

FAILING TO SOLVE ENERGY POVERTY:

How Much International Public Investment is Going to Distributed Clean Energy Access?



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I. EXECUTIVE SUMMARY

Increasingly, distributed clean energy is proving to be an important tool for providing energy services for those living beyond the grid. Distributed clean energy includes off-grid and mini-grid renewable energy solutions that provide power to populations either not reached by the conventional grid or those connected to the grid but considered ‘under-electrified’ as a result of chronic power outages or load shedding. Distributed clean energy has several advantages for poor populations, including the fact it can be deployed more rapidly and cheaply than the grid can be extended. Thus, it provides services directly to off-grid populations — something centralized conventional power plants have often failed to do.

Despite the important role these solutions can play in delivering energy access, they have received very little investment from multilateral development banks (MDBs) to-date. This is troubling given the role distributed clean energy must play in ending energy poverty — according to projections by the International Energy Agency (IEA). In its *Energy for All Case*, the IEA projects that, to achieve energy access for all by 2030, additional investment must be balanced among grid extension, mini-grids, and off-grid energy (36 percent, 40 percent, and 24 percent respectively), with the lion’s share of that investment — 64 percent — flowing to distributed solutions. Distributed energy solutions account for the highest portion of the additional energy access investment because, of the 1.3 billion people without access to electricity, 84 percent are located in rural areas where it is too costly to extend existing grids.

In this report, we use the funding breakdown in the IEA scenario as a recommendation for MDB spending on energy access. We developed a methodology for grading the energy portfolios of four major MDBs — the World Bank Group, Inter-American Development Bank, Asian Development Bank, and African Development Bank — to evaluate their performance against the recommendations that we have based on IEA’s scenario in which universal modern energy access is achieved by 2030.

Given the link between climate change and poverty eradication — i.e., negative effects from climate change disproportionately affect poor populations and threaten to push back poverty gains — this assessment further specifies distributed energy access as those solutions

stemming from clean, renewable energy sources. The main findings of the assessment include:

- All of the banks received a failing grade of F when evaluated against five energy access criteria.
- With the exception of the African Development Bank at 38 percent of its energy portfolio (by dollar amount), the MDBs’ overall energy portfolios largely did not target energy access for the poor.¹
- None of the banks’ current approaches to energy access were aligned with the IEA scenario in which 64 percent of additional energy access funding flows to distributed energy solutions.²
- While not measuring up to the IEA’s breakdown, the World Bank Group and Inter-American Development Bank led with 25 percent of their energy access portfolios (by dollar amount) supporting distributed solutions. The African Development Bank performed the worst with regard to distributed energy, with no bank money invested in distributed clean energy projects.
- Of the fossil fuel-based projects across the four MDB energy portfolios assessed, only one percent (by dollar amount) included provisions aimed at increasing access for poor populations.

Given that none of the banks received a passing grade on how their energy portfolios addressed energy access and distributed clean energy targets, three main recommendations include:

- *All of the banks should increase their level of funding for energy access projects to account for at least 50 percent of overall energy portfolio financing, until the regions in which they are operating have achieved 100 percent energy access.*

- All of the banks need to significantly increase their funding for off-grid and mini-grid clean energy projects with the aim of meeting the 64 percent of energy access financing to distributed renewables scenario highlighted in this report.
- All of the banks should immediately establish clear definitions and criteria for what counts as “energy access” and measure projects to determine whether they have achieved energy access for the poor. Ideally, the MDBs should seek to align their definitions and criteria with those of peer institutions.

In order to achieve the overall goal of universal access by 2030, the recommended MDB energy portfolio targets for energy access and distributed clean energy should be met within three years.

There is a clear opportunity, with a growing market for off-grid and mini-grid technologies and increasing demand from entrepreneurs for financing, for the MDBs to use core funds to better support energy access for poor populations. But, to succeed, MDBs will need to significantly change their approach and funding practices.

II. THE NEED FOR ENERGY ACCESS AND DISTRIBUTED CLEAN ENERGY FOR POOR POPULATIONS

Globally, 1.3 billion people lack access to electricity and, as a result, are limited socially and economically in their ability to develop.³ In order to rectify this development challenge, the United Nations General Assembly has declared 2014 to 2024 the “Decade of Sustainable Energy for All” and, in 2011, launched the “Sustainable Energy for All” initiative.⁴ While this initiative has succeeded in elevating the issue of energy access among international financial institutions (IFIs), including the major multilateral development banks (MDBs), actual investment decisions have failed to align with the approaches that will ensure the goal of energy for all is achieved.

According to the International Energy Agency’s (IEA) 2011 World Energy Outlook, the current approach to energy access — which relies heavily on centralized grid extension — will still leave one billion people without energy access in 2030.⁵ Considering the grid has not yet reached many rural areas of the world, is unreliable in

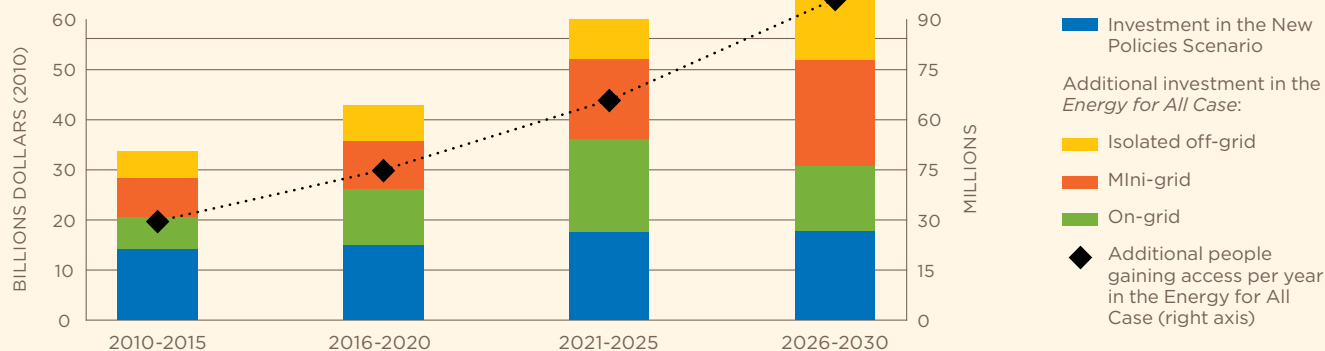
many areas where it has reached, and many homes remain unconnected even in areas close to the grid, balancing investments to include off-grid and mini-grid solutions is critical. In fact, in many cases, these technologies represent the most cost-effective option for rural electrification.⁶

Therefore, instead of continuing to maintain a strong focus on grid extension, it is suggested by the IEA analysis that — to achieve universal energy access by 2030 — energy access investments would need to be weighted more heavily towards distributed energy solutions beyond the grid. The IEA *Energy for All Case* suggests:

- about 36 percent of all additional energy access investment would need to go towards grid extension and centralized power plants;
- about 40 percent would need to go to mini-grids; and
- about 24 percent would need to go to off-grid solutions.

Thus, 64 percent of funding for energy access projects should be accounted for by off-grid and mini-grid

FIGURE 1
Average annual investment in access to electricity by type and number of people connected in the *Energy for All Case*



SOURCE: INTERNATIONAL ENERGY AGENCY, WORLD ENERGY OUTLOOK 2011

solutions. Figure 1, from the IEA's 2011 World Energy Outlook, shows the distribution of funding in the *Energy for All Case*, broken down into several time periods until 2030.

