

Low-carbon Energy Projects for
Development in Sub-Saharan Africa
Unveiling the Potential, Addressing the Barriers

Results per Country

Companion volume (vol. 2)

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The Norwegian Trust Fund for Private Sector and Infrastructure (NTF-PSI), established by the Royal Norwegian Ministry of Foreign Affairs and the World Bank Group (WBG) in 2002, is an “umbrella” trust fund for supporting private-sector development and infrastructure within WBG operations. The NTF-PSI funds activities across the World Bank and International Finance Corporation (IFC) that aim to develop WBG and client-country capacity, promote inclusion of cross-cutting issues into World Bank and IFC operations, and foster cooperation among WBG units.

NTF-PSI activities are broadly grouped into four strategic windows: investment climate and governance, infrastructure service delivery to the poor, petroleum governance initiative, and existing global/regional programs or multi-donor trust funds. Proposed themes, activities, and programs are prioritized by the WBG and agreed between the WBG and the Donor during semi-annual discussions. Contribution funds target the poorest countries comprising the bottom three categories of the Development Assistance Committee List of Aid Recipients (least developed, other low-income countries, and lower middle-income countries), with approximately 50 percent of funds allocated for Africa.

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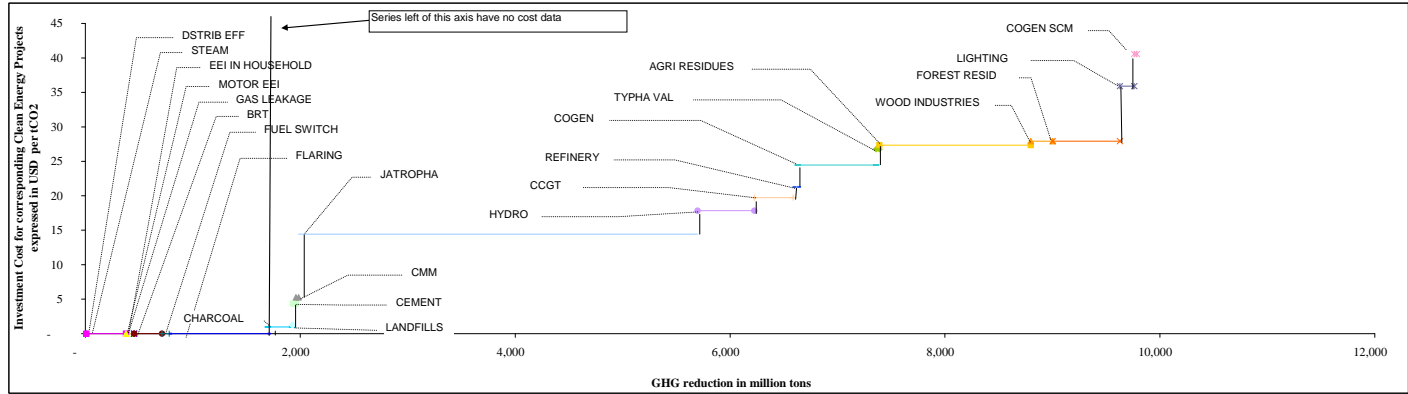
Consolidated Results for Africa (All)

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

No cost data was available for the listed categories

Sector	Investment Cost (\$/tCO2)	Reduction over project life (10 or 21 years)
DISTRIB EFF IN STEAM	-	366
EEI IN HOUSEH	-	74
MOTOR EEI	-	1
GAS LEAKAGE	-	1
BRT	-	260
FUEL SWITCH	-	66
FLARING	-	918
CHARCOAL	1	225
LANDFILLS	1	9
CEMENT	4	28
CMM	5	25
JATROPHA	14	3,712
HYDRO	18	529
CCGT	20	361
REFINERY	21	43
COGEN	24	729
TYPHA VAL	27	31
AGRI RESIDUE!	27	1,408
WOOD INDUST	28	203
FOREST RESID	28	626
LIGHTING	36	133
COGEN SCM	41	24

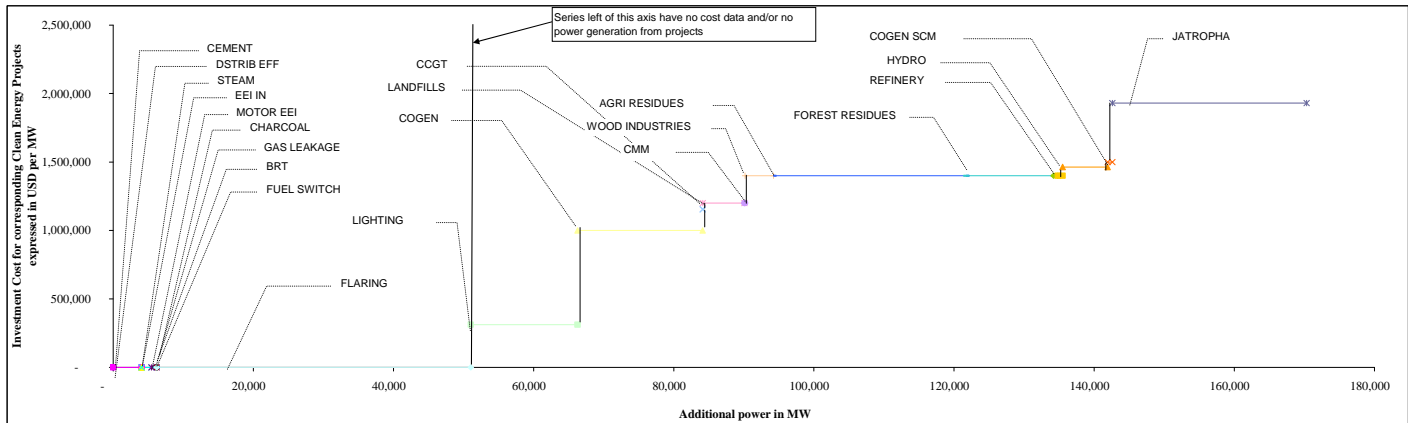


Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

No cost data and/or no power generation from projects

Sector	Investment Cost (\$/MW)	Additional power due to implementation (load factor = 90%/MW)
CEMENT	-	15,246
DISTRIB EFF IN STEAM	-	17,844
EEI IN HOUSEH	-	1,412
MOTOR EEI	-	740
CHARCOAL	-	-
GAS LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
FLARING	-	44,826
LIGHTING	312,500	15,246
COGEN	1,000,000	17,844
LANDFILLS	1,154,813	10
CCGT	1,200,000	5,931
CMM	1,200,000	109
WOOD INDUST	1,400,000	4,057
AGRI RESIDUE!	1,400,000	27,504
FOREST RESID	1,400,000	12,483
TYPHA VAL	1,400,000	593
REFINERY	1,400,000	659
HYDRO	1,463,517	6,443
COGEN SCM	1,500,000	661
JATROPHA	1,930,533	27,748



* A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Africa (All)

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	204	373	67	553	321	406	40	55	3	555	46	26
Annual emissions reductions in tCO2 per year	36,080,815	72,940,120	2,442,294	140,843,059	62,578,626	20,339,706	3,102,880	91,760,900	895,694	176,761,983	2,841,229	4,338,440
Emissions reductions in percent of the country emissions	5.3%	10.7%	0.4%	20.7%	9.2%	3.0%	0.5%	13.5%	0.1%	26.0%	0.4%	0.6%
Reduction over project life (10 or 21 years)	360,808,148	729,401,198	24,422,941	1,408,430,587	625,786,259	203,397,057	31,028,800	917,608,995	8,956,943	3,712,001,534	28,412,291	43,384,396
Value of the emissions reductions in dollars (base 10 US\$/tCO2)	3,608,081,482	7,294,011,976	244,229,410	14,084,305,870	6,257,862,589	2,053,867,084	310,288,000	9,176,089,952	89,569,428	37,120,016,342	284,122,911	433,843,960
Value of the emissions reductions in dollars (base 05 US\$/tCO2)	1,804,040,741	3,647,005,988	122,114,705	7,042,152,935	3,128,931,295	1,029,900,617	155,144,000	4,588,044,976	44,784,714	18,560,008,171	142,061,456	216,921,980
Annual electricity generation of the projects in GWh	51,912	156,314	3,489	216,842	98,415	31,987	4,675	353,409	49	218,767	-	5,777
Annual electricity generation of the country in GWh (base 2003)	327,079	327,079	327,079	327,079	327,079	327,079	327,079	327,079	327,079	327,079	327,079	327,079
Projects electricity generation as a percent of the country electricity ge	16%	48%	1%	66%	30%	10%	1%	108%	0%	67%	0%	2%
Annual electricity consumption of the country (base 2003)	294,825	294,825	294,825	294,825	294,825	294,825	294,825	294,825	294,825	294,825	294,825	294,825
Additional power due to the projects implementation (load factor = 90%)	5,931	17,844	661	27,504	12,483	4,057	593	44,826	10	27,748	-	659
Countries' installed power in MW	68,841	68,841	68,841	68,841	68,841	68,841	68,841	68,841	68,841	68,841	68,841	68,841
Additional power as a percent of the country power	8.6%	25.9%	1.0%	40.0%	18.1%	5.9%	0.9%	65.1%	0.0%	40.3%	0.0%	1.0%
Total cost of the projects in million US\$	7,117	17,844	991	38,506	17,476	5,680	830	-	11	53,569	124	923

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects or PoAs number	20	211	49	30	20	18	68	13	63	26	60
Annual emissions reductions in tCO2 per year	1,131,566	36,636,292	13,267,555	7,440,033	1,534,021	2,472,075	22,475,397	72,102	12,390,164	25,172,819	3,151,641
Emissions reductions in percent of the country emissions	2.2%	5.4%	2.0%	1.1%	0.2%	0.4%	3.3%	0.0%	1.8%	3.7%	0.5%
Reductions over project life (10 or 21 years)	11,315,664	366,362,919	132,675,549	74,400,332	1,388,955	24,720,752	224,753,971	721,019	260,193,452	528,629,192	66,180,679
Value of the emissions reductions in dollars (base 10 US\$/tCO2)	113,156,638	3,663,629,186	1,326,755,491	744,003,318	13,889,550	247,207,522	2,247,539,707	7,210,195	2,601,934,521	5,286,291,915	661,806,785
Value of the emission reduction in dollars (base 05 US\$/tCO2)	56,578,319	1,831,814,593	663,377,745	372,001,659	6,944,775	123,603,761	1,123,769,854	3,605,097	1,300,967,261	2,643,145,958	330,903,393
Annual electricity generation of the projects in GWh	31,974	-	17,269	11,131	5,837	809	-	-	-	35,961	-
Annual electricity generation of the country in GWh (base 2003)	327,079	327,079	327,079	327,079	327,079	327,079	327,079	327,079	327,079	327,079	327,079
Projects electricity generation as a percent of the country electricity generation	10%	0%	5%	3%	2%	0%	0%	0%	0%	11%	0%
Annual electricity consumption of the country (base 2003)	294,825	294,825	294,825	294,825	294,825	294,825	294,825	294,825	294,825	294,825	294,903
Additional power due to the projects implementation (load factor = 90%) MW	4,056	-	15,246	1,412	740	109	-	-	-	6,443	-
Countries' installed power in MW	68,841	68,841	68,841	68,841	68,841	68,841	68,841	68,841	68,841	68,841	68,841
Additional power as a percent of the country power	5.9%	0.0%	22.1%	2.1%	1.1%	0.2%	0.0%	0.0%	0.0%	9.4%	0.0%
Total cost of the projects in million US\$	-	-	4,764	-	-	130	218	-	-	9,429	-

	All sectors/technologies aggregated
Projects number (counting 1 PoA as 1 project)	3,227
PoA number	361
Annual emissions reductions in tCO2 per year	740,669,229
Country GHG emissions in 2005	679,584,442
Emissions reductions in percent of the country emissions	109.0%
Reductions over projects life (10 or 21 years)	9,784,981,732
Value of the emissions reductions in dollars (base 10 US\$/tCO2)	97,869,713,834
Value of the emissions reductions in dollars (base 05 US\$/tCO2)	48,937,823,991
Annual electricity generation of the project in GWh	1,244,618
Annual electricity generation of the country in GWh (base 2003)	327,079
Projects electricity generation as a percent of the country electricity ge	381%
Annual electricity consumption of the country (base 2003)	294,825
Additional power due to the projects implementation (load factor = 90%)	155,076
Countries' installed power in MW	68,841
Additional power as a percent of the country power	225.3%
Total cost of the projects in million US\$	157,614

* A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

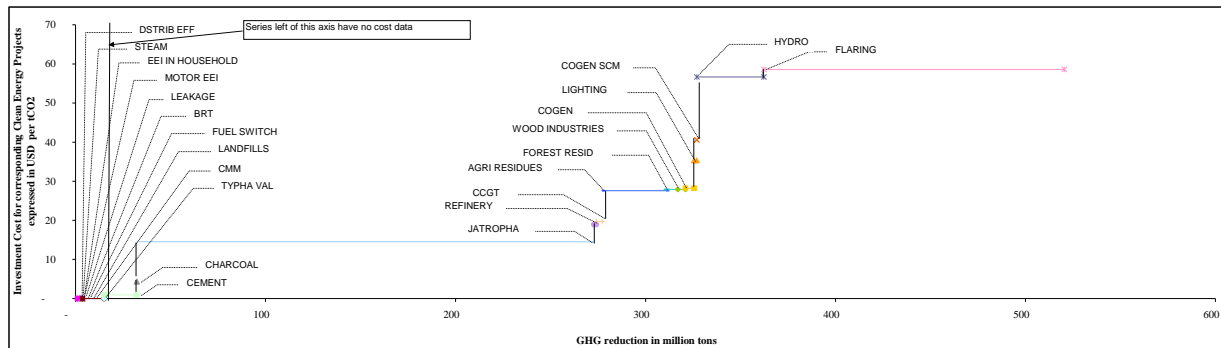
Consolidated Results for Angola

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
DISTRIB EFF IMP	-	1
STEAM	-	2
EI IN HOUSEHOLD	-	2
MOTOR EEI	-	0
LEAKAGE	-	0
BRT	-	0
FUEL SWITCH	-	11
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	17
CHARCOAL	1	0
CEMENT	4	0
JATROPHA	15	240
REFINERY	19	1
CCGT	20	3
AGRI RESIDUES	28	34
FOREST RESID	28	6
WOOD INDUSTRIES	28	4
COGEN	28	5
LIGHTING	35	1
COGEN SCM	41	0
HYDRO	57	35
FLARING	59	158

No cost data was available in the listed categories

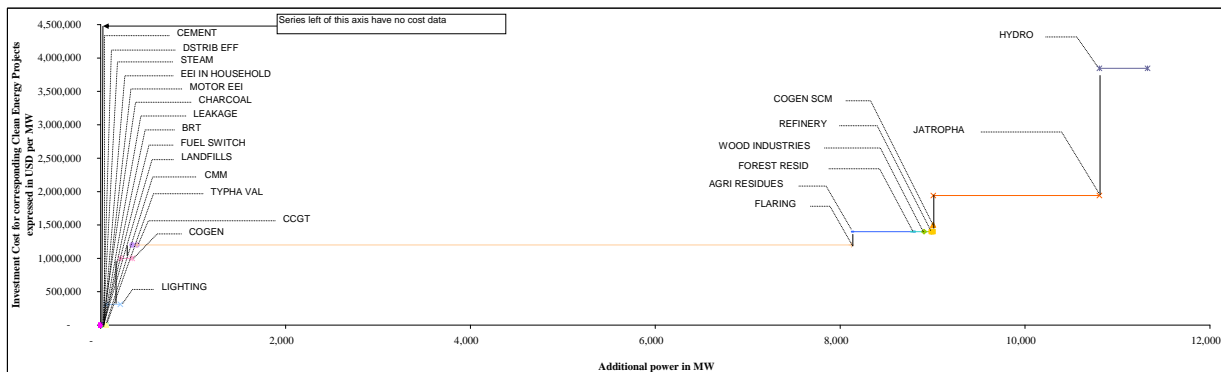


Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) (MW)
CEMENT	-	47
DISTRIB EFF IMP	-	47
STEAM	-	47
EI IN HOUSEHOLD	-	7
MOTOR EEI	-	4
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
COGEN	-	-
CCGT	-	-
LIGHTING	312,500	154
COGEN	1,000,000	128
CCGT	1,200,000	51
FLARING	1,200,000	7,729
AGRI RESIDUES	1,400,000	667
FOREST RESID	1,400,000	119
WOOD INDUSTRIES	1,400,000	79
REFINERY	1,400,000	17
COGEN SCM	1,500,000	3
JATROPHA	1,941,771	1,798
HYDRO	3,846,154	520

No cost data and/or no power generation from projects



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reduction cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in USD/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Angola

Country Data for Angola

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	8	6	1	13	3	8	-	8	-	36	1	1
Annual emission reduction in tCO2 per year	311,793	454,053	11,088	3,384,358	596,245	397,280	-	15,821,650	-	11,451,863	26,426	128,474
Emissions reduction in percent of the country emissions	1.5%	2.2%	0.1%	16.6%	2.9%	1.9%	0.0%	77.6%	0.0%	56.2%	0.1%	0.6%
Reduction over project life (10 or 21 years)	3,117,928	4,540,528	110,880	33,843,576	5,962,446	3,972,795	-	158,216,500	-	240,489,120	264,264	1,284,736
Value of the emission reduction in dollars (base 10 US\$/tCO2)	31,179,283	45,405,280	1,108,800	338,435,759	59,624,463	59,624,463	-	1,582,165,000	-	2,404,891,198	2,642,640	12,847,362
Value of the emission reduction in dollars (base 05 US\$/tCO2)	15,589,642	22,702,640	554,400	169,217,880	29,812,232	29,812,232	-	791,082,500	-	1,202,445,599	1,321,320	6,423,681
Annual electricity generation of the project in GWh	4,944	1,122	16	5,258	938	625	-	60,936	-	14,173	-	152
Annual electricity generation of the country in GWh (base 2003)	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920
Project electricity generation as a percent of the country electricity generation	3	1	0	3	0	0	-	32	-	7	-	0
Annual electricity consumption of the country (base 2003)	1,780	1,780	1,780	1,780	1,780	1,780	1,780	1,780	1,780	1,780	1,780	1,780
Additional power due to the project implementation (load factor = 90%) MW	51	128	3	667	119	79	-	7,729	-	1,798	-	17
Countries' installed power in MW	670	670	670	670	670	670	670	670	670	670	670	670
Additional power as a percent of the country power	7.6%	19.1%	0.4%	99.5%	17.8%	11.8%	0.0%	1153.6%	0.0%	268.3%	0.0%	2.6%
Total cost of the project in million US\$	62	128	5	934	167	111	-	9,275	-	3,491	1	24

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	7	1	1	-	-	158	1	1	1	-
Annual emission reduction in tCO2 per year	108,475	230,608	136,579	17,186	3,403	-	1,708,015	2,050	541,111	1,680,000	-
Emissions reduction in percent of the country emissions	0.5%	1.1%	0.7%	0.1%	0.0%	0.0%	8.4%	0.0%	2.7%	8.2%	0.0%
Reduction over project life (10 or 21 years)	1,084,748	2,306,078	1,365,796	171,855	34,027	-	17,080,152	20,497	11,363,321	35,280,000	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	10,847,480	23,060,777	13,657,863	1,718,553	340,265	-	170,801,516	204,965	113,633,209	352,800,000	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	5,423,740	11,530,389	6,828,932	859,277	170,133	-	85,400,758	102,483	56,816,605	176,400,000	-
Annual electricity generation of the project in GWh	369	-	169	58	35	-	-	-	-	2,400	-
Annual electricity generation of the country in GWh (base 2003)	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920	1,920
Project electricity generation as a percent of the country electricity generation	0	-	0	0	0	-	-	-	-	1	-
Annual electricity consumption of the country (base 2003)	1,780	1,780	1,780	1,780	1,780	1,780	1,780	1,780	1,780	1,780	1,780
Additional power due to the project implementation (load factor = 90%) MW	47	-	154	7	4	-	-	-	-	520	-
Countries' installed power in MW	670	670	670	670	670	670	670	670	670	670	670
Additional power as a percent of the country power	7.0%	0.0%	23.0%	1.1%	0.7%	0.0%	0.0%	0.0%	0.0%	77.6%	0.0%
Total cost of the project in million US\$	-	-	48	-	-	-	17	-	-	2,000	-

	All sectors/technologies aggregated
Projects number	251
PoA number	3
Annual emission reduction in tCO2 per year	37,010,653
Country GHG emissions in 2005	20,394,890
Emissions reduction in percent of the country emissions	181.5%
Reduction over project life (10 or 21 years)	520,509,236
Value of the emission reduction in dollars (base 10 US\$/tCO2)	5,224,988,878
Value of the emission reduction in dollars (base 05 US\$/tCO2)	2,612,494,439
Annual electricity generation of the project in GWh	91,195
Annual electricity generation of the country in GWh (base 2003)	1,920
Project electricity generation as a percent of the country electricity generation	47
Annual electricity consumption of the country (base 2003)	1,780
Additional power due to the project implementation (load factor = 90%) MW	11,170
Countries' installed power in MW	670
Additional power as a percent of the country power	1690.2%
Total cost of the project in million US\$	16,261

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

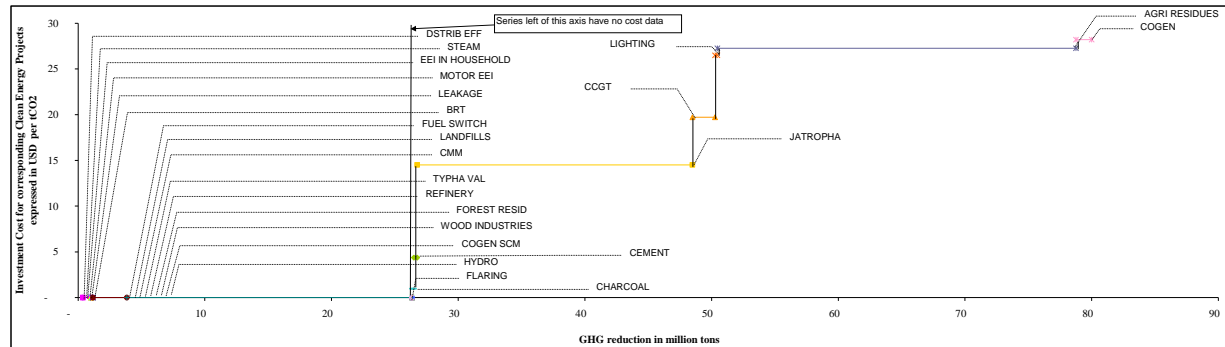
Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM project activities generating certified emission reductions (CERs).

Consolidated Results for Benin

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

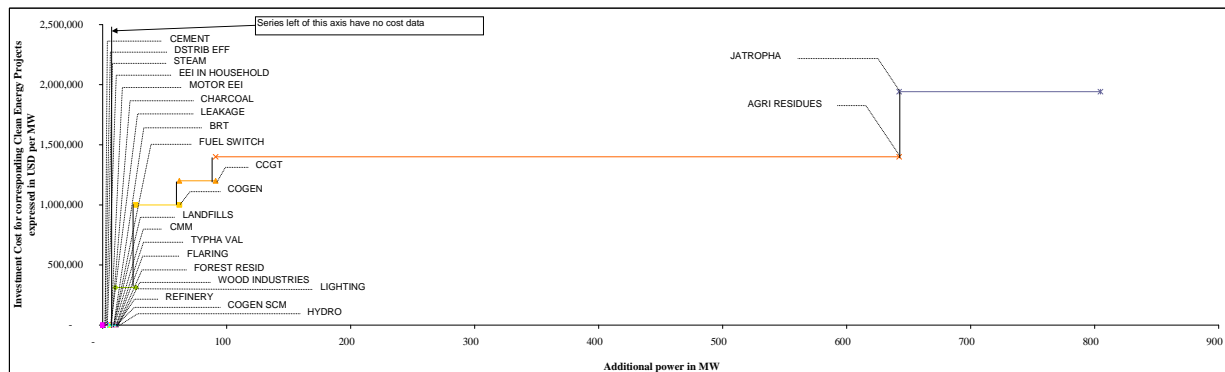
Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
REFINERY	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
COGEN SCM	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	0
CEMENT	4	0
JATROPHA	16	2
CCGT	20	2
LIGHTING	26	2
AGRI RESIDUES	27	2
COGEN	28	1



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
FLARING	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
REFINERY	-	-
COGEN SCM	-	-
HYDRO	-	-
LIGHTING	312,500	16
COGEN	1,000,000	35
CCGT	1,200,000	29
AGRI RESIDUES	1,400,000	551
JATROPHA	1,841,771	162



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)
 Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Benin

Country Data for Benin

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	3	3	-	11	-	-	-	-	-	3	3	-
Annual emission reduction in tCO2 per year	178,167	124,434	-	2,830,108	-	-	-	-	-	1,034,469	26,426	-
Emissions reduction in percent of the country emissions	7.8%	5.5%	0.0%	124.6%	0.0%	0.0%	0.0%	0.0%	0.0%	45.5%	1.2%	0.0%
Reduction over project life (10 or 21 years)	1,781,673	1,244,340	-	28,301,080	-	-	-	-	-	21,724,478	264,264	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	17,816,733	12,443,402	-	283,010,798	-	-	-	-	-	217,244,777	2,642,640	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	8,908,367	6,221,701	-	141,505,399	-	-	-	-	-	108,622,389	1,321,320	-
Annual electricity generation of the project in GWh	234	307	-	4,345	-	-	-	-	1,280	240	240	240
Annual electricity generation of the country in GWh (base 2003)	240	240	240	240	240	240	240	240	240	240	240	240
Project electricity generation as a percent of the country electricity generation	1	1	-	18	-	-	-	-	5	5	5	5
Annual electricity consumption of the country (base 2003)	593	593	593	593	593	593	593	593	593	593	593	593
Additional power due to the project implementation (load factor = 90%) MW	29	35	-	551	-	-	-	-	162	71	71	71
Countries' installed power in MW	71	71	71	71	71	71	71	71	71	71	71	71
Additional power as a percent of the country power	41.4%	49.6%	0.0%	779.5%	0.0%	0.0%	0.0%	0.0%	229.7%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	35	35	-	772	-	-	-	-	315	1	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	2	1	1	-	-	1	-	1	-	20
Annual emission reduction in tCO2 per year	37,223	63,198	19,298	6,389	9,432	-	14,520	-	127,684	-	1,071,925
Emissions reduction in percent of the country emissions	1.6%	2.8%	0.8%	0.3%	0.4%	0.0%	0.6%	0.0%	5.6%	0.0%	47.2%
Reduction over project life (10 or 21 years)	372,326	631,985	192,977	63,889	94,324	-	145,200	-	2,681,374	-	22,510,435
Value of the emission reduction in dollars (base 10 US\$/tCO2)	3,723,264	6,319,849	1,929,768	638,893	943,243	-	1,452,000	-	26,813,737	-	225,104,349
Value of the emission reduction in dollars (base 05 US\$/tCO2)	1,861,632	3,159,925	964,884	319,446	471,621	-	726,000	-	13,406,868	-	112,552,174
Annual electricity generation of the project in GWh	46	-	24	24	12	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	240	240	240	240	240	240	240	240	240	240	240
Project electricity generation as a percent of the country electricity generation	0	-	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	593	593	593	593	593	593	593	593	593	593	593
Additional power due to the project implementation (load factor = 90%) MW	6	-	16	3	1	-	-	-	-	-	-
Countries' installed power in MW	71	71	71	71	71	71	71	71	71	71	71
Additional power as a percent of the country power	8.3%	0.0%	23.1%	4.3%	2.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	5	-	-	-	0	-	-	-	-

	All sectors/technologies aggregated
Projects number	51
PoA number	-
Annual emission reduction in tCO2 per year	5,543,315
Country GHG emissions in 2005	2,271,994
Emissions reduction in percent of the country emissions	244.0%
Reduction over project life (10 or 21 years)	80,008,345
Value of the emission reduction in dollars (base 10 US\$/tCO2)	800,083,452
Value of the emission reduction in dollars (base 05 US\$/tCO2)	400,041,726
Annual electricity generation of the project in GWh	6,273
Annual electricity generation of the country in GWh (base 2003)	240
Project electricity generation as a percent of the country electricity generation	26
Annual electricity consumption of the country (base 2003)	593
Additional power due to the project implementation (load factor = 90%) MW	788
Countries' installed power in MW	71
Additional power as a percent of the country power	1138.0%
Total cost of the project in million US\$	1,164

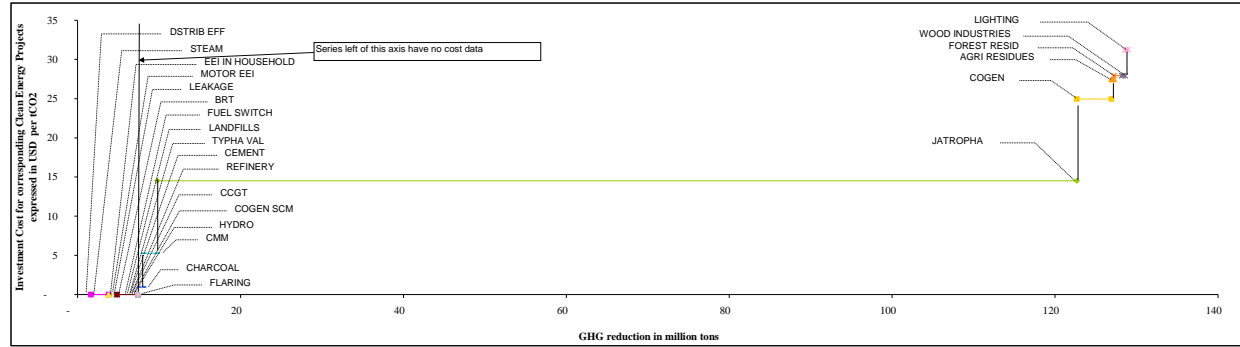
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

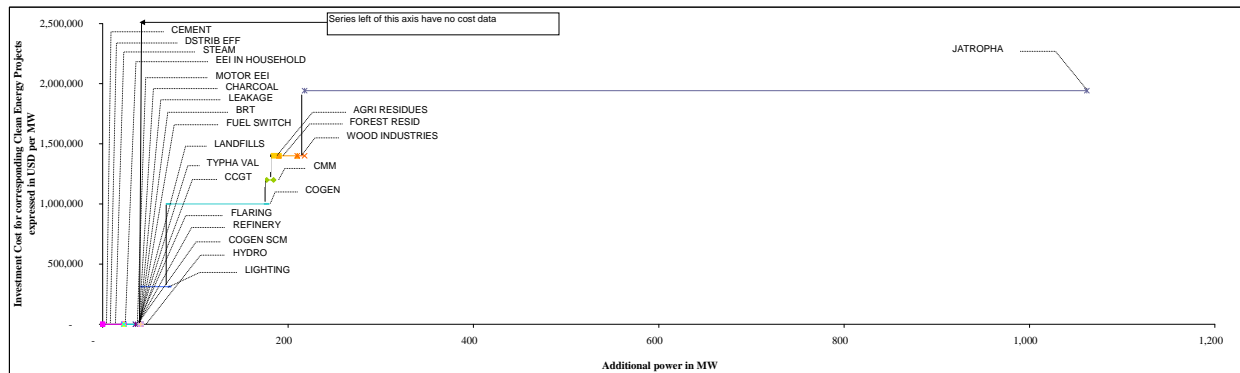
Sector	Investment Cost (\$/tCO2)	Reduction over the project lifetime (10 or 21 years)
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	0
LEAKAGE	-	-
BRT	-	0
FUEL SWITCH	-	3
LANDFILLS	-	-
TYPHA VAL	-	-
CEMENT	-	-
REFINERY	-	-
CCGT	-	-
COGEN SCM	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	1
CMM	5	2
JATROPHA	15	113
COGEN	25	4
AGRI RESIDUES	27	0
FOREST RESID	28	0
WOOD INDUSTRIES	28	0
LIGHTING	31	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	-	-
DISTRIB EFF IMP	-	23
STEAM	-	-
EI IN HOUSEHOLD	-	13
MOTOR EEI	-	6
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
TYPHA VAL	-	-
CCGT	-	-
FLARING	-	-
REFINERY	-	-
COGEN SCM	-	-
HYDRO	-	-
LIGHTING	312,500	30
COGEN	1,000,000	106
CMM	1,200,000	7
AGRI RESIDUES	1,400,000	6
FOREST RESID	1,400,000	20
WOOD INDUSTRIES	1,400,000	8
JATROPHA	1,841,771	844



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

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Consolidated Results for Botswana

Country Data for Botswana

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	5	-	1	-	1	-	-	-	17	-	-
Annual emission reduction in tCO ₂ per year	-	424,158	-	29,722	-	98,875	-	-	-	5,377,070	-	-
Emissions reduction in percent of the country emissions	0.0%	10.8%	0.0%	0.8%	0.0%	2.5%	0.0%	0.0%	0.0%	137.2%	-	0.0%
Reduction over project life (10 or 21 years)	-	4,241,581	-	297,219	-	988,754	-	-	-	112,918,480	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	-	42,415,814	-	2,972,194	-	9,887,539	-	-	-	1,129,184,803	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	-	21,207,907	-	1,486,097	-	4,943,770	-	-	-	564,592,402	-	-
Annual electricity generation of the project in GWh	-	927	-	46	-	155	-	-	-	6,655	-	-
Annual electricity generation of the country in GWh (base 2003)	940	940	940	940	940	940	940	940	940	940	940	940
Project electricity generation as a percent of the country electricity generation	-	1	-	0	-	0	-	-	-	7	-	-
Annual electricity consumption of the country (base 2003)	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260
Additional power due to the project implementation (load factor = 90%) MW	-	106	-	6	-	20	-	-	-	844	-	-
Countries' installed power in MW	130	130	130	130	130	130	130	130	130	130	130	130
Additional power as a percent of the country power	0.0%	81.4%	0.0%	4.5%	0.0%	15.2%	0.0%	0.0%	0.0%	649.3%	0.0%	0.0%
Total cost of the project in million US\$	-	106	-	8	-	28	-	-	-	1,639	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	6	1	1	1	2	6	-	1	-	-
Annual emission reduction in tCO ₂ per year	164,834	215,425	29,954	90,787	13,409	168,202	69,320	-	121,283	-	-
Emissions reduction in percent of the country emissions	4.2%	5.5%	0.8%	2.3%	0.3%	4.3%	1.8%	0.0%	3.1%	0.0%	0.0%
Reduction over project life (10 or 21 years)	1,648,336	2,154,246	299,541	907,871	134,090	1,682,023	693,200	-	2,546,951	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	16,483,358	21,542,465	2,995,412	9,078,706	1,340,900	16,820,229	6,932,002	-	25,469,512	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	8,241,679	10,771,232	1,497,706	4,539,353	670,450	8,410,114	3,466,001	-	12,734,756	-	-
Annual electricity generation of the project in GWh	180	-	33	99	44	55	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	940	940	940	940	940	940	940	940	940	940	940
Project electricity generation as a percent of the country electricity generation	0	-	0	0	0	0	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260	2,260
Additional power due to the project implementation (load factor = 90%) MW	23	-	30	13	6	7	-	-	-	-	-
Countries' installed power in MW	130	130	130	130	130	130	130	130	130	130	130
Additional power as a percent of the country power	17.6%	0.0%	23.0%	9.7%	4.3%	5.7%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	9	-	-	9	1	-	-	-	-

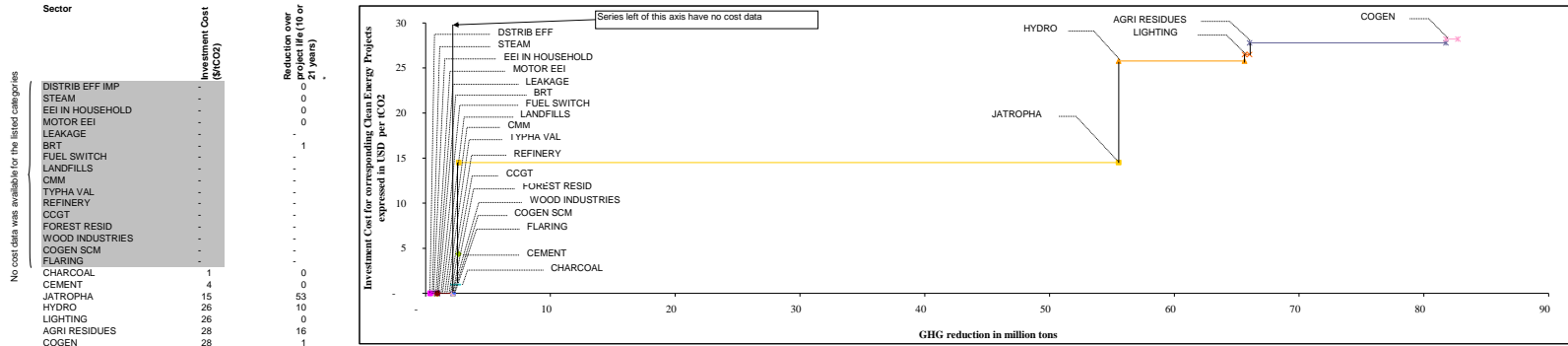
	All sectors/technologies aggregated
Projects number	42
PoA number	1
Annual emission reduction in tCO ₂ per year	6,842,574
Country GHG emissions in 2005	3,917,781
Emissions reduction in percent of the country emissions	174.7%
Reduction over project life (10 or 21 years)	128,907,632
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	1,289,076,324
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	647,505,236
Annual electricity generation of the project in GWh	8,258
Annual electricity generation of the country in GWh (base 2003)	940
Project electricity generation as a percent of the country electricity generation	9
Annual electricity consumption of the country (base 2003)	2,260
Additional power due to the project implementation (load factor = 90%) MW	1,032
Countries' installed power in MW	130
Additional power as a percent of the country power	816.8%
Total cost of the project in million US\$	1,811

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO₂ presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

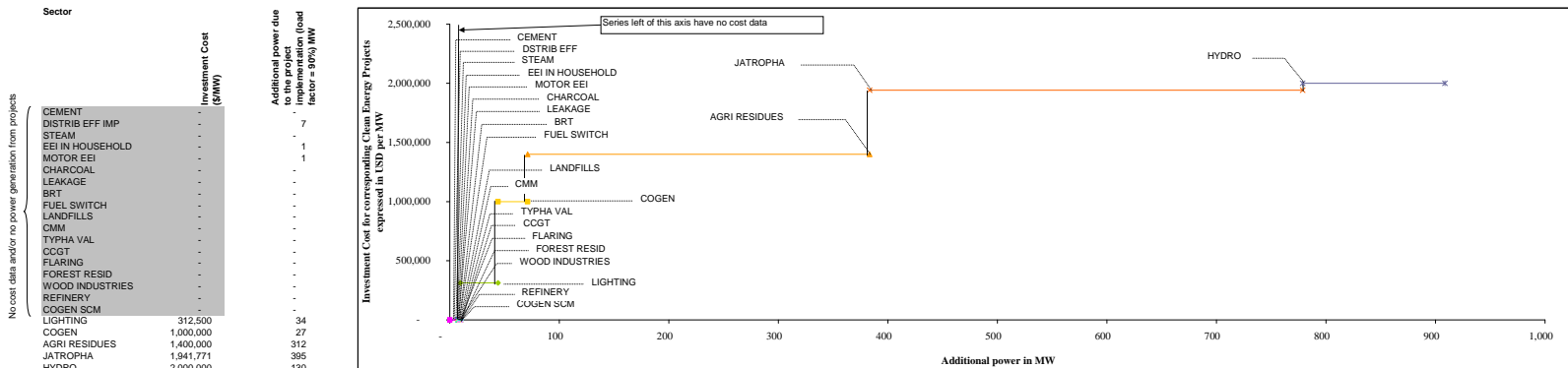
Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in USD/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Burkina Faso

