Private	MDB	CTF USD M	Total			Solar			Wind			Hydro			Geothermal			Other		
					RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target
South Africa	Expansion of the Approved South Africa Sustainable Energy Acceleration Program (SEAP)	Private	IFC	58			100															
South Africa	Sustainable Energy Acceleration Program	Private	AfDB	39	75	75	125	75	75	125												
South Africa	Sustainable Energy Acceleration Program	Private	IFC	43		150	125		150	125												
Thailand	Private Sector Renewable Energy Program	Private	ADB	100		178	520		89	120	89	350										50
Thailand	Renewable Energy Accelerator Program	Private	IFC	6		15	12		15													12
Thailand	Sustainable Energy Finance Program (TSEF)	Private	IFC	5																		
Turkey	Commercializing Sustainable Energy Finance Phase II (CSEF II)	Private	IFC	30																		
Turkey	Commercializing Sustainable Energy Finance Program	Private	IFC	22																		
Turkey	Financial Innovation for Renewable Energy (FIRE)	Private	IFC	18			75															
Turkey	Geothermal Development Lending Facility (GeoDELFL)	Private	EBRD	25			50															50
Turkey	Geothermal Development Project	Public	IBRD	40			208															208
Turkey	Private Sector Renewable Energy and Energy Efficiency Project	Public	IBRD	100		933	951	11	24		203	225	525	700	181	26						
Turkey	Private Sector Sustainable Energy Financing Facility (TurSEFF) + Extension	Private	EBRD	50	104	323			61		100		28		15							14

Country	Project name	Public / Private	MDB	CTF USD M	Total			Solar			Wind			Hydro			Geothermal			Other		
					RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target	RY2018	Cumulative	Target
Turkey	Renewable Energy Integration Project	Public	IBRD	50			600					600										
Turkey	Residential Energy Efficiency Finance Facility (TuREEFF) + Extension	Private	EBRD	70		230		101	274		16		18		3	3					23	
Ukraine	District Heating Energy Efficiency Project	Public	IBRD	51																		
Ukraine	Novoazovsk Wind Project	Private	EBRD	21		33	33				33	33										
Ukraine	Renewable Energy Program	Private	IFC	36			45					45										
Ukraine	Renewables Direct Lending Facility	Private	EBRD	27	10	84	115		27		10	22		3		22				10	115	
Ukraine	Residential Energy Efficiency Finance Lending Facility (UREEFF)	Private	EBRD	24																		
Ukraine	Second Power Transmission Project	Public	IBRD	49			1,100															1,100
Ukraine	Second Urban Infrastructure Project (UIP-2)	Public	IBRD	50																		
Ukraine	Sustainable Energy Lending Facility (USELF) Replenishment	Private	EBRD	28	10	10	60	10	10													60
Ukraine	Ukraine Green City Programme	Private	EBRD	51																		
Vietnam	Distribution Efficiency Project	Public	IBRD	30																		