The IEA indicates that a significant amount of additional funding will need to be directed in general towards energy access for poor populations if universal access is to be achieved. While the IEA's estimate of \$48 billion per year of additional investment may actually be high,⁷ MDBs alone have annual energy portfolios that collectively exceed \$30 billion, and thus financial constraints should not be seen as a major limiting factor on energy access spending.⁸

III. CRITERIA FOR ASSESSING ENERGY ACCESS

This report reviews energy projects at the World Bank Group,⁹ Inter-American Development Bank, Asian Development Bank, and African Development Bank for fiscal years 2011, 2012, and 2013. The report utilizes data from Oil Change International's Shift the Subsidies database, which currently tracks energy projects financed by the World Bank Group, major regional development banks, and a number of export credit agencies.¹⁰ The database includes funding originating from any given bank's own capital resources, i.e., what a particular MDB's budget is directly supporting. Thus, funding coming from single- or multi-donor funds, such as the Sustainable Energy and Climate Change Initiative Multi-Donor Trust Fund, is not included.

This assessment reviewed energy projects included in the Shift the Subsidies database,¹¹ which indicates whether a project provides or intends to provide energy access for the poor. Please see Appendix A for a detailed explanation of how energy access was determined.

In addition to evaluating energy access, the assessment determined the amounts of project funding spent on off-grid and mini-grid renewable energy per bank per year. Please see Appendices B-E for a list of MDB energy access projects included in the assessment. Lastly, each of the four MDBs received an overall grade based on the following five criteria:

- 1. Percentage of overall energy portfolio dedicated to energy access (three year average) (35 points);**
- 2. Percentage of energy access spending dedicated to off-grid or mini-grid renewable solutions (three year average) (35 points);**

A concerted effort by just the four multilateral development banks included in this report could help provide a significant portion of additional investment by redirecting current energy financing towards projects that specifically and effectively achieve access for poor communities.

Given the link between climate change and poverty eradication, i.e., negative impacts from climate change disproportionately affect poor individuals and threaten to push back poverty gains, this assessment further specifies distributed energy access as those solutions stemming from clean, renewable energy sources.

- 3. The bank has a stated goal for increasing energy access (5 points);**
- 4. The bank has a program dedicated to distributed (off-grid and mini-grid) clean energy (15 points);**
- 5. In the period examined, there is an increase in the absolute amount of funding the bank has dedicated to off-grid and mini-grid clean energy (10 points);**

For criterion 1, a bank's score reflects the overall percentage of its energy portfolio that is dedicated to energy access measured against a target of 50 percent. For example, if the bank's energy portfolio is 40 percent for access, the score equals 28 (or $(40/50)*35$). Any energy access percentage that is equal to or higher than 50 percent gets a score of 35 points. The 50 percent target was chosen to reflect a significant commitment to delivering energy access. However, this is actually a moderate target, as it is not unreasonable to think that entire energy portfolios of 'development' banks focused on eradicating poverty could be dedicated to supporting the nearly 20 percent of the world's population that lacks access to electricity and the 40 percent of the world's population that lacks access to modern fuels for cooking and heating.

For criterion 2, a bank's score is measured against its fulfillment of the target we derived from the IEA's *Energy for All Case*, in which 64 percent of additional financing for energy access is dedicated to off-grid and mini-grid solutions. For example, if the Bank's energy access portfolio includes 50 percent of funding for off-grid and mini-grid solutions, the score equals 27 (or $(50/64)*35$). Any access portfolio with an off-grid and mini-grid percentage equal to or higher than 64 percent gets a score of 35.

Criteria 3, 4, and 5 are simple “yes/no” determinations. A bank receives 5, 10, or 15 points for a “yes” and 0 points for a “no.”

Overall, it is important to note that MDB energy project documents¹² often do not establish specific measurable

outcomes related to increasing energy access for the poor. Thus, MDB energy projects often lack specific project measures aimed at access for the poor communities and do not follow up with verification of a project’s success in actually increasing energy access.

IV. KEY FINDINGS AND ENERGY ACCESS SCORECARD

Table 1 below shows how each of the MDBs performed on each of the five energy access criteria. For each MDB, the scores from each of the five criteria are combined for a total score—out of a possible 100 points—for the institution. This table is followed by several key findings and observations about our results, as well as graphs visualizing our data.

Key findings include:

- All of the banks received a failing grade of F when evaluated against the five energy access criteria.
- With the exception of the African Development Bank at 38 percent of its energy portfolio (by dollar amount), the MDBs’ overall energy portfolios largely did not target energy access for poor populations.¹³
- Twenty-one percent of the energy portfolio at the Asian Development Bank targeted energy access for the lowest-income, while less than 10 percent of energy financing at the World Bank Group and the Inter-American Development Bank targeted energy access for the poor.
- None of the banks’ current approaches to energy access were aligned with the IEA scenario in which 64 percent of additional energy access funding flows to distributed energy solutions.¹⁴

- The World Bank Group and Inter-American Development Bank invested the most into off-grid and mini-grid renewables as a percentage of energy access funding. In the case of the World Bank, this

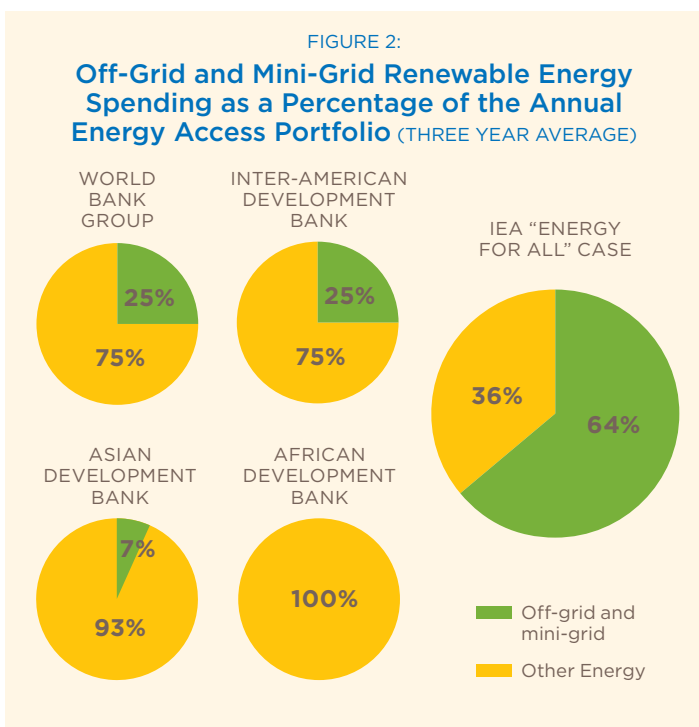


TABLE 1:
Multilateral Development Bank Scorecard for Energy Access

INSTITUTION	CRITERIA					TOTAL SCORE / GRADE
	1. % of energy portfolio dedicated to energy access (35 pts)	2. % of energy access dedicated to distributed renewables (35 pts)	3. Goal for increasing energy access (5 pts)	4. Program dedicated to distributed renewables (15 pts)	5. Increase in funding dedicated to distributed renewables (10 pts)	
World Bank Group	5 pts	14 pts	5 pts	15 pts	10 pts	49 / F
Inter-American Development Bank	4 pts	14 pts	0 pts	0 pts	10 pts	28 / F
Asian Development Bank	15 pts	4 pts	5 pts	15 pts	10 pts	49 / F
African Development Bank	27 pts	0 pts	5 pts	0 pts	0 pts	32 / F

is largely because of its spending on the successful IDCOL solar home system program in Bangladesh (See Box 1). In the case of the Inter-American Development Bank, much of its distributed clean energy spending went to technical assistance, not for actual project deployment. Even so, at 25 percent distributed energy as a percentage of energy access projects, these two MDBs still significantly miss the mix we recommend based on the IEA *Energy for All Case*.