Country Data for Burkina

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	2	-	6	-	-	-	-	-	8	1	-
Annual emission reduction in tCO2 per year	-	95,926	-	1,573,552	-	-	-	-	-	2,518,732	3,171	-
Emissions reduction in percent of the country emissions	0.0%	8.2%	0.0%	134.5%	0.0%	0.0%	0.0%	0.0%	0.0%	215.3%	0.3%	0.0%
Reduction over project life (10 or 21 years)	-	959,259	-	15,735,516	-	-	-	-	-	52,893,374	31,712	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	9,592,595	-	157,355,160	-	-	-	-	-	528,933,741	317,117	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	4,796,297	-	78,677,580	-	-	-	-	-	264,466,871	158,558	-
Annual electricity generation of the project in GWh	-	237	-	2,462	-	-	-	-	-	3,117	-	-
Annual electricity generation of the country in GWh (base 2003)	306	306	306	306	306	306	306	306	306	306	306	306
Project electricity generation as a percent of the country electricity generation	-	1	-	8	-	-	-	-	-	10	-	-
Annual electricity consumption of the country (base 2003)	369	369	369	369	369	369	369	369	369	369	369	369
Additional power due to the project implementation (load factor = 90%) MW	-	27	-	312	-	-	-	-	-	395	-	-
Countries' installed power in MW	149	149	149	149	149	149	149	149	149	149	149	149
Additional power as a percent of the country power	0.0%	18.2%	0.0%	209.6%	0.0%	0.0%	0.0%	0.0%	0.0%	265.4%	0.0%	0.0%
Total cost of the project in million US\$	-	27	-	437	-	-	-	-	-	788	0	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	1	1	-	-	-	4	-	1	5	-
Annual emission reduction in tCO2 per year	36,980	48,720	40,498	2,667	5,866	-	42,350	-	59,446	480,200	-
Emissions reduction in percent of the country emissions	3.2%	4.2%	3.5%	0.2%	0.5%	0.0%	3.6%	0.0%	5.1%	41.0%	0.0%
Reduction over project life (10 or 21 years)	369,805	487,196	404,979	26,672	58,660	-	423,500	-	1,248,369	10,084,200	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	3,698,047	4,871,960	4,049,794	266,718	586,603	-	4,235,000	-	12,483,689	100,842,000	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	1,849,024	2,435,980	2,024,897	133,359	293,302	-	2,117,500	-	6,241,845	50,421,000	-
Annual electricity generation of the project in GWh	59	50	50	10	7	-	-	-	-	686	-
Annual electricity generation of the country in GWh (base 2003)	306	306	306	306	306	306	306	306	306	306	306
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	-	-	-	-	2	-
Annual electricity consumption of the country (base 2003)	369	369	369	369	369	369	369	369	369	369	369
Additional power due to the project implementation (load factor = 90%) MW	7	34	34	1	1	-	-	-	-	130	-
Countries' installed power in MW	149	149	149	149	149	149	149	149	149	149	149
Additional power as a percent of the country power	5.0%	0.0%	23.0%	0.9%	0.6%	0.0%	0.0%	0.0%	0.0%	87.2%	0.0%
Total cost of the project in million US\$	-	-	11	-	-	-	0	-	-	260	-

	All sectors/technologies aggregated
Projects number	30
PoA number	-
Annual emission reduction in tCO2 per year	4,908,108
Country GHG emissions in 2005	1,169,917
Emissions reduction in percent of the country emissions	419.5%
Reduction over project life (10 or 21 years)	82,723,242
Value of the emission reduction in dollars (base 10 US\$/tCO2)	827,232,425
Value of the emission reduction in dollars (base 05 US\$/tCO2)	413,616,212
Annual electricity generation of the project in GWh	6,628
Annual electricity generation of the country in GWh (base 2003)	306
Project electricity generation as a percent of the country electricity generation	22
Annual electricity consumption of the country (base 2003)	369
Additional power due to the project implementation (load factor = 90%) MW	874
Countries' installed power in MW	149
Additional power as a percent of the country power	609.9%
Total cost of the project in million US\$	1,503

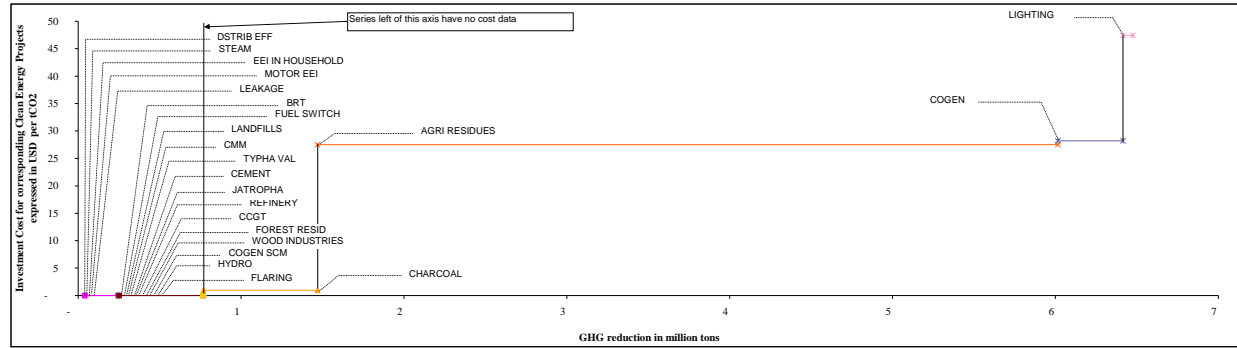
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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

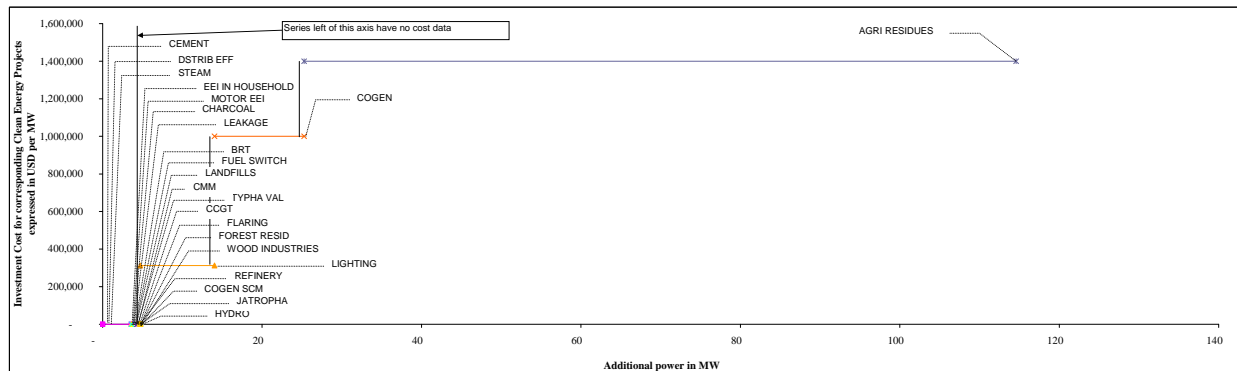
Sector	Investment Cost (\$/tCO2)	Reduction over the project lifetime (10 or 21 years)
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EEI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	1
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CEMENT	-	-
JATROPHA	-	-
REFINERY	-	-
CCGT	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
COGEN SCM	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	1
AGRI RESIDUES	28	9
COGEN	28	0
LIGHTING	47	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	-	-
DISTRIB EFF IMP	-	4
STEAM	-	-
EEI IN HOUSEHOLD	-	1
MOTOR EEI	-	0
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CCGT	-	-
FLARING	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
REFINERY	-	-
COGEN SCM	-	-
JATROPHA	-	-
HYDRO	-	-
LIGHTING	312,500	9
COGEN	1,000,000	11
AGRI RESIDUES	1,400,000	89



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in USD/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Burundi

Country Data for Burundi

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	1	-	2	-	-	-	-	-	-	-	-
Annual emission reduction in tCO2 per year	-	39,898	-	454,530	-	-	-	-	-	-	-	-
Emissions reduction in percent of the country emissions	0.0%	9.7%	0.0%	110.8%	-	-	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Reduction over project life (10 or 21 years)	-	398,976	-	4,545,298	-	-	-	-	-	-	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	3,989,758	-	45,452,978	-	-	-	-	-	-	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	1,994,879	-	22,726,489	-	-	-	-	-	-	-	-
Annual electricity generation of the project in GWh	-	99	-	704	-	-	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	148	148	148	148	148	148	148	148	148	148	148	148
Project electricity generation as a percent of the country electricity generation	-	1	-	5	-	-	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	163	163	163	163	163	163	163	163	163	163	163	163
Additional power due to the project implementation (load factor = 90%) MW	-	11	-	89	-	-	-	-	-	-	-	-
Countries' installed power in MW	40	40	40	40	40	40	40	40	40	40	40	40
Additional power as a percent of the country power	0.0%	27.9%	0.0%	221.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	11	-	125	-	-	-	-	-	-	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	1	1	-	-	-	6	-	1	-	-
Annual emission reduction in tCO2 per year	4,103	20,263	6,132	267	463	-	70,190	-	24,630	-	-
Emissions reduction in percent of the country emissions	1.0%	4.9%	1.5%	0.1%	0.1%	0.0%	17.1%	0.0%	6.0%	0.0%	0.0%
Reduction over project life (10 or 21 years)	41,033	202,635	61,324	2,674	4,634	-	701,800	-	5,172,270	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	410,327	2,026,349	613,245	26,735	46,335	-	7,018,000	-	51,722,700	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	205,164	1,013,174	306,622	13,368	23,168	-	3,509,000	-	25,861,350	-	-
Annual electricity generation of the project in GWh	28	-	14	6	3	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	148	148	148	148	148	148	148	148	148	148	148
Project electricity generation as a percent of the country electricity generation	0	-	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	163	163	163	163	163	163	163	163	163	163	163
Additional power due to the project implementation (load factor = 90%) MW	4	-	9	1	0	-	-	-	-	-	-
Countries' installed power in MW	40	40	40	40	40	40	40	40	40	40	40
Additional power as a percent of the country power	8.9%	0.0%	23.0%	1.8%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	3	-	-	-	1	-	-	-	-

	All sectors/technologies aggregated
Projects number	13
PoA number	-
Annual emission reduction in tCO2 per year	620,467
Country GHG emissions in 2005	410,066
Emissions reduction in percent of the country emissions	151.3%
Reduction over project life (10 or 21 years)	6,475,600
Value of the emission reduction in dollars (base 10 US\$/tCO2)	64,755,997
Value of the emission reduction in dollars (base 05 US\$/tCO2)	32,377,999
Annual electricity generation of the project in GWh	854
Annual electricity generation of the country in GWh (base 2003)	148
Project electricity generation as a percent of the country electricity generation	6
Annual electricity consumption of the country (base 2003)	163
Additional power due to the project implementation (load factor = 90%) MW	105
Countries' installed power in MW	40
Additional power as a percent of the country power	263.6%
Total cost of the project in million US\$	140

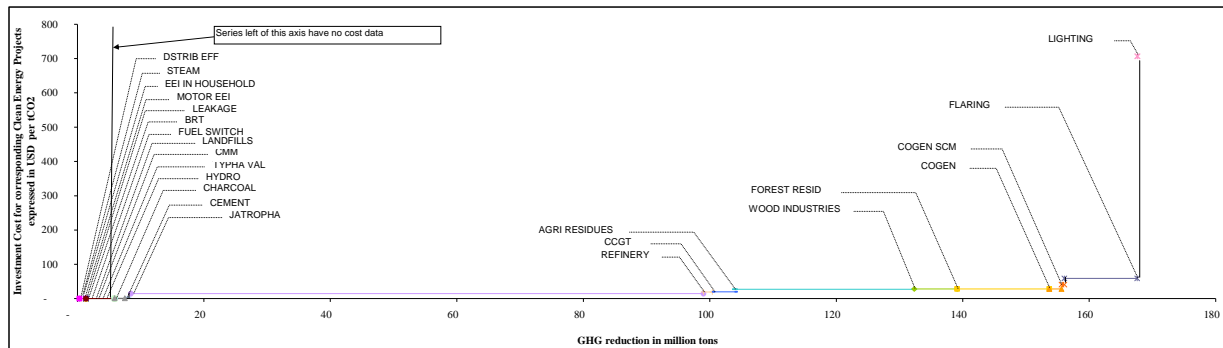
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

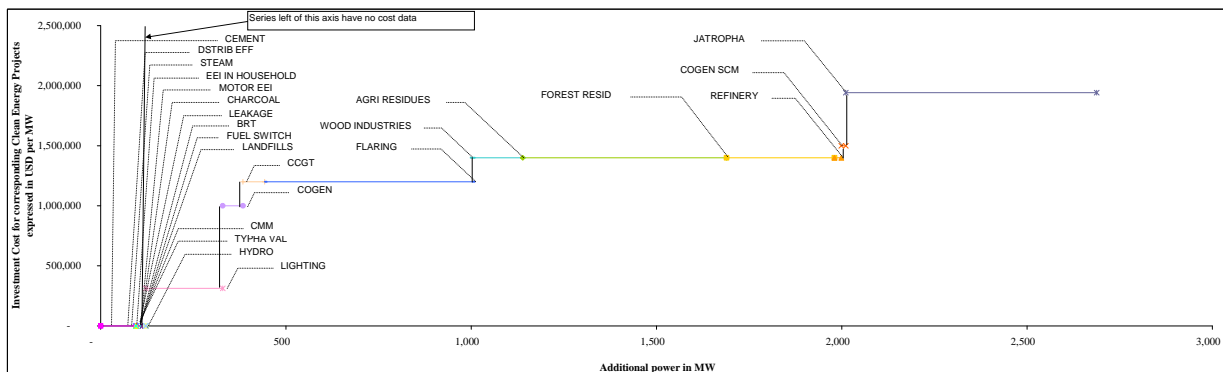
Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
DISTRIB EFF IMP	-	0
STEAM	-	0
EI IN HOUSEHOLD	-	0
MOTOR EEI	-	0
LEAKAGE	-	0
BRT	-	0
FUEL SWITCH	-	5
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
HYDRO	-	-
CHARCOAL	1	2
CEMENT	4	1
JATROPHA	15	91
REFINERY	19	1
CCGT	20	4
AGRI RESIDUES	27	28
WOOD INDUSTRIES	28	7
FOREST RESID	28	15
COGEN	28	2
COGEN SCM	41	0
FLARING	59	11
LIGHTING	706	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	-
DISTRIB EFF IMP	-	95
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	17
LEAKAGE	-	9
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
HYDRO	-	-
LIGHTING	312,500	207
COGEN	1,000,000	55
CCGT	1,200,000	59
FLARING	1,200,000	561
WOOD INDUSTRIES	1,400,000	135
AGRI RESIDUES	1,400,000	550
FOREST RESID	1,400,000	291
REFINERY	1,400,000	19
COGEN SCM	1,500,000	12
JATROPHA	1,841,771	677



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

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Consolidated Results for Cameroon

Country Data for Cameroon

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	1	5	2	11	5	14	-	-	-	14	-	-
Annual emission reduction in tCO2 per year	356,335	193,987	44,660	2,837,326	1,458,022	677,724	-	1,148,935	-	4,312,158	95,135	138,356
Emissions reduction in percent of the country emissions	5.2%	2.8%	0.7%	41.6%	21.4%	9.9%	0.0%	16.9%	0.0%	63.3%	1.4%	2.0%
Reduction over project life (10 or 21 years)	3,563,347	1,939,971	446,600	28,373,260	14,580,217	6,777,240	-	11,489,353	-	90,555,308	951,350	1,383,562
Value of the emission reduction in dollars (base 10 US\$/tCO2)	35,633,466	19,399,705	4,466,000	283,732,596	145,802,173	67,772,400	-	114,893,532	-	905,553,084	9,513,504	13,835,620
Value of the emission reduction in dollars (base 05 US\$/tCO2)	17,816,733	9,699,853	2,233,000	141,866,298	72,901,087	33,886,201	-	57,446,766	-	452,776,542	4,756,752	6,917,810
Annual electricity generation of the project in GWh	468	479	64	4,339	2,293	1,066	-	4,425	-	5,337	-	164
Annual electricity generation of the country in GWh (base 2003)	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920
Project electricity generation as a percent of the country electricity generation	0	0	0	1	1	1	-	1	-	1	-	0
Annual electricity consumption of the country (base 2003)	3,650	3,650	3,650	3,650	3,650	3,650	3,650	3,650	3,650	3,650	3,650	3,650
Additional power due to the project implementation (load factor = 90%) MW	59	55	12	550	291	135	-	561	-	677	-	19
Countries' installed power in MW	900	900	900	900	900	900	900	900	900	900	900	900
Additional power as a percent of the country power	6.5%	6.1%	1.3%	61.2%	32.3%	15.0%	0.0%	62.4%	0.0%	75.2%	0.0%	2.1%
Total cost of the project in million US\$	70	55	18	771	407	189	-	674	-	1,314	-	26

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	3	1	-	-	-	15	1	1	-	-
Annual emission reduction in tCO2 per year	30,407	98,529	9,173	5,509	958	-	163,437	249	214,578	-	-
Emissions reduction in percent of the country emissions	0.4%	1.4%	0.1%	0.1%	0.0%	0.0%	2.4%	0.0%	3.1%	0.0%	0.0%
Reduction over project life (10 or 21 years)	304,067	985,287	91,732	55,091	9,580	-	1,634,374	2,400	4,506,144	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	3,040,666	9,852,869	917,319	550,911	95,796	-	16,343,744	23,996	45,061,445	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	1,520,333	4,926,435	458,660	275,455	47,898	-	8,171,872	11,998	22,530,722	-	-
Annual electricity generation of the project in GWh	753	-	227	136	72	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920	3,920
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	3,650	3,650	3,650	3,650	3,650	3,650	3,650	3,650	3,650	3,650	3,650
Additional power due to the project implementation (load factor = 90%) MW	95	-	207	17	9	-	-	-	-	-	-
Countries' installed power in MW	900	900	900	900	900	900	900	900	900	900	900
Additional power as a percent of the country power	10.6%	0.0%	23.0%	1.9%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	65	-	-	-	2	-	-	-	-

	All sectors/technologies aggregated
Projects number	70
PoA number	5
Annual emission reduction in tCO2 per year	11,785,479
Country GHG emissions in 2005	6,814,384
Emissions reduction in percent of the country emissions	173.0%
Reduction over project life (10 or 21 years)	167,648,883
Value of the emission reduction in dollars (base 10 US\$/tCO2)	1,676,488,828
Value of the emission reduction in dollars (base 05 US\$/tCO2)	838,244,414
Annual electricity generation of the project in GWh	19,823
Annual electricity generation of the country in GWh (base 2003)	3,920
Project electricity generation as a percent of the country electricity generation	5
Annual electricity consumption of the country (base 2003)	3,650
Additional power due to the project implementation (load factor = 90%) MW	2,481
Countries' installed power in MW	900
Additional power as a percent of the country power	298.7%
Total cost of the project in million US\$	3,595

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

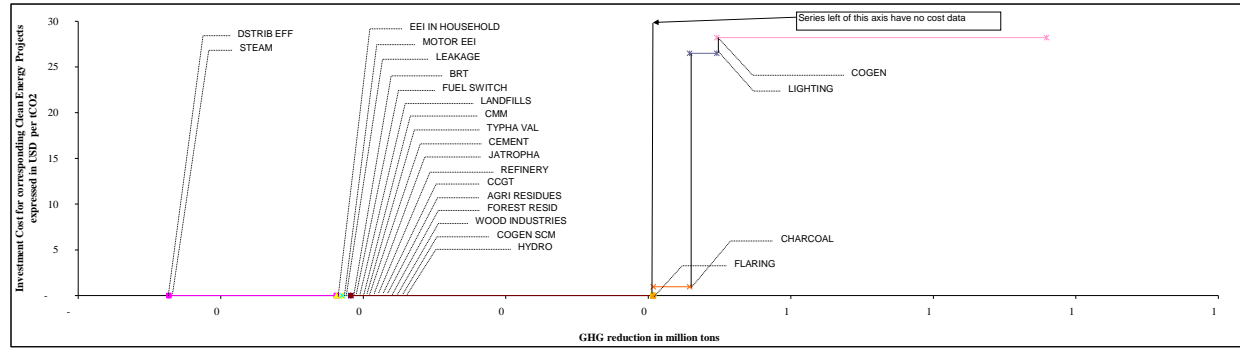
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Consolidated Results for Cape Verde

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO₂)

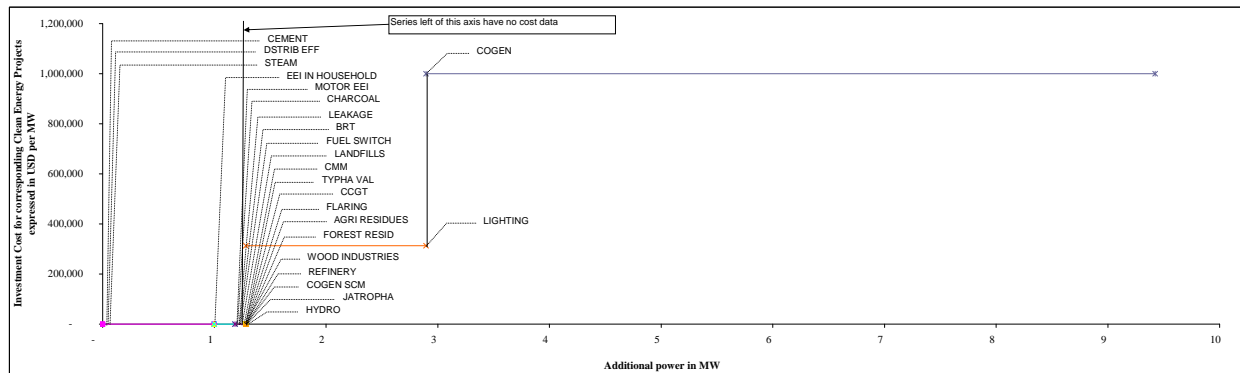
Sector	Investment Cost (\$/tCO ₂)	Reduction over 21 years (tCO ₂)
No cost data was available for the listed categories		
DISTRIB EFF IMP	0	0
STEAM	0	0
EI IN HOUSEHOLD	0	0
MOTOR EEI	0	0
LEAKAGE	0	0
BRT	0	0
FUEL SWITCH	0	0
LANDFILLS	0	0
CMM	0	0
TYPHA VAL	0	0
CEMENT	0	0
JATROPHA	0	0
REFINERY	0	0
COGT	0	0
AGRI RESIDUES	0	0
FOREST RESID	0	0
WOOD INDUSTRIES	0	0
COGEN SCM	0	0
HYDRO	0	0
FLARING	0	0
CHARCOAL	1	0
LIGHTING	26	0
COGEN	28	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	0	0
DISTRIB EFF IMP	0	0
STEAM	0	0
EI IN HOUSEHOLD	0	0
MOTOR EEI	0	0
CHARCOAL	0	0
LEAKAGE	0	0
BRT	0	0
FUEL SWITCH	0	0
LANDFILLS	0	0
CMM	0	0
TYPHA VAL	0	0
COGT	0	0
FLARING	0	0
AGRI RESIDUES	0	0
FOREST RESID	0	0
WOOD INDUSTRIES	0	0
REFINERY	0	0
COGEN SCM	0	0
JATROPHA	0	0
HYDRO	0	0
LIGHTING	312,500	2
COGEN	1,000,000	7



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)
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Consolidated Results for Cape Verde

Country Data for Cap-Vert

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	1	-	-	-	-	-	-	-	-	-	-
Annual emission reduction in tCO ₂ per year	-	23,147	-	-	-	-	-	-	-	-	-	-
Emissions reduction in percent of the country emissions	0.0%	8.2%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Reduction over project life (10 or 21 years)	-	231,469	-	-	-	-	-	-	-	-	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	-	2,314,694	-	-	-	-	-	-	-	-	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	-	1,157,347	-	-	-	-	-	-	-	-	-	-
Annual electricity generation of the project in GWh	-	57	-	-	-	-	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	41	41	41	41	41	41	41	41	41	41	41	41
Project electricity generation as a percent of the country electricity generation	-	1	-	-	-	-	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	39	39	39	39	39	39	39	39	39	39	39	39
Additional power due to the project implementation (load factor = 90%) MW	-	7	-	-	-	-	-	-	-	-	-	-
Countries' installed power in MW	82	82	82	82	82	82	82	82	82	82	82	82
Additional power as a percent of the country power	0.0%	8.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	7	-	-	-	-	-	-	-	-	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	-	1	-	-	-	0	-	1	-	-
Annual emission reduction in tCO ₂ per year	6,361	11,756	1,903	391	620	-	2,547	-	10,107	-	-
Emissions reduction in percent of the country emissions	2.2%	4.1%	0.7%	0.1%	0.2%	0.0%	0.9%	0.0%	3.6%	0.0%	0.0%
Reduction over project life (10 or 21 years)	63,606	117,560	19,026	3,912	6,203	-	25,469	-	212,246	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	636,058	1,175,604	190,259	39,115	62,035	-	254,692	-	2,122,459	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	318,029	587,802	95,129	19,558	31,017	-	127,346	-	1,061,230	-	-
Annual electricity generation of the project in GWh	8	-	2	1	1	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	41	41	41	41	41	41	41	41	41	41	41
Project electricity generation as a percent of the country electricity generation	0	-	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	39	39	39	39	39	39	39	39	39	39	39
Additional power due to the project implementation (load factor = 90%) MW	1	-	2	0	0	-	-	-	-	-	-
Countries' installed power in MW	82	82	82	82	82	82	82	82	82	82	82
Additional power as a percent of the country power	1.2%	0.0%	2.0%	0.2%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	1	-	-	-	0	-	-	-	-

	All sectors/technologies aggregated
Projects number	4
PoA number	-
Annual emission reduction in tCO ₂ per year	56,832
Country GHG emissions in 2005	283,360
Emissions reduction in percent of the country emissions	20.1%
Reduction over project life (10 or 21 years)	679,492
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	6,794,916
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	3,397,458
Annual electricity generation of the project in GWh	70
Annual electricity generation of the country in GWh (base 2003)	41
Project electricity generation as a percent of the country electricity generation	2
Annual electricity consumption of the country (base 2003)	39
Additional power due to the project implementation (load factor = 90%) MW	8
Countries' installed power in MW	82
Additional power as a percent of the country power	11.5%
Total cost of the project in million US\$	7

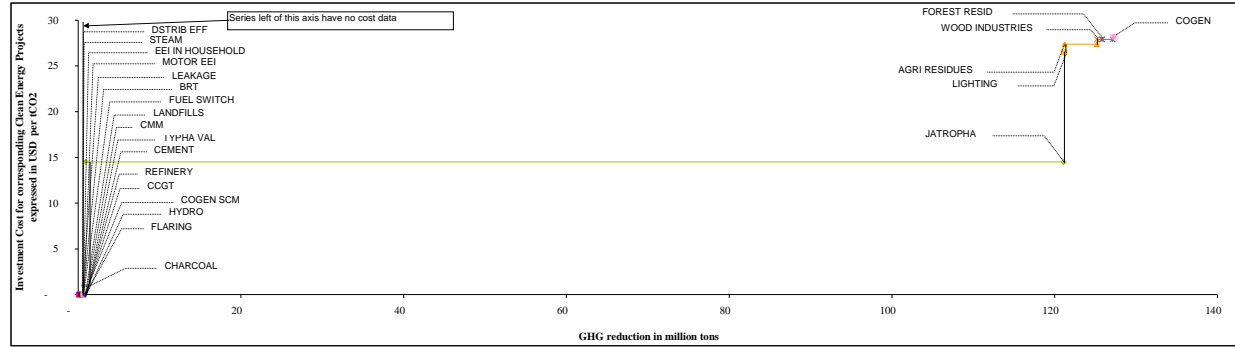
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO₂ presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

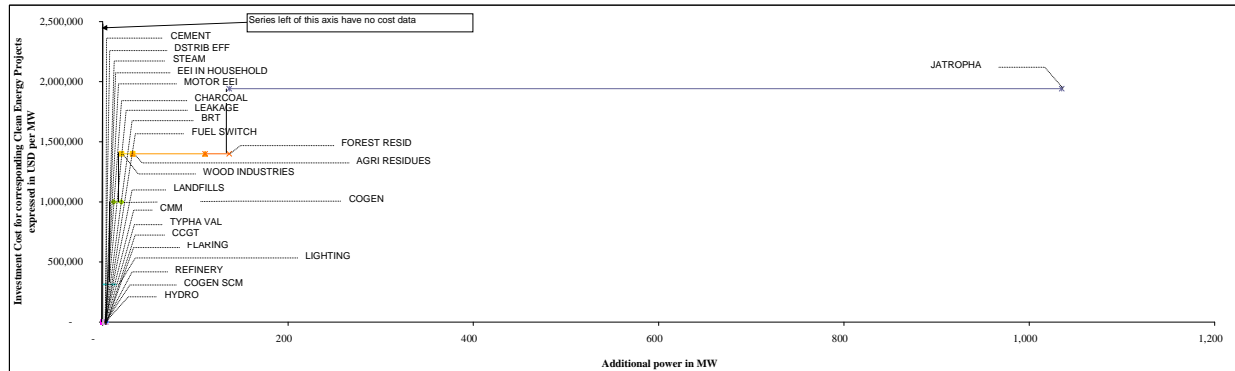
Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CEMENT	-	-
REFINERY	-	-
CCGT	-	-
COGEN SCM	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	0
JATROPHA	15	120
LIGHTING	26	0
AGRI RESIDUES	27	4
WOOD INDUSTRIES	28	4
FOREST RESID	28	1
COGEN	28	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) (MW)
No cost data and/or no power generation from projects		
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CCGT	-	-
FLARING	-	-
REFINERY	-	-
COGEN SCM	-	-
HYDRO	-	-
LIGHTING	312,500	9
COGEN	1,000,000	8
WOOD INDUSTRIES	1,400,000	12
AGRI RESIDUES	1,400,000	78
FOREST RESID	1,400,000	26
JATROPHA	1,841,771	888



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Central African Republic

Country Data for CAR

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	1	-	2	1	1	-	-	-	18	-	-
Annual emission reduction in tCO ₂ per year	-	29,784	-	399,401	130,099	61,143	-	-	-	5,722,574	-	-
Emissions reduction in percent of the country emissions	0.0%	8.8%	0.0%	118.3%	38.5%	18.1%	0.0%	0.0%	0.0%	1684.5%	0.0%	0.0%
Reduction over project life (10 or 21 years)	-	297,843	-	3,994,014	1,300,992	611,429	-	-	-	120,174,055	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	-	2,978,433	-	39,940,135	13,009,920	6,114,288	-	-	-	1,201,740,547	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	-	1,489,216	-	19,970,068	6,504,960	3,057,144	-	-	-	600,870,273	-	-
Annual electricity generation of the project in GWh	-	74	-	616	205	96	-	-	-	7,082	-	-
Annual electricity generation of the country in GWh (base 2003)	104	104	104	104	104	104	104	104	104	104	104	104
Project electricity generation as a percent of the country electricity generation	-	1	-	6	2	1	-	-	-	68	-	-
Annual electricity consumption of the country (base 2003)	97	97	97	97	97	97	97	97	97	97	97	97
Additional power due to the project implementation (load factor = 90%) MW	-	8	-	78	26	12	-	-	-	898	-	-
Countries' installed power in MW	38	38	38	38	38	38	38	38	38	38	38	38
Additional power as a percent of the country power	0.0%	22.1%	0.0%	205.7%	68.3%	32.1%	0.0%	0.0%	0.0%	2364.0%	0.0%	0.0%
Total cost of the project in million US\$	-	8	-	109	36	17	-	-	-	1,744	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	-	1	-	-	-	2	-	1	-	-
Annual emission reduction in tCO ₂ per year	7,887	15,127	10,328	351	755	-	26,095	-	20,525	-	-
Emissions reduction in percent of the country emissions	2.3%	4.5%	3.1%	0.1%	0.2%	0.0%	7.7%	0.0%	6.1%	0.0%	0.0%
Reduction over project life (10 or 21 years)	78,972	151,271	103,283	3,506	7,552	-	260,353	-	431,023	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	789,724	1,512,709	1,032,833	35,064	75,521	-	2,603,530	-	4,310,225	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	394,862	756,354	516,417	17,532	37,761	-	1,301,765	-	2,155,113	-	-
Annual electricity generation of the project in GWh	20	-	13	3	2	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	104	104	104	104	104	104	104	104	104	104	104
Project electricity generation as a percent of the country electricity generation	0	-	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	97	97	97	97	97	97	97	97	97	97	97
Additional power due to the project implementation (load factor = 90%) MW	3	-	9	0	0	-	-	-	-	-	-
Countries' installed power in MW	38	38	38	38	38	38	38	38	38	38	38
Additional power as a percent of the country power	6.7%	0.0%	23.0%	0.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	3	-	-	-	0	-	-	-	-

	All sectors/technologies aggregated
Projects number	27
PoA number	1
Annual emission reduction in tCO ₂ per year	6,424,020
Country GHG emissions in 2005	337,721
Emissions reduction in percent of the country emissions	1902.2%
Reduction over project life (10 or 21 years)	127,414,293
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	1,274,142,930
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	637,071,465
Annual electricity generation of the project in GWh	8,110
Annual electricity generation of the country in GWh (base 2003)	104
Project electricity generation as a percent of the country electricity generation	78
Annual electricity consumption of the country (base 2003)	97
Additional power due to the project implementation (load factor = 90%) MW	1,026
Countries' installed power in MW	38
Additional power as a percent of the country power	2723.5%
Total cost of the project in million US\$	1,919

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

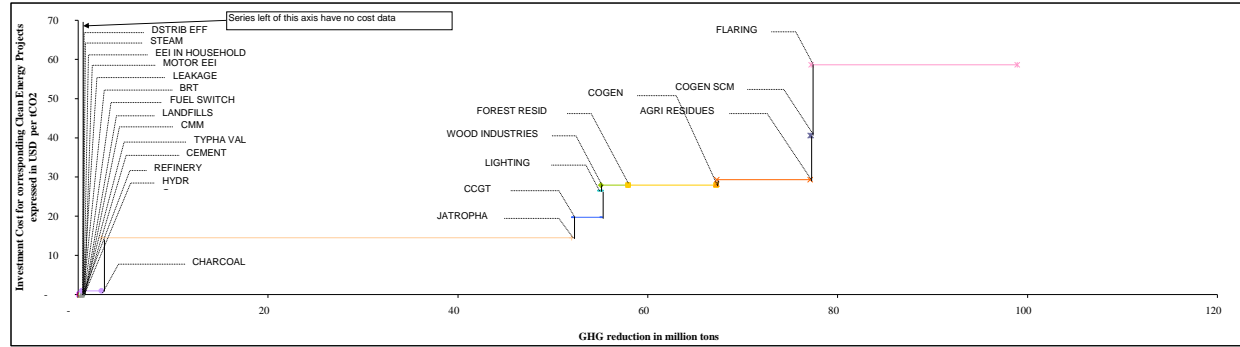
Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO₂ presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Consolidated Results for Chad

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

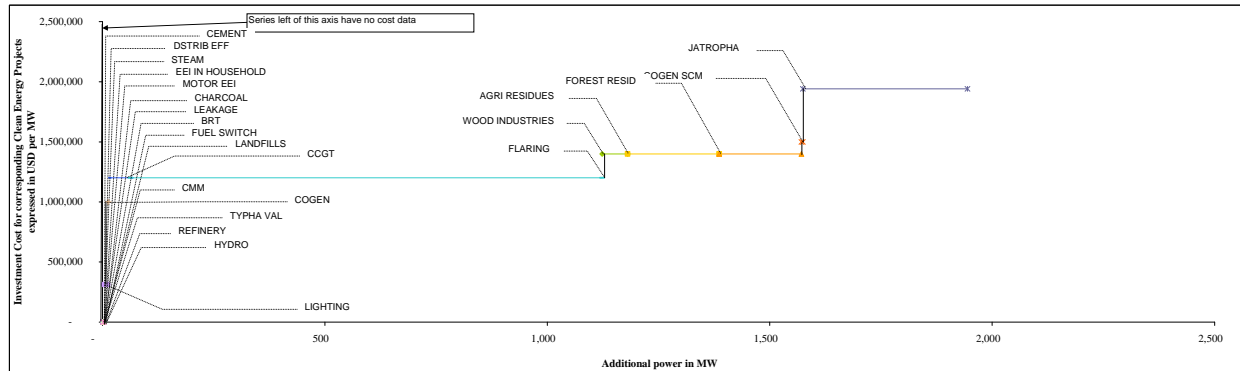
Sector	Investment Cost (\$/tCO2)	Reduction over 10 or 21 years
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CEMENT	-	-
REFINERY	-	-
HYDRO	-	-
CHARCOAL	1	2
JATROPHA	15	5
CCGT	20	3
LIGHTING	26	3
WOOD INDUSTRIES	28	3
FOREST RESID	28	3
COGEN	28	0
AGRI RESIDUES	29	10
COGEN SCM	41	0
FLARING	59	22



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	-
DISTRIB EFF	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
REFINERY	-	-
HYDRO	-	-
LIGHTING	312,500	9
COGEN	1,000,000	2
CCGT	1,200,000	49
FLARING	1,200,000	1,060
WOOD INDUSTRIES	1,400,000	57
AGRI RESIDUES	1,400,000	206
FOREST RESID	1,400,000	185
COGEN SCM	1,500,000	3
JATROPHA	1,841,771	370



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)
 Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in USD/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Chad

Country Data for Chad

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	1	1	1	4	1	6	-	2	-	7	-	-
Annual emission reduction in tCO ₂ per year	296,846	7,950	11,273	982,718	926,697	286,527	-	2,170,211	-	2,358,900	-	-
Emissions reduction in percent of the country emissions	155.1%	4.2%	5.9%	513.2%	483.9%	149.6%	0.0%	1133.3%	0.0%	1231.9%	-	0.0%
Reduction over project life (10 or 21 years)	2,969,456	79,500	112,728	9,827,182	9,266,966	2,865,267	-	21,702,112	-	49,536,902	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	29,694,555	795,000	1,127,280	98,271,819	92,669,660	28,652,666	-	217,021,116	-	495,369,018	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	14,847,278	397,500	563,640	49,135,910	46,334,830	14,326,333	-	108,510,558	-	247,684,509	-	-
Annual electricity generation of the project in GWh	390	20	16	1,623	1,457	451	-	8,358	-	2,919	-	-
Annual electricity generation of the country in GWh (base 2003)	92	92	92	92	92	92	92	92	92	92	92	92
Project electricity generation as a percent of the country electricity generation	4	0	0	18	16	5	-	91	-	32	-	-
Annual electricity consumption of the country (base 2003)	85	85	85	85	85	85	85	85	85	85	85	85
Additional power due to the project implementation (load factor = 90%) MW	49	2	3	206	185	57	-	1,060	-	370	-	-
Countries' installed power in MW	40	40	40	40	40	40	40	40	40	40	40	40
Additional power as a percent of the country power	120.6%	5.5%	7.5%	508.5%	456.7%	141.2%	0.0%	2619.0%	0.0%	914.8%	0.0%	0.0%
Total cost of the project in million US\$	59	2	5	288	259	80	-	1,272	-	719	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	-	1	-	-	-	19	1	1	-	-
Annual emission reduction in tCO ₂ per year	14,273	4,038	11,002	538	1,352	-	206,841	240	8,283	-	-
Emissions reduction in percent of the country emissions	7.5%	2.1%	5.7%	0.3%	0.7%	0.0%	108.0%	0.1%	4.3%	0.0%	0.0%
Reduction over project life (10 or 21 years)	142,725	40,377	110,024	5,383	13,520	-	2,068,410	2,400	174,151	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	1,427,251	403,771	1,100,239	53,829	135,203	-	20,684,103	23,996	1,741,505	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	713,626	201,885	550,120	26,914	67,602	-	10,342,052	11,998	870,753	-	-
Annual electricity generation of the project in GWh	18	-	14	2	2	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	92	92	92	92	92	92	92	92	92	92	92
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	85	85	85	85	85	85	85	85	85	85	85
Additional power due to the project implementation (load factor = 90%) MW	2	-	9	0	0	-	-	-	-	-	-
Countries' installed power in MW	40	40	40	40	40	40	40	40	40	40	40
Additional power as a percent of the country power	5.5%	0.0%	23.0%	0.6%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	3	-	-	-	2	-	-	-	-