- Although the African Development Bank scored the highest of the MDBs on its overall energy portfolio's dedication to energy access, with an average 38 percent, the African Development Bank was the worst bank on distributed clean energy – investing no African Development Bank money in off-grid or mini-grid solutions.¹⁵ This means their efforts to address energy access in Africa are largely leaving out the rural populations living without energy services, which represent 58 percent of the population.¹⁶

- As further evidence of the need to increase support for distributed clean energy to reach the goal of energy access for all, the fossil fuel-based projects across the four MDB energy portfolios rarely addressed access. Over the three years, only one percent of funding for fossil fuel energy projects included provisions that would increase access for the poor (or five out of 122 projects).

Given the variation in overall portfolio size of the different MDBs, we determined investment in energy access and in distributed clean energy as a percentage of the overall energy access portfolios. As indicated below, the World Bank Group and Inter-American Development Bank have the highest portion (25 percent) of their energy access portfolios dedicated to off-grid and mini-grid renewables. In contrast, the African Development Bank has the lowest portion (0 percent) of its energy access portfolio dedicated to off-grid and mini-grid renewables. The Asian Development Bank also has low investments in distributed renewables with only seven percent.

V. ENERGY ACCESS AT MULTILATERAL DEVELOPMENT BANKS

1. WORLD BANK GROUP

The World Bank Group funding for energy access ranged from \$450 million to \$570 million annually over the three year period. While the time period examined may be too short to make conclusive observations about overall trends in funding levels, a lack of appreciable increase in energy access funding levels from year to year may suggest that increasing funding for energy access has not been a particular goal. Overall, energy access funding at the World Bank Group falls far short of a 50 percent energy access target. It is worth noting that less than 10 percent of the development institution's energy funding is targeting the energy poor—a group that makes up nearly 40 percent of the world's population.

At 25 percent, the World Bank Group shares — with the Inter-American Development Bank — the highest percentage of energy access funding dedicated to distributed renewables out of the MDBs examined in this report. The World Bank Group's energy access funding was primarily invested in the largely successful IDCOL program in Bangladesh. However, this still falls significantly short of our recommendation of 64 percent based on the IEA's projections.

THE BANGLADESH INFRASTRUCTURE DEVELOPMENT COMPANY LIMITED (IDCOL)

An example of a World Bank-funded project supporting off-grid solar very successfully is IDCOL in Bangladesh, in which 2.9 million solar home systems were installed as of March 2014 — benefiting 13 million people.¹ The program started in 2003 with funding from the World Bank and just received an additional \$78.4 million to install 480,000 more solar home systems.² The initial target was achieved ahead of schedule and with less money than anticipated. Over the past decade, the program has grown solar installations at a whopping 60 percent compound annual growth rate (CAGR). The program has grown to become the “largest and fastest-growing off-grid rural electrification program in the world.”¹

- 1 Islam, S.M. Monirul (2014). “IDCOL Solar Home System Program.” Presentation. Available at: http://www.esmap.org/sites/esmap.org/files/ESMAP_SAR_EAP_Renewable_Energy_Resource_Mapping_Islam.pdf
- 2 IDCOL (2014). “Bangladesh Receives \$78.4 Million to Install an Additional 480,000 Solar Home Systems.” Available at: http://www.idcol.org/home/news_details/85.

TABLE 2:
Summary of World Bank Group Support for Energy Access

	FY 2011	FY 2012	FY 2013	3-YEAR AVERAGE
Total energy access funding (US\$)	\$472,530,000	\$449,800,000	\$571,440,000	\$511,830,000
Total energy access funding as % of total energy portfolio	6%	7%	8%	7%
Total funding to off-grid and mini-grid renewable energy (US\$)	\$44,250,000	\$172,500,000	\$169,480,000	\$128,743,333
Off-grid and mini-grid renewable energy funding as % of total energy access portfolio	8%	38%	30%	25%
Stated goal for increasing energy access?	Yes: the paper <i>Toward a Sustainable Energy Future for All: Directions for the World Bank Group's Energy Sector</i> informs the World Bank Group's operations, as agreed upon by the World Bank Group's Executive Board in July 2013. ¹⁷ This paper supports universal access to modern energy.			
Distributed renewables program(s) or initiative(s)?	Yes: Lighting Global, Lighting Africa, and Lighting Asia are all collaborations between the International Finance Corporation and World Bank to support the off-grid lighting markets globally and in Africa and Asia. It should be noted that these initiatives are funded by donors and not from the World Bank Group's budget.			

TABLE 3:
Summary of Inter-American Development Bank Support for Energy Access

	FY 2011	FY 2012	FY 2013	3-YEAR AVERAGE
Total energy access funding (US\$)	\$69,080,000	\$37,923,475	\$65,966,481	\$57,656,652
Total energy access funding as % of total energy portfolio	4%	3%	11%	5%
Total funding to off-grid and mini-grid clean energy (US\$)	\$13,520,000	\$10,530,586	\$19,971,481	\$1,892,356
Off-grid and mini-grid clean energy funding as % of total energy access portfolio	20%	28%	30%	25%
Stated goal for increasing energy access?	No.			
Distributed clean energy program(s) or initiative(s)?	No.			

The World Bank Group has taken steps in the right direction by developing a stated goal for increasing energy access, and by supporting off-grid lighting markets through donor-funded programs Lighting Global, Lighting Africa, and Lighting Asia. The funding dedicated to these programs is provided by specific donors and as such is not considered World Bank Group core funding, though the programs are administered by the World Bank Group. Thus, we strongly recommend that the World Bank Group dedicate more of its core funds to off-grid clean energy and micro-grids, and also ensure that incentive structures for staff encourage them to consider small-scale distributed clean energy solutions. See Appendix B for the

list of World Bank Group energy access projects from FY 2011 to 2013.

Table 2 provides the aggregate scores for the World Bank Group as a whole. However, when the data are divided out by individual institutions within the World Bank Group, it reveals that IDA, which supports the lowest-income countries, accounts for most of the WBG's work on energy access, with 19 percent of its energy portfolio and pulls the overall access numbers up for the Bank. MIGA has supported no projects aimed at energy access, and the IBRD and IFC (the private sector arm) both only have five percent of their energy portfolios aimed towards access.

TABLE 4:
Summary of Asian Development Bank Support for Energy Access

	FY 2011	FY 2012	FY 2013	YEARLY AVERAGE
Total energy access funding (US\$)	\$598,500,000	\$397,500,000	\$1,025,400,000	\$673,800,000
Total energy access funding as % of total energy portfolio	15%	20%	27%	21%
Total funding to off-grid and mini-grid clean energy (US\$)	\$0	\$0	\$137,500,000	\$45,833,333
Off-grid and mini-grid clean energy funding as % of total energy access portfolio	0%	0%	13%	7%
Stated goal for increasing energy access?	Yes: one of the three pillars of the Asian Development Bank's energy policy is "maximizing access to energy for all."			
Distributed clean energy program(s) or initiative(s)?	Yes: The "Energy for All Initiative" was founded to increase the Asian Development Bank's energy access project portfolio, and seeks to improve household access to electricity. Technologies for doing so include micro-hydro, solar, biomass, wind power, and clean cooking fuel. The initiative also includes an "Energy for All Partnership," which brings together actors from government, the private sector, and civil society to advance the goal of providing modern energy to 100 million people by 2015. ²⁰			

2. INTER-AMERICAN DEVELOPMENT BANK

The Inter-American Development Bank's overall funding for energy access fluctuated between 2011 to 2013, with the highest percentage for access at 11 percent in 2013. In terms of dollar amounts, it had the lowest finance for access, and lowest overall percentage of energy access financing of all the development banks. It is worth noting that a significant number of access projects at the Inter-American Development Bank are funded through multi-donor and other trust funds and therefore were not included in this review.