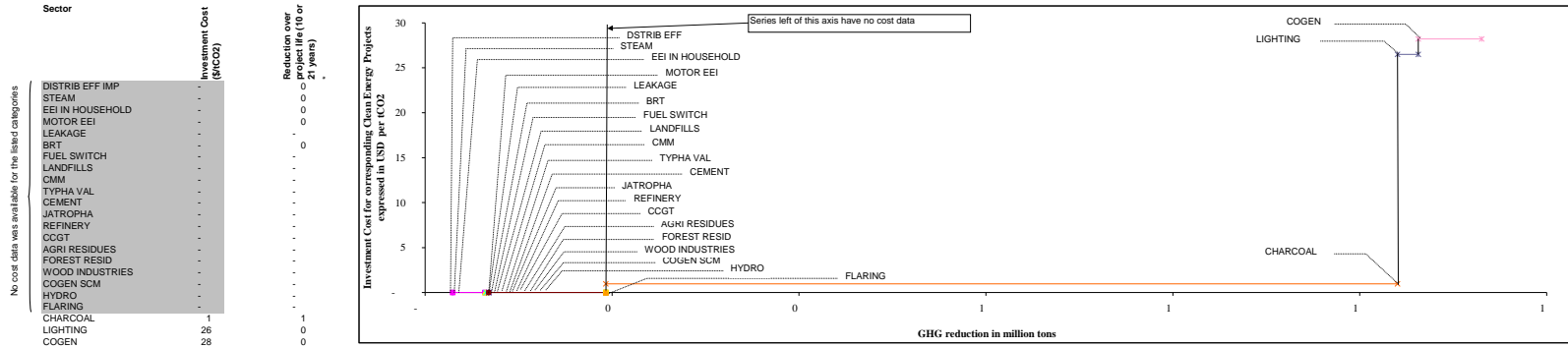
	All sectors/technologies aggregated
Projects number	45
PoA number	1
Annual emission reduction in tCO ₂ per year	7,287,798
Country GHG emissions in 2005	191,488
Emissions reduction in percent of the country emissions	3805.9%
Reduction over project life (10 or 21 years)	98,917,101
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	989,171,012
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	494,585,506
Annual electricity generation of the project in GWh	15,269
Annual electricity generation of the country in GWh (base 2003)	52
Project electricity generation as a percent of the country electricity generation	166
Annual electricity consumption of the country (base 2003)	85
Additional power due to the project implementation (load factor = 90%) MW	1,935
Countries' installed power in MW	40
Additional power as a percent of the country power	4803.5%
Total cost of the project in million US\$	2,689

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO₂ presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

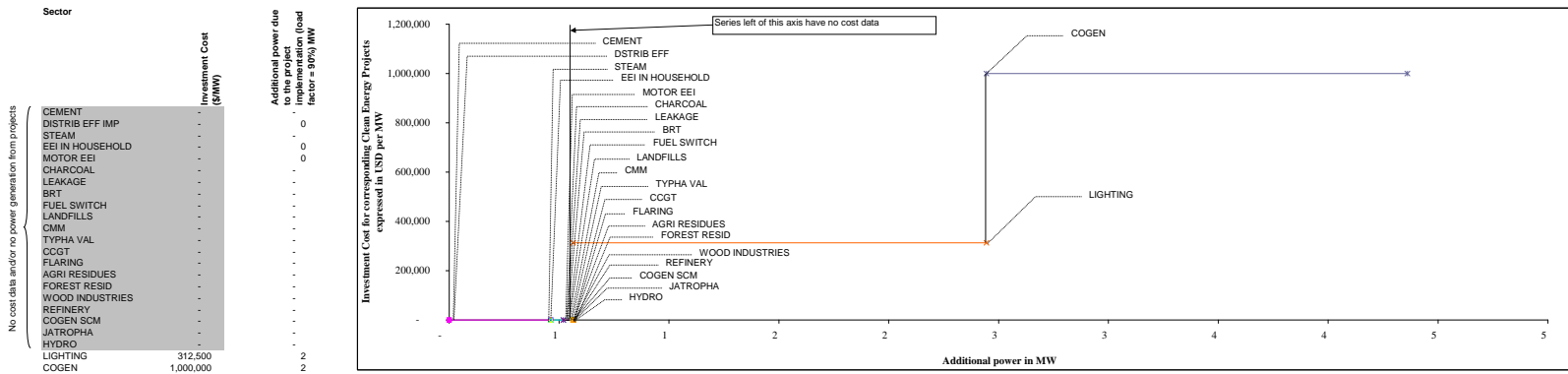
Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in USD/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Comoros

Country Data for Comoros

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	1	-	-	-	-	-	-	-	-	-	-
Annual emission reduction in tCO ₂ per year	-	6,792	-	-	-	-	-	-	-	-	-	-
Emissions reduction in percent of the country emissions	0.0%	6.6%	0.0%	0.0%	-	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Reduction over project life (10 or 21 years)	-	67,923	-	-	-	-	-	-	-	-	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	-	679,230	-	-	-	-	-	-	-	-	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	-	339,615	-	-	-	-	-	-	-	-	-	-
Annual electricity generation of the project in GWh	19	17	-	-	-	-	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	19	19	19	19	19	19	19	19	19	19	19	19
Project electricity generation as a percent of the country electricity generation	0	1	-	-	-	-	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	18	18	18	18	18	18	18	18	18	18	18	18
Additional power due to the project implementation (load factor = 90%) MW	0	2	-	-	-	-	-	-	-	-	-	-
Countries' installed power in MW	8	8	8	8	8	8	8	8	8	8	8	8
Additional power as a percent of the country power	0.0%	23.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	2	-	-	-	-	-	-	-	-	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	-	1	-	-	-	8	-	1	-	-
Annual emission reduction in tCO ₂ per year	2,948	3,450	2,218	119	286	-	84,700	-	5,971	-	-
Emissions reduction in percent of the country emissions	2.8%	3.3%	2.1%	0.1%	0.3%	0.0%	81.7%	0.0%	5.8%	0.0%	0.0%
Reduction over project life (10 or 21 years)	29,476	34,497	22,179	1,191	2,863	-	847,000	-	125,388	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	294,758	344,973	221,787	11,913	28,631	-	8,470,000	-	1,253,884	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	147,379	172,486	110,894	5,956	14,316	-	4,235,000	-	626,942	-	-
Annual electricity generation of the project in GWh	4	-	3	0	0	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	19	19	19	19	19	19	19	19	19	19	19
Project electricity generation as a percent of the country electricity generation	0	-	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	18	18	18	18	18	18	18	18	18	18	18
Additional power due to the project implementation (load factor = 90%) MW	0	2	0	0	0	-	-	-	-	-	-
Countries' installed power in MW	8	8	8	8	8	8	8	8	8	8	8
Additional power as a percent of the country power	5.7%	0.0%	23.0%	0.7%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	1	-	-	-	1	-	-	-	-

	All sectors/technologies aggregated
Projects number	12
PoA number	-
Annual emission reduction in tCO ₂ per year	106,484
Country GHG emissions in 2005	103,668
Emissions reduction in percent of the country emissions	102.7%
Reduction over project life (10 or 21 years)	1,130,518
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	11,305,176
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	5,652,588
Annual electricity generation of the project in GWh	24
Annual electricity generation of the country in GWh (base 2003)	19
Project electricity generation as a percent of the country electricity generation	1
Annual electricity consumption of the country (base 2003)	18
Additional power due to the project implementation (load factor = 90%) MW	2
Countries' installed power in MW	8
Additional power as a percent of the country power	53.4%
Total cost of the project in million US\$	3

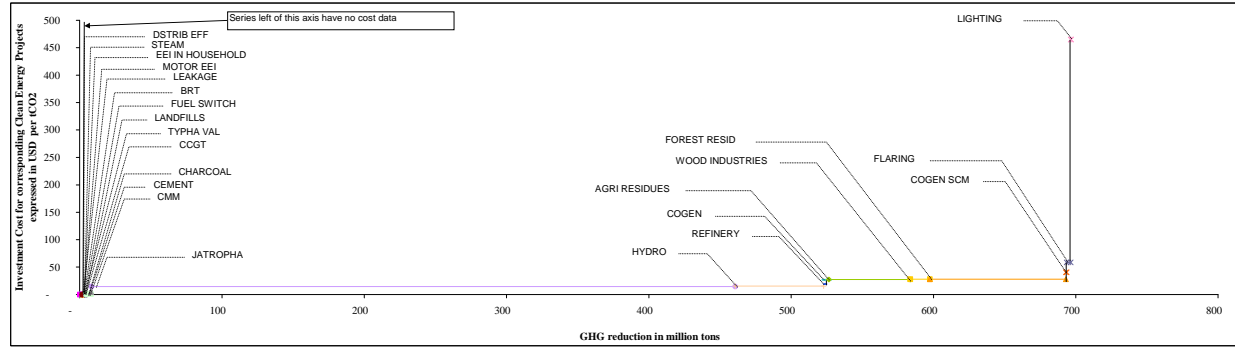
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO₂ presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

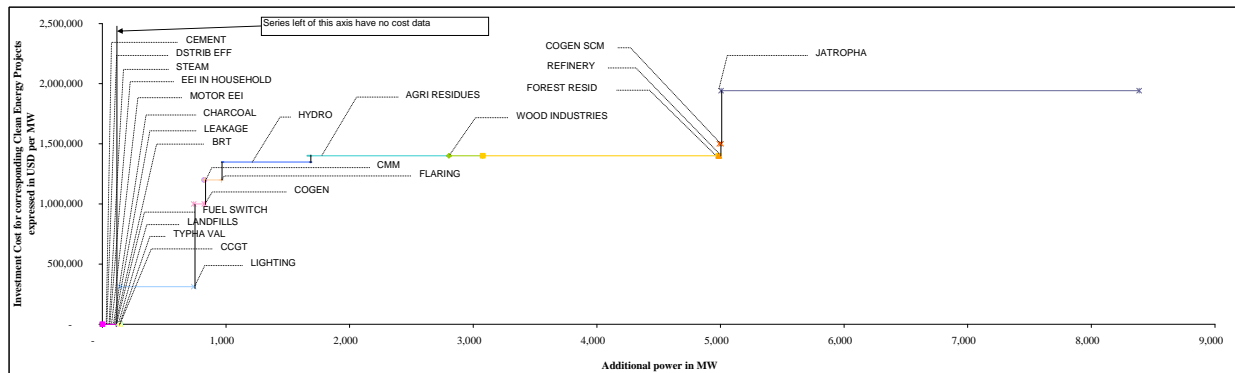
Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
DISTRIB EFF IMP	-	0
STEAM	-	0
EI IN HOUSEHOLD	-	0
MOTOR EEI	-	0
LEAKAGE	-	0
BRT	-	3
FUEL SWITCH	-	3
LANDFILLS	-	-
TYPHA VAL	-	-
CCGT	-	-
CHARCOAL	1	3
CEMENT	4	0
CMM	4	0
JATROPHA	15	452
HYDRO	15	62
REFINERY	19	0
COGEN	27	3
AGRI RESIDUES	28	57
WOOD INDUSTRIES	28	14
FOREST RESID	28	96
COGEN SCM	41	1
FLARING	59	3
LIGHTING	465	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) MW
CEMENT	-	132
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	3
MOTOR EEI	-	8
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
TYPHA VAL	-	-
CCGT	-	-
LIGHTING	312,500	597
COGEN	1,000,000	86
CMM	1,200,000	1
FLARING	1,200,000	137
HYDRO	1,348,315	712
AGRI RESIDUES	1,400,000	1,129
WOOD INDUSTRIES	1,400,000	274
FOREST RESID	1,400,000	1,906
REFINERY	1,400,000	7
COGEN SCM	1,500,000	15
JATROPHA	1,941,771	3,382



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Congo, Dem. Rep.

Country Data for Congo Dem

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	4	1	23	13	27	-	1	-	68	1	-
Annual emission reduction in tCO2 per year	-	319,589	55,440	5,720,433	9,553,184	1,375,403	-	280,851	-	21,544,345	20,984	49,413
Emissions reduction in percent of the country emissions	0.0%	13.5%	2.3%	241.3%	403.0%	58.0%	0.0%	11.8%	0.0%	908.9%	0.8%	2.1%
Reduction over project life (10 or 21 years)	-	3,195,887	554,400	57,204,334	95,531,843	13,754,033	-	2,808,509	-	452,431,250	200,841	494,129
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	31,958,873	5,544,000	572,043,345	955,318,426	137,540,326	-	28,085,086	-	4,524,312,496	2,008,406	4,941,293
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	15,979,436	2,772,000	286,021,672	477,659,213	68,770,163	-	14,042,543	-	2,262,156,248	1,004,203	2,470,646
Annual electricity generation of the project in GWh	-	752	79	8,897	15,024	2,163	-	1,082	-	26,664	-	59
Annual electricity generation of the country in GWh (base 2003)	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400
Project electricity generation as a percent of the country electricity generation	-	0	0	2	3	0	-	5	-	5	-	0
Annual electricity consumption of the country (base 2003)	3,101	3,101	3,101	3,101	3,101	3,101	3,101	3,101	3,101	3,101	3,101	3,101
Additional power due to the project implementation (load factor = 90%) MW	-	86	15	1,129	1,906	274	-	137	-	3,382	-	7
Countries' installed power in MW	2,591	2,591	2,591	2,591	2,591	2,591	2,591	2,591	2,591	2,591	2,591	2,591
Additional power as a percent of the country power	0.0%	3.3%	0.6%	43.6%	73.5%	10.6%	0.0%	5.3%	0.0%	130.5%	0.0%	0.3%
Total cost of the project in million US\$	-	86	23	1,580	2,668	384	-	165	-	6,567	1	9

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	5	1	-	-	4	31	1	1	1	-
Annual emission reduction in tCO2 per year	15,270	162,315	40,115	105	899	18,689	334,111	31	132,106	2,956,610	-
Emissions reduction in percent of the country emissions	0.6%	6.8%	1.7%	0.0%	0.0%	0.8%	14.1%	0.0%	5.6%	124.7%	0.0%
Reduction over project life (10 or 21 years)	152,704	1,623,151	401,151	1,050	8,991	186,891	3,341,113	311	2,774,218	62,088,814	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	1,527,041	16,231,514	4,011,514	10,496	89,911	1,868,914	33,411,125	3,105	27,742,177	620,888,136	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	763,520	8,115,757	2,005,757	5,248	44,956	934,457	16,705,563	1,553	13,871,088	310,444,068	-
Annual electricity generation of the project in GWh	1,037	-	872	22	61	6	-	-	-	4,224	-
Annual electricity generation of the country in GWh (base 2003)	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400	5,400
Project electricity generation as a percent of the country electricity generation	-	0	0	0	0	0	-	-	-	1	-
Annual electricity consumption of the country (base 2003)	3,101	3,101	3,101	3,101	3,101	3,101	3,101	3,101	3,101	3,101	3,101
Additional power due to the project implementation (load factor = 90%) MW	132	-	597	3	8	1	-	-	-	712	-
Countries' installed power in MW	2,591	2,591	2,591	2,591	2,591	2,591	2,591	2,591	2,591	2,591	2,591
Additional power as a percent of the country power	5.1%	0.0%	23.0%	0.1%	0.3%	0.0%	0.0%	0.0%	0.0%	27.5%	0.0%
Total cost of the project in million US\$	-	-	187	-	-	1	3	-	-	960	-

	All sectors/technologies aggregated
Projects number	170
PoA number	13
Annual emission reduction in tCO2 per year	42,578,995
Country GHG emissions in 2005	2,370,328
Emissions reduction in percent of the country emissions	1796.3%
Reduction over project life (10 or 21 years)	696,753,618
Value of the emission reduction in dollars (base 10 US\$/tCO2)	6,967,536,182
Value of the emission reduction in dollars (base 05 US\$/tCO2)	3,483,768,091
Annual electricity generation of the project in GWh	60,941
Annual electricity generation of the country in GWh (base 2003)	5,400
Project electricity generation as a percent of the country electricity generation	11
Annual electricity consumption of the country (base 2003)	3,101
Additional power due to the project implementation (load factor = 90%) MW	7,790
Countries' installed power in MW	2,591
Additional power as a percent of the country power	323.7%
Total cost of the project in million US\$	12,633

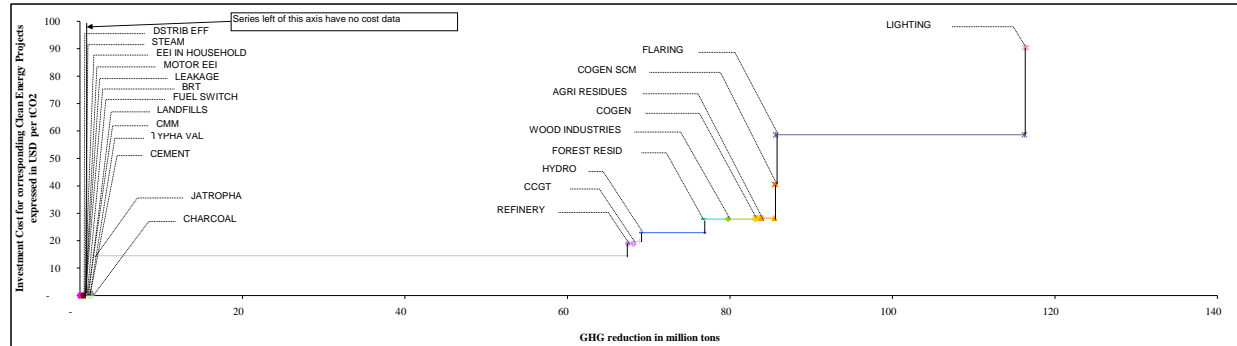
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc)

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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

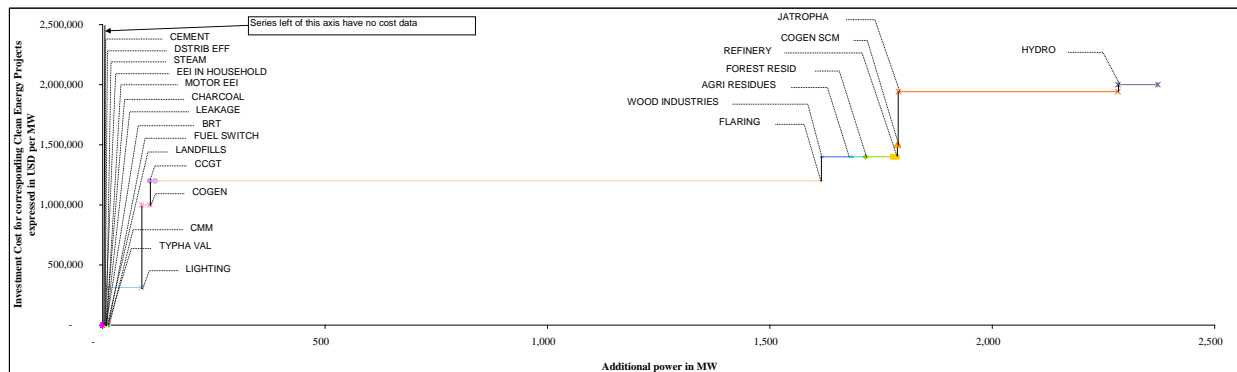
Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CEMENT	-	-
CHARCOAL	1	0
JATROPHA	15	66
REFINERY	19	1
CCGT	20	20
HYDRO	23	8
FOREST RESID	28	3
WOOD INDUSTRIES	28	3
COGEN	28	1
AGRI RESIDUES	28	2
COGEN SCM	41	0
FLARING	59	31
LIGHTING	90	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) (MW)
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
LIGHTING	312,500	75
COGEN	1,000,000	19
CCGT	1,200,000	12
FLARING	1,200,000	1,497
WOOD INDUSTRIES	1,400,000	67
AGRI RESIDUES	1,400,000	33
FOREST RESID	1,400,000	61
REFINERY	1,400,000	9
COGEN SCM	1,500,000	4
JATROPHA	1,941,771	493
HYDRO	2,000,000	90



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

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Consolidated Results for Congo, Rep.

Country Data for Congo Rep

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	1	2	1	1	2	7	-	3	-	10	-	-
Annual emission reduction in tCO2 per year	74,236	66,614	14,168	165,012	304,953	337,356	-	3,063,828	-	3,141,526	-	69,178
Emissions reduction in percent of the country emissions	1.4%	1.3%	0.3%	3.1%	5.7%	6.4%	0.0%	57.7%	0.0%	59.2%	0.0%	1.3%
Reduction over project life (10 or 21 years)	742,364	666,143	141,680	1,650,122	3,049,525	3,373,560	-	30,638,275	-	65,972,042	-	691,781
Value of the emission reduction in dollars (base 10 US\$/tCO2)	7,423,639	6,661,434	1,416,800	16,501,218	30,495,252	33,735,596	-	306,382,752	-	659,720,421	-	6,917,810
Value of the emission reduction in dollars (base 05 US\$/tCO2)	3,711,819	3,330,717	708,400	8,250,609	15,247,626	16,867,798	-	153,191,376	-	329,860,211	-	3,458,905
Annual electricity generation of the project in GWh	97	165	20	263	480	531	-	11,800	-	3,888	-	82
Annual electricity generation of the country in GWh (base 2003)	353	353	353	353	353	353	353	353	353	353	353	353
Project electricity generation as a percent of the country electricity generation	0	0	0	1	1	1	-	33	-	11	-	0
Annual electricity consumption of the country (base 2003)	588	588	588	588	588	588	588	588	588	588	588	588
Additional power due to the project implementation (load factor = 90%) MW	12	19	4	33	61	67	-	1,497	-	493	-	9
Countries' installed power in MW	327	327	327	327	327	327	327	327	327	327	327	327
Additional power as a percent of the country power	3.7%	5.7%	1.2%	10.2%	18.6%	20.6%	0.0%	457.7%	0.0%	150.8%	0.0%	2.9%
Total cost of the project in million US\$	15	19	6	47	85	94	-	1,796	-	958	-	13

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	1	1	-	-	-	2	1	1	2	-
Annual emission reduction in tCO2 per year	5,133	33,833	26,033	294	877	-	21,475	338	41,050	373,729	-
Emissions reduction in percent of the country emissions	0.1%	0.6%	0.5%	0.0%	0.0%	0.0%	0.4%	0.0%	0.8%	7.0%	0.0%
Reduction over project life (10 or 21 years)	51,330	338,326	260,332	2,942	8,767	-	214,751	3,388	862,045	7,848,305	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	513,299	3,383,260	2,603,318	29,417	87,666	-	2,147,508	33,876	8,620,450	78,483,051	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	256,649	1,691,630	1,301,659	14,709	43,833	-	1,073,754	16,938	4,310,225	39,241,525	-
Annual electricity generation of the project in GWh	68	-	110	12	12	-	-	-	-	534	-
Annual electricity generation of the country in GWh (base 2003)	353	353	353	353	353	353	353	353	353	353	353
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	-	-	-	-	2	-
Annual electricity consumption of the country (base 2003)	588	588	588	588	588	588	588	588	588	588	588
Additional power due to the project implementation (load factor = 90%) MW	9	-	75	1	1	-	-	-	-	90	-
Countries' installed power in MW	327	327	327	327	327	327	327	327	327	327	327
Additional power as a percent of the country power	2.6%	0.0%	23.0%	0.5%	0.4%	0.0%	0.0%	0.0%	0.0%	27.5%	0.0%
Total cost of the project in million US\$	-	-	24	-	-	-	0	-	-	180	-

	All sectors/technologies aggregated
Projects number	34
PoA number	2
Annual emission reduction in tCO2 per year	7,739,633
Country GHG emissions in 2005	5,310,597
Emissions reduction in percent of the country emissions	145.7%
Reduction over project life (10 or 21 years)	116,515,677
Value of the emission reduction in dollars (base 10 US\$/tCO2)	1,165,156,768
Value of the emission reduction in dollars (base 05 US\$/tCO2)	582,578,384
Annual electricity generation of the project in GWh	18,060
Annual electricity generation of the country in GWh (base 2003)	353
Project electricity generation as a percent of the country electricity generation	51
Annual electricity consumption of the country (base 2003)	588
Additional power due to the project implementation (load factor = 90%) MW	2,297
Countries' installed power in MW	327
Additional power as a percent of the country power	725.5%
Total cost of the project in million US\$	3,236

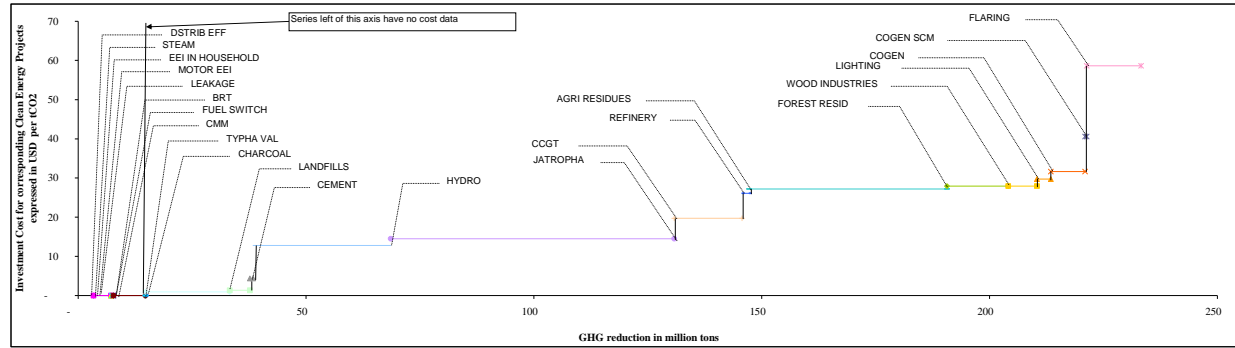
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

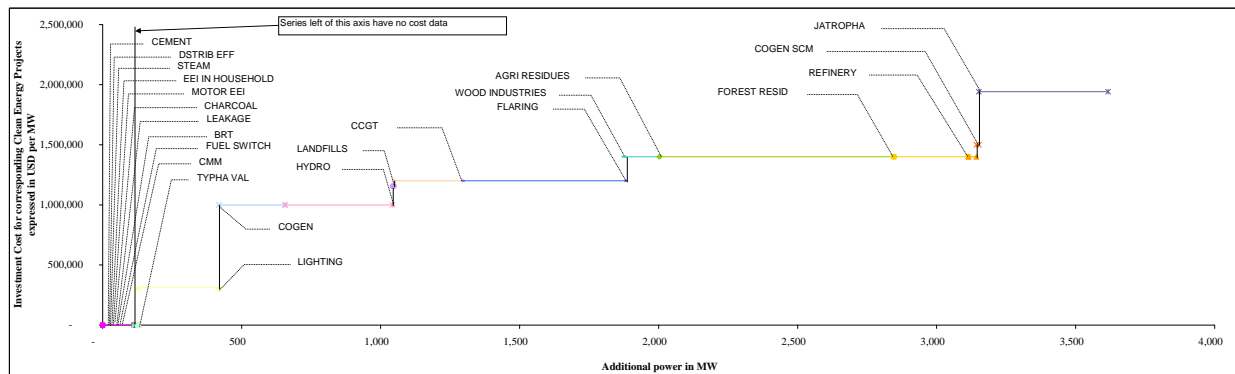
Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
DISTRIB EFF IMP	-	3
STEAM	-	4
EEI IN HOUSEHOLD	-	4
MOTOR EEI	-	0
LEAKAGE	-	0
BRT	-	7
FUEL SWITCH	-	7
CMM	-	-
TYPHA VAL	-	-
CHARCOAL	1	19
LANDFILLS	4	4
CEMENT	4	1
HYDRO	13	30
JATROPHA	15	62
CCGT	20	15
REFINERY	26	2
AGRI RESIDUES	27	43
FOREST RESID	28	13
WOOD INDUSTRIES	28	6
LIGHTING	30	3
COGEN	32	8
COGEN SCM	41	8
FLARING	59	12



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	113
DISTRIB EFF IMP	-	9
STEAM	-	7
EEI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
CMM	-	-
TYPHA VAL	-	-
LIGHTING	312,500	290
COGEN	1,000,000	238
HYDRO	1,000,000	387
LANDFILLS	1,154,813	5
CCGT	1,200,000	245
FLARING	1,200,000	584
WOOD INDUSTRIES	1,400,000	126
AGRI RESIDUES	1,400,000	943
FOREST RESID	1,400,000	268
REFINERY	1,400,000	29
COGEN SCM	1,500,000	9
JATROPHA	1,841,771	465



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)
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Consolidated Results for Côte d'Ivoire

Country Data for Ivory Coast

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	6	9	1	17	6	13	-	1	1	9	1	1
Annual emission reduction in tCO2 per year	1,487,697	751,287	33,880	4,341,025	1,344,315	631,789	-	1,195,968	441,809	2,962,036	68,709	155,264
Emissions reduction in percent of the country emissions	23.2%	11.7%	0.5%	67.6%	20.9%	9.8%	0.0%	18.6%	6.9%	46.1%	1.1%	2.4%
Reduction over project life (10 or 21 years)	14,876,972	7,512,865	338,800	43,410,247	13,443,150	6,317,894	-	11,959,678	4,418,089	62,202,762	687,086	1,552,643
Value of the emission reduction in dollars (base 10 US\$/tCO2)	148,769,722	75,128,653	3,388,000	434,102,466	134,431,503	63,178,940	-	119,596,776	44,180,888	622,027,623	6,870,864	15,526,432
Value of the emission reduction in dollars (base 05 US\$/tCO2)	74,384,861	37,564,326	1,694,000	217,051,233	67,215,752	31,589,470	-	59,798,388	22,090,444	311,013,812	3,435,432	7,763,216
Annual electricity generation of the project in GWh	1,953	2,084	48	6,846	2,114	994	-	4,606	25	3,666	-	254
Annual electricity generation of the country in GWh (base 2003)	4,620	4,620	4,620	4,620	4,620	4,620	4,620	4,620	4,620	4,620	4,620	4,620
Project electricity generation as a percent of the country electricity generation	0	0	0	1	0	0	-	1	0	1	-	0
Annual electricity consumption of the country (base 2003)	2,747	2,747	2,747	2,747	2,747	2,747	2,747	2,747	2,747	2,747	2,747	2,747
Additional power due to the project implementation (load factor = 90%) MW	245	238	9	843	268	126	-	584	5	465	-	29
Countries' installed power in MW	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260
Additional power as a percent of the country power	19.4%	18.9%	0.7%	66.9%	21.3%	10.0%	0.0%	46.4%	0.4%	36.9%	0.0%	2.3%
Total cost of the project in million US\$	293	238	14	1,180	375	176	-	701	6	903	3	41

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	14	1	1	1	-	171	1	1	2	-
Annual emission reduction in tCO2 per year	336,202	381,569	304,915	16,035	38,919	-	1,850,399	1,779	334,358	1,439,200	-
Emissions reduction in percent of the country emissions	5.2%	5.9%	4.7%	0.2%	0.8%	0.0%	28.8%	0.0%	5.2%	22.4%	0.0%
Reduction over project life (10 or 21 years)	3,362,021	3,815,691	3,049,151	160,354	389,190	-	18,503,986	17,789	7,021,510	30,223,200	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	33,620,208	38,156,909	30,491,505	1,603,540	3,891,898	-	185,039,855	177,890	70,215,096	302,232,000	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	16,810,104	19,078,455	15,245,753	801,770	1,945,949	-	92,519,928	88,945	35,107,548	151,116,000	-
Annual electricity generation of the project in GWh	887	-	424	68	54	-	-	-	-	2,056	-
Annual electricity generation of the country in GWh (base 2003)	4,620	4,620	4,620	4,620	4,620	4,620	4,620	4,620	4,620	4,620	4,620
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	-	-	-	0	0	-
Annual electricity consumption of the country (base 2003)	2,747	2,747	2,747	2,747	2,747	2,747	2,747	2,747	2,747	2,747	2,747
Additional power due to the project implementation (load factor = 90%) MW	113	-	290	9	7	-	-	-	-	387	-
Countries' installed power in MW	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260	1,260
Additional power as a percent of the country power	8.9%	0.0%	23.0%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	30.7%	0.0%
Total cost of the project in million US\$	-	-	91	-	-	-	18	-	-	387	-

	All sectors/technologies aggregated
Projects number	251
PoA number	6
Annual emission reduction in tCO2 per year	18,117,154
Country GHG emissions in 2005	6,423,247
Emissions reduction in percent of the country emissions	282.1%
Reduction over project life (10 or 21 years)	233,263,077
Value of the emission reduction in dollars (base 10 US\$/tCO2)	2,332,630,769
Value of the emission reduction in dollars (base 05 US\$/tCO2)	1,166,315,384
Annual electricity generation of the project in GWh	25,878
Annual electricity generation of the country in GWh (base 2003)	4,620
Project electricity generation as a percent of the country electricity generation	6
Annual electricity consumption of the country (base 2003)	2,747
Additional power due to the project implementation (load factor = 90%) MW	3,327
Countries' installed power in MW	1,260
Additional power as a percent of the country power	287.2%
Total cost of the project in million US\$	4,426

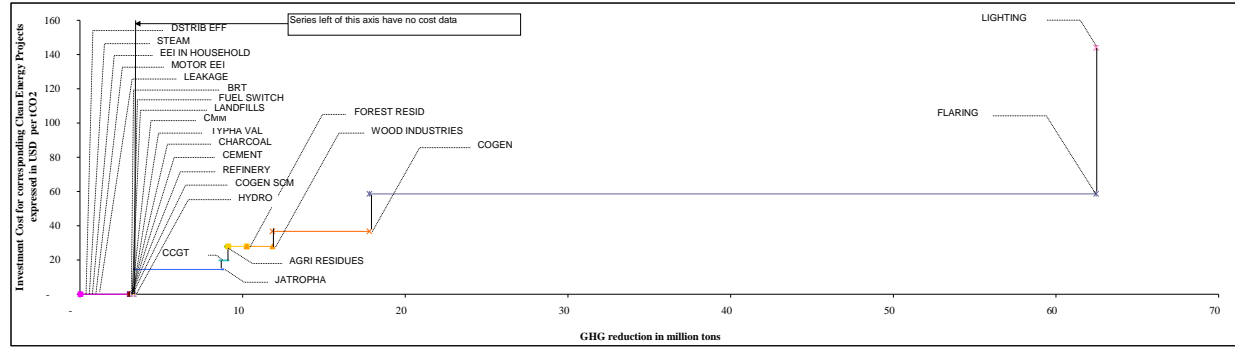
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

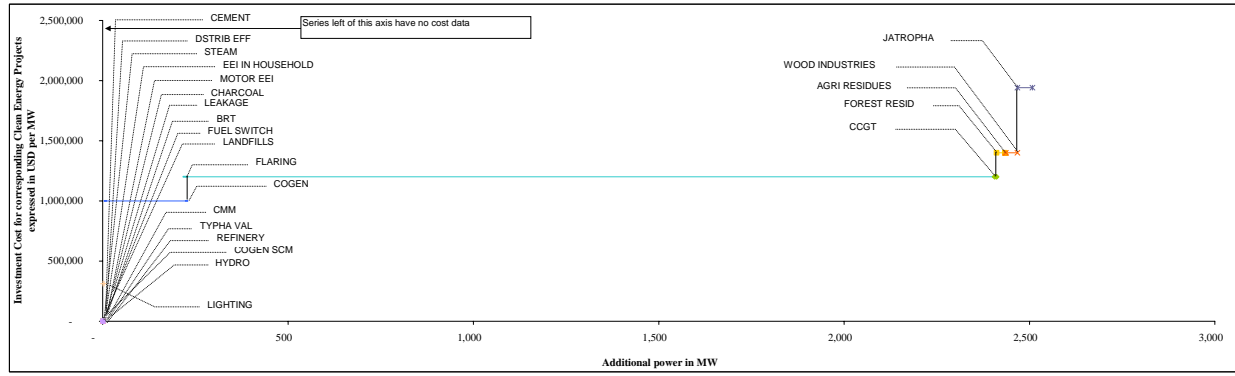
Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EEI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CHARCOAL	-	-
CEMENT	-	-
REFINERY	-	-
COGEN SCM	-	-
HYDRO	-	-
JATROPHA	15	5
COGT	20	0
AGRI RESIDUES	28	0
FOREST RESID	28	1
WOOD INDUSTRIES	28	2
COGEN	37	6
FLARING	59	46
LIGHTING	144	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EEI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
REFINERY	-	-
COGEN SCM	-	-
HYDRO	-	-
LIGHTING	312,500	3
COGEN	1,000,000	220
FLARING	1,200,000	2,183
COGT	1,200,000	5
FOREST RESID	1,400,000	22
AGRI RESIDUES	1,400,000	2
WOOD INDUSTRIES	1,400,000	31
JATROPHA	1,841,771	40



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in USD/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Equatorial Guinea

Country Data for E. Guinea

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	2	7	-	1	-1	3	-	4	-	1	-	-
Annual emission reduction in tCO2 per year	31,179	596,757	-	11,277	112,666	157,759	-	4,468,062	-	257,660	-	-
Emissions reduction in percent of the country emissions	0.6%	12.3%	0.0%	0.2%	2.3%	3.2%	0.0%	91.8%	0.0%	5.3%	0.0%	0.0%
Reduction over project life (10 or 21 years)	311,793	5,967,566	-	112,775	1,126,659	1,577,591	-	44,680,818	-	5,410,865	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	3,117,928	59,675,659	-	1,127,747	11,266,591	15,775,909	-	446,808,180	-	54,108,649	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	1,558,964	29,837,830	-	563,873	5,633,295	7,887,955	-	223,404,090	-	27,054,324	-	-
Annual electricity generation of the project in GWh	41	1,923	-	18	177	248	-	17,208	-	319	-	-
Annual electricity generation of the country in GWh (base 2003)	28	28	28	28	28	28	28	28	28	28	28	28
Project electricity generation as a percent of the country electricity generation	1	69	-	1	6	9	-	615	-	11	-	-
Annual electricity consumption of the country (base 2003)	30	30	30	30	30	30	30	30	30	30	30	30
Additional power due to the project implementation (load factor = 90%) MW	5	220	-	2	22	31	-	2,183	-	40	-	-
Countries' installed power in MW	13	13	13	13	13	13	13	13	13	13	13	13
Additional power as a percent of the country power	39.4%	1688.5%	0.0%	17.3%	172.9%	242.1%	0.0%	16790.0%	0.0%	311.1%	0.0%	0.0%
Total cost of the project in million US\$	6	220	-	3	31	44	-	2,619	-	79	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	12	1	-	-	-	-	1	1	-	-
Annual emission reduction in tCO2 per year	2,498	303,085	650	430	121	-	-	1,779	9,740	-	-
Emissions reduction in percent of the country emissions	0.1%	6.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%
Reduction over project life (10 or 21 years)	24,981	3,030,853	6,503	4,296	1,207	-	-	17,789	204,540	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	249,811	30,308,526	65,025	42,959	12,075	-	-	177,890	2,045,398	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	124,906	15,154,263	32,513	21,479	6,037	-	-	88,945	1,022,699	-	-
Annual electricity generation of the project in GWh	5	-	3	1	1	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	28	28	28	28	28	28	28	28	28	28	28
Project electricity generation as a percent of the country electricity generation	1	0	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	30	30	30	30	30	30	30	30	30	30	30
Additional power due to the project implementation (load factor = 90%) MW	1	-	3	0	0	-	-	-	-	-	-
Countries' installed power in MW	13	13	13	13	13	13	13	13	13	13	13
Additional power as a percent of the country power	5.2%	0.0%	23.0%	0.9%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	1	-	-	-	-	-	-	-	-

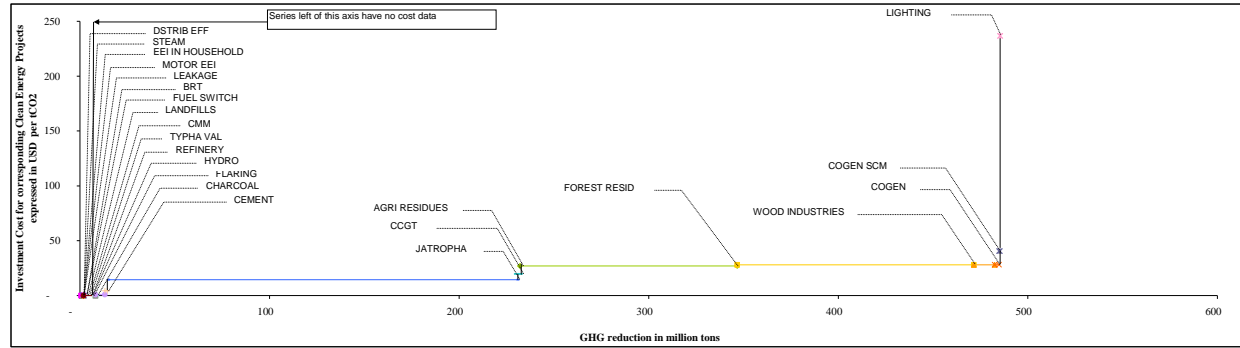
	All sectors/technologies aggregated
Projects number	33
PoA number	1
Annual emission reduction in tCO2 per year	5,953,683
Country GHG emissions in 2005	4,869,261
Emissions reduction in percent of the country emissions	122.3%
Reduction over project life (10 or 21 years)	62,478,235
Value of the emission reduction in dollars (base 10 US\$/tCO2)	624,782,346
Value of the emission reduction in dollars (base 05 US\$/tCO2)	312,391,173
Annual electricity generation of the project in GWh	19,944
Annual electricity generation of the country in GWh (base 2003)	28
Project electricity generation as a percent of the country electricity generation	712
Annual electricity consumption of the country (base 2003)	30
Additional power due to the project implementation (load factor = 90%) MW	2,505
Countries' installed power in MW	13
Additional power as a percent of the country power	19291.1%
Total cost of the project in million US\$	3,003

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

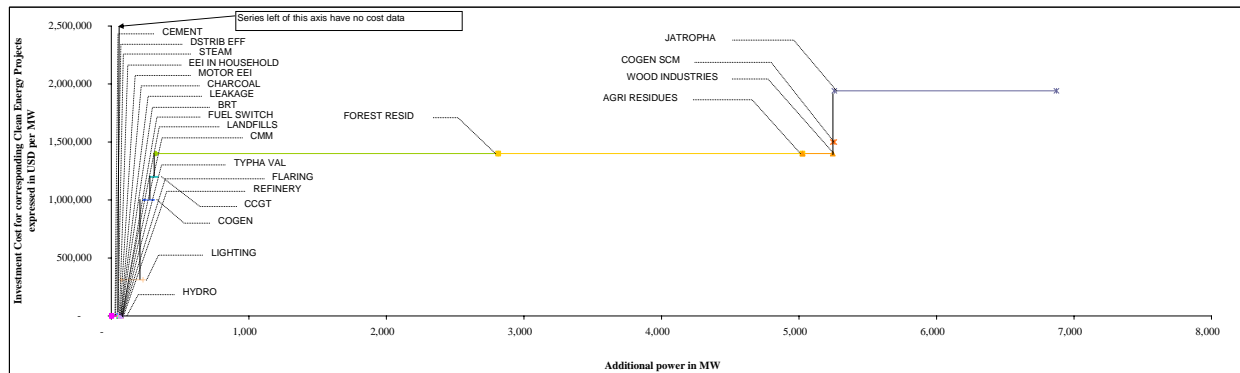
Potential for Emission Reductions
(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

Sector	Investment Cost (\$/tCO2)	Reduction over the project life (tCO2/21 years)
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
REFINERY	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	5
CEMENT	4	1
JATROPHA	15	216
CCGT	20	2
AGRI RESIDUES	27	115
FOREST RESID	28	125
WOOD INDUSTRIES	28	11
COGEN	28	2
COGEN SCM	41	0
LIGHTING	237	0



Potential for Additional Generation Capacity
(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	-	-
DISTRIB EFF IMP	-	56
STEAM	-	-
EI IN HOUSEHOLD	-	9
MOTOR EEI	-	5
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
FLARING	-	-
REFINERY	-	-
HYDRO	-	-
LIGHTING	312,500	159
COGEN	1,000,000	64
CCGT	1,200,000	29
FOREST RESID	1,400,000	2,490
AGRI RESIDUES	1,400,000	2,212
WOOD INDUSTRIES	1,400,000	220
COGEN SCM	1,500,000	12
JATROPHA	1,841,771	1,615



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Ethiopia

Country Data for Ethiopia

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	3	3	2	44	3	22	-	-	-	32	4	-
Annual emission reduction in tCO ₂ per year	178,167	227,944	45,276	11,457,149	12,483,929	1,102,431	-	-	-	10,285,126	126,847	-
Emissions reduction in percent of the country emissions	4.1%	5.2%	1.0%	262.1%	285.6%	25.2%	0.0%	0.0%	0.0%	235.3%	2.9%	0.0%
Reduction over project life (10 or 21 years)	1,781,673	2,279,439	452,760	114,571,487	124,839,289	11,024,311	-	-	-	215,987,643	1,268,467	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	17,816,733	22,794,390	4,527,600	1,145,714,871	1,248,392,893	110,243,108	-	-	-	2,159,876,434	12,684,672	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	8,908,367	11,397,195	2,263,800	572,857,436	624,196,447	55,121,554	-	-	-	1,079,938,217	6,342,336	-
Annual electricity generation of the project in GWh	234	563	65	17,440	19,633	1,734	-	-	-	12,729	-	-
Annual electricity generation of the country in GWh (base 2003)	2,294	2,294	2,294	2,294	2,294	2,294	2,294	2,294	2,294	2,294	2,294	2,294
Project electricity generation as a percent of the country electricity generation	0	0	0	9	9	9	1	1	1	6	1	1
Annual electricity consumption of the country (base 2003)	2,133	2,133	2,133	2,133	2,133	2,133	2,133	2,133	2,133	2,133	2,133	2,133
Additional power due to the project implementation (load factor = 90%) MW	29	64	12	2,212	2,490	220	-	-	-	1,615	-	-
Countries' installed power in MW	690	690	690	690	690	690	690	690	690	690	690	690
Additional power as a percent of the country power	4.2%	9.3%	1.8%	320.6%	360.9%	31.9%	0.0%	0.0%	0.0%	234.0%	0.0%	0.0%
Total cost of the project in million US\$	35	64	18	3,097	3,486	308	-	-	-	3,135	6	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	3	1	-	1	-	45	-	2	-	-
Annual emission reduction in tCO ₂ per year	53,124	115,770	20,996	8,918	11,198	-	492,003	-	298,544	-	-
Emissions reduction in percent of the country emissions	1.2%	2.6%	0.5%	0.2%	0.3%	0.0%	11.3%	0.0%	6.8%	0.0%	0.0%
Reduction over project life (10 or 21 years)	531,244	1,157,699	209,964	89,183	111,963	-	4,920,030	-	6,269,418	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	5,312,441	11,576,988	2,099,642	891,828	1,119,628	-	49,200,305	-	62,694,184	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	2,656,221	5,788,494	1,049,821	445,914	559,814	-	24,600,152	-	31,347,092	-	-
Annual electricity generation of the project in GWh	440	-	174	74	42	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	2,294	2,294	2,294	2,294	2,294	2,294	2,294	2,294	2,294	2,294	2,294
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	2,133	2,133	2,133	2,133	2,133	2,133	2,133	2,133	2,133	2,133	2,133
Additional power due to the project implementation (load factor = 90%) MW	56	-	159	9	5	-	-	-	-	-	-
Countries' installed power in MW	690	690	690	690	690	690	690	690	690	690	690
Additional power as a percent of the country power	8.1%	0.0%	23.0%	1.4%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	50	-	-	-	5	-	-	-	-

	All sectors/technologies aggregated
Projects number	163
PoA number	3
Annual emission reduction in tCO ₂ per year	36,907,421
Country GHG emissions in 2005	4,371,216
Emissions reduction in percent of the country emissions	844.3%
Reduction over project life (10 or 21 years)	485,494,572
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	4,854,945,718
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	2,427,472,859
Annual electricity generation of the project in GWh	53,129
Annual electricity generation of the country in GWh (base 2003)	2,294
Project electricity generation as a percent of the country electricity generation	23
Annual electricity consumption of the country (base 2003)	2,133
Additional power due to the project implementation (load factor = 90%) MW	6,713
Countries' installed power in MW	690
Additional power as a percent of the country power	996.0%
Total cost of the project in million US\$	10,294

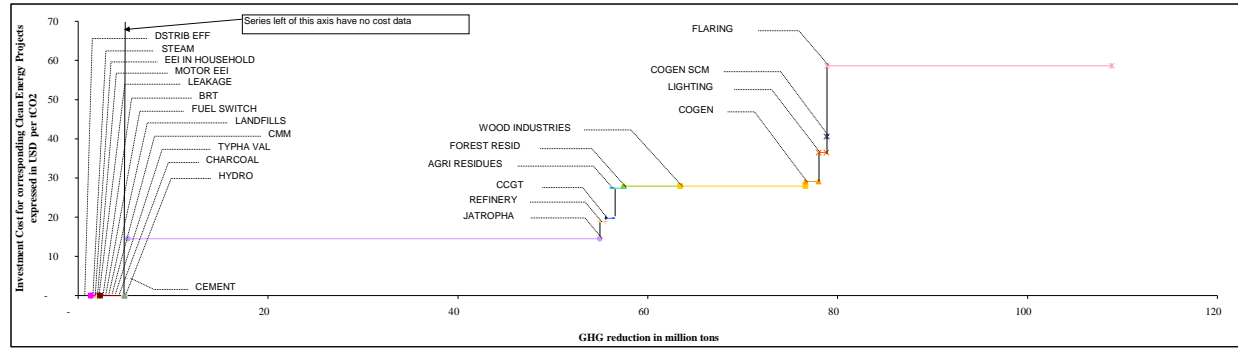
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO₂ presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

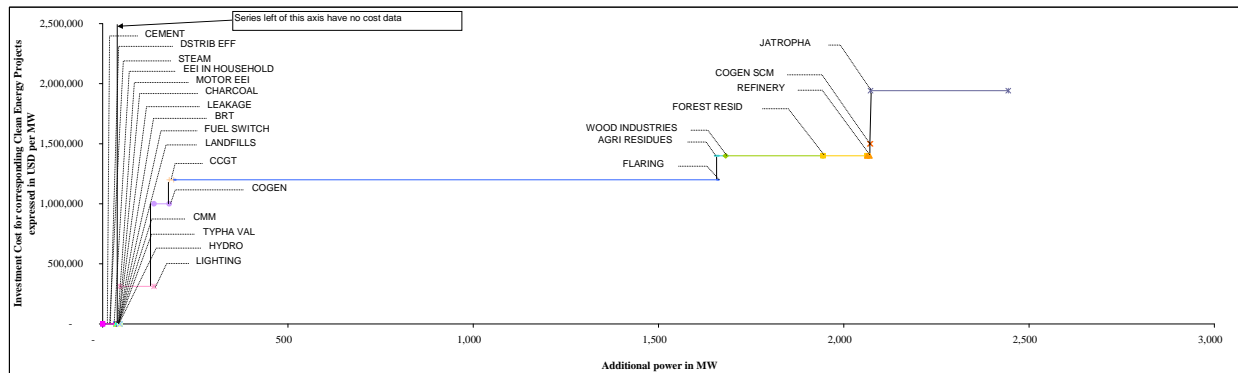
Sector	Investment Cost (\$/tCO2)	Reduction over the project lifetime (10 or 21 years)
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CHARCOAL	-	-
HYDRO	-	-
CEMENT	4	0
JATROPHA	15	50
REFINERY	19	1
CCGT	20	1
AGRI RESIDUES	27	1
FOREST RESID	28	6
WOOD INDUSTRIES	28	13
COGEN	29	1
LIGHTING	36	0
COGEN SCM	41	0
FLARING	59	30



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	-
DISTRIB EFF IMP	-	37
STEAM	-	-
EI IN HOUSEHOLD	-	6
MOTOR EEI	-	3
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
HYDRO	-	-
LIGHTING	312,500	92
COGEN	1,000,000	41
CCGT	1,200,000	12
FLARING	1,200,000	1,466
AGRI RESIDUES	1,400,000	24
WOOD INDUSTRIES	1,400,000	263
FOREST RESID	1,400,000	119
REFINERY	1,400,000	8
COGEN SCM	1,500,000	2
JATROPHA	1,841,771	372



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)
 Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Gabon

Country Data for Gabon

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	5	4	1	1	2	26	-	3	-	7	1	1
Annual emission reduction in tCO2 per year	75,751	140,425	7,238	122,008	594,553	1,317,797	-	2,999,998	-	2,366,863	36,997	56,001
Emissions reduction in percent of the country emissions	1.5%	2.8%	0.1%	2.5%	12.0%	26.6%	0.0%	60.6%	0.0%	47.8%	0.7%	1.1%
Reduction over project life (10 or 21 years)	757,508	1,404,246	72,380	1,220,084	5,945,533	13,177,967	-	29,999,978	-	49,704,533	369,970	560,013
Value of the emission reduction in dollars (base 10 US\$/tCO2)	7,575,081	14,042,462	723,800	12,200,836	59,455,334	131,779,671	-	299,999,778	-	497,045,325	3,699,696	5,600,132
Value of the emission reduction in dollars (base 05 US\$/tCO2)	3,787,541	7,021,231	361,900	6,100,418	29,727,667	65,889,836	-	149,999,889	-	248,522,663	1,849,848	2,800,066
Annual electricity generation of the project in GWh	99	358	10	188	935	2,072	-	11,554	-	2,929	-	66
Annual electricity generation of the country in GWh (base 2003)	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Project electricity generation as a percent of the country electricity generation	0	0	0	1	1	1	1	8	2	2	0	0
Annual electricity consumption of the country (base 2003)	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400
Additional power due to the project implementation (load factor = 90%) MW	12	41	2	24	119	263	-	1,466	-	372	-	8
Countries' installed power in MW	400	400	400	400	400	400	400	400	400	400	400	400
Additional power as a percent of the country power	3.1%	10.2%	0.5%	6.0%	29.6%	65.7%	0.0%	366.4%	0.0%	92.9%	0.0%	1.9%
Total cost of the project in million US\$	15	41	3	33	166	368	-	1,759	-	721	2	11

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	2	1	1	-	-	-	1	1	-	-
Annual emission reduction in tCO2 per year	132,892	71,320	78,924	23,249	4,197	-	-	494	121,283	-	-
Emissions reduction in percent of the country emissions	2.7%	1.4%	1.6%	0.5%	0.1%	0.0%	0.0%	0.0%	2.4%	0.0%	0.0%
Reduction over project life (10 or 21 years)	1,328,916	713,199	789,241	232,486	41,967	-	-	4,940	2,546,951	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	13,289,161	7,131,992	7,892,410	2,324,865	419,667	-	-	49,403	25,469,512	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	6,644,581	3,565,996	3,946,205	1,162,432	209,833	-	-	24,702	12,734,756	-	-
Annual electricity generation of the project in GWh	288	-	101	50	28	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500	1,500
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	0	0	0	0	0	0
Annual electricity consumption of the country (base 2003)	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400	1,400
Additional power due to the project implementation (load factor = 90%) MW	37	-	92	6	3	-	-	-	-	-	-
Countries' installed power in MW	400	400	400	400	400	400	400	400	400	400	400
Additional power as a percent of the country power	9.1%	0.0%	23.0%	1.6%	0.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	29	-	-	-	-	-	-	-	-

	All sectors/technologies aggregated
Projects number	56
PoA number	2
Annual emission reduction in tCO2 per year	8,150,009
Country GHG emissions in 2005	4,950,949
Emissions reduction in percent of the country emissions	164.6%
Reduction over project life (10 or 21 years)	108,869,913
Value of the emission reduction in dollars (base 10 US\$/tCO2)	1,088,699,127
Value of the emission reduction in dollars (base 05 US\$/tCO2)	544,349,563
Annual electricity generation of the project in GWh	18,681
Annual electricity generation of the country in GWh (base 2003)	1,500
Project electricity generation as a percent of the country electricity generation	12
Annual electricity consumption of the country (base 2003)	1,400
Additional power due to the project implementation (load factor = 90%) MW	2,352
Countries' installed power in MW	400
Additional power as a percent of the country power	611.0%
Total cost of the project in million US\$	3,147

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

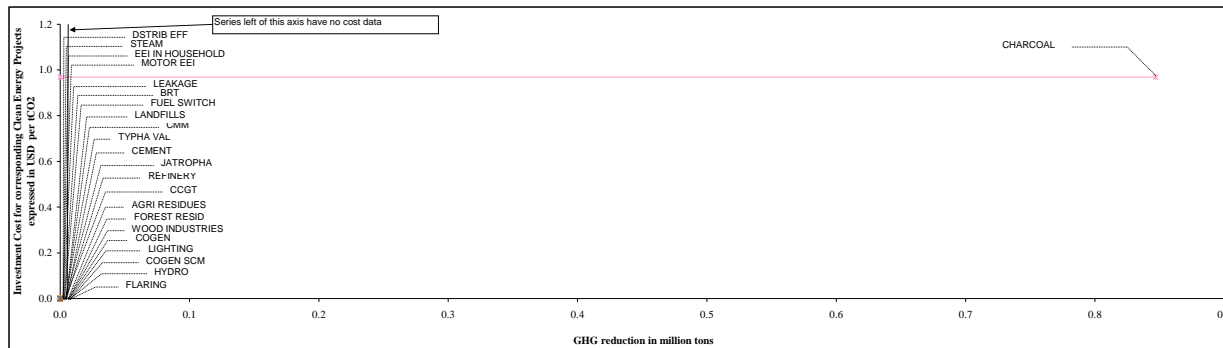
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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CEMENT	-	-
JATROPHA	-	-
REFINERY	-	-
COGT	-	-
AGRI RESIDUES	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
COGEN	-	-
LIGHTING	-	-
COGEN SCM	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	1

No cost data was available for the listed categories

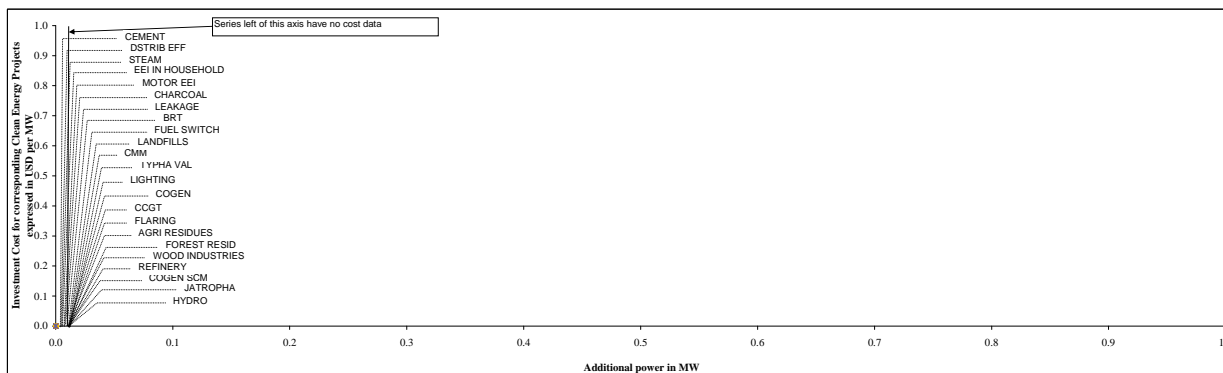


Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
LIGHTING	-	-
COGEN	-	-
COGT	-	-
FLARING	-	-
AGRI RESIDUES	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
REFINERY	-	-
COGEN SCM	-	-
JATROPHA	-	-
HYDRO	-	-

No cost data and/or no power generation from projects



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

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Consolidated Results for Gambia

Country Data for Gambia

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	-	-	-	-	-	-	-	-	-	-	-
Annual emission reduction in tCO2 per year	-	-	-	-	-	-	-	-	-	-	-	-
Emissions reduction in percent of the country emissions	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Reduction over project life (10 or 21 years)	-	-	-	-	-	-	-	-	-	-	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	-	-	-	-	-	-	-	-	-	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	-	-	-	-	-	-	-	-	-	-	-
Annual electricity generation of the project in GWh	-	-	-	-	-	-	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	-	-	-	-	-	-	-	-	-	-	-	-
Project electricity generation as a percent of the country electricity generation	-	-	-	-	-	-	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	-	-	-	-	-	-	-	-	-	-	-	-
Additional power due to the project implementation (load factor = 90%) MW	-	-	-	-	-	-	-	-	-	-	-	-
Countries' installed power in MW	-	-	-	-	-	-	-	-	-	-	-	-
Additional power as a percent of the country power	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	-	-	-	-	-	-	-	-	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	-	-	-	-	-	8	-	-	-	-
Annual emission reduction in tCO2 per year	-	-	-	-	-	-	84,700	-	-	-	-
Emissions reduction in percent of the country emissions	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	28.6%	0.0%	0.0%	0.0%	0.0%
Reduction over project life (10 or 21 years)	-	-	-	-	-	-	847,000	-	-	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	-	-	-	-	-	8,470,000	-	-	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	-	-	-	-	-	4,235,000	-	-	-	-
Annual electricity generation of the project in GWh	-	-	-	-	-	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	-	-	-	-	-	-	-	-	-	-	78
Project electricity generation as a percent of the country electricity generation	-	-	-	-	-	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	-	-	-	-	-	-	-	-	-	-	78
Additional power due to the project implementation (load factor = 90%) MW	-	-	-	-	-	-	-	-	-	-	-
Countries' installed power in MW	-	-	-	-	-	-	-	-	-	-	-
Additional power as a percent of the country power	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	-	-	-	-	1	-	-	-	-

	All sectors/technologies aggregated
Projects number	8
PoA number	-
Annual emission reduction in tCO2 per year	84,700
Country GHG emissions in 2005	295,241
Emissions reduction in percent of the country emissions	28.6%
Reduction over project life (10 or 21 years)	847,000
Value of the emission reduction in dollars (base 10 US\$/tCO2)	8,470,000
Value of the emission reduction in dollars (base 05 US\$/tCO2)	4,235,000
Annual electricity generation of the project in GWh	-
Annual electricity generation of the country in GWh (base 2003)	-
Project electricity generation as a percent of the country electricity generation	-
Annual electricity consumption of the country (base 2003)	-
Additional power due to the project implementation (load factor = 90%) MW	-
Countries' installed power in MW	-
Additional power as a percent of the country power	0.0%
Total cost of the project in million US\$	1

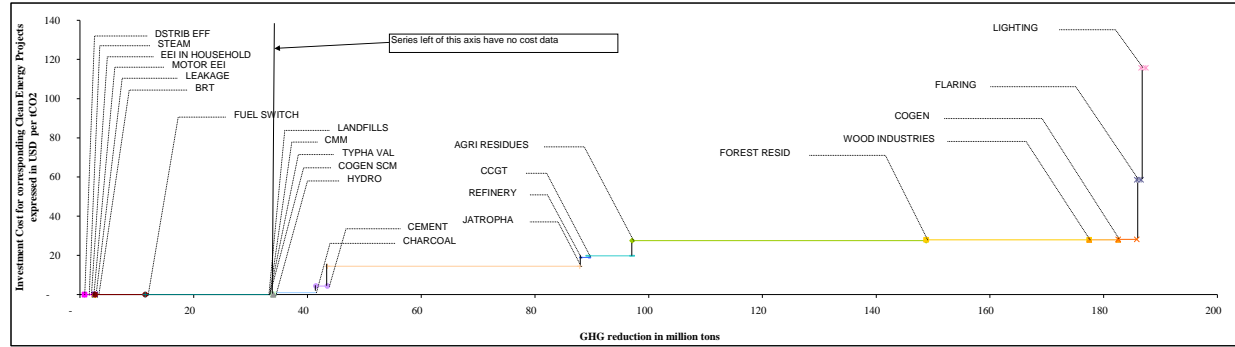
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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

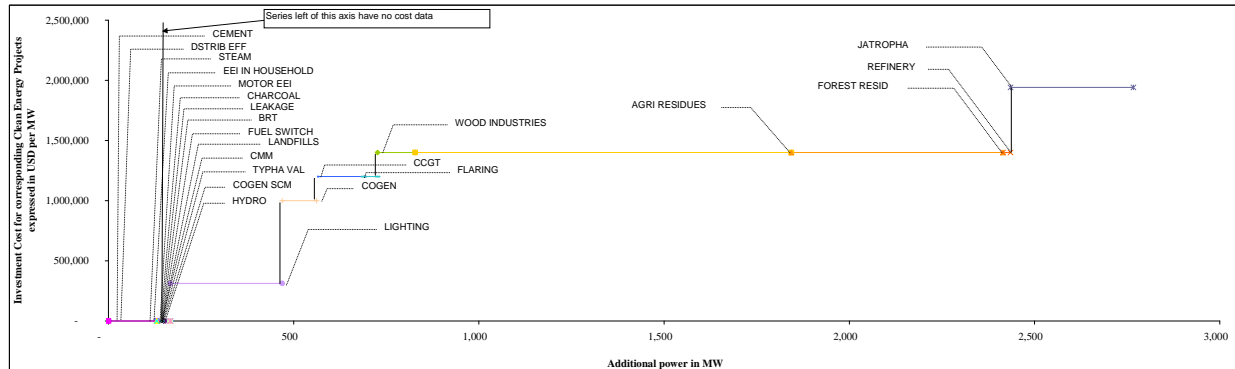
Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	1
STEAM	-	2
EEI IN HOUSEHOLD	-	2
MOTOR EEI	-	0
LEAKAGE	-	0
BRT	-	9
FUEL SWITCH	-	2
LANDFILLS	-	3
CMM	-	3
TYPHA VAL	-	3
COGEN SCM	-	3
HYDRO	-	3
CHARCOAL	1	8
CEMENT	4	8
JATROPHA	16	4
REFINERY	19	1
CCGT	20	8
AGRI RESIDUES	27	52
FOREST RESID	28	5
WOOD INDUSTRIES	28	5
COGEN	28	3
FLARING	59	3
LIGHTING	116	1



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	-	131
DISTRIB EFF IMP	-	24
STEAM	-	24
EEI IN HOUSEHOLD	-	13
MOTOR EEI	-	13
CHARCOAL	-	0
LEAKAGE	-	0
BRT	-	0
FUEL SWITCH	-	0
LANDFILLS	-	0
CMM	-	0
TYPHA VAL	-	0
COGEN SCM	-	0
HYDRO	-	0
LIGHTING	312,500	302
COGEN	1,000,000	93
CCGT	1,200,000	127
FLARING	1,200,000	37
WOOD INDUSTRIES	1,400,000	191
AGRI RESIDUES	1,400,000	1,016
FOREST RESID	1,400,000	572
REFINERY	1,400,000	20
JATROPHA	1,841,771	332



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Ghana

Country Data for Ghana

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	5	4	-	20	7	10	-	1	-	7	2	1
Annual emission reduction in tCO ₂ per year	772,058	329,870	-	5,171,368	2,865,825	508,293	-	76,596	-	2,112,806	200,841	148,239
Emissions reduction in percent of the country emissions	11.6%	4.9%	0.0%	77.6%	43.0%	7.6%	0.0%	1.1%	0.0%	31.7%	3.0%	2.2%
Reduction over project life (10 or 21 years)	7,720,584	3,298,695	-	51,713,676	28,658,252	5,082,930	-	765,957	-	44,371,021	2,008,406	1,482,388
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	77,205,844	32,986,951	-	517,136,758	286,582,518	50,829,302	-	7,659,569	-	443,710,209	20,084,064	14,823,879
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	38,602,922	16,493,476	-	258,568,379	143,291,259	25,414,651	-	3,829,784	-	221,855,104	10,042,032	7,411,939
Annual electricity generation of the project in GWh	1,014	814	-	8,008	4,507	799	-	295	-	2,615	5,360	176
Annual electricity generation of the country in GWh (base 2003)	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360
Project electricity generation as a percent of the country electricity generation	0	0	1	1	1	1	1	0	0	0	0	0
Annual electricity consumption of the country (base 2003)	5,080	5,080	5,080	5,080	5,080	5,080	5,080	5,080	5,080	5,080	5,080	5,080
Additional power due to the project implementation (load factor = 90%) MW	127	93	-	1,016	572	101	-	37	-	332	-	20
Countries' installed power in MW	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310
Additional power as a percent of the country power	9.7%	7.1%	0.0%	77.5%	43.6%	7.7%	0.0%	2.9%	0.0%	25.3%	0.0%	1.5%
Total cost of the project in million US\$	152	93	-	1,422	800	142	-	45	-	644	9	28

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	5	1	1	-	-	69	1	2	-	20
Annual emission reduction in tCO ₂ per year	81,249	167,537	81,539	14,825	2,605	-	751,061	8	419,827	-	1,071,925
Emissions reduction in percent of the country emissions	-1.2%	2.5%	-1.2%	0.2%	0.0%	0.0%	11.3%	0.0%	6.3%	0.0%	16.1%
Reduction over project life (10 or 21 years)	812,496	1,675,366	815,395	148,250	26,055	-	7,510,608	85	8,816,370	-	22,510,435
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	8,124,863	16,753,663	8,153,948	1,482,497	260,546	-	75,106,078	847	88,163,697	-	225,104,349
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	4,062,432	8,376,831	4,076,974	741,248	130,273	-	37,553,039	423	44,081,848	-	112,552,174
Annual electricity generation of the project in GWh	1,029	-	330	188	100	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360	5,360
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	0	0	0	0	0	0
Annual electricity consumption of the country (base 2003)	5,080	5,080	5,080	5,080	5,080	5,080	5,080	5,080	5,080	5,080	5,080
Additional power due to the project implementation (load factor = 90%) MW	131	-	302	24	13	-	-	-	-	-	-
Countries' installed power in MW	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310	1,310
Additional power as a percent of the country power	10.0%	0.0%	23.0%	1.8%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	94	-	-	-	7	-	-	-	-

	All sectors/technologies aggregated
Projects number	149
PoA number	7
Annual emission reduction in tCO ₂ per year	14,776,572
Country GHG emissions in 2005	6,665,980
Emissions reduction in percent of the country emissions	221.7%
Reduction over project life (10 or 21 years)	187,416,958
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	1,874,169,580
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	937,084,790
Annual electricity generation of the project in GWh	19,876
Annual electricity generation of the country in GWh (base 2003)	5,360
Project electricity generation as a percent of the country electricity generation	4
Annual electricity consumption of the country (base 2003)	5,080
Additional power due to the project implementation (load factor = 90%) MW	2,465
Countries' installed power in MW	1,310
Additional power as a percent of the country power	211.2%
Total cost of the project in million US\$	3,437

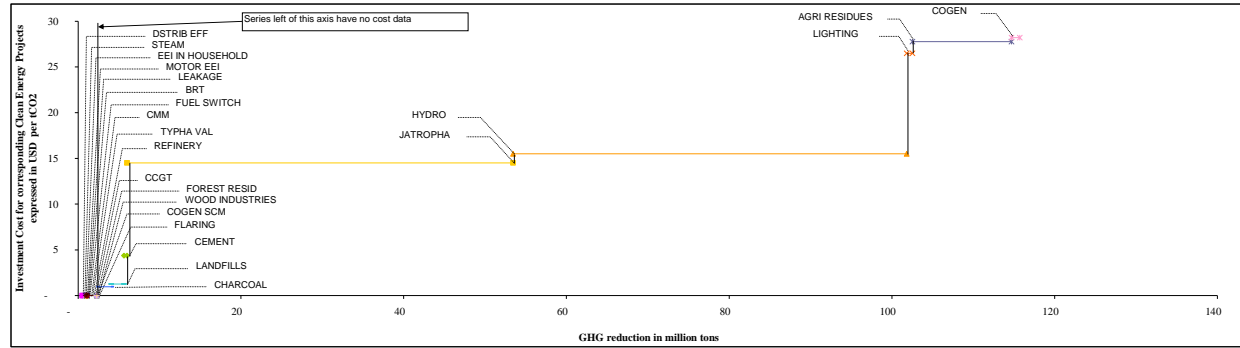
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO₂ presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

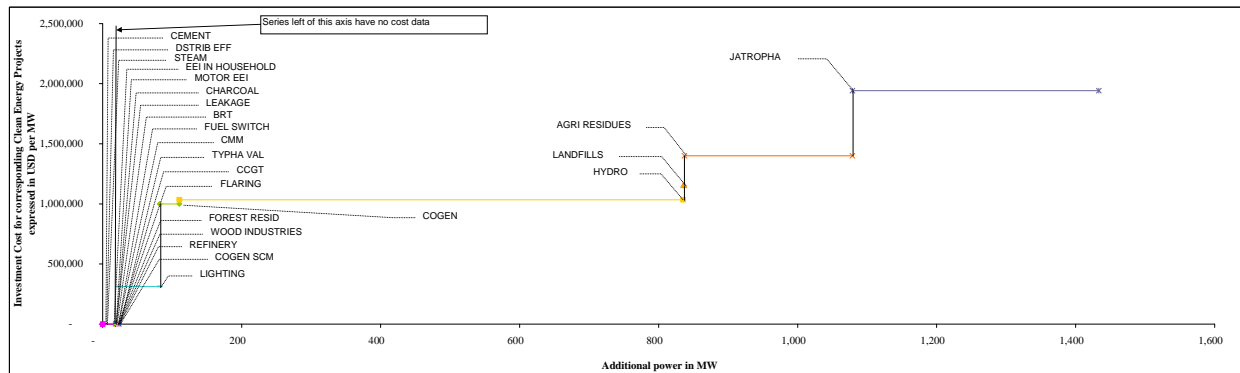
Sector	Investment Cost (\$/tCO2)	Reduction over the period (10 or 21 years)
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	1
FUEL SWITCH	-	-
CMM	-	-
TYPHA VAL	-	-
REFINERY	-	-
CCGT	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
COGEN SCM	-	-
FLARING	-	-
CHARCOAL	1	2
LANDFILLS	1	2
CEMENT	4	2
JATROPHA	15	47
HYDRO	16	48
LIGHTING	26	1
AGRI RESIDUES	28	1
COGEN	28	1



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	-	-
DISTRIB EFF IMP	-	19
STEAM	-	-
EI IN HOUSEHOLD	-	3
MOTOR EEI	-	2
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
CMM	-	-
TYPHA VAL	-	-
CCGT	-	-
FLARING	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
REFINERY	-	-
COGEN SCM	-	-
LIGHTING	312,500	59
COGEN	1,000,000	28
HYDRO	1,034,483	725
LANDFILLS	1,154,813	2
AGRI RESIDUES	1,400,000	242
JATROPHA	1,841,771	355



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Guinea

Country Data for Guinea

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	3	-	5	-	-	-	-	1	7	1	-
Annual emission reduction in tCO2 per year	-	100,687	-	1,219,168	-	-	-	-	158,303	2,258,360	38,064	-
Emissions reduction in percent of the country emissions	0.0%	7.5%	0.0%	91.1%	0.0%	0.0%	0.0%	0.0%	11.8%	168.8%	2.8%	0.0%
Reduction over project life (10 or 21 years)	-	1,006,868	-	12,191,685	-	-	-	-	1,583,031	47,425,989	380,540	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	10,068,676	-	121,916,849	-	-	-	-	15,830,306	474,259,894	3,805,402	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	5,034,338	-	60,958,424	-	-	-	-	7,915,153	237,129,947	1,902,701	-
Annual electricity generation of the project in GWh	-	249	-	1,907	-	-	-	-	8	2,795	-	-
Annual electricity generation of the country in GWh (base 2003)	775	775	775	775	775	775	775	775	775	775	775	775
Project electricity generation as a percent of the country electricity generation	-	0	-	2	-	-	-	-	0	4	-	-
Annual electricity consumption of the country (base 2003)	721	721	721	721	721	721	721	721	721	721	721	721
Additional power due to the project implementation (load factor = 90%) MW	-	28	-	242	-	-	-	-	2	355	-	-
Countries' installed power in MW	254	254	254	254	254	254	254	254	254	254	254	254
Additional power as a percent of the country power	0.0%	11.2%	0.0%	95.2%	0.0%	0.0%	0.0%	0.0%	0.7%	139.5%	0.0%	0.0%
Total cost of the project in million US\$	-	28	-	339	-	-	-	-	2	688	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	2	1	-	-	-	16	-	1	3	-
Annual emission reduction in tCO2 per year	49,881	51,138	69,083	2,355	4,758	-	177,870	-	56,737	2,303,700	-
Emissions reduction in percent of the country emissions	3.7%	3.8%	5.2%	0.2%	0.4%	0.0%	13.3%	0.0%	4.2%	172.2%	0.0%
Reduction over project life (10 or 21 years)	498,812	511,376	690,830	23,553	47,580	-	1,778,700	-	1,191,480	48,377,700	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	4,988,116	5,113,755	6,908,297	235,531	475,802	-	17,787,000	-	11,914,798	483,777,000	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	2,494,058	2,556,878	3,454,148	117,765	237,901	-	8,893,500	-	5,957,399	241,888,500	-
Annual electricity generation of the project in GWh	149	-	85	21	14	-	-	-	-	3,291	-
Annual electricity generation of the country in GWh (base 2003)	775	775	775	775	775	775	775	775	775	775	775
Project electricity generation as a percent of the country electricity generation	-	0	0	0	0	-	-	-	-	4	-
Annual electricity consumption of the country (base 2003)	721	721	721	721	721	721	721	721	721	721	721
Additional power due to the project implementation (load factor = 90%) MW	19	-	59	3	2	-	-	-	-	725	-
Countries' installed power in MW	254	254	254	254	254	254	254	254	254	254	254
Additional power as a percent of the country power	7.4%	0.0%	23.0%	1.1%	0.7%	0.0%	0.0%	0.0%	0.0%	285.2%	0.0%
Total cost of the project in million US\$	-	-	18	-	-	-	2	-	-	750	-

	All sectors/technologies aggregated
Projects number	41
PoA number	-
Annual emission reduction in tCO2 per year	6,490,115
Country GHG emissions in 2005	1,337,952
Emissions reduction in percent of the country emissions	485.1%
Reduction over project life (10 or 21 years)	115,708,143
Value of the emission reduction in dollars (base 10 US\$/tCO2)	1,157,081,425
Value of the emission reduction in dollars (base 05 US\$/tCO2)	578,540,713
Annual electricity generation of the project in GWh	8,520
Annual electricity generation of the country in GWh (base 2003)	775
Project electricity generation as a percent of the country electricity generation	11
Annual electricity consumption of the country (base 2003)	721
Additional power due to the project implementation (load factor = 90%) MW	1,375
Countries' installed power in MW	254
Additional power as a percent of the country power	564.0%
Total cost of the project in million US\$	1,829

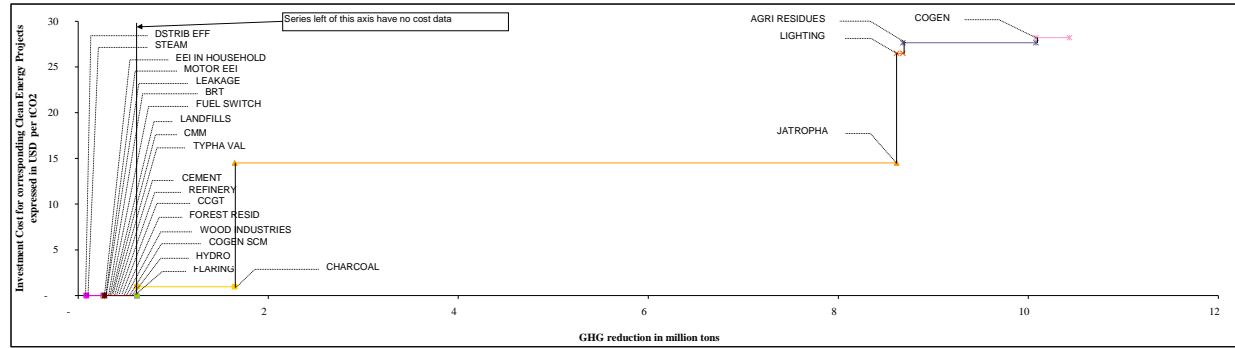
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