The Inter-American Development Bank had a relatively high proportion of funding to off-grid and mini-grid clean energy compared to the other development banks, tying the World Bank Group for highest percentage to distributed clean energy. However, much of this funding was not going definitively to distributed energy, but rather had a distributed energy component with lack of clarity on the amount of funding.

We recognize that the Latin America and Caribbean region has much higher levels of energy access than other developing regions (e.g. Asia and Africa), and that the Inter-American Development Bank may be responding to the needs of its region. However, we recommend prioritizing the use of public money for energy access until an access rate of 100 percent is achieved. A specific goal or program

dedicated to increasing energy access and to off-grid and mini-grid clean energy could potentially ensure a long-term sustained increase in funding for these projects. See Appendix C for the list of Inter-American Development Bank energy access projects from FY 2011 to 2013.

3. ASIAN DEVELOPMENT BANK

The Asian Development Bank increased its overall funding to energy access in 2013 relative to 2011, with a consistent increase in percentage of the energy portfolio dedicated to access each year. The Asian Development Bank had a significant overall drop in funding—including energy access funding—in 2012, followed by a significant increase in energy access funding in 2013, however this tracks with a drop in funding in the overall energy portfolio.

Funding dedicated to off-grid and mini-grid clean energy increased in 2013 from no funding to these projects in 2011 and 2012. The percentage of off-grid and mini-grid clean energy (seven percent) represents a very low proportion of the Asian Development Bank's energy access portfolio. A number of energy access projects, including distributed clean energy projects are funded through multi-donor funds run by the Asian Development Bank, but are not being run through the bank's core funds.

Though the Asian Development Bank has a stated goal for increasing energy access and an "Energy for All Initiative," funding for energy access and off-grid and mini-grid clean energy is still well below recommended levels. The Asian

TABLE 5:
Summary of African Development Bank Support for Energy Access

	FY 2011	FY 2012	FY 2013	3-YEAR AVERAGE
Total energy access funding (US\$)	\$263,298,550	\$410,806,470	\$239,191,414	\$304,432,145
Total energy access funding as % of total energy portfolio	43%	37%	35%	38%
Total funding to off-grid and mini-grid cleanenergy (US\$)	\$0	\$0	\$0	\$0
Off-grid and mini-grid clean energy funding as % of total energy access portfolio	0%	0%	0%	0%
Stated goal for increasing energy access?	Yes: the new (2012) Energy Sector Policy of the African Development Bank includes as a guiding principle “Ensuring energy security and increasing access for all.”			
Distributed clean energy program(s) or initiative(s)?	No.			

Development Bank could significantly benefit from turning greater attention to off-grid and mini-grid opportunities to increase access in the region. See Appendix D for the list of Asian Development Bank energy access projects from FY 2011 to 2013.

4. AFRICAN DEVELOPMENT BANK

Out of all the multilateral development banks, the African Development Bank came the closest to meeting the recommended 50 percent of total energy portfolio aimed towards energy access. With the lowest electrification rates globally in Africa, it is encouraging that a higher percentage of energy projects funded by the African Development Bank address energy access for the lowest-income communities.

However, it is disappointing to find that across all years examined in this report, no African Development Bank energy access projects included funding for the deployment of off-grid and mini-grid clean energy. By not including distributed clean energy, the African

Development Bank’s approach will not effectively reach Africa’s rural poor – who represent a large portion of the 58.2 percent of Africa’s population who lack access to energy.²¹

Almost all of the African Development Bank’s energy access projects involve extension of the existing electricity grid. The African Development Bank also funds a number of regional electricity interconnection projects. While these projects may indeed be connecting new villages to the grid, this is often not the main reason for the project. We have included some regional grid projects where it is clear that those projects are going to connect new areas, but we have some reservations about their effectiveness, as these projects are often not the most efficient way to increase access for poor communities. By increasing its focus instead on distributed clean energy, the African Development Bank could better serve populations that lack access to electricity, particularly in rural areas. See Appendix E for the list of African Development Bank energy access projects from FY 2011 to 2013.

VI. RECOMMENDATIONS

Energy poverty remains a major global challenge and business-as-usual approaches to electrification are insufficient to deliver energy for all by 2030. Distributed sources of clean energy, including off-grid clean energy and micro-grids, represent an important response to energy poverty. Off-grid and micro-grid clean energy can be rapidly deployed and are practical in both rural and urban settings.

In the above assessment, we examined the energy portfolios of four major MDBs and found that none of the banks received a passing grade on how their energy portfolios address energy access for poor communities and distributed clean energy.

As such, the following recommendations should be achieved in three years:

- *All of the banks should increase their level of funding for energy access projects to account for at least 50 percent of overall energy portfolio financing, until the regions in which they are operating have achieved 100 percent energy access.* Development banks have a mandate to support the world's lowest-income populations, but current energy funding is largely not targeted towards this goal. These banks should focus more funding on ensuring that a significant portion of their funding goes to increase energy access for the poor, while ensuring that financing is provided in a manner that does not saddle those populations with increased debt or poverty. The banks should simultaneously encourage investment in energy access by other actors (including non-government investors).
- *All of the banks need to significantly increase their funding for off-grid and mini-grid clean energy projects with the aim of meeting the 64 percent of energy access financing to distributed clean energy scenario highlighted in this report.* Investment in the actual deployment and installation of off-grid and mini-grid clean energy projects is a critical need at this stage of the market's development. While there is an important role for capacity-building and technical assistance, we believe that banks must focus efforts on increasing deployment of distributed renewables, while also ensuring that projects are appropriately managed and provide maximum benefit to local communities.
- *All of the banks should immediately establish clear definitions and criteria for what counts as "energy access" and measure projects to determine whether they have achieved energy access for the poor.* There is currently a lack of transparency around what constitutes "energy access." Banks should clearly define energy access, with clear criteria for measurement, with an emphasis on direct energy benefits to the lowest-income individuals. These definitions and criteria should be transparent, and project documents should reflect how the project will work towards increasing energy access. Completed projects should be assessed as to whether they have achieved these goals. *Ideally, the MDBs should seek to align their definitions and criteria with those of peer institutions.*

investments wisely. Credit enhancements, including loan guarantees, are an essential tool to help increase the size of the off-grid and mini-grid clean energy sector.

- *Banks should move beyond pilot projects to incorporate off-grid and mini-grid lending in their core energy portfolios.* While several of the banks included some pilot projects for off-grid and mini-grid clean energy projects, a more significant integration of these projects into the banks' energy access portfolios would allow for actual large-scale deployment of distributed clean energy beyond the grid.
- *Banks should increase funding for emerging programs focusing on distributed clean energy access for all.* The Asian Development Bank's Energy for All Initiative and the World Bank's Lighting Global, Lighting Africa, Lighting Asia, and Green Power for Mobile programs are promising. However, these programs need to be expanded to include more funding for deployment, and a greater voice in the finance decisions for the investment coming from the core portfolio. Actual investment decisions must align with proclamations of support for energy access, in order to truly demonstrate substantial support.
- *Banks should examine successful off-grid and mini-grid programs from different country contexts, such as Bangladesh's IDCOL program, and incorporate applicable lessons in a manner suitable to specific country circumstances.* We recommend all MDBs seek to incorporate lessons from various countries into the dedicated finance vehicles they develop to catalyze off grid and mini-grid markets. Bangladesh's IDCOL program is the most successful off-grid program in the world. The structure and design of this program and others present significant learning opportunities for other MDBs seeking to expand investments in this space.
- *Banks should work with client countries to develop national energy access strategies that include distributed clean energy solutions.* While it is true that MDBs respond to demands of client countries, MDBs also must play a role in helping staff in client countries keep up with developments in the energy access space and consider policy options which include off-grid and mini-grid clean energy.
- *Banks should examine internal incentive structures, to ensure that distributed clean energy projects are not systemically discriminated against in favor of larger projects.* In other words, banks should align staff incentives for advancement more closely with the unique characteristics of off-grid and mini-grid deployment.
- *Banks should benchmark and review distributed clean energy funding.* A review of the World Bank's electricity access work is currently underway by the Independent Evaluation Group (IEG). The IEG review

In addition to the three main recommendations, the following are suggested as necessary actions towards achieving those recommendations:

- *Banks should adopt credit enhancement programs, including loan guarantees, which directly support off-grid and mini-grid clean energy deployment.* Credit enhancement programs reduce risk for private sector entrepreneurs delivering services in these markets. MDBs can stretch their investments much further, and help unlock private sector investment, by using their

should also review World Bank electricity access spending for distributed clean energy, in addition to evaluating the effectiveness of the World Bank's electricity access projects.

In order to achieve the overall goal of universal access by 2030, the recommended energy portfolio targets for energy access and distributed clean energy should be met within three years.

APPENDICES

APPENDIX A. METHODOLOGY FOR DETERMINING ENERGY ACCESS

A project is labeled positively for “energy access” if the project in question “targets increased energy access for the poor.” This designation is determined by whether project documents indicate that the project meets one or more of the following criteria:

- “The project focuses on a targeted number of new electricity connections or energy services, such as clean cook stoves, to poor households.
- The project focuses on electricity for services important to the poor, such as health clinics, schools, or telecommunications.
- The project focuses on improving the reliability of electricity services in an area that largely serves poor households and/or electricity services important to the poor and currently has intermittent or unreliable access.
- The project focuses on provisions to make energy affordable for the poor e.g., effective, transparent safety nets to ensure that poor people can afford energy for basic needs, such as subsidies targeted at access, not consumption (as opposed to only having measures aimed at cost recovery, such as tariff increases).
- The project is focused on productive uses in energy poor communities, such as providing energy to smallholder farmers, small and medium enterprises and labor-intensive industries.
- The project involves power grid extension to new peri-urban or rural areas (as opposed to simply feeding into the existing grid system).
- The project involves rural, off-grid solutions for providing energy services.”²⁵

Overall, a major shift in energy funding is needed by all the MDBs evaluated in this report. All MDBs need to dedicate a greater proportion of their energy portfolios to energy access, and to shift beyond the grid to dedicate a greater proportion of their energy access funding to off-grid and mini-grid clean energy. Doing so is needed to ensure energy for all.

It is important to note that this method of evaluating projects for energy access has limitations due to lack of available information. MDB energy project documents often do not establish specific measureable outcomes related to increasing energy access for all communities. Thus, MDB energy projects often lack specific project measures aimed at access for poor communities and do not follow up with verification of a project's success in actually increasing access.

From the projects meeting the above “energy access” criteria, we further examined relevant project documents (e.g. project information documents, project appraisal documents, procurement plans, and project data sheets) to determine which “energy access” projects supported off-grid or mini-grid clean energy. If a project's funding was split between these forms and other forms of energy development (i.e. grid extension or energy efficiency), we tried to determine what portion of the funding was applied to off-grid or mini-grid clean energy. Our efforts to make this determination included close examination of available project documents, project budgets, and attempts to correspond with project MDB contacts.

Reliable information was unavailable in some cases, and actual spending sometimes differed from the spending outlined in project documents. In cases of uncertainty, we attempted to communicate with a project contact but did not always receive a response. If after these attempts, we were still unable to determine a specific funding amount, we assigned 50 percent of energy project funds to distributed solutions.

APPENDIX B: WORLD BANK PROJECTS EVALUATED						
Project approval date	Fiscal Year	Project Name	Country	Total Amount	Amount Included	Rationale
7/23/2010	2011	Guinea-Bissau: Emergency Electricity and Water Rehabilitation Project ²⁶	Guinea-Bissau	\$8,500,000	\$-	Mainly supports acquisition of a 5-megawatts heavy fuel oil-fired generating unit.
9/22/2010	2011	Additional Financing for Zambia Increased Access to Electricity Services Project ²⁷	Zambia	\$20,000,000	\$10,000,000	Mini-hydro, isolated grids and solar photo-voltaic represent a portion of the project. Counted as half distributed renewables because amount is unclear.
1/28/2011	2011	GPOBA: Uganda Energy for Rural Transformation ²⁸	Uganda	\$30,000	\$-	Project supports grid extension.
3/31/2011	2011	Second Poverty Reduction Support Credit (PRSC 2) ²⁹	Zambia	\$7,500,000	\$-	Focuses on grid extension, energy efficiency, and energy sector reform.
4/21/2011	2011	Second Rural Electrification— Grid Extension ³⁰	Peru	\$40,000,000	\$20,000,000	Energy has not yet been deployed on the ground; may involve off-grid energy in the future.
4/21/2011	2011	Second Rural Electrification— Renewables ³¹	Peru	\$10,000,000	\$5,000,000	Energy has not yet been deployed on the ground; may involve off-grid energy in the future. Counted as half distributed clean energy because amount is unclear.
4/26/2011	2011	VN— Trung Son Hydropower Project ³²	Vietnam	\$330,000,000	\$-	Project is large hydropower.
5/10/2011	2011	Kabeli Transmission Project ³³	Nepal	\$38,000,000	\$-	Project supports adding transmission capacity.
5/24/2011	2011	Comasel Louga ³⁴	Senegal	\$18,500,000	\$9,250,000	Partially individual solar kits, partially grid connection. Counted as half distributed clean energy because amount is unclear.
8/25/2011	2012	Empresas Publicas de Medellin AB Loan ³⁵	Colombia	\$25,000,000	\$-	Project supports water distribution, waste water collection, and electricity distribution and transmission.
10/4/2011	2012	Additional Financing II for Rural Electrification and Renewable Energy Development Project— Bangladesh ³⁶	Bangladesh	\$172,000,000	\$172,000,000	Installs 630,000 solar home systems where grid extension is not viable.
1/26/2012	2012	Sierra Leone— Fifth Governance Reform and Growth Credit Program ³⁷	Sierra Leone	\$3,600,000	\$-	Energy sector reform; could not determine the nature of energy-specific investments.
3/23/2012	2012	Kenya Power and Lighting Company Limited ³⁸	Kenya	\$50,000,000	\$-	Project expands electricity distribution network.
5/29/2012	2012	Electricity Network Reinforcement and Expansion Project— Ethiopia ³⁹	Ethiopia	\$190,000,000	\$-	Extends and upgrades the grid.
6/5/2012	2012	Flareum Solar ⁴⁰	India	\$1,000,000	\$1,000,000	Investment in company which supports both on-grid and off-grid solar energy.
6/12/2012	2012	DJ— Power Access and Diversification Project Additional Financing II ⁴¹	Djibouti	\$5,200,000	\$-	Focuses on fuel oil and diesel.
6/19/2012	2012	Butwal Power Company ⁴²	Nepal	\$3,000,000	\$-	Expands existing hydropower project and rural distribution.
7/5/2012	2013	AZ Second Rural Investment Project ⁴³	Azerbaijan	\$4,500,000	\$-	Energy component of the project does not use clean energy.
9/12/2012	2013	Green Infra Ltd. ⁴⁴	India	\$50,000,000	\$-	The solar energy supported is on-grid.
9/20/2012	2013	Bangladesh Rural Electrification and Renewable Energy Development II (RERED II) Project ⁴⁵	Bangladesh	\$155,000,000	\$155,000,000	Supports electricity for off-grid communities through solar home systems and mini-grids.
9/24/2012	2013	SES Power ⁴⁶	Regional - Middle East and North Africa	\$12,000,000	\$-	Their support for off-grid energy focuses on diesel.
9/24/2012	2013	SES Power ⁴⁷	Regional - Middle East and North Africa	\$5,100,000	\$-	Their support for off-grid energy focuses on diesel.
9/27/2012	2013	Haiti Rebuilding Energy Infrastructure and Access ⁴⁸	Haiti	\$90,000,000	\$7,830,000	A portion of the project supports off-grid energy.
11/1/2012	2013	Umeme Ltd ⁴⁹	Uganda	\$10,000,000	\$-	Focuses on grid extension.
11/29/2012	2013	Equatorial Energia S.A. ⁵⁰	Brazil	\$98,580,000	\$-	Available information suggests this investment supports large-scale, on-grid electricity.
12/14/2012	2013	NSL Wind ⁵¹	India	\$18,800,000	\$-	Supports wind turbines which will be connected to the national grid.
2/19/2013	2013	Rwanda Electricity Access Additional Financing ⁵²	Rwanda	\$54,000,000	\$-	Mostly supports grid expansion; “green connections” project aspect does not support off-grid generation.
2/21/2013	2013	PNG Energy Sector Development Project ⁵³	Papua New Guinea	\$7,300,000	\$3,650,000	Clean energy component of the project does not go towards deployment and installation. Counted as half distributed renewables because amount is unclear.
3/20/2013	2013	Bhilwara Captive ⁵⁴	India	\$7,560,000	\$-	Project involves wind generation and will be connected to the grid.
5/22/13	2013	Uganda Energy for Rural Transformation IPF Phase 2 Additional Financing ⁵⁵	Uganda	\$12,000,000	\$-	Project supports grid extension.
5/30/2013	2013	Liberia Accelerated Electricity Expansion Project (LACEEP) ⁵⁶	Liberia	\$35,000,000	\$-	Project involves extension of transmission and distribution systems.
6/18/2013	2013	Haiti Rebuilding Energy Infrastructure and Access ⁵⁷	Haiti	\$5,600,000	\$-	Energy aspects of project are not off-grid.
6/19/2013	2013	HN RURAL INFRASTRUCTURE PROJECT (AF) ⁵⁸	Honduras	\$6,000,000	\$3,000,000	A portion of this project supported off-grid energy. Counted as half distributed renewables because amount is unclear.