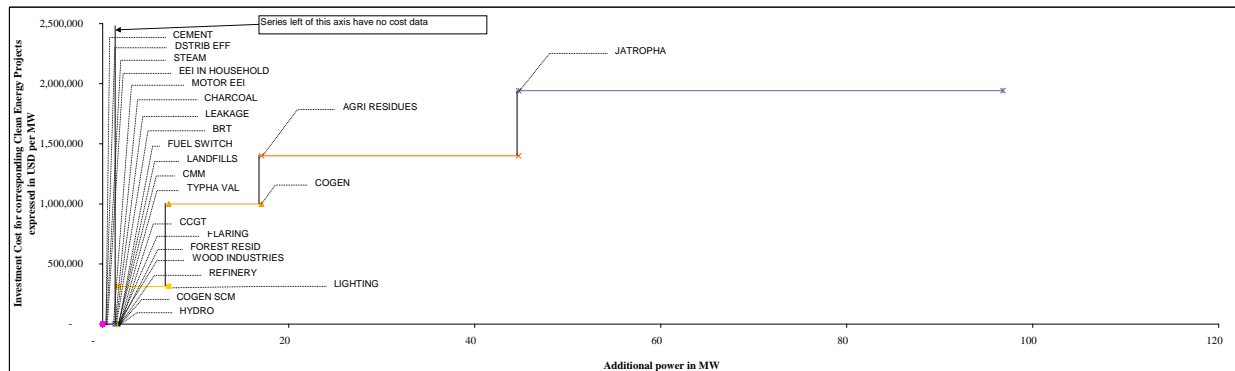
Sector	Investment Cost (\$/tCO2)	Reduction over the project lifetime (t or 21 years)
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CEMENT	-	-
REFINERY	-	-
CCGT	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
COGEN SCM	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	1
JATROPHA	15	7
LIGHTING	26	0
AGRI RESIDUES	28	0
COGEN	28	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CCGT	-	-
FLARING	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
REFINERY	-	-
COGEN SCM	-	-
HYDRO	-	-
LIGHTING	312,500	5
COGEN	1,000,000	10
AGRI RESIDUES	1,400,000	28
JATROPHA	1,841,771	52



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)
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Consolidated Results for Guinea Bissau

Country Data for Bissau Guinea

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	1	-	1	-	-	-	-	-	1	-	-
Annual emission reduction in tCO2 per year	-	35,326	-	140,115	-	-	-	-	-	331,759	-	-
Emissions reduction in percent of the country emissions	0.0%	9.2%	0.0%	36.6%	-	-	0.0%	-	0.0%	86.8%	-	0.0%
Reduction over project life (10 or 21 years)	-	353,258	-	1,401,154	-	-	-	-	-	6,967,574	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	3,532,578	-	14,011,540	-	-	-	-	-	69,675,736	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	1,766,289	-	7,005,770	-	-	-	-	-	34,837,868	-	-
Annual electricity generation of the project in GWh	55	87	-	218	-	-	-	-	-	411	-	-
Annual electricity generation of the country in GWh (base 2003)	55	55	55	55	55	55	55	55	55	55	55	55
Project electricity generation as a percent of the country electricity generation	-	2	-	4	-	-	-	-	-	7	-	-
Annual electricity consumption of the country (base 2003)	51	51	51	51	51	51	51	51	51	51	51	51
Additional power due to the project implementation (load factor = 90%) MW	-	10	-	28	-	-	-	-	-	52	-	-
Countries' installed power in MW	24	24	24	24	24	24	24	24	24	24	24	24
Additional power as a percent of the country power	0.0%	41.9%	0.0%	116.5%	0.0%	0.0%	0.0%	0.0%	0.0%	219.2%	0.0%	0.0%
Total cost of the project in million US\$	-	10	-	39	-	-	-	-	-	101	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	1	1	-	-	-	9	-	1	-	-
Annual emission reduction in tCO2 per year	8,532	17,942	6,459	329	811	-	102,850	-	16,292	-	-
Emissions reduction in percent of the country emissions	2.2%	4.7%	1.7%	0.1%	0.2%	0.0%	26.9%	0.0%	4.3%	0.0%	0.0%
Reduction over project life (10 or 21 years)	85,325	179,415	64,593	3,295	8,112	-	1,028,500	-	342,133	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	853,248	1,794,153	645,929	32,949	81,122	-	10,285,000	-	3,421,332	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	426,624	897,076	322,964	16,474	40,561	-	5,142,500	-	1,710,666	-	-
Annual electricity generation of the project in GWh	11	8	1	1	1	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	55	55	55	55	55	55	55	55	55	55	55
Project electricity generation as a percent of the country electricity generation	0	-	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	51	51	51	51	51	51	51	51	51	51	51
Additional power due to the project implementation (load factor = 90%) MW	1	-	5	0	0	-	-	-	-	-	-
Countries' installed power in MW	24	24	24	24	24	24	24	24	24	24	24
Additional power as a percent of the country power	5.6%	0.0%	23.0%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	2	-	-	-	1	-	-	-	-

	All sectors/technologies aggregated
Projects number	16
PoA number	-
Annual emission reduction in tCO2 per year	660,446
Country GHG emissions in 2005	382,323
Emissions reduction in percent of the country emissions	172.7%
Reduction over project life (10 or 21 years)	10,433,359
Value of the emission reduction in dollars (base 10 US\$/tCO2)	104,333,586
Value of the emission reduction in dollars (base 05 US\$/tCO2)	52,166,793
Annual electricity generation of the project in GWh	737
Annual electricity generation of the country in GWh (base 2003)	55
Project electricity generation as a percent of the country electricity generation	13
Annual electricity consumption of the country (base 2003)	51
Additional power due to the project implementation (load factor = 90%) MW	91
Countries' installed power in MW	24
Additional power as a percent of the country power	407.4%
Total cost of the project in million US\$	153

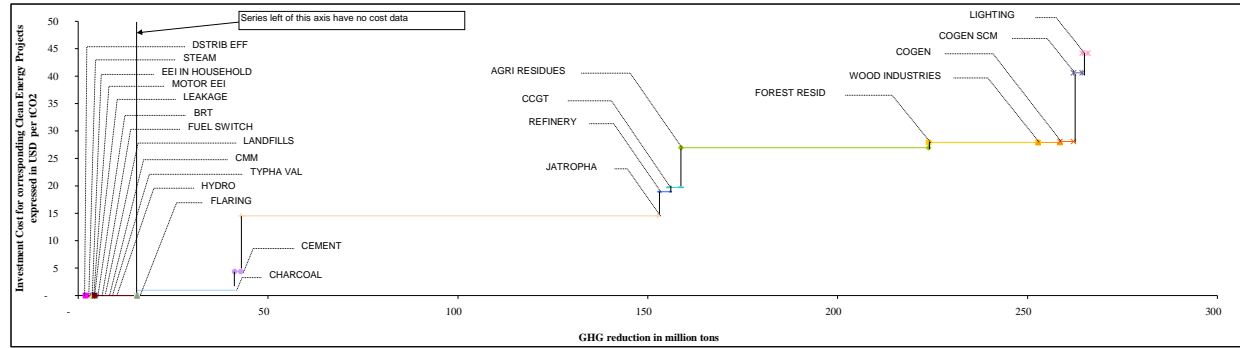
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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

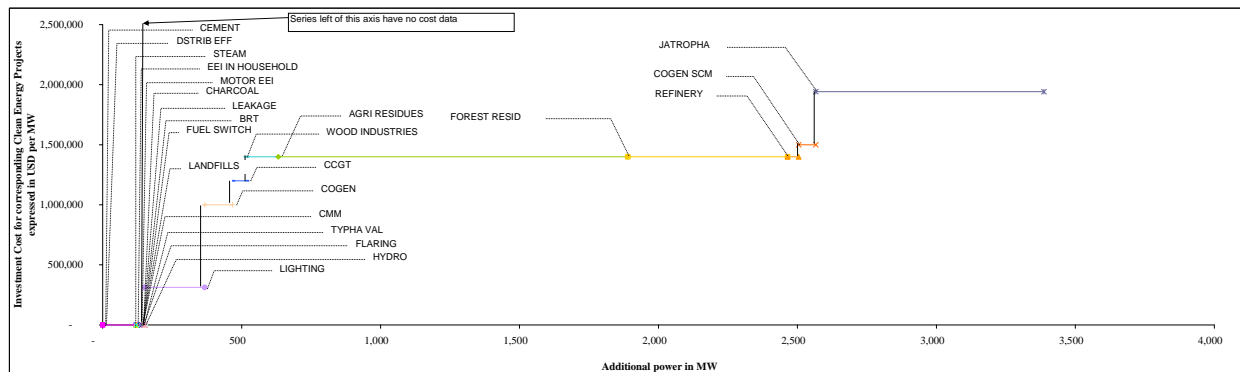
Sector	Investment Cost (\$/tCO2)	Reduction over 10 or 21 years
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EEI IN HOUSEHOLD	-	-
MOTOR EEI	-	0
LEAKAGE	-	-
FUEL SWITCH	-	11
BRT	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	26
CEMENT	4	14
JATROPHA	15	112
REFINERY	19	3
CCGT	20	3
AGRI RESIDUES	27	65
FOREST RESID	28	28
WOOD INDUSTRIES	28	6
COGEN	28	4
COGEN SCM	41	4
LIGHTING	44	2



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	-	121
DISTRIB EFF IMP	-	-
STEAM	-	-
EEI IN HOUSEHOLD	-	20
MOTOR EEI	-	10
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
FLARING	-	-
HYDRO	-	-
LIGHTING	312,500	215
COGEN	1,000,000	100
CCGT	1,200,000	51
WOOD INDUSTRIES	1,400,000	115
AGRI RESIDUES	1,400,000	1,297
FOREST RESID	1,400,000	575
REFINERY	1,400,000	40
COGEN SCM	1,500,000	62
JATROPHA	1,941,771	821



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Consolidated Results for Kenya

Country Data for Kenya

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	3	4	6	25	5	11	-	-	-	16	3	-
Annual emission reduction in tCO ₂ per year	308,823	355,322	228,389	6,527,465	2,883,268	574,235	-	-	-	5,228,896	162,470	296,478
Emissions reduction in percent of the country emissions	3.1%	3.6%	2.3%	66.0%	29.2%	5.8%	0.0%	0.0%	0.0%	52.9%	1.6%	3.0%
Reduction over project life (10 or 21 years)	3,088,234	3,553,215	2,283,888	65,274,654	28,832,585	5,742,350	-	-	-	109,808,921	1,624,695	2,964,776
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	30,882,338	35,532,153	22,838,876	652,746,540	288,325,847	57,423,499	-	-	-	1,098,089,209	16,246,951	29,647,758
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	15,441,169	17,766,076	11,419,438	326,373,270	144,162,924	28,711,749	-	-	-	549,044,605	8,123,475	14,823,879
Annual electricity generation of the project in GWh	406	874	326	9,911	4,534	903	-	-	-	6,472	-	351
Annual electricity generation of the country in GWh (base 2003)	4,976	4,976	4,976	4,976	4,976	4,976	4,976	4,976	4,976	4,976	4,976	4,976
Project electricity generation as a percent of the country electricity generation	0	0	0	2	1	1	-	-	-	1	-	0
Annual electricity consumption of the country (base 2003)	4,170	4,170	4,170	4,170	4,170	4,170	4,170	4,170	4,170	4,170	4,170	4,170
Additional power due to the project implementation (load factor = 90%) MW	51	100	62	1,257	575	115	-	-	-	821	-	40
Countries' installed power in MW	934	934	934	934	934	934	934	934	934	934	934	934
Additional power as a percent of the country power	5.4%	10.7%	6.6%	134.6%	61.6%	12.3%	0.0%	0.0%	0.0%	87.9%	0.0%	4.3%
Total cost of the project in million US\$	61	100	93	1,760	805	160	-	-	-	1,594	7	56

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	5	1	1	1	-	237	-	2	-	-
Annual emission reduction in tCO ₂ per year	197,486	180,463	152,212	32,886	21,975	-	2,571,791	-	531,781	-	-
Emissions reduction in percent of the country emissions	2.0%	1.8%	1.5%	0.3%	0.2%	0.0%	26.0%	0.0%	5.4%	0.0%	0.0%
Reduction over project life (10 or 21 years)	1,974,859	1,804,634	1,522,117	328,855	219,751	-	25,717,914	-	11,167,402	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	19,748,592	18,046,339	15,221,170	3,288,551	2,197,515	-	25,717,914	-	111,674,016	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	9,874,296	9,023,169	7,610,585	1,644,276	1,098,758	-	12,858,957	-	55,837,008	-	-
Annual electricity generation of the project in GWh	955	-	236	159	82	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	4,976	4,976	4,976	4,976	4,976	4,976	4,976	4,976	4,976	4,976	4,976
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	4,170	4,170	4,170	4,170	4,170	4,170	4,170	4,170	4,170	4,170	4,170
Additional power due to the project implementation (load factor = 90%) MW	121	-	215	20	10	-	-	-	-	-	-
Countries' installed power in MW	934	934	934	934	934	934	934	934	934	934	934
Additional power as a percent of the country power	13.0%	0.0%	23.0%	2.2%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	67	-	-	-	25	-	-	-	-

	All sectors/technologies aggregated
Projects number	317
PoA number	5
Annual emission reduction in tCO ₂ per year	20,254,030
Country GHG emissions in 2005	9,882,854
Emissions reduction in percent of the country emissions	204.9%
Reduction over project life (10 or 21 years)	265,908,849
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	2,659,088,494
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	1,329,544,247
Annual electricity generation of the project in GWh	25,210
Annual electricity generation of the country in GWh (base 2003)	4,976
Project electricity generation as a percent of the country electricity generation	5
Annual electricity consumption of the country (base 2003)	4,170
Additional power due to the project implementation (load factor = 90%) MW	3,172
Countries' installed power in MW	934
Additional power as a percent of the country power	362.6%
Total cost of the project in million US\$	4,728

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

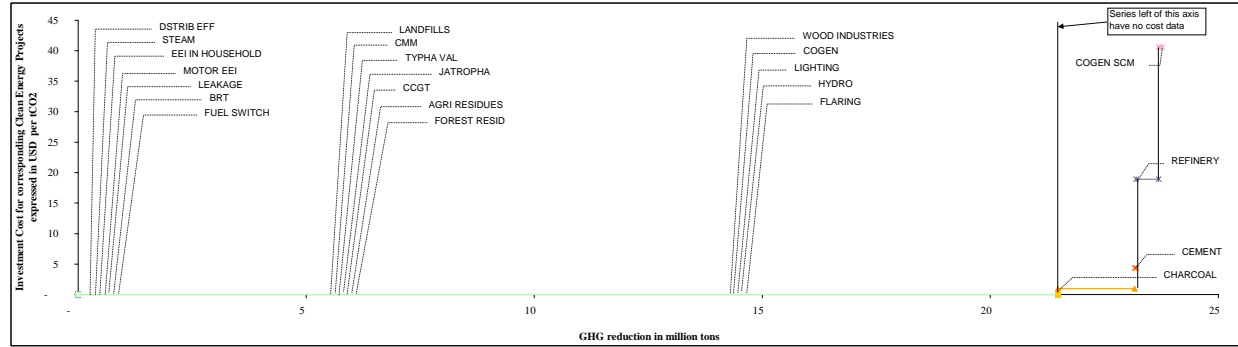
Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO₂ presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Consolidated Results for Liberia

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

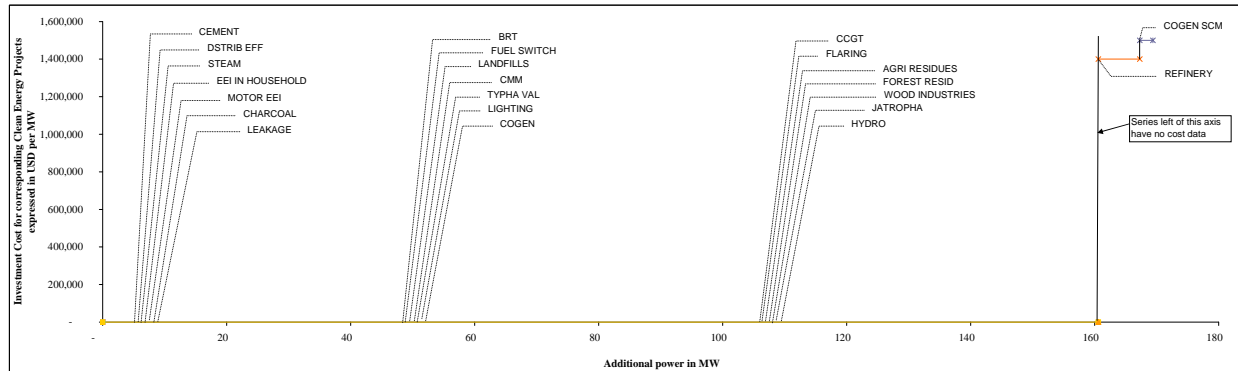
Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
DISTRIB EFF IMP	-	-
STEAM	-	-
EEI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
JATROPHA	-	-
CCGT	-	-
AGRI RESIDUES	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
COGEN	-	-
LIGHTING	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	2
CEMENT	4	0
REFINERY	19	0
COGEN SCM	41	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EEI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
LIGHTING	-	-
COGEN	-	-
CCGT	-	-
FLARING	-	-
AGRI RESIDUES	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
JATROPHA	-	-
HYDRO	-	-
REFINERY	1,400,000	7
COGEN SCM	1,500,000	2



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Liberia

Country Data for Liberia

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	-	1	-	-	-	-	-	-	3	1	-
Annual emission reduction in tCO ₂ per year	-	-	7,854	-	-	-	-	-	-	1,023,017	3,171	49,413
Emissions reduction in percent of the country emissions	0.0%	0.0%	1.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	192.8%	0.6%	9.3%
Reduction over project life (10 or 21 years)	-	-	78,540	-	-	-	-	-	-	21,483,352	31,712	494,129
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	-	-	785,400	-	-	-	-	-	-	214,833,518	317,117	4,941,293
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	-	-	392,700	-	-	-	-	-	-	107,416,759	158,558	2,470,646
Annual electricity generation of the project in GWh	-	-	11	-	-	-	-	-	-	1,266	-	59
Annual electricity generation of the country in GWh (base 2003)	-	-	-	-	-	-	-	-	-	-	-	-
Project electricity generation as a percent of the country electricity generation	-	-	-	-	-	-	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196
Additional power due to the project implementation (load factor = 90%) MW	-	-	2	-	-	-	-	-	-	161	-	7
Countries' installed power in MW	955	955	955	955	955	955	955	955	955	955	955	955
Additional power as a percent of the country power	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	16.8%	0.0%	0.7%
Total cost of the project in million US\$	-	-	3	-	-	-	-	-	-	-	0	9

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	-	-	-	-	-	16	-	-	-	-
Annual emission reduction in tCO ₂ per year	-	-	-	-	-	-	168,190	-	-	-	-
Emissions reduction in percent of the country emissions	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	31.7%	0.0%	0.0%	0.0%	0.0%
Reduction over project life (10 or 21 years)	-	-	-	-	-	-	1,681,900	-	-	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	-	-	-	-	-	-	16,819,000	-	-	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	-	-	-	-	-	-	8,409,500	-	-	-	-
Annual electricity generation of the project in GWh	-	-	-	-	-	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	-	-	-	-	-	-	-	-	-	-	-
Project electricity generation as a percent of the country electricity generation	-	-	-	-	-	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196	1,196
Additional power due to the project implementation (load factor = 90%) MW	-	-	-	-	-	-	-	-	-	-	-
Countries' installed power in MW	955	955	955	955	955	955	955	955	955	955	955
Additional power as a percent of the country power	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	-	-	-	-	2	-	-	-	-

	All sectors/technologies aggregated
Projects number	22
PoA number	-
Annual emission reduction in tCO ₂ per year	1,251,645
Country GHG emissions in 2005	530,531
Emissions reduction in percent of the country emissions	235.9%
Reduction over project life (10 or 21 years)	23,769,633
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	237,696,328
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	118,848,164
Annual electricity generation of the project in GWh	1,336
Annual electricity generation of the country in GWh (base 2003)	-
Project electricity generation as a percent of the country electricity generation	-
Annual electricity consumption of the country (base 2003)	1,196
Additional power due to the project implementation (load factor = 90%) MW	169
Countries' installed power in MW	955
Additional power as a percent of the country power	17.7%
Total cost of the project in million US\$	14

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

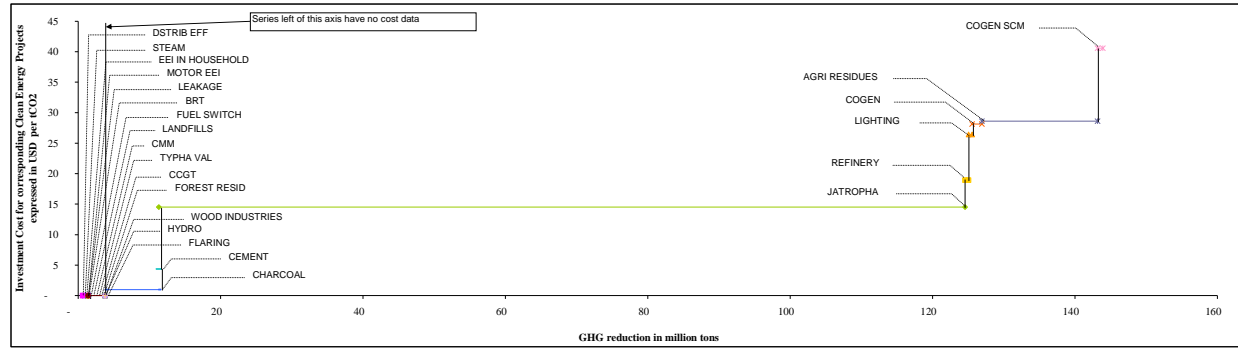
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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

Sector	Investment Cost (\$/tCO2)	Reduction over 10 or 21 years
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CCGT	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	8
CEMENT	4	10
JATROPHA	15	113
REFINERY	19	0
LIGHTING	26	1
COGEN	28	1
AGRI RESIDUES	29	16
COGEN SCM	41	1

No cost data was available for the listed categories

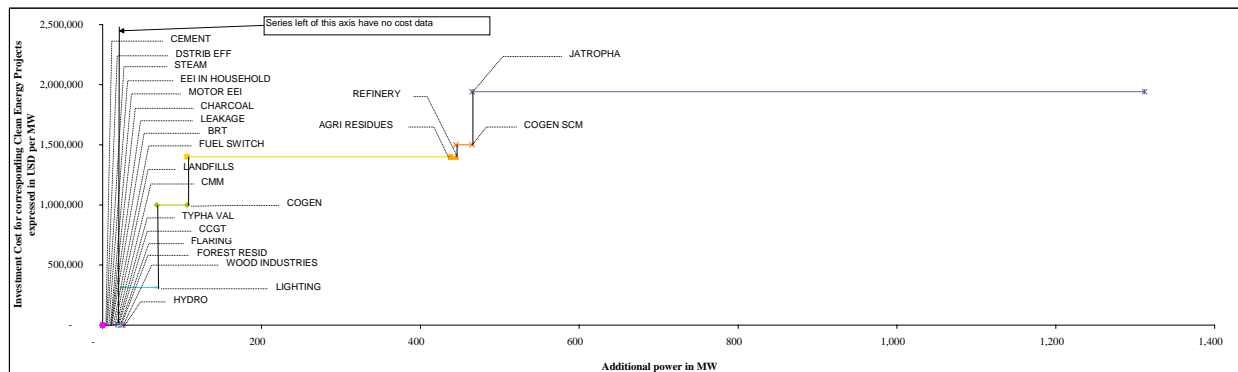


Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CCGT	-	-
FLARING	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
HYDRO	-	-
LIGHTING	312,500	43
COGEN	1,000,000	38
AGRI RESIDUES	1,400,000	332
REFINERY	1,400,000	7
COGEN SCM	1,500,000	20
JATROPHA	1,841,771	847

No cost data and/or no power generation from projects



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)
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Consolidated Results for Madagascar

Country Data for Madagascar

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	3	3	7	-	-	-	-	-	17	3	1
Annual emission reduction in tCO2 per year	-	136,406	75,759	1,623,580	-	-	-	-	-	5,392,402	3,488	49,413
Emissions reduction in percent of the country emissions	0.0%	5.4%	3.0%	63.8%	-	-	0.0%	0.0%	0.0%	212.0%	0.1%	1.9%
Reduction over project life (10 or 21 years)	-	1,364,059	757,589	16,235,598	-	-	-	-	-	113,240,432	34,883	494,129
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	13,640,587	7,575,891	162,355,981	-	-	-	-	-	1,132,404,316	348,828	4,941,293
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	6,820,293	3,787,946	81,177,991	-	-	-	-	-	566,202,158	174,414	2,470,646
Annual electricity generation of the project in GWh	-	336	108	2,615	-	-	-	-	-	6,674	-	59
Annual electricity generation of the country in GWh (base 2003)	820	820	820	820	820	820	820	820	820	820	820	820
Project electricity generation as a percent of the country electricity generation	-	0	0	3	-	-	-	-	-	8	-	0
Annual electricity consumption of the country (base 2003)	763	763	763	763	763	763	763	763	763	763	763	763
Additional power due to the project implementation (load factor = 90%) MW	-	38	20	332	-	-	-	-	-	847	-	7
Countries' installed power in MW	186	186	186	186	186	186	186	186	186	186	186	186
Additional power as a percent of the country power	0.0%	20.7%	11.0%	178.6%	0.0%	0.0%	0.0%	0.0%	0.0%	456.0%	0.0%	3.6%
Total cost of the project in million US\$	-	38	31	464	-	-	-	-	-	1,644	0	9

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	2	1	1	-	-	69	-	1	-	-
Annual emission reduction in tCO2 per year	61,989	69,279	50,574	3,433	5,914	-	750,200	-	113,167	-	-
Emissions reduction in percent of the country emissions	2.4%	2.7%	2.0%	0.1%	0.2%	0.0%	29.5%	0.0%	4.4%	0.0%	0.0%
Reduction over project life (10 or 21 years)	619,891	692,788	505,745	34,334	59,140	-	7,502,000	-	2,376,501	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	6,198,910	6,927,884	5,057,449	343,342	591,401	-	75,020,000	-	23,765,014	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	3,099,455	3,463,942	2,528,724	171,671	295,701	-	37,510,000	-	11,882,507	-	-
Annual electricity generation of the project in GWh	157	62	26	15	-	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	820	820	820	820	820	820	820	820	820	820	820
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	0	0	0	0	0	0
Annual electricity consumption of the country (base 2003)	763	763	763	763	763	763	763	763	763	763	763
Additional power due to the project implementation (load factor = 90%) MW	20	43	3	2	-	-	-	-	-	-	-
Countries' installed power in MW	186	186	186	186	186	186	186	186	186	186	186
Additional power as a percent of the country power	10.8%	0.0%	23.0%	1.8%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	13	-	-	-	7	-	-	-	-

	All sectors/technologies aggregated
Projects number	107
PoA number	-
Annual emission reduction in tCO2 per year	8,335,584
Country GHG emissions in 2005	2,544,178
Emissions reduction in percent of the country emissions	327.6%
Reduction over project life (10 or 21 years)	143,917,090
Value of the emission reduction in dollars (base 10 US\$/tCO2)	1,439,170,899
Value of the emission reduction in dollars (base 05 US\$/tCO2)	719,585,449
Annual electricity generation of the project in GWh	10,053
Annual electricity generation of the country in GWh (base 2003)	820
Project electricity generation as a percent of the country electricity generation	12
Annual electricity consumption of the country (base 2003)	763
Additional power due to the project implementation (load factor = 90%) MW	1,269
Countries' installed power in MW	186
Additional power as a percent of the country power	706.6%
Total cost of the project in million US\$	2,207

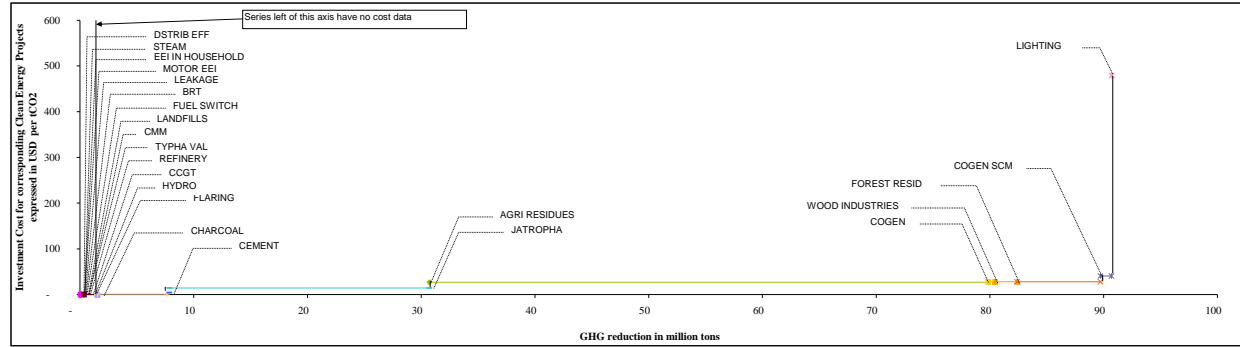
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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

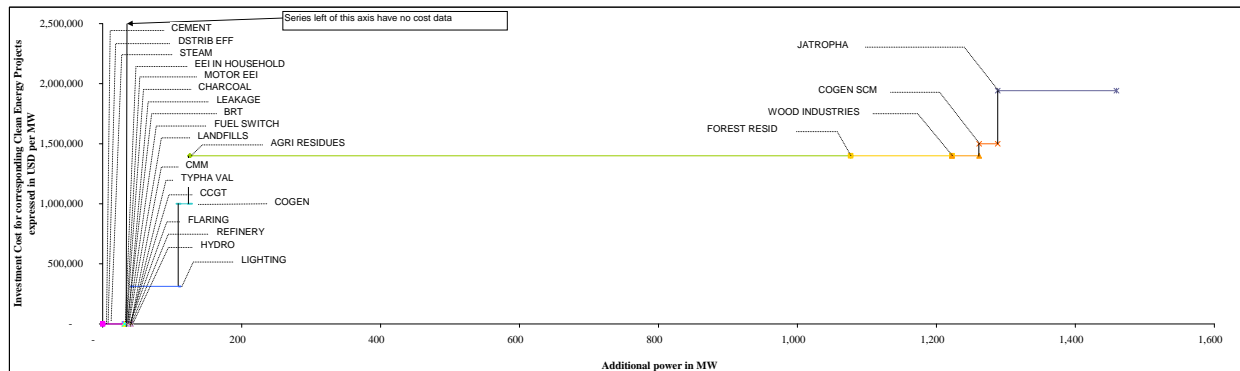
Sector	Investment Cost (\$/tCO2)	Reduction over 10 or 21 years
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
REFINERY	-	-
CCGT	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	6
CEMENT	4	0
JATROPHA	15	23
AGRI RESIDUES	27	49
COGEN	28	1
WOOD INDUSTRIES	28	2
FOREST RESID	28	7
COGEN SCM	41	1
LIGHTING	479	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	-	-
DISTRIB EFF IMP	-	31
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	6
LEAKAGE	-	3
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CCGT	-	-
FLARING	-	-
REFINERY	-	-
HYDRO	-	-
LIGHTING	312,500	69
COGEN	1,000,000	16
AGRI RESIDUES	1,400,000	95
FOREST RESID	1,400,000	146
WOOD INDUSTRIES	1,400,000	39
COGEN SCM	1,500,000	27
JATROPHA	1,841,771	171



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)
 Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Malawi

Country Data for Malawi

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	1	2	19	2	4	-	-	-	3	1	-
Annual emission reduction in tCO2 per year	-	57,668	98,490	4,915,186	731,418	195,787	-	-	-	1,088,327	20,984	-
Emissions reduction in percent of the country emissions	0.0%	6.7%	11.5%	85.5%	22.9%	0.0%	0.0%	0.0%	0.0%	127.2%	2.3%	0.0%
Reduction over project life (10 or 21 years)	-	576,681	984,900	49,151,863	7,314,177	1,957,869	-	-	-	22,854,876	200,841	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	5,766,812	9,849,000	491,518,629	73,141,770	19,578,694	-	-	-	228,548,759	2,008,406	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	2,883,406	4,924,500	245,759,315	36,570,885	9,789,347	-	-	-	114,274,379	1,004,203	-
Annual electricity generation of the project in GWh	-	141	141	7,500	1,150	308	-	-	-	1,347	-	-
Annual electricity generation of the country in GWh (base 2003)	1,293	1,293	1,293	1,293	1,293	1,293	1,293	1,293	1,293	1,293	1,293	1,293
Project electricity generation as a percent of the country electricity generation	-	0	0	6	1	0	-	-	-	1	-	-
Annual electricity consumption of the country (base 2003)	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202
Additional power due to the project implementation (load factor = 90%) MW	-	16	27	951	146	39	-	-	-	171	-	-
Countries' installed power in MW	300	300	300	300	300	300	300	300	300	300	300	300
Additional power as a percent of the country power	0.0%	5.4%	8.9%	317.1%	48.6%	13.0%	0.0%	0.0%	0.0%	56.9%	0.0%	0.0%
Total cost of the project in million US\$	-	16	40	1,332	204	55	-	-	-	332	1	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	1	1	-	-	-	57	-	1	-	-
Annual emission reduction in tCO2 per year	4,733	29,289	4,510	854	149	-	612,609	-	55,977	-	-
Emissions reduction in percent of the country emissions	0.6%	3.4%	0.5%	0.1%	0.0%	0.0%	71.6%	0.0%	6.5%	0.0%	0.0%
Reduction over project life (10 or 21 years)	47,333	292,889	45,095	8,538	1,489	-	6,126,086	-	1,175,516	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	473,329	2,928,892	450,953	85,378	14,888	-	61,260,861	-	11,755,160	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	236,664	1,464,446	225,476	42,689	7,444	-	30,630,430	-	5,877,580	-	-
Annual electricity generation of the project in GWh	248	-	76	45	24	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	1,293	1,293	1,293	1,293	1,293	1,293	1,293	1,293	1,293	1,293	1,293
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202	1,202
Additional power due to the project implementation (load factor = 90%) MW	31	69	6	3	-	-	-	-	-	-	-
Countries' installed power in MW	300	300	300	300	300	300	300	300	300	300	300
Additional power as a percent of the country power	10.5%	0.0%	23.0%	1.9%	1.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	22	-	-	-	6	-	-	-	-

	All sectors/technologies aggregated
Projects number	90
PoA number	2
Annual emission reduction in tCO2 per year	7,815,080
Country GHG emissions in 2005	855,565
Emissions reduction in percent of the country emissions	913.5%
Reduction over project life (10 or 21 years)	90,738,153
Value of the emission reduction in dollars (base 10 US\$/tCO2)	907,381,531
Value of the emission reduction in dollars (base 05 US\$/tCO2)	453,690,766
Annual electricity generation of the project in GWh	10,979
Annual electricity generation of the country in GWh (base 2003)	1,293
Project electricity generation as a percent of the country electricity generation	8
Annual electricity consumption of the country (base 2003)	1,202
Additional power due to the project implementation (load factor = 90%) MW	1,390
Countries' installed power in MW	300
Additional power as a percent of the country power	486.4%
Total cost of the project in million US\$	2,007

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

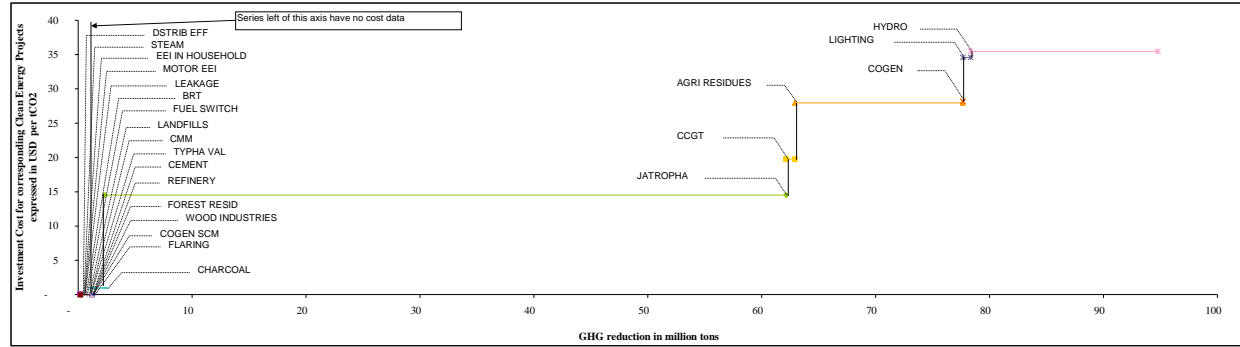
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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

No cost data was available for the listed categories

Sector	Investment Cost (\$/tCO2)	Reduction over the period (t or 21 years)
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	1
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CEMENT	-	-
REFINERY	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
COGEN SCM	-	-
FLARING	-	-
CHARCOAL	1	1
JATROPHA	15	60
CCGT	20	1
AGRI RESIDUES	28	15
COGEN	28	0
LIGHTING	35	1
HYDRO	35	16

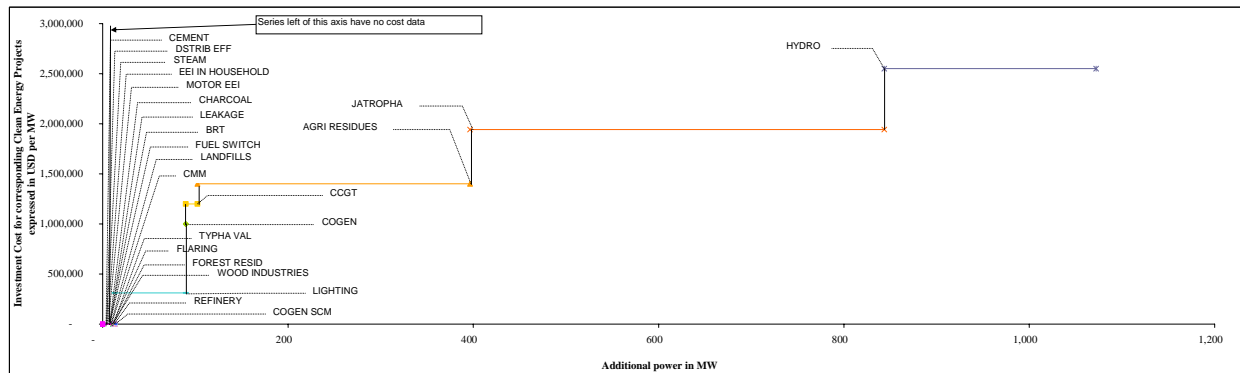


Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

No cost data and/or no power generation from projects

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	-
DISTRIB EFF IMP	-	11
STEAM	-	-
EI IN HOUSEHOLD	-	1
MOTOR EEI	-	1
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
FLARING	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
REFINERY	-	-
COGEN SCM	-	-
LIGHTING	312,500	77
COGEN	1,000,000	0
CCGT	1,200,000	13
AGRI RESIDUES	1,400,000	294
JATROPHA	1,941,771	447
HYDRO	2,545,191	229



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Mali

Country Data for Mali

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	1	1	-	6	-	-	-	-	-	9	-	-
Annual emission reduction in tCO ₂ per year	76,842	341	-	1,473,553	-	-	-	-	-	2,847,582	-	-
Emissions reduction in percent of the country emissions	11.5%	0.1%	0.0%	221.8%	0.0%	0.0%	0.0%	0.0%	0.0%	428.6%	0.0%	0.0%
Reduction over project life (10 or 21 years)	766,120	3,412	-	14,735,526	-	-	-	-	-	59,799,219	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	7,661,195	34,123	-	147,355,265	-	-	-	-	-	597,992,195	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	3,830,598	17,061	-	73,677,632	-	-	-	-	-	298,996,097	-	-
Annual electricity generation of the project in GWh	101	1	-	2,319	-	-	-	-	-	3,524	-	-
Annual electricity generation of the country in GWh (base 2003)	460	460	460	460	460	460	460	460	460	460	460	460
Project electricity generation as a percent of the country electricity generation	0	0	-	5	-	-	-	-	-	8	-	-
Annual electricity consumption of the country (base 2003)	430	430	430	430	430	430	430	430	430	430	430	430
Additional power due to the project implementation (load factor = 90%) MW	13	0	-	294	-	-	-	-	-	447	-	-
Countries' installed power in MW	437	437	437	437	437	437	437	437	437	437	437	437
Additional power as a percent of the country power	2.9%	0.0%	0.0%	67.3%	0.0%	0.0%	0.0%	0.0%	0.0%	102.3%	0.0%	0.0%
Total cost of the project in million US\$	15	0	-	412	-	-	-	-	-	888	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	-	1	-	-	-	10	-	1	7	-
Annual emission reduction in tCO ₂ per year	17,489	173	69,427	1,119	1,676	-	112,530	-	48,249	782,600	-
Emissions reduction in percent of the country emissions	2.6%	0.0%	10.4%	0.2%	0.3%	0.0%	16.9%	0.0%	7.3%	117.6%	0.0%
Reduction over project life (10 or 21 years)	174,892	1,733	694,275	11,192	16,762	-	1,125,300	-	1,013,239	16,434,600	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	1,748,921	17,331	6,942,747	111,922	167,624	-	11,253,000	-	10,132,393	164,346,000	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	874,460	8,665	3,471,374	55,961	83,812	-	5,626,500	-	5,066,197	82,173,000	-
Annual electricity generation of the project in GWh	88	-	112	4	8	-	-	-	-	1,118	-
Annual electricity generation of the country in GWh (base 2003)	460	460	460	460	460	460	460	460	460	460	460
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	-	-	-	-	2	-
Annual electricity consumption of the country (base 2003)	430	430	430	430	430	430	430	430	430	430	430
Additional power due to the project implementation (load factor = 90%) MW	11	-	77	1	1	-	-	-	-	229	-
Countries' installed power in MW	437	437	437	437	437	437	437	437	437	437	437
Additional power as a percent of the country power	2.6%	0.0%	17.6%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	52.3%	0.0%
Total cost of the project in million US\$	-	-	24	-	-	-	1	-	-	583	-

	All sectors/technologies aggregated
Projects number	37
PoA number	-
Annual emission reduction in tCO ₂ per year	5,431,353
Country GHG emissions in 2005	664,398
Emissions reduction in percent of the country emissions	817.5%
Reduction over project life (10 or 21 years)	94,776,272
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	947,762,716
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	473,881,358
Annual electricity generation of the project in GWh	7,276
Annual electricity generation of the country in GWh (base 2003)	460
Project electricity generation as a percent of the country electricity generation	16
Annual electricity consumption of the country (base 2003)	430
Additional power due to the project implementation (load factor = 90%) MW	995
Countries' installed power in MW	437
Additional power as a percent of the country power	245.3%
Total cost of the project in million US\$	1,903

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

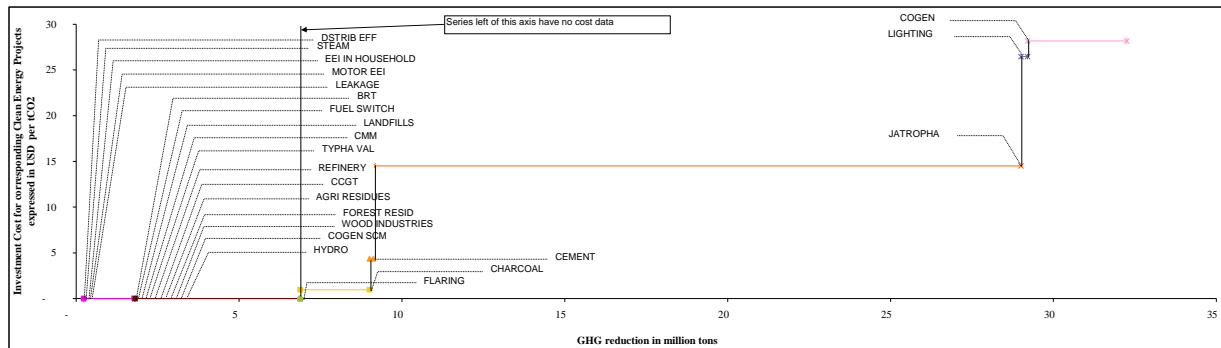
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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

Sector	Investment Cost (\$/tCO2)	Reduction over the project lifetime (10 or 21 years)
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	5
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
REFINERY	-	-
CCGT	-	-
AGRI RESIDUES	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
COGEN SCM	-	-
HYDRO	-	-
FLARING	-	2
CHARCOAL	1	2
CEMENT	4	0
JATROPHA	15	20
LIGHTING	26	0
COGEN	28	3

No cost data was available for the listed categories

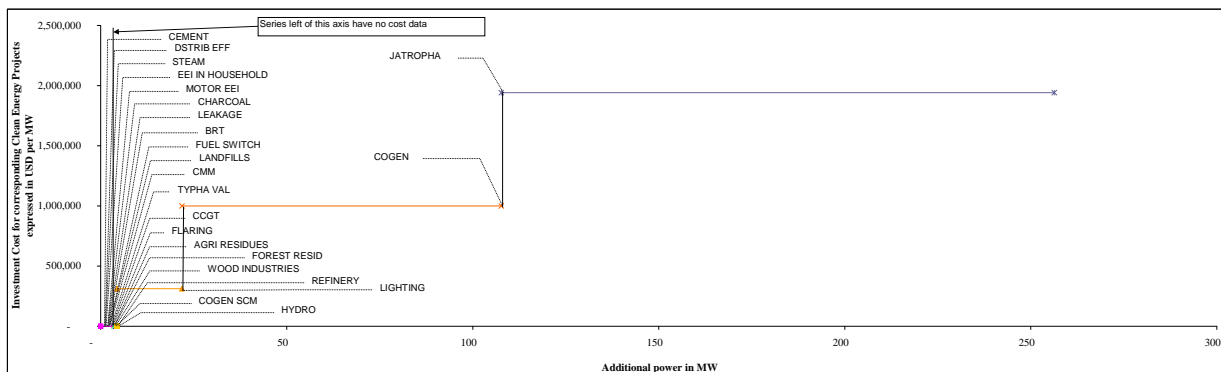


Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CCGT	-	-
FLARING	-	-
AGRI RESIDUES	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
REFINERY	-	-
COGEN SCM	-	-
HYDRO	-	-
LIGHTING	312,500	17
COGEN	1,000,000	86
JATROPHA	1,841,771	149

No cost data and/or no power generation from projects



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in USD/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Mauritania

Country Data for Mauritania

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	4	-	-	-	-	-	-	-	3	-1	-
Annual emission reduction in tCO ₂ per year	-	304,570	-	-	-	-	-	-	-	946,775	11,628	-
Emissions reduction in percent of the country emissions	0.0%	11.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	36.0%	0.4%	0.0%
Reduction over project life (10 or 21 years)	-	3,045,699	-	-	-	-	-	-	-	19,882,276	116,276	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	-	30,456,994	-	-	-	-	-	-	-	198,822,760	1,162,762	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	-	15,228,497	-	-	-	-	-	-	-	99,411,380	581,381	-
Annual electricity generation of the project in GWh	150	752	150	150	150	150	150	150	150	1,172	150	150
Annual electricity generation of the country in GWh (base 2003)	150	150	150	150	150	150	150	150	150	150	150	150
Project electricity generation as a percent of the country electricity generation	143	5	-	-	-	-	-	-	-	8	-	-
Annual electricity consumption of the country (base 2003)	143	143	143	143	143	143	143	143	143	143	143	143
Additional power due to the project implementation (load factor = 90%) MW	-	86	-	-	-	-	-	-	-	149	-	-
Countries' installed power in MW	197	197	197	197	197	197	197	197	197	197	197	197
Additional power as a percent of the country power	0.0%	43.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	75.4%	0.0%	0.0%
Total cost of the project in million US\$	-	86	-	-	-	-	-	-	-	289	1	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	5	1	-	-	-	20	-	1	-	-
Annual emission reduction in tCO ₂ per year	23,291	154,687	20,602	811	2,277	-	212,960	-	-	-	-
Emissions reduction in percent of the country emissions	0.9%	5.9%	0.8%	0.0%	0.1%	0.0%	8.1%	0.0%	9.2%	0.0%	0.0%
Reduction over project life (10 or 21 years)	232,913	1,546,873	206,018	8,113	22,766	-	2,129,600	-	5,064,377	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	2,329,132	15,468,729	2,060,179	81,129	227,664	-	21,296,000	-	50,643,770	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	1,164,566	7,734,364	1,030,090	40,564	113,832	-	10,648,000	-	25,321,885	-	-
Annual electricity generation of the project in GWh	29	-	25	3	3	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	150	150	150	150	150	150	150	150	150	150	150
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	143	143	143	143	143	143	143	143	143	143	143
Additional power due to the project implementation (load factor = 90%) MW	4	-	17	0	0	-	-	-	-	-	-
Countries' installed power in MW	197	197	197	197	197	197	197	197	197	197	197
Additional power as a percent of the country power	1.9%	0.0%	8.9%	0.2%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	5	-	-	-	2	-	-	-	-

	All sectors/technologies aggregated
Projects number	36
PoA number	-
Annual emission reduction in tCO ₂ per year	1,918,762
Country GHG emissions in 2005	2,631,210
Emissions reduction in percent of the country emissions	72.9%
Reduction over project life (10 or 21 years)	32,254,912
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	322,549,118
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	161,274,559
Annual electricity generation of the project in GWh	1,984
Annual electricity generation of the country in GWh (base 2003)	150
Project electricity generation as a percent of the country electricity generation	13
Annual electricity consumption of the country (base 2003)	143
Additional power due to the project implementation (load factor = 90%) MW	239
Countries' installed power in MW	197
Additional power as a percent of the country power	130.1%
Total cost of the project in million US\$	382

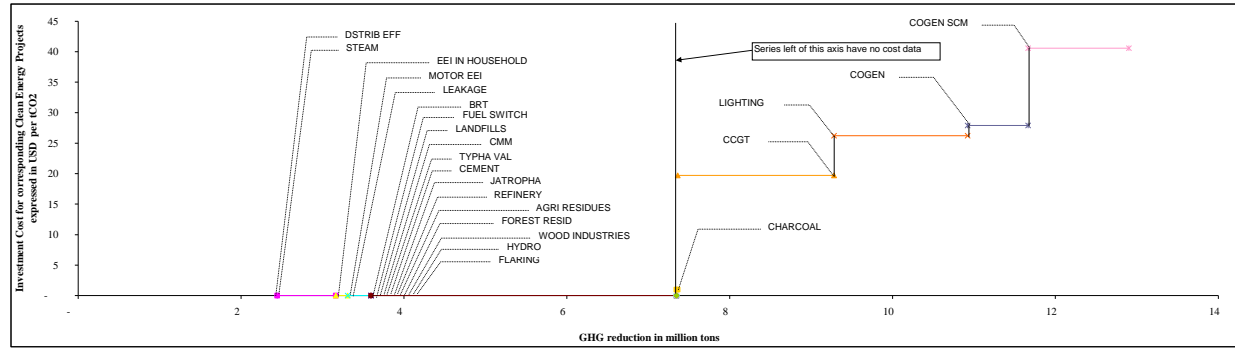
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO₂ presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM project activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO₂)

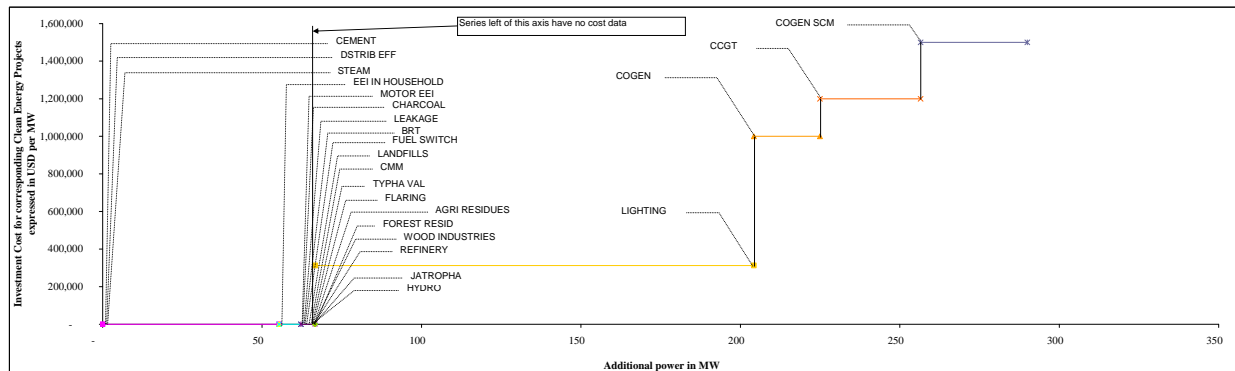
Sector	Investment Cost (\$/tCO ₂)	Reduction over the project lifetime (tCO ₂ per 21 years)
DISTRIB EFF IMP	-	-
STEAM	-	-
EEI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	4
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CEMENT	-	-
JATROPHA	-	-
REFINERY	-	-
AGRI RESIDUES	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	0
CCGT	20	2
LIGHTING	26	2
COGEN	28	2
COGEN SCM	41	1



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	-
DISTRIB EFF IMP	-	55
STEAM	-	-
EEI IN HOUSEHOLD	-	7
MOTOR EEI	-	4
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
FLARING	-	-
AGRI RESIDUES	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
REFINERY	-	-
JATROPHA	-	-
HYDRO	-	-
LIGHTING	312,500	138
COGEN	1,000,000	21
CCGT	1,200,000	32
COGEN SCM	1,500,000	33



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)
 Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in USD/tCO₂ presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Mauritius

Country Data for Mauritius

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	2	4	43	-	-	-	-	-	-	-	-	-
Annual emission reduction in tCO ₂ per year	191,946	74,291	123,760	-	-	-	-	-	-	-	-	-
Emissions reduction in percent of the country emissions	4.8%	1.5%	3.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Reduction over project life (10 or 21 years)	1,919,456	742,908	1,237,600	-	-	-	-	-	-	-	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	19,194,561	7,429,084	12,376,000	-	-	-	-	-	-	-	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	9,597,280	3,714,542	6,188,000	-	-	-	-	-	-	-	-	-
Annual electricity generation of the project in GWh	252	182	177	-	-	-	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285
Project electricity generation as a percent of the country electricity generation	0	0	0	-	-	-	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	1,195	1,195	1,195	1,195	1,195	1,195	1,195	1,195	1,195	1,195	1,195	1,195
Additional power due to the project implementation (load factor = 90%) MW	32	21	33	-	-	-	-	-	-	-	-	-
Countries' installed power in MW	954	954	954	954	954	954	954	954	954	954	954	954
Additional power as a percent of the country power	3.3%	2.2%	3.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	38	21	50	-	-	-	-	-	-	-	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	2	1	1	1	-	0	-	1	-	-
Annual emission reduction in tCO ₂ per year	244,345	72,050	164,042	14,503	28,558	-	1,646	-	178,601	-	-
Emissions reduction in percent of the country emissions	6.1%	1.8%	4.1%	0.4%	0.7%	0.0%	0.0%	0.0%	4.4%	0.0%	0.0%
Reduction over project life (10 or 21 years)	2,443,452	720,503	1,640,416	145,030	285,585	-	16,456	-	3,750,622	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	24,434,519	7,205,028	16,404,158	1,450,303	2,855,845	-	164,560	-	37,506,215	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	12,217,260	3,602,514	8,202,079	725,152	1,427,923	-	82,280	-	18,753,108	-	-
Annual electricity generation of the project in GWh	436	-	201	54	35	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285	1,285
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	1,195	1,195	1,195	1,195	1,195	1,195	1,195	1,195	1,195	1,195	1,195
Additional power due to the project implementation (load factor = 90%) MW	55	-	138	7	4	-	-	-	-	-	-
Countries' installed power in MW	954	954	954	954	954	954	954	954	954	954	954
Additional power as a percent of the country power	5.8%	0.0%	14.4%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	43	-	-	-	0	-	-	-	-

	All sectors/technologies aggregated
Projects number	26
PoA number	-
Annual emission reduction in tCO ₂ per year	1,093,742
Country GHG emissions in 2005	4,013,866
Emissions reduction in percent of the country emissions	27.2%
Reduction over project life (10 or 21 years)	12,902,027
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	129,020,273
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	64,510,137
Annual electricity generation of the project in GWh	1,336
Annual electricity generation of the country in GWh (base 2003)	1,285
Project electricity generation as a percent of the country electricity generation	1
Annual electricity consumption of the country (base 2003)	1,195
Additional power due to the project implementation (load factor = 90%) MW	152
Countries' installed power in MW	954
Additional power as a percent of the country power	30.4%
Total cost of the project in million US\$	152

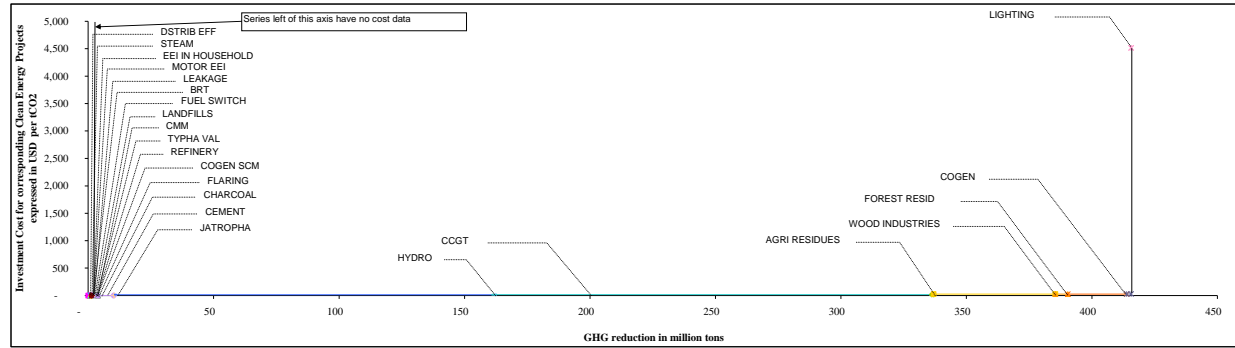
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

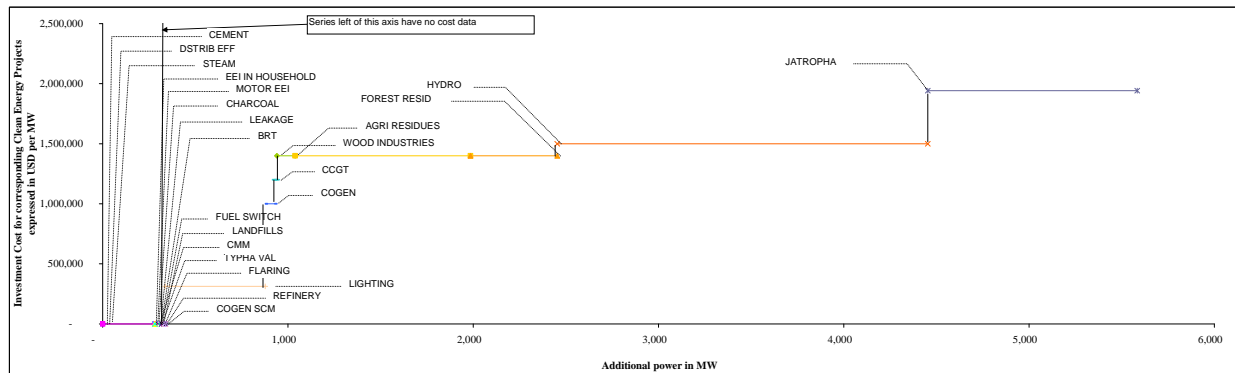
Sector	Investment Cost (\$/tCO2)	Reduction over the project lifetime (tCO2)
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	3
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
REFINERY	-	-
COGEN SCM	-	-
FLARING	-	-
CHARCOAL	1	6
CEMENT	4	0
JATROPHA	15	151
HYDRO	17	174
CCGT	20	1
AGRI RESIDUES	27	48
WOOD INDUSTRIES	28	5
FOREST RESID	28	23
COGEN	29	2
LIGHTING	4,516	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	-	282
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	36
LEAKAGE	-	20
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
REFINERY	-	-
COGEN SCM	-	-
LIGHTING	312,500	539
COGEN	1,000,000	51
CCGT	1,200,000	12
WOOD INDUSTRIES	1,400,000	99
AGRI RESIDUES	1,400,000	946
FOREST RESID	1,400,000	468
HYDRO	1,500,000	2,000
JATROPHA	1,841,771	1,131



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

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Consolidated Results for Mozambique

Country Data for Mozambique

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	1	4	-	19	12	10	-	-	-	23	1	-
Annual emission reduction in tCO ₂ per year	74,236	175,504	-	4,849,774	2,346,729	494,739	-	-	-	7,202,444	38,265	-
Emissions reduction in percent of the country emissions	3.2%	7.6%	0.0%	210.7%	101.9%	21.5%	0.0%	0.0%	0.0%	312.9%	1.7%	0.0%
Reduction over project life (10 or 21 years)	742,364	1,755,005	-	48,497,744	23,467,294	4,947,385	-	-	-	151,251,323	382,654	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	7,423,639	17,550,050	-	484,977,437	234,672,937	49,473,854	-	-	-	1,512,513,232	3,826,543	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	3,711,819	8,775,025	-	242,488,718	117,336,468	24,736,927	-	-	-	756,256,616	1,913,271	-
Annual electricity generation of the project in GWh	97	444	-	7,462	3,691	778	-	-	-	8,914	-	-
Annual electricity generation of the country in GWh (base 2003)	11,580	11,580	11,580	11,580	11,580	11,580	11,580	11,580	11,580	11,580	11,580	11,580
Project electricity generation as a percent of the country electricity generation	0	0	-	1	0	0	-	-	-	1	-	-
Annual electricity consumption of the country (base 2003)	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
Additional power due to the project implementation (load factor = 90%) MW	12	51	-	946	468	99	-	-	-	1,131	-	-
Countries' installed power in MW	2,340	2,340	2,340	2,340	2,340	2,340	2,340	2,340	2,340	2,340	2,340	2,340
Additional power as a percent of the country power	0.5%	2.2%	0.0%	40.4%	20.0%	4.2%	0.0%	0.0%	0.0%	48.3%	0.0%	0.0%
Total cost of the project in million US\$	15	51	-	1,325	655	138	-	-	-	2,195	2	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	3	1	-	1	-	58	-	1	2	-
Annual emission reduction in tCO ₂ per year	4,496	89,135	3,731	578	40,987	-	627,449	-	121,283	8,305,065	-
Emissions reduction in percent of the country emissions	0.2%	3.9%	0.2%	0.0%	1.8%	0.0%	27.3%	0.0%	5.3%	360.8%	0.0%
Reduction over project life (10 or 21 years)	44,961	891,345	37,307	5,784	409,874	-	6,274,495	-	2,546,951	174,406,790	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	449,608	8,913,452	373,067	57,836	4,098,743	-	62,744,948	-	25,469,512	1,744,067,797	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	224,804	4,456,726	186,534	28,918	2,049,372	-	31,372,474	-	12,734,756	872,033,898	-
Annual electricity generation of the project in GWh	2,223	-	590	286	157	-	-	-	-	11,864	-
Annual electricity generation of the country in GWh (base 2003)	11,580	11,580	11,580	11,580	11,580	11,580	11,580	11,580	11,580	11,580	11,580
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	-	-	-	-	1	-
Annual electricity consumption of the country (base 2003)	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000	8,000
Additional power due to the project implementation (load factor = 90%) MW	282	539	36	20	20	-	-	-	-	2,000	-
Countries' installed power in MW	2,340	2,340	2,340	2,340	2,340	2,340	2,340	2,340	2,340	2,340	2,340
Additional power as a percent of the country power	12.1%	0.0%	23.0%	1.6%	0.9%	0.0%	0.0%	0.0%	0.0%	85.5%	0.0%
Total cost of the project in million US\$	-	-	168	-	-	-	6	-	-	3,000	-

	All sectors/technologies aggregated
Projects number	123
PoA number	12
Annual emission reduction in tCO ₂ per year	24,374,433
Country GHG emissions in 2005	2,301,879
Emissions reduction in percent of the country emissions	1058.9%
Reduction over project life (10 or 21 years)	415,661,266
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	4,156,612,656
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	2,078,306,328
Annual electricity generation of the project in GWh	36,508
Annual electricity generation of the country in GWh (base 2003)	11,580
Project electricity generation as a percent of the country electricity generation	3
Annual electricity consumption of the country (base 2003)	8,000
Additional power due to the project implementation (load factor = 90%) MW	5,045
Countries' installed power in MW	2,340
Additional power as a percent of the country power	238.6%
Total cost of the project in million US\$	7,556

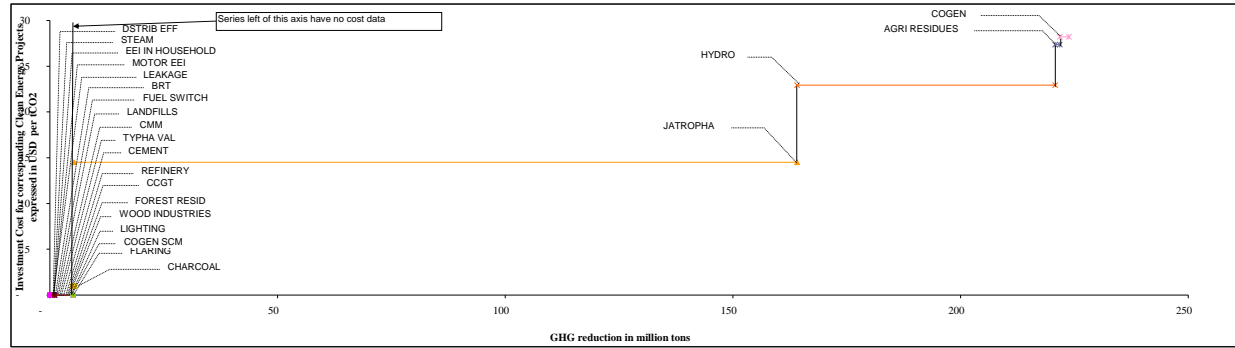
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc)

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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

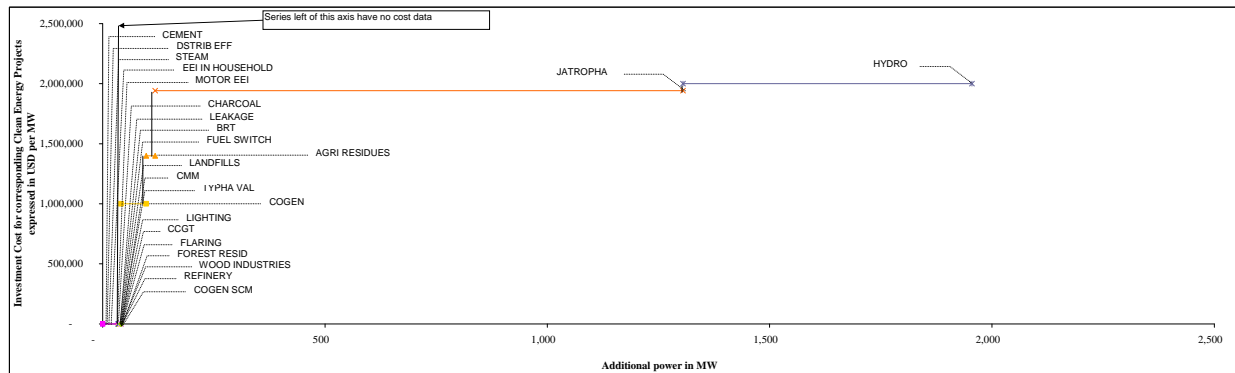
Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (10 or 21 years)
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CEMENT	-	-
REFINERY	-	-
CCGT	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
LIGHTING	-	-
COGEN SCM	-	-
FLARING	-	-
CHARCOAL	1	0
JATROPHA	15	159
HYDRO	23	57
AGRI RESIDUES	27	1
COGEN	28	2



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) MW
No cost data and/or no power generation from projects		
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
LIGHTING	-	-
CCGT	-	-
FLARING	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
REFINERY	-	-
COGEN SCM	-	-
COGEN	1,000,000	56
AGRI RESIDUES	1,400,000	20
JATROPHA	1,941,771	1,187
HYDRO	2,000,000	650



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Consolidated Results for Namibia

Country Data for Namibia

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	5	-	1	-	-	-	-	-	24	-	-
Annual emission reduction in tCO ₂ per year	-	199,422	-	103,110	-	-	-	-	-	7,562,544	-	-
Emissions reduction in percent of the country emissions	0.0%	2.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	77.2%	0.0%	0.0%
Reduction over project life (10 or 21 years)	-	1,994,222	-	1,031,102	-	-	-	-	-	158,813,417	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	-	19,942,219	-	10,311,020	-	-	-	-	-	1,588,134,168	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	-	9,971,110	-	5,155,510	-	-	-	-	-	794,067,084	-	-
Annual electricity generation of the project in GWh	-	493	-	159	-	-	-	-	-	9,360	-	-
Annual electricity generation of the country in GWh (base 2003)	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460
Project electricity generation as a percent of the country electricity generation	-	0	-	0	-	-	-	-	-	6	-	-
Annual electricity consumption of the country (base 2003)	-	-	-	-	-	-	-	-	-	-	-	-
Additional power due to the project implementation (load factor = 90%) MW	-	56	-	20	-	-	-	-	-	1,187	-	-
Countries' installed power in MW	300	300	300	300	300	300	300	300	300	300	300	300
Additional power as a percent of the country power	0.0%	18.7%	0.0%	6.7%	0.0%	0.0%	0.0%	0.0%	0.0%	395.7%	0.0%	0.0%
Total cost of the project in million US\$	-	56	-	28	-	-	-	-	-	2,305	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	3	-	-	-	-	1	-	1	2	-
Annual emission reduction in tCO ₂ per year	-	101,284	-	-	-	-	15,217	-	195,919	2,699,153	-
Emissions reduction in percent of the country emissions	0.0%	1.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	2.0%	27.5%	0.0%
Reduction over project life (10 or 21 years)	-	1,012,841	-	-	-	-	152,166	-	4,114,306	56,682,203	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	-	10,128,405	-	-	-	-	1,521,659	-	41,143,058	566,822,034	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	-	5,064,203	-	-	-	-	760,829	-	20,571,529	283,411,017	-
Annual electricity generation of the project in GWh	280	-	-	-	47	-	-	-	-	3,856	-
Annual electricity generation of the country in GWh (base 2003)	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460	1,460
Project electricity generation as a percent of the country electricity generation	0	-	-	-	0	-	-	-	-	3	-
Annual electricity consumption of the country (base 2003)	-	-	-	-	-	-	-	-	-	-	-
Additional power due to the project implementation (load factor = 90%) MW	36	-	-	-	6	-	-	-	-	650	-
Countries' installed power in MW	300	300	300	300	300	300	300	300	300	300	300
Additional power as a percent of the country power	11.9%	0.0%	0.0%	0.0%	2.0%	0.0%	0.0%	0.0%	0.0%	216.7%	0.0%
Total cost of the project in million US\$	-	-	-	-	-	-	0	-	-	1,300	-

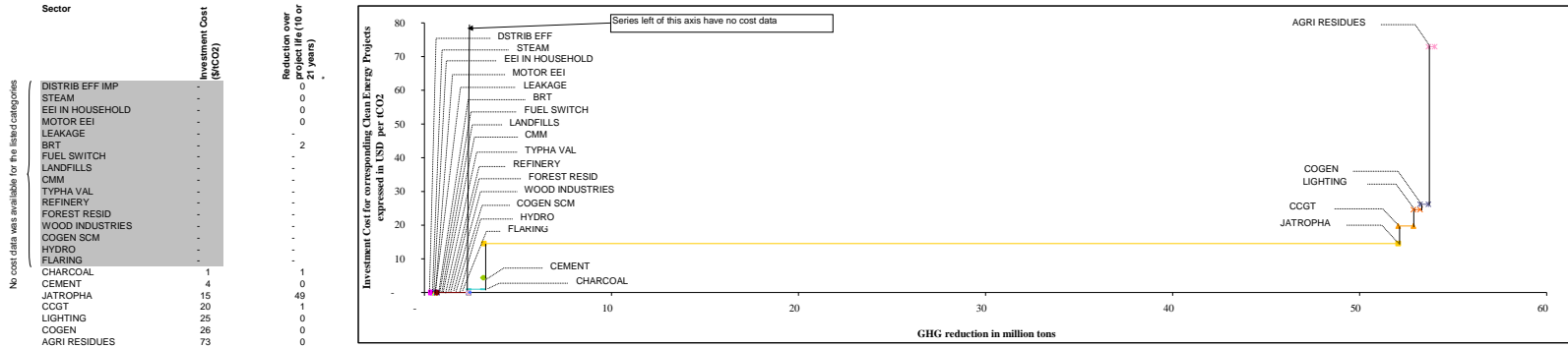
	All sectors/technologies aggregated
Projects number	37
PoA number	-
Annual emission reduction in tCO ₂ per year	10,876,649
Country GHG emissions in 2005	9,800,000
Emissions reduction in percent of the country emissions	111.0%
Reduction over project life (10 or 21 years)	223,800,256
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	2,238,002,563
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	1,119,001,282
Annual electricity generation of the project in GWh	14,194
Annual electricity generation of the country in GWh (base 2003)	1,460
Project electricity generation as a percent of the country electricity generation	10
Annual electricity consumption of the country (base 2003)	-
Additional power due to the project implementation (load factor = 90%) MW	1,955
Countries' installed power in MW	300
Additional power as a percent of the country power	651.7%
Total cost of the project in million US\$	3,690

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO₂ presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

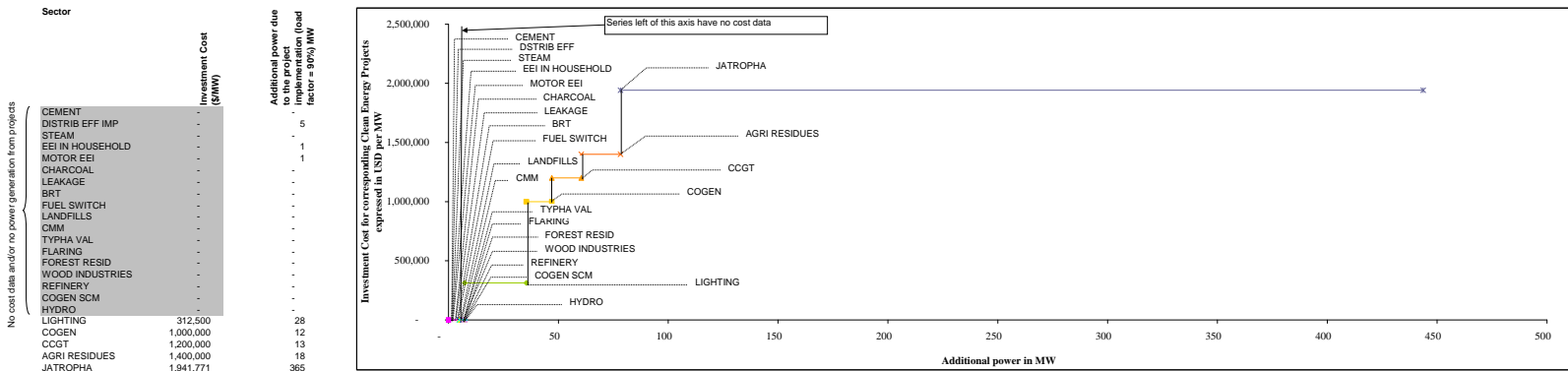
Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to power generation cannot be isolated from investment costs related to emission reductions. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Niger

Country Data for Niger

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	2	1	-	0	-	-	-	-	-	7	-	-
Annual emission reduction in tCO2 per year	81,660	44,197	-	34,187	-	-	-	-	-	2,327,669	5,814	-
Emissions reduction in percent of the country emissions	6.6%	3.6%	0.0%	2.8%	-	0.0%	0.0%	-	0.0%	188.5%	0.5%	0.0%
Reduction over project life (10 or 21 years)	816,600	441,975	-	341,865	-	-	-	-	-	48,881,039	58,138	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	8,166,003	4,419,749	-	3,418,654	-	-	-	-	-	488,810,394	581,381	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	4,083,001	2,209,875	-	1,709,327	-	-	-	-	-	244,405,197	290,690	-
Annual electricity generation of the project in GWh	107	101	-	140	-	-	-	-	-	2,881	-	-
Annual electricity generation of the country in GWh (base 2003)	205	205	205	205	205	205	205	205	205	205	205	205
Project electricity generation as a percent of the country electricity generation	1	0	-	1	-	-	-	-	-	14	-	-
Annual electricity consumption of the country (base 2003)	377	377	377	377	377	377	377	377	377	377	377	377
Additional power due to the project implementation (load factor = 90%) MW	13	12	-	18	-	-	-	-	-	365	-	-
Countries' installed power in MW	122	122	122	122	122	122	122	122	122	122	122	122
Additional power as a percent of the country power	11.0%	9.5%	0.0%	14.6%	-	0.0%	0.0%	0.0%	0.0%	300.2%	0.0%	0.0%
Total cost of the project in million US\$	16	12	-	25	-	-	-	-	-	710	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	1	1	1	1	-	7	-	1	-	-
Annual emission reduction in tCO2 per year	34,255	22,447	35,628	3,348	6,459	-	75,777	-	80,978	-	-
Emissions reduction in percent of the country emissions	2.8%	1.8%	2.9%	0.3%	0.5%	-	6.1%	-	6.6%	-	0.0%
Reduction over project life (10 or 21 years)	342,546	224,474	356,279	33,476	64,590	0.0%	757,768	0.0%	1,700,529	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	3,425,464	2,244,736	3,562,790	334,761	645,897	-	7,577,682	-	17,005,285	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	1,712,732	1,122,368	1,781,395	167,380	322,948	-	3,788,841	-	8,502,643	-	-
Annual electricity generation of the project in GWh	39	-	41	12	7	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	205	205	205	205	205	205	205	205	205	205	205
Project electricity generation as a percent of the country electricity generation	0	-	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	377	377	377	377	377	377	377	377	377	377	377
Additional power due to the project implementation (load factor = 90%) MW	5	-	28	1	1	-	-	-	-	-	-
Countries' installed power in MW	122	122	122	122	122	122	122	122	122	122	122
Additional power as a percent of the country power	4.1%	0.0%	23.0%	1.2%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	9	-	-	-	1	-	-	-	-

	All sectors/technologies aggregated
Projects number	24
PoA number	-
Annual emission reduction in tCO2 per year	2,752,417
Country GHG emissions in 2005	1,234,769
Emissions reduction in percent of the country emissions	222.9%
Reduction over project life (10 or 21 years)	54,019,279
Value of the emission reduction in dollars (base 10 US\$/tCO2)	540,192,794
Value of the emission reduction in dollars (base 05 US\$/tCO2)	270,096,397
Annual electricity generation of the project in GWh	3,329
Annual electricity generation of the country in GWh (base 2003)	205
Project electricity generation as a percent of the country electricity generation	16
Annual electricity consumption of the country (base 2003)	377
Additional power due to the project implementation (load factor = 90%) MW	416
Countries' installed power in MW	122
Additional power as a percent of the country power	364.5%
Total cost of the project in million US\$	772