APPENDIX C: INTER-AMERICAN DEVELOPMENT BANK PROJECTS EVALUATED						
Project approval date	Fiscal Year	Project Name	Country	Total Amount	Amount Included	Rationale
3/3/2011	2011	Portable Light Project Brazil ⁵⁹	Brazil	\$260,000	\$260,000	Provides off-grid solar kits to poor families in Brazil.
4/13/2011	2011	Support to EC-L1087 Program (Ecuadorian Rural/Marginal Electrification Program) ⁶⁰	Ecuador	\$200,000	\$-	Supports network expansion.
4/25/2011	2011	Increasing Access to Sustainable Energy Technologies Using Remittances as a Sour ⁶¹	Haiti	\$760,000	\$760,000	Explores business models to support distributed clean energy.
7/25/2011	2011	National Sustainable Electrification and Renewable Energy Program (PNESER) ⁶²	Nicaragua	\$22,000,000	\$11,000,000	No off-grid components of this project have been deployed yet. Counted as half distributed clean energy because amount is unclear.
9/12/2011	2011	Sustainable Energy for All ⁶³	Regional – Latin America and the Caribbean	\$600,000	\$-	Policy focus. No information available that suggests off-grid development.
10/26/2011	2011	Fundacion Covelov – Renewable Energy Solutions for Rural Populations in Central A ⁶⁴	Regional – Central America	\$3,000,000	\$1,500,000	Unable to determine level of support for off-grid clean energy. Counted as half distributed clean energy because amount is unclear.
11/2/2011	2011	Electrification Program for rural and marginal urban areas of Ecuador ⁶⁵	Ecuador	\$40,000,000	\$-	Connects households through network expansion.
11/16/2011	2011	Biogas Market Development Program ⁶⁶	Nicaragua	\$2,080,000	\$-	Not counted as a clean energy source.
12/12/2011	2011	Rural Electrification Program in Ecuador ⁶⁷	Ecuador	\$180,000	\$-	Does not provide any funding for deployment of off-grid clean energy.
9/12/2012	2012	Introduction of Sustainable Business Models in Suriname Rural Electrification ⁶⁸	Suriname	\$1,692,889	\$-	No information available that suggests off-grid development.
9/20/2012	2012	Rural Electrification through Renewable Energy in Isolated Communities in Peru ⁹	Peru	\$330,586	\$330,586	Supports increased access for solar home systems for homes.
11/1/2012	2012	National Sustainable Electrification and Renewable Energy Program (PNESER) ⁷⁰	Nicaragua	\$35,000,000	\$10,000,000	No off-grid components of this project have been deployed yet. Counted 2/7 of total for distributed clean energy because amount is unclear, but two parts out of seven described for the project could be distributed clean energy.
11/20/2012	2012	Rural Electrification Program in Ecuador ⁷¹	Ecuador	\$400,000	\$200,000	Project supports off-grid energy, but none has been constructed yet. Counted as half distributed clean energy because amount is unclear.
11/26/2012	2012	Promotion, Support & Development of Sustainable Energy in Bolivia ⁷²	Bolivia	\$ 500,000	\$-	Focuses on hydro and grid extension, and evaluating solar thermal potential.
5/22/2013	2013	Sustainable Energy for Haiti ⁷³	Haiti	\$500,000	\$-	No information available that suggests off-grid development.
6/27/2013	2013	Access to Alternative Energy and Water Products through Credit and Distribution	El Salvador	\$990,000	\$495,000	Supports research on households solar energy and/or water purification systems. Counted as half distributed clean energy because energy amount is unclear.
7/8/2013	2013	Microfranchises for Access to Clean Energy in Rural Areas ⁷⁴	Bolivia	\$1,000,000	\$1,000,000	Provides support for off-grid clean energy.
8/1/2013	2013	Sustainable Off-grid Renewable Energy Solutions for Remote Communities ⁷⁶	Ecuador	\$996,861	\$996,861	Provides clean energy off-grid solutions for isolated communities.
9/10/2013	2013	New Credit Products for Clean Energy ⁷⁷	Honduras	\$140,000	\$140,000	Supports off-grid clean energy.
10/15/2013	2013	Electrification Program for rural and marginal urban areas of Ecuador ⁷⁸	Ecuador	\$150,000	\$150,000	Supports capacity building for off-grid clean energy.
11/6/2013	2013	Sustainable Business Models for Clean Cook Stoves Dissemination ⁷⁹	Honduras	\$2,189,620	\$ 2,189,620	Supports the dissemination of cook stoves.
11/6/2013	2013	Improve Sustainability of the Electricity Service ⁸⁰	Suriname	\$30,000,000	\$-	Focused on improving the grid and electricity sector.
11/20/2013	2013	Electrification Program for rural and marginal urban areas of Ecuador ⁸¹	Ecuador	\$30,000,000	\$15,000,000	No off-grid components of the project have been built yet. Counted as half distributed clean energy because amount is unclear.