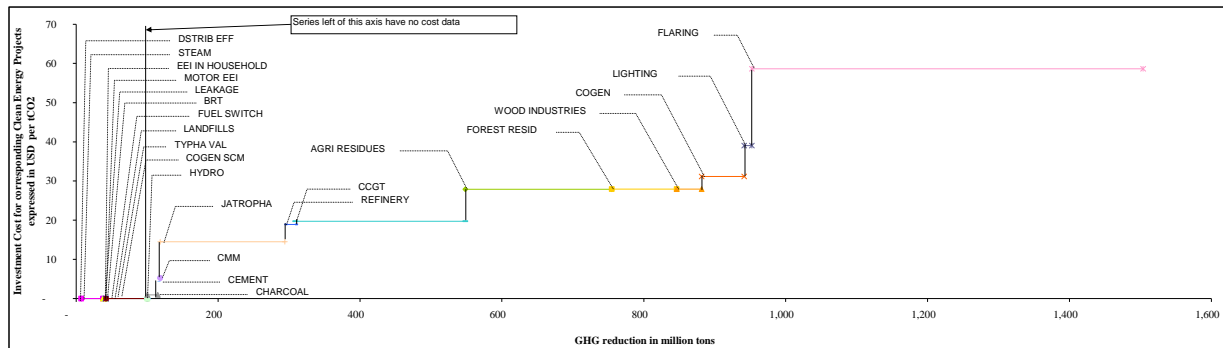
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

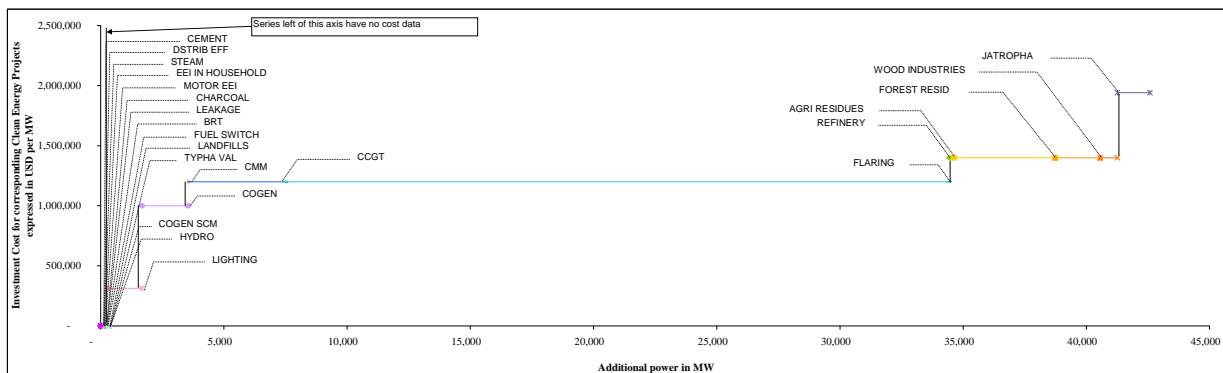
Sector	Investment Cost (\$/tCO2)	Reduction over 10 or 21 years
DISTRIB EFF IMP	-	-
STEAM	-	30
EI IN HOUSEHOLD	-	5
MOTOR EEI	-	1
LEAKAGE	-	1
BRT	-	58
FUEL SWITCH	-	-
LANDFILLS	-	-
TYPHA VAL	-	-
COGEN SCM	-	-
HYDRO	-	-
CHARCOAL	1	15
CEMENT	4	3
CMM	0	0
JATROPHA	15	176
REFINERY	19	14
CCGT	20	240
AGRI RESIDUES	28	206
FOREST RESID	28	91
WOOD INDUSTRIES	28	35
COGEN	31	60
LIGHTING	39	11
FLARING	59	551



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	184
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	88
CHARCOAL	-	49
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
TYPHA VAL	-	-
COGEN SCM	-	-
HYDRO	-	-
LIGHTING	312,500	1,357
COGEN	1,000,000	1,868
CMM	1,200,000	0
CCGT	1,200,000	3,943
FLARING	1,200,000	26,941
REFINERY	1,400,000	196
AGRI RESIDUES	1,400,000	4,113
FOREST RESID	1,400,000	1,824
WOOD INDUSTRIES	1,400,000	703
JATROPHA	1,841,771	1,313



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Nigeria

Country Data for Nigeria

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	132	40	-	82	29	70	-	27	-	26	5	4
Annual emission reduction in tCO2 per year	23,885,243	5,992,343	-	20,645,315	9,142,071	3,522,421	-	55,148,895	-	8,366,113	335,372	1,446,152
Emissions reduction in percent of the country emissions	22.8%	5.7%	0.0%	19.6%	8.7%	3.3%	0.0%	52.4%	0.0%	8.0%	0.3%	1.4%
Reduction over project life (10 or 21 years)	239,852,425	59,923,433	-	206,453,146	91,420,708	35,224,214	-	551,488,954	-	175,688,371	3,353,722	14,461,517
Value of the emission reduction in dollars (base 10 US\$/tCO2)	2,398,524,253	599,234,331	-	2,064,531,458	914,207,078	352,242,138	-	5,514,889,536	-	1,756,883,707	33,537,216	144,615,174
Value of the emission reduction in dollars (base 05 US\$/tCO2)	1,199,262,127	299,617,165	-	1,032,265,729	457,103,539	176,121,069	-	2,757,444,768	-	878,441,854	16,768,608	72,307,587
Annual electricity generation of the project in GWh	31,495	16,361	-	32,427	14,377	5,540	-	212,401	-	10,354	-	1,713
Annual electricity generation of the country in GWh (base 2003)	20,700	20,700	20,700	20,700	20,700	20,700	20,700	20,700	20,700	20,700	20,700	20,700
Project electricity generation as a percent of the country electricity generation	2	1	2	2	1	0	-	10	-	1	-	0
Annual electricity consumption of the country (base 2003)	19,610	19,610	19,610	19,610	19,610	19,610	19,610	19,610	19,610	19,610	19,610	19,610
Additional power due to the project implementation (load factor = 90%) MW	3,943	1,868	-	4,113	1,824	703	-	26,941	-	1,313	-	196
Countries' installed power in MW	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890
Additional power as a percent of the country power	66.9%	31.7%	0.0%	69.8%	31.0%	11.9%	0.0%	457.4%	-	22.3%	0.0%	3.3%
Total cost of the project in million US\$	4,731	1,868	-	5,758	2,553	984	-	32,329	-	2,550	15	274

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	20	1	4	1	1	136	2	12	-	-
Annual emission reduction in tCO2 per year	710,892	3,043,437	1,086,539	341,304	62,501	3,738	1,469,058	63,923	2,770,859	-	-
Emissions reduction in percent of the country emissions	0.7%	2.9%	1.0%	0.3%	0.1%	0.0%	1.4%	0.1%	2.6%	0.0%	0.0%
Reduction over project life (10 or 21 years)	7,108,919	30,434,367	10,865,393	3,413,039	625,006	37,378	14,690,584	639,227	58,188,040	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	71,089,192	304,343,670	108,653,931	34,130,387	6,250,060	373,783	146,905,835	6,392,272	581,880,398	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	35,544,596	152,171,835	54,326,965	17,065,194	3,125,030	186,891	73,452,918	3,196,136	290,940,199	-	-
Annual electricity generation of the project in GWh	1,449	-	1,486	696	386	1	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	20,700	20,700	20,700	20,700	20,700	20,700	20,700	20,700	20,700	20,700	20,700
Project electricity generation as a percent of the country electricity generation	0	-	0	0	0	0	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	19,610	19,610	19,610	19,610	19,610	19,610	19,610	19,610	19,610	19,610	19,610
Additional power due to the project implementation (load factor = 90%) MW	184	-	1,357	88	49	0	-	-	-	-	-
Countries' installed power in MW	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890	5,890
Additional power as a percent of the country power	3.1%	0.0%	23.0%	1.5%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	424	-	-	0	14	-	-	-	-

	All sectors/technologies aggregated
Projects number	563
PoA number	29
Annual emission reduction in tCO2 per year	138,136,175
Country GHG emissions in 2005	105,191,801
Emissions reduction in percent of the country emissions	131.3%
Reduction over project life (10 or 21 years)	1,503,868,442
Value of the emission reduction in dollars (base 10 US\$/tCO2)	15,038,684,420
Value of the emission reduction in dollars (base 05 US\$/tCO2)	7,519,342,210
Annual electricity generation of the project in GWh	328,687
Annual electricity generation of the country in GWh (base 2003)	20,700
Project electricity generation as a percent of the country electricity generation	16
Annual electricity consumption of the country (base 2003)	19,610
Additional power due to the project implementation (load factor = 90%) MW	41,221
Countries' installed power in MW	5,890
Additional power as a percent of the country power	722.9%
Total cost of the project in million US\$	51,500

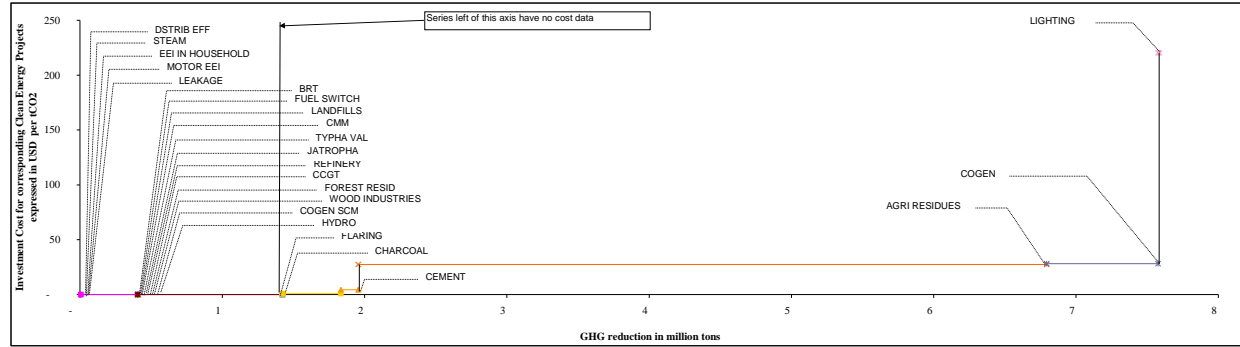
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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

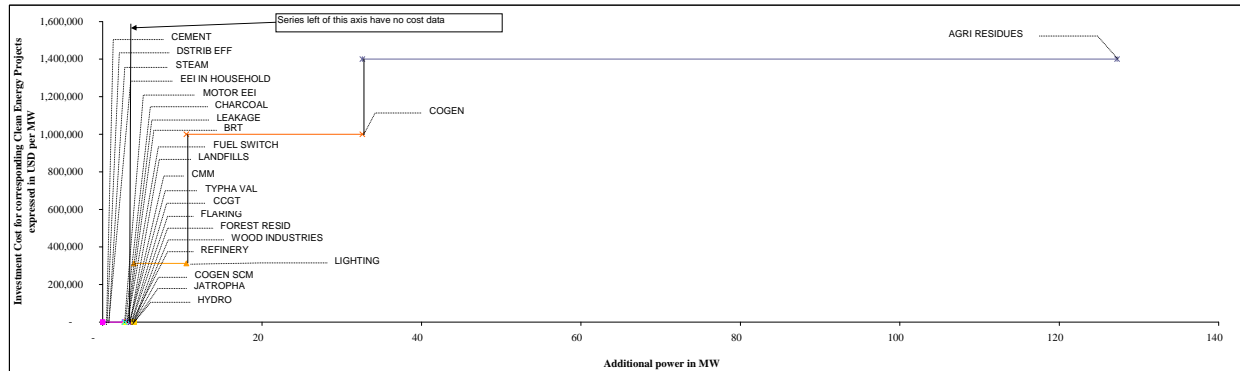
Sector	Investment Cost (\$/tCO2)	Reduction over the project lifetime (10 or 21 years)
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EEI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	1
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
JATROPHA	-	-
REFINERY	-	-
CCGT	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
COGEN SCM	-	-
HYDRO	-	-
FLARING	-	0
CHARCOAL	1	0
CEMENT	4	0
AGRI RESIDUES	27	5
COGEN	28	1
LIGHTING	220	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	-	-
DISTRIB EFF IMP	-	3
STEAM	-	-
EEI IN HOUSEHOLD	-	-
MOTOR EEI	-	0
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CCGT	-	-
FLARING	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
REFINERY	-	-
COGEN SCM	-	-
JATROPHA	-	-
HYDRO	-	-
LIGHTING	312,500	7
COGEN	1,000,000	22
AGRI RESIDUES	1,400,000	95



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Rwanda

Country Data for Rwanda

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	2	-	2	-	-	-	-	-	-	-	-
Annual emission reduction in tCO2 per year	-	78,260	-	483,804	-	-	-	-	-	-	12,156	-
Emissions reduction in percent of the country emissions	0.0%	10.0%	0.0%	62.1%	-	-	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%
Reduction over project life (10 or 21 years)	-	782,605	-	4,838,043	-	-	-	-	-	-	121,561	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	7,826,045	-	48,380,427	-	-	-	-	-	-	1,215,614	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	3,913,023	-	24,190,213	-	-	-	-	-	-	607,807	-
Annual electricity generation of the project in GWh	-	193	-	746	-	-	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	113	113	113	113	113	113	113	113	113	113	113	113
Project electricity generation as a percent of the country electricity generation	-	2	-	7	-	-	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	160	160	160	160	160	160	160	160	160	160	160	160
Additional power due to the project implementation (load factor = 90%) MW	-	22	-	95	-	-	-	-	-	-	-	-
Countries' installed power in MW	29	29	29	29	29	29	29	29	29	29	29	29
Additional power as a percent of the country power	0.0%	77.2%	0.0%	331.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	22	-	133	-	-	-	-	-	-	1	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	1	1	-	-	-	4	-	1	-	-
Annual emission reduction in tCO2 per year	674	39,748	934	62	88	-	41,140	-	48,420	-	-
Emissions reduction in percent of the country emissions	0.1%	5.1%	0.1%	0.0%	0.0%	0.0%	5.3%	0.0%	6.2%	0.0%	0.0%
Reduction over project life (10 or 21 years)	6,742	397,475	9,343	618	979	-	411,400	-	1,016,821	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	67,424	3,974,751	93,431	6,178	9,788	-	4,114,000	-	10,168,213	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	33,712	1,987,376	46,715	3,089	4,894	-	2,057,000	-	5,084,107	-	-
Annual electricity generation of the project in GWh	22	-	10	6	3	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	113	113	113	113	113	113	113	113	113	113	113
Project electricity generation as a percent of the country electricity generation	-	0	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	160	160	160	160	160	160	160	160	160	160	160
Additional power due to the project implementation (load factor = 90%) MW	3	-	7	1	0	-	-	-	-	-	-
Countries' installed power in MW	29	29	29	29	29	29	29	29	29	29	29
Additional power as a percent of the country power	9.6%	0.0%	23.0%	2.7%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	2	-	-	-	0	-	-	-	-

	All sectors/technologies aggregated
Projects number	13
PoA number	-
Annual emission reduction in tCO2 per year	705,297
Country GHG emissions in 2005	779,083
Emissions reduction in percent of the country emissions	90.5%
Reduction over project life (10 or 21 years)	7,585,587
Value of the emission reduction in dollars (base 10 US\$/tCO2)	75,855,871
Value of the emission reduction in dollars (base 05 US\$/tCO2)	37,927,936
Annual electricity generation of the project in GWh	990
Annual electricity generation of the country in GWh (base 2003)	113
Project electricity generation as a percent of the country electricity generation	9
Annual electricity consumption of the country (base 2003)	160
Additional power due to the project implementation (load factor = 90%) MW	121
Countries' installed power in MW	29
Additional power as a percent of the country power	445.0%
Total cost of the project in million US\$	158

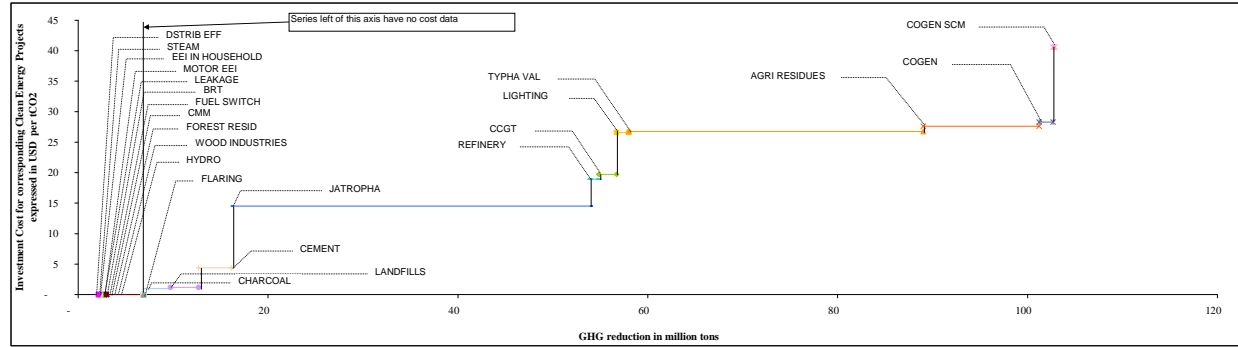
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

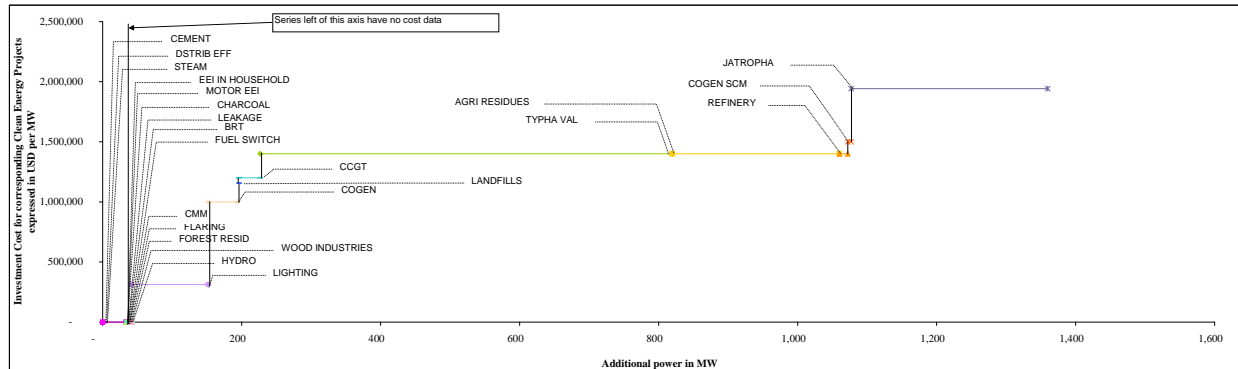
Sector	Investment Cost (\$/tCO2)	Reduction over the project lifetime (10 or 21 years)
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	0
LEAKAGE	-	-
FUEL SWITCH	-	4
BRT	-	-
CMM	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	3
LANDFILLS	1	-
CEMENT	4	-
JATROPHA	15	38
REFINERY	19	1
CCGT	20	-
LIGHTING	27	1
TYPHA VAL	27	31
AGRI RESIDUES	28	12
COGEN	28	-
COGEN SCM	41	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	-	-
DISTRIB EFF IMP	-	34
STEAM	-	-
EI IN HOUSEHOLD	-	5
MOTOR EEI	-	3
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
CMM	-	-
FLARING	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
HYDRO	-	-
LIGHTING	312,500	110
COGEN	1,000,000	42
LANDFILLS	1,154,813	3
CCGT	1,200,000	50
TYPHA VAL	1,400,000	593
AGRI RESIDUES	1,400,000	240
REFINERY	1,400,000	12
COGEN SCM	1,500,000	5
JATROPHA	1,841,771	283



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in USD/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Senegal

Country Data for Senegal

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	2	4	1	5	-	-	40	-	1	6	2	1
Annual emission reduction in tCO2 per year	185,284	147,276	17,850	1,219,623	-	-	3,102,890	-	295,582	1,802,152	343,543	88,943
Emissions reduction in percent of the country emissions	3.4%	2.7%	0.3%	22.2%	0.0%	0.0%	56.5%	-	5.4%	32.8%	6.3%	1.6%
Reduction over project life (10 or 21 years)	1,852,940	1,472,761	178,500	12,196,227	-	-	31,028,800	-	2,955,823	37,845,190	3,435,432	889,433
Value of the emission reduction in dollars (base 10 US\$/tCO2)	18,529,403	14,727,613	1,785,000	121,962,274	-	-	310,288,000	-	29,558,234	378,451,899	34,354,320	8,894,327
Value of the emission reduction in dollars (base 05 US\$/tCO2)	9,264,701	7,363,806	892,500	60,981,137	-	-	155,144,000	-	14,779,117	189,225,950	17,177,160	4,447,164
Annual electricity generation of the project in GWh	243	365	26	1,896	-	-	4,675	-	16	2,230	-	105
Annual electricity generation of the country in GWh (base 2003)	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387
Project electricity generation as a percent of the country electricity generation	0	0	0	1	0	0	3	0	0	2	0	0
Annual electricity consumption of the country (base 2003)	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290
Additional power due to the project implementation (load factor = 90%) MW	30	42	5	240	-	-	593	-	3	283	-	12
Countries' installed power in MW	476	476	476	476	476	476	476	476	476	476	476	476
Additional power as a percent of the country power	6.4%	8.8%	1.0%	50.5%	0.0%	0.0%	124.5%	0.0%	0.6%	59.4%	0.0%	2.5%
Total cost of the project in million US\$	37	42	7	337	-	-	830	-	4	549	15	17

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	2	1	1	1	-	26	-	1	-	-
Annual emission reduction in tCO2 per year	214,379	52,141	129,006	9,851	20,443	-	285,197	-	185,973	-	-
Emissions reduction in percent of the country emissions	3.9%	0.9%	2.3%	0.2%	0.4%	0.0%	5.2%	0.0%	3.4%	0.0%	0.0%
Reduction over project life (10 or 21 years)	2,143,781	521,410	1,290,060	98,511	204,432	-	3,005,429	-	3,905,429	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	21,437,809	5,214,101	12,900,596	985,115	2,044,325	-	28,519,700	-	39,054,289	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	10,718,904	2,607,050	6,450,298	492,557	1,022,162	-	14,259,850	-	19,527,144	-	-
Annual electricity generation of the project in GWh	266	-	160	37	25	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387	1,387
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	0	0	0	0	0	0
Annual electricity consumption of the country (base 2003)	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290	1,290
Additional power due to the project implementation (load factor = 90%) MW	34	110	110	5	3	-	-	-	-	-	-
Countries' installed power in MW	476	476	476	476	476	476	476	476	476	476	476
Additional power as a percent of the country power	7.1%	0.0%	23.0%	1.0%	0.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	34	-	-	-	3	-	-	-	-

	All sectors/technologies aggregated
Projects number	55
PoA number	40
Annual emission reduction in tCO2 per year	8,100,133
Country GHG emissions in 2005	5,492,786
Emissions reduction in percent of the country emissions	147.5%
Reduction over project life (10 or 21 years)	102,870,700
Value of the emission reduction in dollars (base 10 US\$/tCO2)	1,028,707,004
Value of the emission reduction in dollars (base 05 US\$/tCO2)	514,353,502
Annual electricity generation of the project in GWh	10,045
Annual electricity generation of the country in GWh (base 2003)	1,387
Project electricity generation as a percent of the country electricity generation	7
Annual electricity consumption of the country (base 2003)	1,290
Additional power due to the project implementation (load factor = 90%) MW	1,250
Countries' installed power in MW	476
Additional power as a percent of the country power	285.4%
Total cost of the project in million US\$	1,874

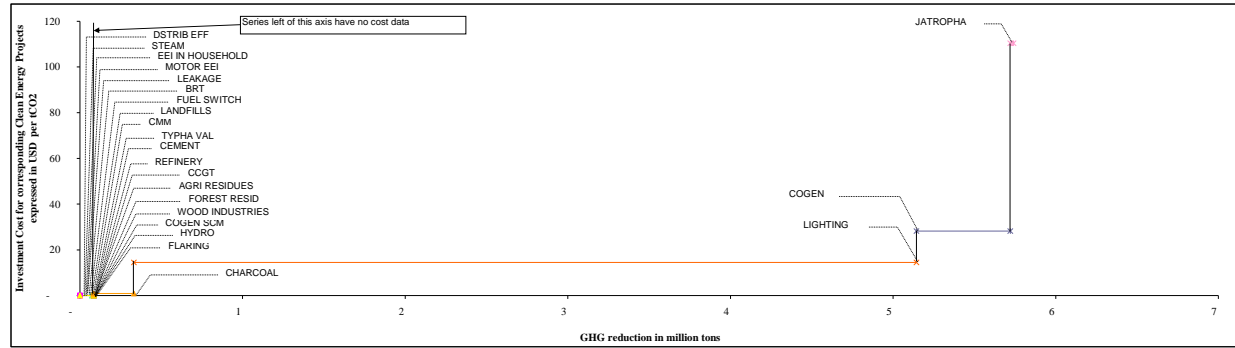
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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

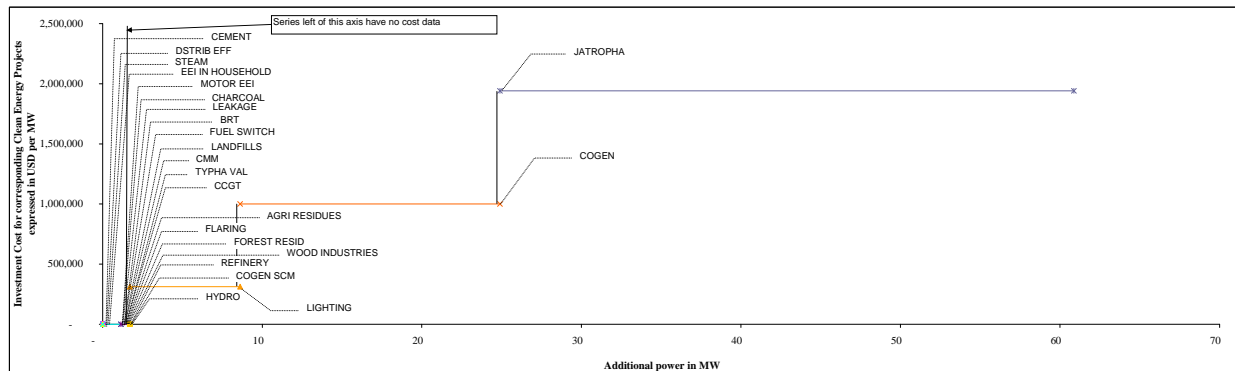
Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CEMENT	-	-
REFINERY	-	-
CCGT	-	-
AGRI RESIDUES	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
COGEN SCM	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	0
JATROPHA	15	5
COGEN	28	1
LIGHTING	110	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	1
LEAKAGE	-	1
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CCGT	-	-
FLARING	-	-
AGRI RESIDUES	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
REFINERY	-	-
COGEN SCM	-	-
HYDRO	-	-
LIGHTING	312,500	7
COGEN	1,000,000	16
JATROPHA	1,841,771	36



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

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Consolidated Results for Seychelles

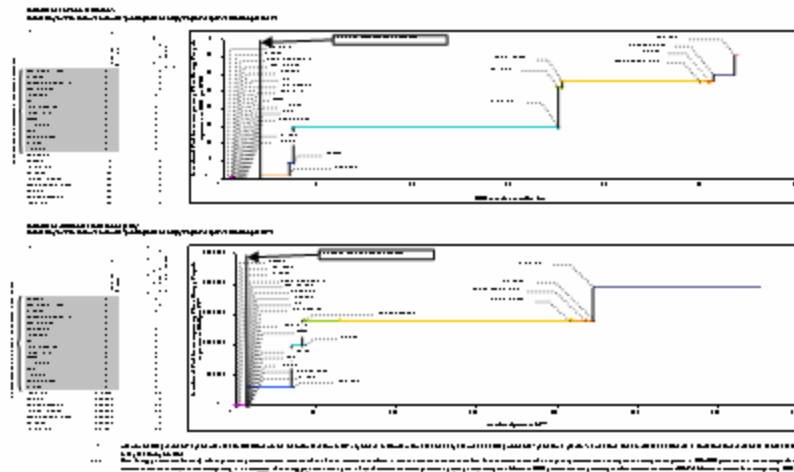
Country Data for Seychelles

Projects number	
Annual emission reduction in tCO2 per year	
Emissions reduction in percent of the country emissions	
Reduction over project life (10 or 21 years)	
Value of the emission reduction in dollars (base 10 US\$/tCO2)	
Value of the emission reduction in dollars (base 05 US\$/tCO2)	
Annual electricity generation of the project in GWh	
Annual electricity generation of the country in GWh (base 2003)	
Project electricity generation as a percent of the country electricity generation	
Annual electricity consumption of the country (base 2003)	
Additional power due to the project implementation (load factor = 90%)	
Countries' installed power in MW	
Additional power as a percent of the country power	
Total cost of the project in million US\$	

Projects number	
Annual emission reduction in tCO2 per year	
Emissions reduction in percent of the country emissions	
Reduction over project life (10 or 21 years)	
Value of the emission reduction in dollars (base 10 US\$/tCO2)	
Value of the emission reduction in dollars (base 05 US\$/tCO2)	
Annual electricity generation of the project in GWh	
Annual electricity generation of the country in GWh (base 2003)	
Project electricity generation as a percent of the country electricity generation	
Annual electricity consumption of the country (base 2003)	
Additional power due to the project implementation (load factor = 90%)	
Countries' installed power in MW	
Additional power as a percent of the country power	
Total cost of the project in million US\$	

Projects number	
PoA number	
Annual emission reduction in tCO2 per year	
Country GHG emissions in 2005	
Emissions reduction in percent of the country emissions	
Reduction over project life (10 or 21 years)	
Value of the emission reduction in dollars (base 10 US\$/tCO2)	
Value of the emission reduction in dollars (base 05 US\$/tCO2)	
Annual electricity generation of the project in GWh	
Annual electricity generation of the country in GWh (base 2003)	
Project electricity generation as a percent of the country electricity generation	
Annual electricity consumption of the country (base 2003)	
Additional power due to the project implementation (load factor = 90%)	
Countries' installed power in MW	54
Additional power as a percent of the country power	202.9%
Total cost of the project in million US\$	89

Consolidated Results for Sierra Leone



Oil gas to energy	Biofuel from jatropha	Emission reductions in cement plants	Emission reductions in refineries
-	1	-	-
-	229,166	-	-
0.0%	24.9%	0.0%	0.0%
-	4,812,487	-	-
-	48,124,869	-	-
-	24,062,434	-	-
-	284	-	-
240	240	240	240
-	1	-	-
220	220	220	220
-	36	-	-
30	30	30	30
0.0%	119.9%	0.0%	0.0%
-	70	-	-

Investments in port (BRT)	Hydroelectricity projects	Fuel switch
-	-	-
-	-	-
0.0%	0.0%	0.0%
-	-	-
-	-	-
240	240	240
-	-	-
220	220	220
-	-	-
30	30	30
0.0%	0.0%	0.0%
-	-	-

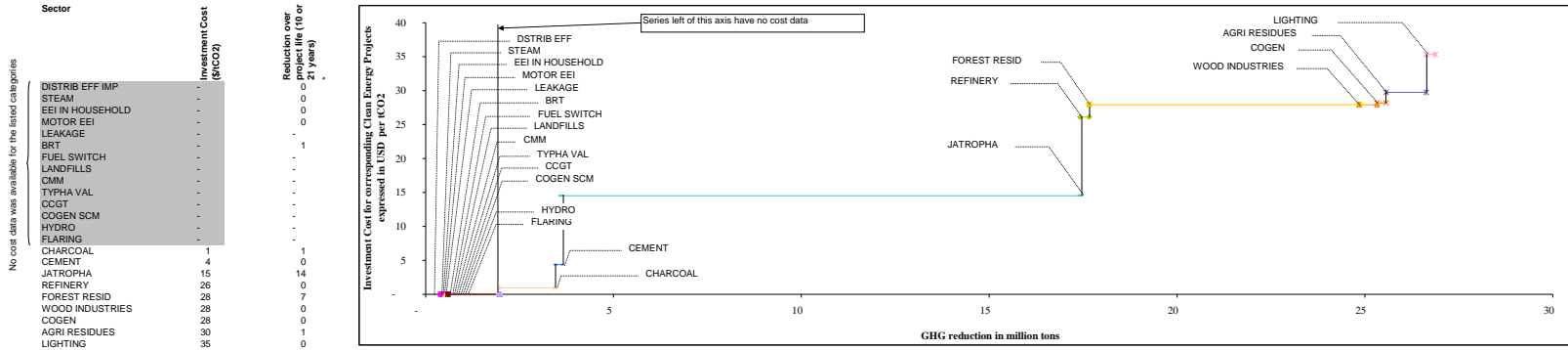
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Consolidated Results for Sierra Leone

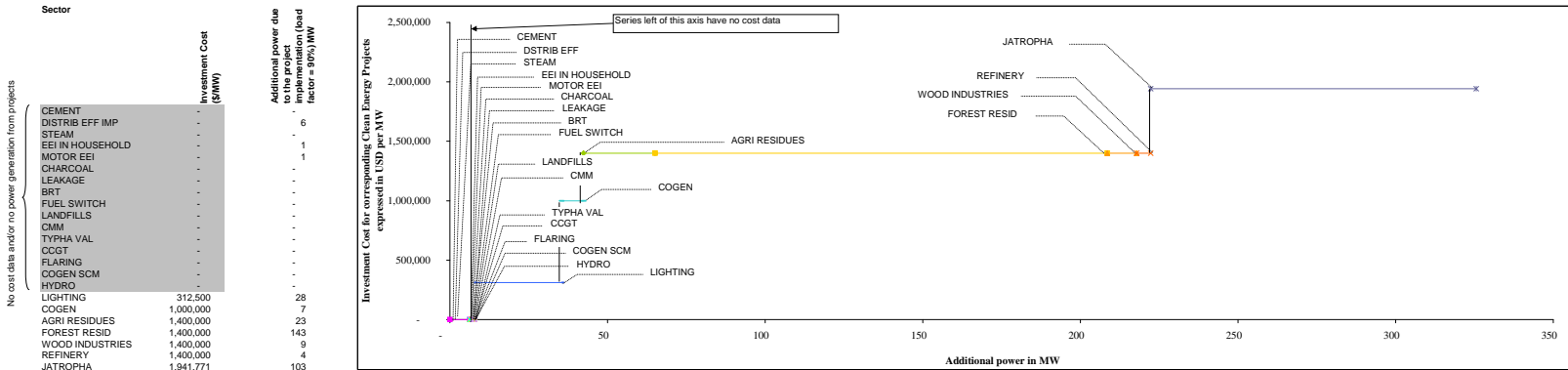
Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)



* A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

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Consolidated Results for Sierra Leone

Country Data for Sierra Leone

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	1	-	1	1	1	-	-	-	2	1	1
Annual emission reduction in tCO2 per year	-	24,619	-	106,825	719,058	46,688	-	-	-	657,883	17,970	23,887
Emissions reduction in percent of the country emissions	0.0%	2.1%	0.0%	9.1%	61.0%	4.0%	0.0%	0.0%	0.0%	55.8%	1.5%	2.0%
Reduction over project life (10 or 21 years)	-	246,193	-	1,068,247	7,190,583	466,877	-	-	-	13,815,549	179,700	238,868
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	2,461,931	-	10,682,473	71,905,828	4,668,765	-	-	-	138,155,487	1,796,995	2,388,682
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	1,230,965	-	5,341,237	35,952,914	2,334,383	-	-	-	69,077,744	898,498	1,194,341
Annual electricity generation of the project in GWh	-	61	-	179	1,131	73	-	-	-	814	-	39
Annual electricity generation of the country in GWh (base 2003)	260	260	260	260	260	260	260	260	260	260	260	260
Project electricity generation as a percent of the country electricity generation	-	0	-	1	4	0	-	-	-	3	-	0
Annual electricity consumption of the country (base 2003)	240	240	240	240	240	240	240	240	240	240	240	240
Additional power due to the project implementation (load factor = 90%) MW	-	7	-	23	143	9	-	-	-	103	-	4
Countries' installed power in MW	120	120	120	120	120	120	120	120	120	120	120	120
Additional power as a percent of the country power	0.0%	5.8%	0.0%	18.9%	119.5%	7.8%	0.0%	0.0%	0.0%	86.1%	0.0%	3.7%
Total cost of the project in million US\$	-	7	-	32	201	13	-	-	-	201	1	6

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	-	1	-	-	-	13	-	-	-	1
Annual emission reduction in tCO2 per year	40,335	-	24,462	5,523	1,260	-	145,779	-	65,306	-	-
Emissions reduction in percent of the country emissions	3.4%	1.1%	2.1%	0.5%	0.1%	0.0%	12.4%	0.0%	5.5%	0.0%	0.0%
Reduction over project life (10 or 21 years)	403,354	125,038	244,618	55,228	12,598	-	1,457,787	-	1,371,435	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	4,033,536	1,250,384	2,446,184	552,284	125,978	-	14,577,868	-	13,714,353	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	2,016,768	625,192	1,223,092	276,142	62,989	-	7,288,934	-	6,857,176	-	-
Annual electricity generation of the project in GWh	50	-	30	7	5	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	260	260	260	260	260	260	260	260	260	260	260
Project electricity generation as a percent of the country electricity generation	0	-	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	240	240	240	240	240	240	240	240	240	240	240
Additional power due to the project implementation (load factor = 90%) MW	6	-	28	1	1	-	-	-	-	-	-
Countries' installed power in MW	120	120	120	120	120	120	120	120	120	120	120
Additional power as a percent of the country power	5.3%	0.0%	23.0%	0.7%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	9	-	-	-	1	-	-	-	-

	All sectors/technologies aggregated
Projects number	22
PoA number	1
Annual emission reduction in tCO2 per year	1,892,099
Country GHG emissions in 2005	1,178,683
Emissions reduction in percent of the country emissions	160.5%
Reduction over project life (10 or 21 years)	26,876,075
Value of the emission reduction in dollars (base 10 US\$/tCO2)	268,760,749
Value of the emission reduction in dollars (base 05 US\$/tCO2)	134,380,374
Annual electricity generation of the project in GWh	2,389
Annual electricity generation of the country in GWh (base 2003)	260
Project electricity generation as a percent of the country electricity generation	9
Annual electricity consumption of the country (base 2003)	240
Additional power due to the project implementation (load factor = 90%) MW	298
Countries' installed power in MW	120
Additional power as a percent of the country power	271.3%
Total cost of the project in million US\$	470

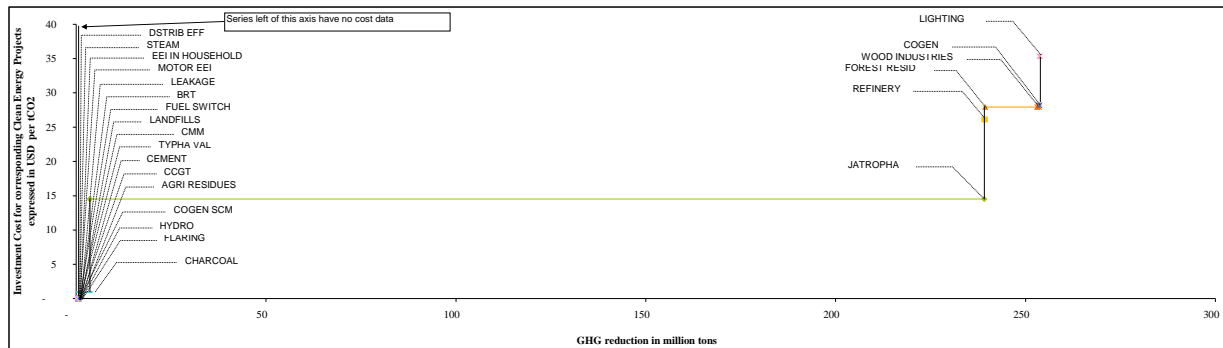
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