APPENDIX D: ASIAN DEVELOPMENT BANK PROJECTS EVALUATED

Project Approval Date	FY	Project	Country	Amount	Amount Included	Rationale
1/27/2011	2011	Sustainable Power Sector Support – Sri Lanka ⁸²	Sri Lanka	\$120,000,000	\$-	Strengthens transmission network.
2/28/2011	2011	Port Moresby Power Grid Development Project ⁸³	Papua New Guinea	\$1,200,000	\$-	Supports distribution and transmission networks.
7/7/2011	2011	Madhya Pradesh Energy Efficiency Improvement Investment Program (Facility Concept) ⁸⁴	India	\$1,000,000	\$-	Supports distribution and transmission networks.
7/15/2011	2011	Madhya Pradesh Energy Efficiency Improvement Investment Program – Tranche 1 ⁸⁵	India	\$200,000,000	\$-	Supports distribution and transmission networks.
11/4/2011	2011	Assam Power Sector Enhancement Investment Program – Tranche 3 ⁸⁶	India	\$33,300,000	\$-	Project document focuses on transmission and distribution.
12/14/2011	2011	Madhya Pradesh Energy Efficiency Improvement Investment Program - Tranche 2 ⁸⁷	India	\$200,000,000	\$-	Supports distribution and transmission networks.
12/22/2011	2011	Energy Sector Development Investment Program – Tranche 3 ⁸⁸	Afghanistan	\$43,000,000	\$-	Supports transmission and grid extension.
9/25/2012	2012	Heilongjiang Energy Efficient District Heating Project ⁸⁹	China	\$150,000,000	\$-	District heating project; not distributed clean energy.
9/27/2012	2012	Provincial Renewable Energy Project (formerly Outer Island Renewable Energy Project) ⁹⁰	Solomon Islands	\$750,000	\$-	Project expands existing grid.
12/10/2012	2012	Implementation of the Electricity Industry Policy ⁹¹	Papua New Guinea	\$1,000,000	\$-	Includes building of grid development plan.
12/14/2012	2012	Medium-Voltage Sub-Transmission Expansion Sector Project (former name: Rural Electrification Project) ⁹²	Cambodia	\$45,000,000	\$-	Project supports transmission and distribution.
12/18/2012	2012	Energy Access Project ⁹³	Vanuatu	\$750,000	\$-	Supports grid extension.
12/18/2012	2012	Energy Sector Development Investment Program-Tranche 4 ⁹⁴	Afghanistan	\$200,000,000	\$-	Supports grid extension.
1/15/2013	2013	Off Grid Pay-As-You-Go Solar Power ⁹⁵	India	\$2,000,000	\$2,000,000	Supports off-grid clean energy.
2/21/2013	2013	Tanahu Hydropower Project ⁹⁶	Nepal	\$150,000,000	\$-	Project is large hydropower.
4/26/2013	2013	Port Moresby Power Grid Development Project ⁹⁷	Papua New Guinea	\$66,700,000	\$-	Project supports grid development.
6/25/2013	2013	Access to Green Finance Project ⁹⁸	Tajikistan	\$10,000,000	\$5,000,000	May support distributed clean energy, amount unclear.
6/27/2013	2013	Outer Island Renewable Energy Project ⁹⁹	Tonga	\$2,000,000	\$1,000,000	Counted as half distributed clean energy because amount is unclear.
7/15/2013	2013	Low-Carbon District Heating Project in Hohhot in Inner Mongolia Autonomous Region ¹⁰⁰	China	\$600,000	\$-	District heating project; not distributed clean energy.
8/27/2013	2013	West Kalimantan Power Grid Strengthening Project ¹⁰¹	Indonesia	\$49,500,000	\$-	Project supports new transmission lines.
9/30/2013	2013	Green Power Development Project ¹⁰²	Bhutan	\$39,000,000	\$19,500,000	Counted as half distributed clean energy because amount is unclear.
10/16/2013	2013	Public-Private Infrastructure Development Facility ¹⁰³	Bangladesh	\$110,000,000	\$110,000,000	Institutional support for IDCOL.
11/27/2013	2013	Madhya Pradesh Power Transmission and Distribution System Improvement Project ¹⁰⁴	India	\$350,000,000	\$-	Improves transmission and distribution of grid.
11/28/2013	2013	Golovnaya 240-Megawatt Hydropower Plant Rehabilitation Project ¹⁰⁵	Tajikistan	\$136,000,000	\$-	Increases power generation capacity and operational efficiency of hydropower plant.
11/28/2013	2013	Electricity Supply Security and Sustainability ¹⁰⁶	Nauru	\$500,000	\$-	Project does not include off-grid clean energy.
12/4/2013	2013	Energy Sector Development Investment Program-Tranche 4 ¹⁰⁷	Afghanistan	\$49,100,000	\$-	Project does not include off-grid component.
12/6/2013	2013	Power Transmission and Distribution Improvement Project ¹⁰⁸	Myanmar	\$60,000,000	\$-	Project does not support off-grid energy.

APPENDIX E: AFRICAN DEVELOPMENT BANK PROJECTS EVALUATED

Project approval date	Fiscal Year	Project Name	Country	Total Amount	Amount Included	Rationale
1/21/2011	2011	Projet d'electrification rurale Guinea ¹⁰⁹	Guinea	\$22,963,600	\$-	Constructs electrical infrastructure and expands distribution networks.
3/4/2011	2011	Building electrical infrastructure and rural electrification-Cameroon ¹¹⁰	Cameroon	\$48,567,400	\$-	Extension of electrical transmission and distribution.
11/10/2011	2011	Lom-Pangar Hydroelectric Project ¹¹¹	Cameroon	\$68,967,550	\$-	Supports construction of hydropower with transmission lines.
12/14/2011	2011	Menengai Geothermal Development Project ¹¹²	Kenya	\$122,800,000	\$-	Supports geothermal energy.
3/30/2012	2012	Interconnection and electricity distribution ¹¹³	Cape Verde	\$12,941,540	\$-	Supports grid extension.
6/13/2012	2012	Integrated Wind/Hydro Rural Electrification Program ¹¹⁴	Morocco	\$182,254,570	\$-	Connects households to grid.
6/13/2012	2012	Itezhi-Tezhi Hydro power plant and transmission line ¹¹⁵	Zambia	\$46,110,000	\$-	Constructs transmission line, substations, and distribution networks.
9/19/2012	2012	Projet de developpement du systeme Boali ¹¹⁶	Regional - Sub-Saharan Africa	\$45,695,010	\$-	Supports construction and strengthening of dam system, including transmission lines.
9/19/2012	2012	Ethiopia-Kenya Electricity Highway ¹¹⁷	Kenya	\$115,275,000	\$-	Supports building a transmission line and substations.
9/19/2012	2012	Interconnexion des reseaux electriques RCA-RDC a partir du systeme hydroelectrique de Boali Phase 1 ¹¹⁸	Regional - Sub-Saharan Africa	\$8,530,350	\$-	Increases hydropower capacity and builds transmission line.
6/26/2013	2013	Scaling-up Energy Access Project ¹¹⁹	Rwanda	\$42,142,100	\$-	Upgrades substations and extends the national grid.
7/10/2013	2013	Cameroon-Chad Electrical Interconnection ¹²⁰	Regional - Sub-Saharan Africa	\$3,850,000	\$-	Assesses technical, economic, and financial feasibility of interconnection project and electrification development centers.
9/11/2013	2013	Project Assistance for the Energy Sector ¹²¹	Comoros	\$8,285,200	\$-	Project focuses on production capacity and distribution network.
11/6/2013	2013	CLSG – Cote d'Ivoire ¹²²	Cote D'Ivoire	\$40,306,420	\$-	Project supports grid extension.
11/6/2013	2013	CLSG Liberia ¹²³	Liberia	\$12,477,080	\$-	Project supports grid extension.
11/6/2013	2013	CLSG Sierra Leone ¹²⁴	Sierra Leone	\$24,693,900	\$-	Project supports grid extension.
11/6/2013	2013	CLSG Guinea ¹²⁵	Guinea	\$45,805,760	\$-	Project supports grid extension.
11/6/2013	2013	CLSG Electrical Interconnection Project ¹²⁶	Cote d'Ivoire	\$1,110,340	\$-	Project supports grid extension.
11/6/2013	2013	CLSG Electrical Interconnection Project ¹²⁷	Guinea	\$120,274	\$-	Project supports grid extension.
11/6/2013	2013	CLSG Electrical Interconnection Project ¹²⁸	Cote d'Ivoire	\$9,403,240	\$-	Project supports grid extension.
11/6/2013	2013	CLSG-Rural Electrification – Liberia ¹²⁹	Liberia	\$27,655,320	\$-	Project supports grid extension.
11/6/2013	2013	CLSG-Rural Electrification Sierra Leone ¹³⁰	Sierra Leone	\$7,518,280	\$-	Project supports grid extension.
11/6/2013	2013	CLSG-Rural Electrification Guinea ¹³¹	Guinea	\$15,823,500	\$-	Project supports grid extension.

ENDNOTES

- 1 While the AfDB targets energy access, its approach is highly skewed towards grid extension with no investment flowing to off-grid or mini-grid solutions. Some Trust Fund programs such as the Dutch-financed FINESSE program, which has expired, have included support for small-scale, distributed renewables. However, these Trust Fund projects are not funded from MDB money and thus are not included in this report.
- 2 International Energy Agency (2011). *World Energy Outlook 2011*. Available at: <http://www.worldenergyoutlook.org/publications/weo-2011/>.
- 3 United Nations (2012). "United Nations General Assembly Declares 2014 – 2024 Decade of Sustainable Energy for All." Available at: <http://www.un.org/News/Press/docs/2012/ga11333.doc.htm>.
- 4 *ibid*
- 5 International Energy Agency (2011). *World Energy Outlook 2011*. Available at: <http://www.worldenergyoutlook.org/publications/weo-2011/>.
- 6 International Renewable Energy Agency (2013). "IOREC 2012 International Off-Grid Renewable Energy Conference: Key Findings and Recommendations." Available at: http://www.irena.org/DocumentDownloads/Publications/IOREC_Key%20Findings%20and%20Recommendations.pdf.
- 7 See Craine, Stewart, Evan Mills, & Justin Guay (2014). "Clean Energy Services for All: Financing Universal Electrification." Available at: http://action.sierraclub.org/site/DocServer/0747_Clean_Energy_Services_Report_03_web.pdf?docID=15922.
- 8 Oil Change International (2014). "Shift the Subsidies." Available at: <http://shifftthesubsidies.org>.
- 9 The World Bank Group includes: International Bank for Reconstruction and Development, International Development Association, International Finance Corporation, and Multilateral Investment Guarantee Agency.
- 10 Oil Change International (2014). "Shift the Subsidies." Available at: <http://shifftthesubsidies.org>.
- 11 Oil Change International (2014). "Shift the Subsidies." Available at: <http://shifftthesubsidies.org>.
- 12 Examples of MDB publicly available project documents that were utilized in this assessment include: project information documents, project appraisal documents, project data sheets and procurement plans.
- 13 While the AfDB targets energy access, its approach is highly skewed towards grid extension with no investment flowing to off-grid or mini-grid solutions. Some Trust Fund programs such as the Dutch-financed FINESSE program, which has expired, have included support for small-scale, distributed renewables. However, these Trust Funds projects are not funded from MDB and thus, are not included in this report, which specifically focuses on MDB core funds.
- 14 International Energy Agency (2011). *World Energy Outlook 2011*. Available at: <http://www.worldenergyoutlook.org/publications/weo-2011/>.
- 15 Our methodology only counts bank funds, but it is worth mentioning that trust funds such as the Sustainable Energy Fund for Africa (SEFA) – funded by the Government of Denmark and administered by the African Development Bank – do provide support for small-scale renewable energy projects.
- 16 International Energy Agency (2011). "Access to Electricity." Available at: <http://www.worldenergyoutlook.org/resources/energydevelopment/accesstolectricity/>.
- 17 http://www.wds.worldbank.org/external/default/WDSContentServer/WDSP/IB/2013/07/17/000456286_20130717103746/Rendered/PDF/795970.SST0SecMQQbox377380B00PUBLICQ.pdf.
- 18 <http://www.adb.org/sectors/energy/policy>.
- 19 <http://www.adb.org/sectors/energy/programs/energy-for-all-initiative>.
- 20 <http://www.adb.org/sites/default/files/pub/2014/energy-for-all-flyer.pdf>.
- 21 International Energy Agency (2011). "Access to Electricity." Available at: <http://www.worldenergyoutlook.org/resources/energydevelopment/accesstolectricity/>.
- 22 http://www.afdb.org/fileadmin/uploads/afdb/Documents/Policy-Documents/Energy_Sector_Policy_of_the_AfDB_Group.pdf.
- 23 International Energy Agency (2011). *World Energy Outlook 2011*. Available at: <http://www.worldenergyoutlook.org/publications/weo-2011/>.
- 24 Independent Evaluation Group. "Work Program and Budget (FY15) and Indicative Plan (FY16 – 17)." Available at: http://ieg.worldbankgroup.org/Data/fy15_work_program.pdf.
- 25 Oil Change International (2014). "Shift the Subsidies: Methodology." Available at: <http://shifftthesubsidies.org/#methodology>.
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- 27 <http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P121325>.
- 28 <http://www.worldbank.org/projects/P120108/gpoba-uganda-energy-rural-transformation?lang=en>.
- 29 <http://www.worldbank.org/projects/P117370/second-poverty-reduction-support-credit-prsc-2?lang=en&tab=overview>.
- 30 <http://www.worldbank.org/projects/P117864/second-rural-electrification?lang=en&tab=overview>.
- 31 <http://web.worldbank.org/external/projects/main?pagePK=64283627&piPK=73230&theSitePK=40941&menuPK=228424&Projectid=P117864>.
- 32 <http://www.worldbank.org/projects/P084773/vn-trung-son-hydropower-project?lang=en&tab=overview>.
- 33 <http://www.worldbank.org/projects/P112893/kabeli-transmission-project?lang=en&tab=overview>.
- 34 <http://ifcext.ifc.org/ifcext/spiwebsite1.nsf/691dc919852ef1a285256efb0071ac10/6107a9930ed9c76a852577e5004e66c7?opendocument>.
- 35 <http://ifcext.ifc.org/ifcext/spiwebsite1.nsf/0/129257289d15d160852577f30079be62>.
- 36 <http://www.worldbank.org/projects/P126724/additional-financing-ii-rural-electrification-renewable-energy-development-project?lang=en>.
- 37 <http://www.worldbank.org/projects/P126355/sierra-leone-fifth-governance-reform-growth-credit?lang=en>.
- 38 <https://ifcndd.ifc.org/ifcext/spiwebsite1.nsf/78e3b305216fcdba85257a8b0075079d/01c496358be12bed85257917006ac626?opendocument>.
- 39 <http://www.worldbank.org/projects/P119893/electricity-network-reinforcement-expansion-project-enrep?lang=en>.
- 40 <https://ifcndd.ifc.org/ifcext/spiwebsite1.nsf/78e3b305216fcdba85257a8b0075079d/7ea1e280add18091852579f1006a79b3?opendocument>.
- 41 <http://www.worldbank.org/projects/P130493/dj- power-access-diversification-project-additional-financing-ii?lang=en>.
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