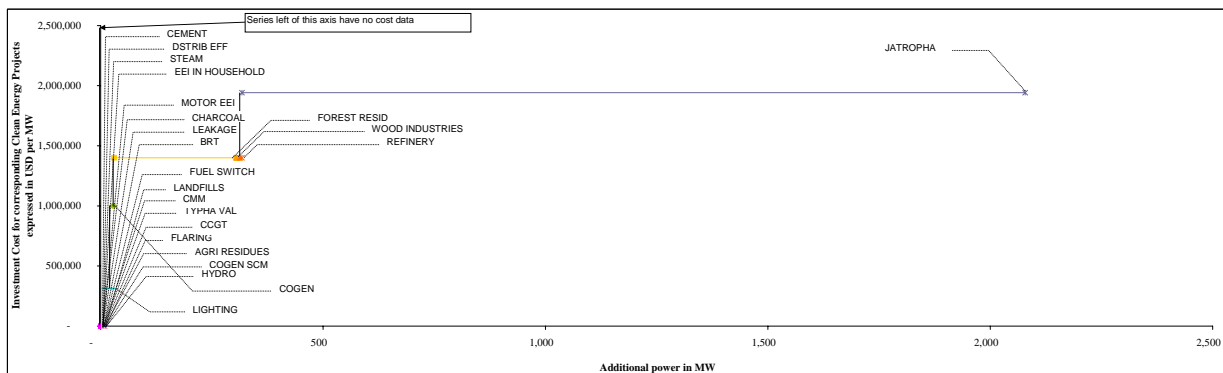
Sector	Investment Cost (\$/tCO2)	Reduction over 10 or 21 years
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CEMENT	-	-
CCGT	-	-
AGRI RESIDUES	-	-
COGEN SCM	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	3
JATROPHA	15	236
REFINERY	26	0
FOREST RESID	28	14
WOOD INDUSTRIES	28	0
COGEN	28	0
LIGHTING	35	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CCGT	-	-
FLARING	-	-
AGRI RESIDUES	-	-
COGEN SCM	-	-
HYDRO	-	-
LIGHTING	312,500	18
COGEN	1,000,000	4
FOREST RESID	1,400,000	274
WOOD INDUSTRIES	1,400,000	8
REFINERY	1,400,000	4
JATROPHA	1,841,771	1,761



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

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Consolidated Results for Somalia

Country Data for Somalia

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	1	-	-	-	1	-	-	-	35	-	1
Annual emission reduction in tCO2 per year	-	13,002	-	-	1,375,929	41,416	-	-	-	11,216,166	-	23,887
Emissions reduction in percent of the country emissions	0.0%	1.7%	0.0%	0.0%	182.9%	5.5%	0.0%	0.0%	0.0%	1491.3%	0.0%	3.2%
Reduction over project life (10 or 21 years)	-	130,023	-	-	13,759,291	414,165	-	-	-	235,539,480	-	238,868
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	1,300,229	-	-	137,592,914	4,141,647	-	-	-	2,355,394,805	-	2,388,682
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	650,115	-	-	68,796,457	2,070,823	-	-	-	1,177,697,402	-	1,194,341
Annual electricity generation of the project in GWh	-	32	-	-	2,164	65	-	-	-	13,882	-	39
Annual electricity generation of the country in GWh (base 2003)	270	270	270	270	270	270	270	270	270	270	270	270
Project electricity generation as a percent of the country electricity generation	-	0	-	-	8	0	-	-	-	51	-	0
Annual electricity consumption of the country (base 2003)	250	250	250	250	250	250	250	250	250	250	250	250
Additional power due to the project implementation (load factor = 90%) MW	-	4	-	-	274	8	-	-	-	1,761	-	4
Countries' installed power in MW	80	80	80	80	80	80	80	80	80	80	80	80
Additional power as a percent of the country power	0.0%	4.6%	0.0%	0.0%	343.1%	10.3%	0.0%	0.0%	0.0%	2200.9%	0.0%	5.6%
Total cost of the project in million US\$	-	4	-	-	384	12	-	-	-	3,419	-	6

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	-	1	-	-	-	28	-	-	-	-
Annual emission reduction in tCO2 per year	41,887	6,604	16,308	7,027	1,312	-	302,077	-	-	-	-
Emissions reduction in percent of the country emissions	5.6%	0.9%	2.2%	0.9%	0.2%	0.0%	40.2%	0.0%	0.0%	0.0%	0.0%
Reduction over project life (10 or 21 years)	418,867	66,037	163,079	70,270	13,123	-	3,020,775	-	-	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	4,188,672	660,370	1,630,790	702,701	131,227	-	30,207,747	-	-	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	2,094,336	330,185	815,395	351,351	65,613	-	15,103,874	-	-	-	-
Annual electricity generation of the project in GWh	52	-	20	9	5	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	270	270	270	270	270	270	270	270	270	270	270
Project electricity generation as a percent of the country electricity generation	0	-	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	250	250	250	250	250	250	250	250	250	250	250
Additional power due to the project implementation (load factor = 90%) MW	7	-	18	1	1	-	-	-	-	-	-
Countries' installed power in MW	80	80	80	80	80	80	80	80	80	80	80
Additional power as a percent of the country power	8.2%	0.0%	23.0%	1.4%	0.8%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	6	-	-	-	3	-	-	-	-

	All sectors/technologies aggregated
Projects number	67
PoA number	1
Annual emission reduction in tCO2 per year	13,045,616
Country GHG emissions in 2005	752,126
Emissions reduction in percent of the country emissions	1734.5%
Reduction over project life (10 or 21 years)	253,833,978
Value of the emission reduction in dollars (base 10 US\$/tCO2)	2,538,339,784
Value of the emission reduction in dollars (base 05 US\$/tCO2)	1,269,169,892
Annual electricity generation of the project in GWh	16,267
Annual electricity generation of the country in GWh (base 2003)	270
Project electricity generation as a percent of the country electricity generation	60
Annual electricity consumption of the country (base 2003)	250
Additional power due to the project implementation (load factor = 90%) MW	2,060
Countries' installed power in MW	80
Additional power as a percent of the country power	2597.9%
Total cost of the project in million US\$	3,833

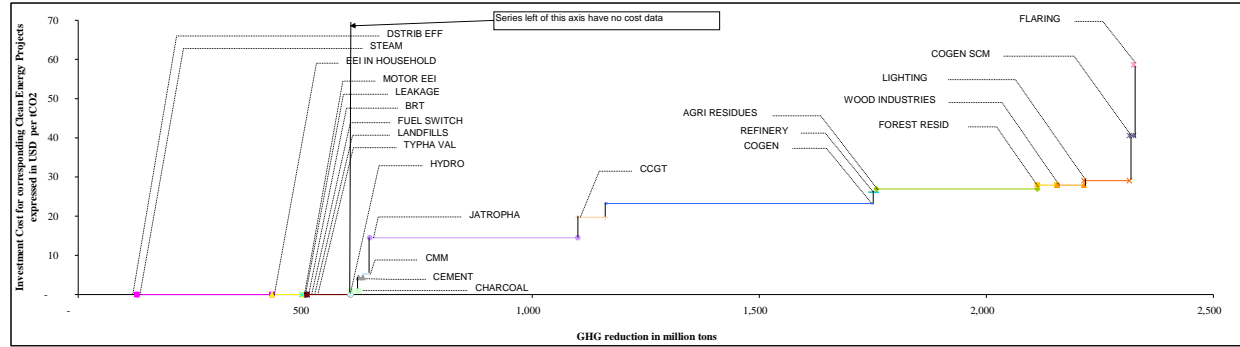
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

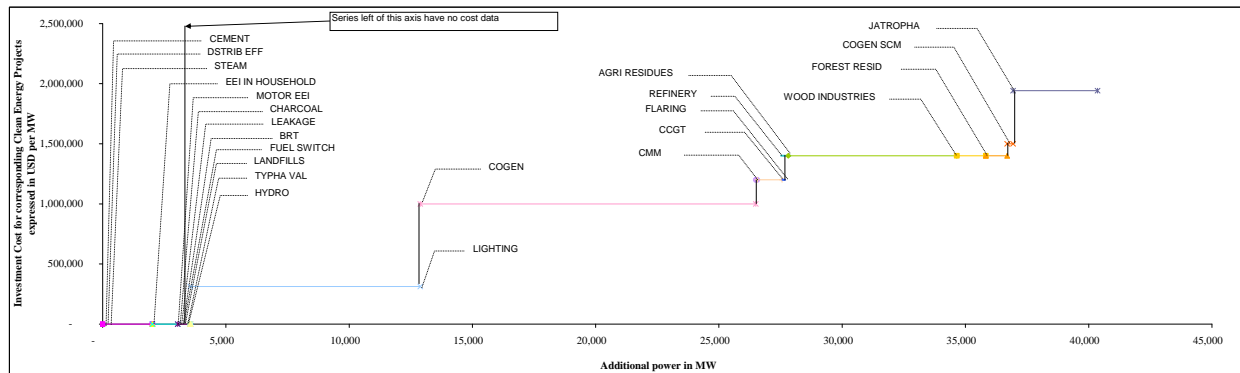
Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
DISTRIB EFF IMP	-	129
STEAM	-	297
EEl IN HOUSEHOLD	-	66
MOTOR EEl	-	11
LEAKAGE	-	0
FUEL SWITCH	-	96
BRT	-	-
LANDFILLS	-	-
TYPHA VAL	-	-
HYDRO	-	-
CHARCOAL	1	18
CEMENT	4	9
CMM	5	15
JATROPHA	15	458
CCGT	20	61
COGEN	23	585
REFINERY	26	11
AGRI RESIDUES	27	355
FOREST RESID	28	43
WOOD INDUSTRIES	28	59
LIGHTING	29	100
COGEN SCM	41	9
FLARING	59	1



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) (MW)
CEMENT	-	2,015
DISTRIB EFF IMP	-	-
STEAM	-	-
EEl IN HOUSEHOLD	-	-
MOTOR EEl	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
TYPHA VAL	-	-
HYDRO	-	-
LIGHTING	312,500	9,327
COGEN	1,000,000	13,607
CMM	1,200,000	67
CCGT	1,200,000	997
FLARING	1,200,000	49
REFINERY	1,400,000	209
AGRI RESIDUES	1,400,000	6,836
WOOD INDUSTRIES	1,400,000	1,177
FOREST RESID	1,400,000	865
COGEN SCM	1,500,000	243
JATROPHA	1,841,771	3,426



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)
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Consolidated Results for South Africa

Country Data for South Africa

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	10	195	16	137	202	118	-	1	-	69	4	4
Annual emission reduction in tCO2 per year	6,063,628	58,546,590	897,247	35,496,256	4,336,336	5,902,936	-	100,784	-	21,625,346	938,983	1,120,292
Emissions reduction in percent of the country emissions	1.4%	13.8%	0.2%	8.4%	1.0%	1.4%	0.0%	0.0%	0.0%	5.1%	0.2%	0.3%
Reduction over project life (10 or 21 years)	60,636,282	585,465,900	8,972,466	354,962,557	43,363,364	59,029,357	-	1,007,838	-	458,332,275	9,389,828	11,202,918
Value of the emission reduction in dollars (base 10 US\$/tCO2)	606,362,819	5,854,658,996	89,724,663	3,549,625,566	433,633,644	590,293,570	-	10,078,380	-	4,583,322,751	93,898,284	112,029,181
Value of the emission reduction in dollars (base 05 US\$/tCO2)	303,181,409	2,927,329,498	44,862,332	1,774,812,783	216,816,822	295,146,785	-	5,039,190	-	2,291,661,376	46,949,142	56,014,591
Annual electricity generation of the project in GWh	7,962	119,199	1,282	53,895	6,820	9,283	-	388	-	27,012	1,831	1,831
Annual electricity generation of the country in GWh (base 2003)	227,000	227,000	227,000	227,000	227,000	227,000	227,000	227,000	227,000	227,000	227,000	227,000
Project electricity generation as a percent of the country electricity generation	0	1	0	0	0	0	0	0	0	0	0	0
Annual electricity consumption of the country (base 2003)	207,000	207,000	207,000	207,000	207,000	207,000	207,000	207,000	207,000	207,000	207,000	207,000
Additional power due to the project implementation (load factor = 90%) MW	997	13,607	243	6,836	865	1,177	-	49	-	3,426	-	209
Countries' installed power in MW	40,480	40,480	40,480	40,480	40,480	40,480	40,480	40,480	40,480	40,480	40,480	40,480
Additional power as a percent of the country power	2.5%	33.6%	0.6%	16.9%	2.1%	2.9%	0.0%	0.1%	0.0%	8.5%	0.0%	0.5%
Total cost of the project in million US\$	1,196	13,607	364	9,570	1,211	1,648	-	59	-	6,653	41	293

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	74	10	11	9	5	163	1	8	-	-
Annual emission reduction in tCO2 per year	12,941,171	29,735,086	10,013,911	6,599,737	1,095,195	1,524,536	1,762,119	635	4,571,451	-	-
Emissions reduction in percent of the country emissions	3.1%	7.0%	2.4%	1.6%	0.3%	0.4%	0.4%	0.0%	1.1%	0.0%	0.0%
Reduction over project life (10 or 21 years)	129,411,712	297,350,855	100,139,114	65,997,373	10,951,950	15,245,357	17,621,186	6,352	96,000,470	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	1,294,117,120	2,973,508,554	1,001,391,137	659,973,735	109,519,500	152,453,568	176,211,859	63,518	960,004,697	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	647,058,560	1,486,754,277	500,695,568	329,986,867	54,759,750	76,226,784	88,105,929	31,759	480,002,348	-	-
Annual electricity generation of the project in GWh	16,890	-	10,213	8,104	4,075	499	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	227,000	227,000	227,000	227,000	227,000	227,000	227,000	227,000	227,000	227,000	227,000
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	0	0	0	0	0	0
Annual electricity consumption of the country (base 2003)	207,000	207,000	207,000	207,000	207,000	207,000	207,000	207,000	207,000	207,000	207,000
Additional power due to the project implementation (load factor = 90%) MW	2,015	-	9,327	1,028	517	67	-	-	-	-	-
Countries' installed power in MW	40,480	40,480	40,480	40,480	40,480	40,480	40,480	40,480	40,480	40,480	40,480
Additional power as a percent of the country power	5.0%	0.0%	23.0%	2.5%	1.3%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	2,915	-	-	80	17	-	-	-	-

	All sectors/technologies aggregated
Projects number	834
PoA number	202
Annual emission reduction in tCO2 per year	203,472,238
Country GHG emissions in 2005	423,809,947
Emissions reduction in percent of the country emissions	48.0%
Reduction over project life (10 or 21 years)	2,325,087,154
Value of the emission reduction in dollars (base 10 US\$/tCO2)	23,250,871,542
Value of the emission reduction in dollars (base 05 US\$/tCO2)	11,625,435,771
Annual electricity generation of the project in GWh	266,452
Annual electricity generation of the country in GWh (base 2003)	227,000
Project electricity generation as a percent of the country electricity generation	1
Annual electricity consumption of the country (base 2003)	207,000
Additional power due to the project implementation (load factor = 90%) MW	31,037
Countries' installed power in MW	40,480
Additional power as a percent of the country power	99.7%
Total cost of the project in million US\$	37,655

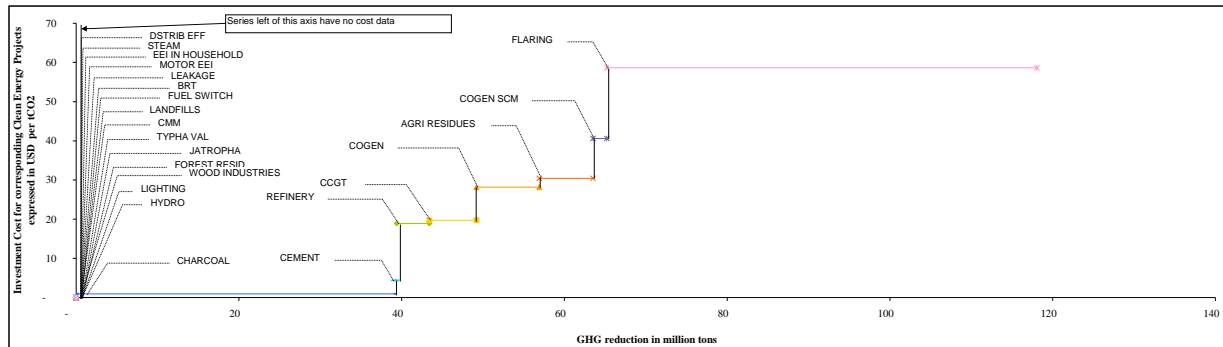
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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

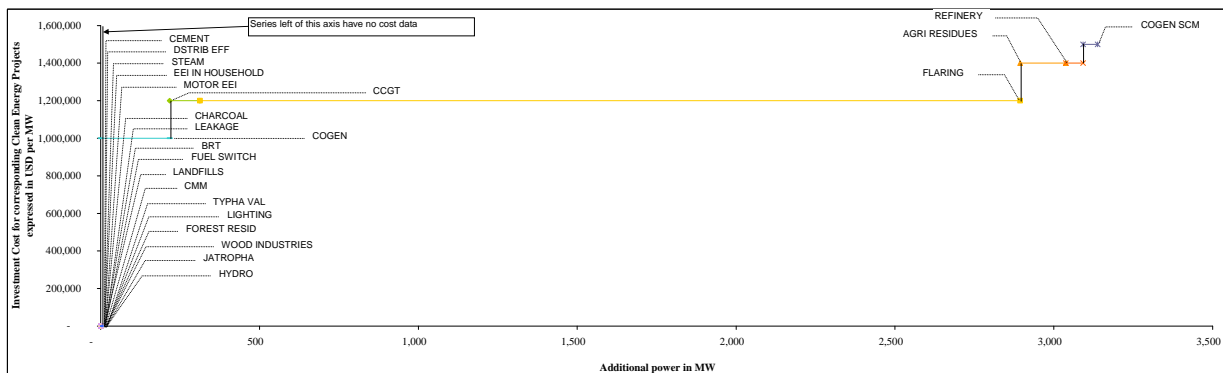
Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
JATROPHA	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
LIGHTING	-	-
HYDRO	-	-
CHARCOAL	1	39
CEMENT	4	0
REFINERY	19	8
CCGT	20	8
COGEN	28	8
AGRI RESIDUES	30	7
COGEN SCM	41	2
FLARING	59	53



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) (MW)
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
LIGHTING	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
JATROPHA	-	-
HYDRO	-	-
COGEN	1,000,000	217
CCGT	1,200,000	95
FLARING	1,200,000	2,582
AGRI RESIDUES	1,400,000	144
REFINERY	1,400,000	54
COGEN SCM	1,500,000	46



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Sudan

Country Data for Sudan

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	7	10	1	3	-	-	-	3	-	-	1	3
Annual emission reduction in tCO ₂ per year	578,964	770,677	169,400	660,570	-	-	-	5,285,102	-	-	33,626	401,862
Emissions reduction in percent of the country emissions	5.4%	7.1%	1.6%	6.1%	0.0%	0.0%	0.0%	49.0%	0.0%	0.0%	0.3%	3.7%
Reduction over project life (10 or 21 years)	5,789,844	7,706,768	1,694,000	6,605,704	-	-	-	52,851,025	-	-	338,258	4,018,918
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	57,898,444	77,067,681	16,940,000	66,057,043	-	-	-	528,510,247	-	-	3,382,579	40,189,183
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	28,949,222	38,533,841	8,470,000	33,028,521	-	-	-	264,255,124	-	-	1,691,290	20,094,591
Annual electricity generation of the project in GWh	760	1,904	242	1,132	-	-	-	20,355	-	-	-	476
Annual electricity generation of the country in GWh (base 2003)	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900
Project electricity generation as a percent of the country electricity generation	-	0	0	0	-	-	-	5	-	-	-	0
Annual electricity consumption of the country (base 2003)	84	84	84	84	84	84	84	84	84	84	84	84
Additional power due to the project implementation (load factor = 90%) MW	95	217	46	144	-	-	-	2,582	-	-	-	54
Countries' installed power in MW	760	760	760	760	760	760	760	760	760	760	760	760
Additional power as a percent of the country power	12.5%	28.6%	6.0%	18.9%	0.0%	0.0%	0.0%	339.7%	0.0%	0.0%	0.0%	7.2%
Total cost of the project in million US\$	114	217	69	201	-	-	-	3,098	-	-	1	76

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	-	-	-	-	-	360	1	-	-	-
Annual emission reduction in tCO ₂ per year	-	-	-	-	-	-	3,904,464	584	-	-	-
Emissions reduction in percent of the country emissions	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	36.2%	0.0%	0.0%	0.0%	0.0%
Reduction over project life (10 or 21 years)	-	-	-	-	-	-	39,044,643	5,844	-	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	-	-	-	-	-	-	390,446,430	58,437	-	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	-	-	-	-	-	-	195,223,215	29,218	-	-	-
Annual electricity generation of the project in GWh	-	-	-	-	-	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900	3,900
Project electricity generation as a percent of the country electricity generation	-	-	-	-	-	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	84	84	84	84	84	84	84	84	84	84	84
Additional power due to the project implementation (load factor = 90%) MW	-	-	-	-	-	-	-	-	-	-	-
Countries' installed power in MW	760	760	760	760	760	760	760	760	760	760	760
Additional power as a percent of the country power	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	-	-	-	-	38	-	-	-	-

	All sectors/technologies aggregated
Projects number	389
PoA number	-
Annual emission reduction in tCO ₂ per year	11,805,500
Country GHG emissions in 2005	10,790,148
Emissions reduction in percent of the country emissions	109.4%
Reduction over project life (10 or 21 years)	118,055,004
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	1,180,550,043
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	590,275,022
Annual electricity generation of the project in GWh	24,870
Annual electricity generation of the country in GWh (base 2003)	3,900
Project electricity generation as a percent of the country electricity generation	6
Annual electricity consumption of the country (base 2003)	84
Additional power due to the project implementation (load factor = 90%) MW	3,138
Countries' installed power in MW	760
Additional power as a percent of the country power	412.9%
Total cost of the project in million US\$	3,815

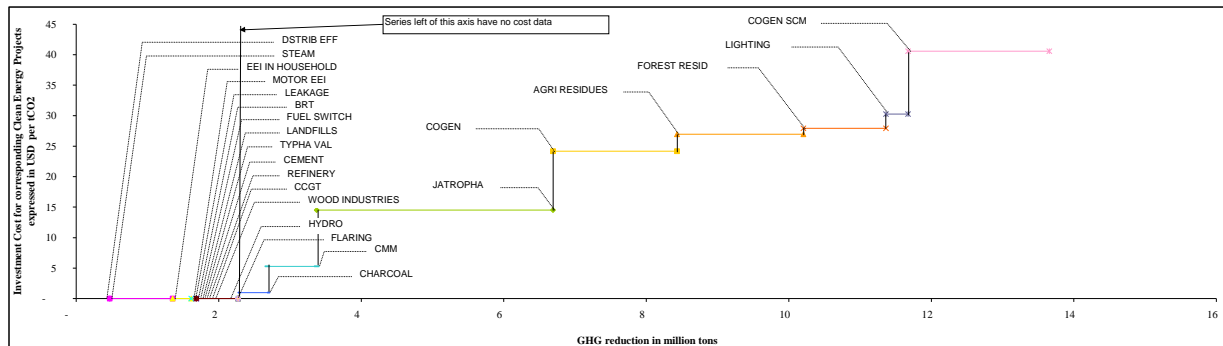
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO₂ presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

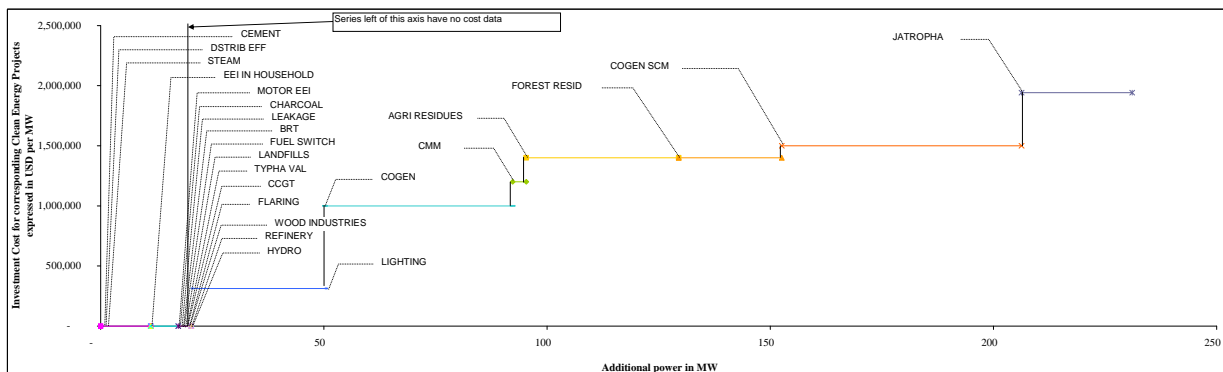
Sector	Investment Cost (\$/tCO2)	Reduction over the period (t or 21 years)
No cost data was available for the listed categories		
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
TYPHA VAL	-	-
CEMENT	-	-
REFINERY	-	-
CCGT	-	-
WOOD INDUSTRIES	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	0
CMM	5	1
JATROPHA	15	1
COGEN	24	2
AGRI RESIDUES	27	2
FOREST RESID	28	2
LIGHTING	30	2
COGEN SCM	41	2



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
No cost data and/or no power generation from projects		
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
TYPHA VAL	-	-
CCGT	-	-
FLARING	-	-
WOOD INDUSTRIES	-	-
REFINERY	-	-
HYDRO	-	-
LIGHTING	312,500	30
COGEN	1,000,000	42
CMM	1,200,000	3
AGRI RESIDUES	1,400,000	34
FOREST RESID	1,400,000	23
COGEN SCM	1,500,000	54
JATROPHA	1,841,771	25



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in USD/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Swaziland

Country Data for Swaziland

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	4	3	1	1	-	-	-	-	1	-	-
Annual emission reduction in tCO ₂ per year	-	173,924	198,460	177,425	115,785	-	-	-	-	158,022	-	-
Emissions reduction in percent of the country emissions	0.0%	15.2%	17.4%	15.5%	10.1%	0.0%	0.0%	0.0%	0.0%	13.8%	0.0%	0.0%
Reduction over project life (10 or 21 years)	-	1,739,241	1,984,500	1,774,253	1,157,883	-	-	-	-	3,318,471	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	-	17,392,409	19,845,000	17,742,527	11,578,829	-	-	-	-	33,184,709	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	-	8,696,205	9,922,500	8,871,263	5,789,414	-	-	-	-	16,592,354	-	-
Annual electricity generation of the project in GWh	-	368	284	269	182	-	-	-	-	196	-	-
Annual electricity generation of the country in GWh (base 2003)	460	460	460	460	460	460	460	460	460	460	460	460
Project electricity generation as a percent of the country electricity generation	-	1	1	1	0	-	-	-	-	0	-	-
Annual electricity consumption of the country (base 2003)	1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160
Additional power due to the project implementation (load factor = 90%) MW	-	42	54	34	23	-	-	-	-	25	-	-
Countries' installed power in MW	130	130	130	130	130	130	130	130	130	130	130	130
Additional power as a percent of the country power	0.0%	32.3%	41.3%	26.3%	17.8%	0.0%	0.0%	0.0%	0.0%	19.1%	0.0%	0.0%
Total cost of the project in million US\$	-	42	81	48	32	-	-	-	-	48	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	2	1	1	-	1	4	-	1	-	-
Annual emission reduction in tCO ₂ per year	47,074	88,334	30,919	26,013	7,104	69,150	40,953	-	27,988	-	-
Emissions reduction in percent of the country emissions	4.1%	7.7%	2.7%	2.3%	0.6%	6.0%	3.6%	0.0%	2.4%	0.0%	0.0%
Reduction over project life (10 or 21 years)	470,739	883,339	309,184	260,126	71,041	691,498	409,533	-	587,758	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	4,707,387	8,833,388	3,091,839	2,601,258	710,405	6,914,983	4,095,329	-	5,877,580	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	2,353,694	4,416,694	1,545,919	1,300,629	355,203	3,457,491	2,047,664	-	2,938,790	-	-
Annual electricity generation of the project in GWh	88	-	33	49	23	23	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	460	460	460	460	460	460	460	460	460	460	460
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	0	0	0	0	0	0
Annual electricity consumption of the country (base 2003)	1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160	1,160
Additional power due to the project implementation (load factor = 90%) MW	11	-	30	6	3	3	-	-	-	-	-
Countries' installed power in MW	130	130	130	130	130	130	130	130	130	130	130
Additional power as a percent of the country power	8.6%	0.0%	23.0%	4.8%	2.2%	2.3%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	9	-	-	4	0	-	-	-	-

	All sectors/technologies aggregated
Projects number	18
PoA number	1
Annual emission reduction in tCO ₂ per year	1,161,144
Country GHG emissions in 2005	1,143,630
Emissions reduction in percent of the country emissions	101.5%
Reduction over project life (10 or 21 years)	13,657,564
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	136,575,643
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	68,287,821
Annual electricity generation of the project in GWh	1,514
Annual electricity generation of the country in GWh (base 2003)	460
Project electricity generation as a percent of the country electricity generation	3
Annual electricity consumption of the country (base 2003)	1,160
Additional power due to the project implementation (load factor = 90%) MW	201
Countries' installed power in MW	130
Additional power as a percent of the country power	177.8%
Total cost of the project in million US\$	264

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

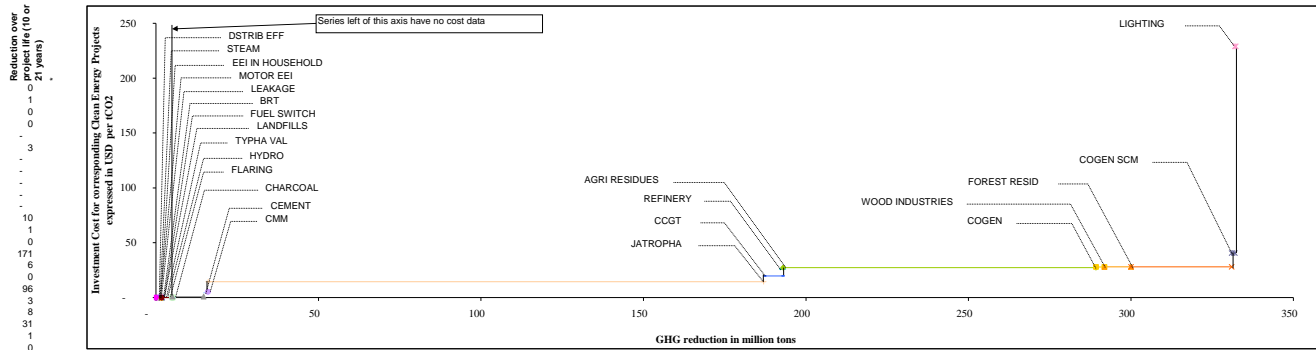
Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO₂ presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

No cost data was available for the listed categories

Sector	Investment Cost (\$/tCO2)
DISTRIB EFF IMP	-
STEAM	-
EEI IN HOUSEHOLD	-
MOTOR EEI	-
LEAKAGE	-
BRT	-
FUEL SWITCH	-
LANDFILLS	-
TYPHA VAL	-
HYDRO	-
FLARING	-
CHARCOAL	1
CEMENT	4
CMM	5
JATROPHA	15
CCGT	20
REFINERY	26
AGRI RESIDUES	27
COGEN	28
WOOD INDUSTRIES	28
FOREST RESID	28
COGEN SCM	41
LIGHTING	229

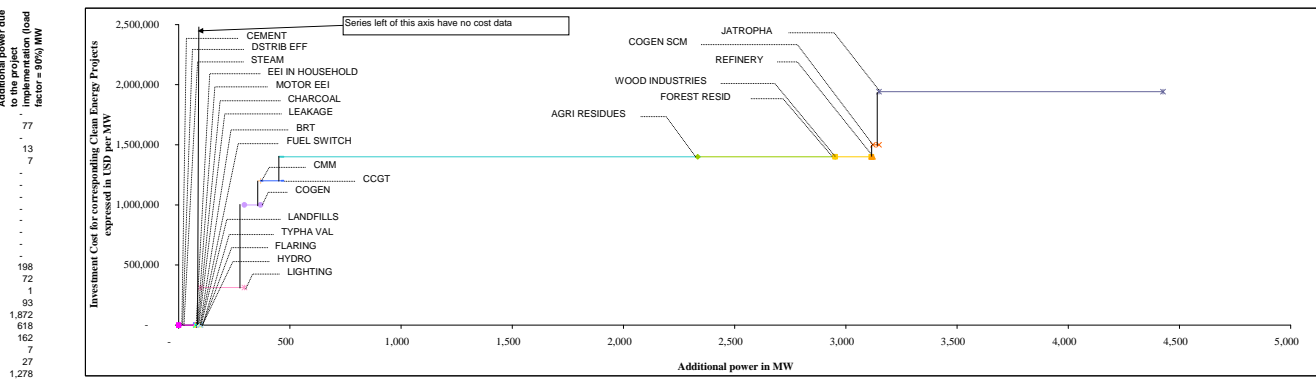


Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

No cost data and/or no power generation from projects

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) MW
CEMENT	-	-
DISTRIB EFF IMP	-	77
STEAM	-	-
EEI IN HOUSEHOLD	-	13
MOTOR EEI	-	7
CHARCOAL	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
TYPHA VAL	-	-
FLARING	-	-
HYDRO	-	-
LIGHTING	312,500	198
COGEN	1,000,000	72
CMM	1,200,000	1
CCGT	1,200,000	93
AGRI RESIDUES	1,400,000	1,872
FOREST RESID	1,400,000	618
WOOD INDUSTRIES	1,400,000	162
REFINERY	1,400,000	7
COGEN SCM	1,500,000	27
JATROPHA	1,841,771	1,278



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Tanzania

Country Data for Tanzania

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	6	3	5	37	4	16	-	-	-	26	3	1
Annual emission reduction in tCO ₂ per year	564,187	259,831	100,800	9,629,279	3,098,833	813,836	-	-	-	8,138,981	125,367	35,830
Emissions reduction in percent of the country emissions	14.2%	6.5%	2.5%	242.7%	78.1%	20.5%	0.0%	0.0%	0.0%	205.1%	3.2%	0.9%
Reduction over project life (10 or 21 years)	5,641,966	2,598,305	1,008,000	96,292,793	30,988,328	8,138,365	-	-	-	170,917,550	1,253,668	358,302
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	56,419,655	25,983,052	10,080,000	962,927,933	309,883,284	81,383,650	-	-	-	1,709,175,504	12,536,684	3,583,023
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	28,209,828	12,991,526	5,040,000	481,463,966	154,941,642	40,691,825	-	-	-	854,587,752	6,268,342	1,791,511
Annual electricity generation of the project in GWh	741	635	144	14,762	4,873	1,280	-	-	-	10,073	-	59
Annual electricity generation of the country in GWh (base 2003)	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150
Project electricity generation as a percent of the country electricity generation	0	0	0	5	2	0	-	-	-	3	-	0
Annual electricity consumption of the country (base 2003)	2,960	2,960	2,960	2,960	2,960	2,960	2,960	2,960	2,960	2,960	2,960	2,960
Additional power due to the project implementation (load factor = 90%) MW	93	72	27	1,872	618	162	-	-	-	1,278	-	7
Countries' installed power in MW	860	860	860	860	860	860	860	860	860	860	860	860
Additional power as a percent of the country power	10.8%	8.4%	3.2%	217.7%	71.9%	18.9%	0.0%	0.0%	0.0%	148.6%	0.0%	0.8%
Total cost of the project in million US\$	111	72	41	2,621	865	227	-	-	-	2,481	5	9

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	4	1	-	1	1	88	-	1	-	-
Annual emission reduction in tCO ₂ per year	24,133	131,965	27,054	4,231	15,711	14,951	957,142	-	158,601	-	-
Emissions reduction in percent of the country emissions	0.6%	3.3%	0.7%	0.1%	0.4%	0.4%	24.1%	0.0%	4.0%	0.0%	0.0%
Reduction over project life (10 or 21 years)	241,325	1,319,647	270,543	42,306	157,110	149,513	9,571,422	-	3,330,629	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	2,413,252	13,196,469	2,705,428	423,060	1,571,098	1,495,131	95,714,224	-	33,306,285	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	1,206,626	6,598,235	1,352,714	211,530	785,549	747,566	47,857,112	-	16,653,143	-	-
Annual electricity generation of the project in GWh	605	-	217	106	58	5	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150	3,150
Project electricity generation as a percent of the country electricity generation	0	0	0	0	0	0	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	2,960	2,960	2,960	2,960	2,960	2,960	2,960	2,960	2,960	2,960	2,960
Additional power due to the project implementation (load factor = 90%) MW	77	-	198	13	7	1	-	-	-	-	-
Countries' installed power in MW	860	860	860	860	860	860	860	860	860	860	860
Additional power as a percent of the country power	8.9%	0.0%	23.0%	1.6%	0.9%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	62	-	-	1	9	-	-	-	-

	All sectors/technologies aggregated
Projects number	194
PoA number	4
Annual emission reduction in tCO ₂ per year	24,100,692
Country GHG emissions in 2005	3,968,026
Emissions reduction in percent of the country emissions	607.4%
Reduction over project life (10 or 21 years)	332,279,773
Value of the emission reduction in dollars (base 10 US\$/tCO ₂)	3,322,797,733
Value of the emission reduction in dollars (base 05 US\$/tCO ₂)	1,661,398,867
Annual electricity generation of the project in GWh	33,558
Annual electricity generation of the country in GWh (base 2003)	3,150
Project electricity generation as a percent of the country electricity generation	11
Annual electricity consumption of the country (base 2003)	2,960
Additional power due to the project implementation (load factor = 90%) MW	4,228
Countries' installed power in MW	860
Additional power as a percent of the country power	514.7%
Total cost of the project in million US\$	6,506

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

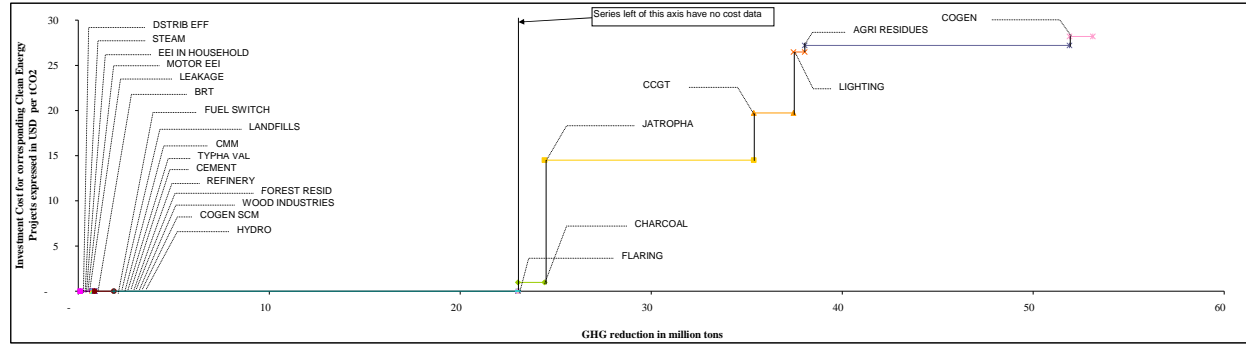
Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO₂ presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

Sector	Investment Cost (\$/tCO2)	Reduction over project life (10 or 21 years)
DISTRIB EFF IMP	-	-
STEAM	-	-
EEI IN HOUSEHOLD	-	-
MOTOR EEI	-	0
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	21
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CEMENT	-	-
REFINERY	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
COGEN SCM	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	1
JATROPHA	15	11
CCGT	20	2
LIGHTING	26	1
AGRI RESIDUES	27	14
COGEN	28	1

No cost data was available for the listed categories

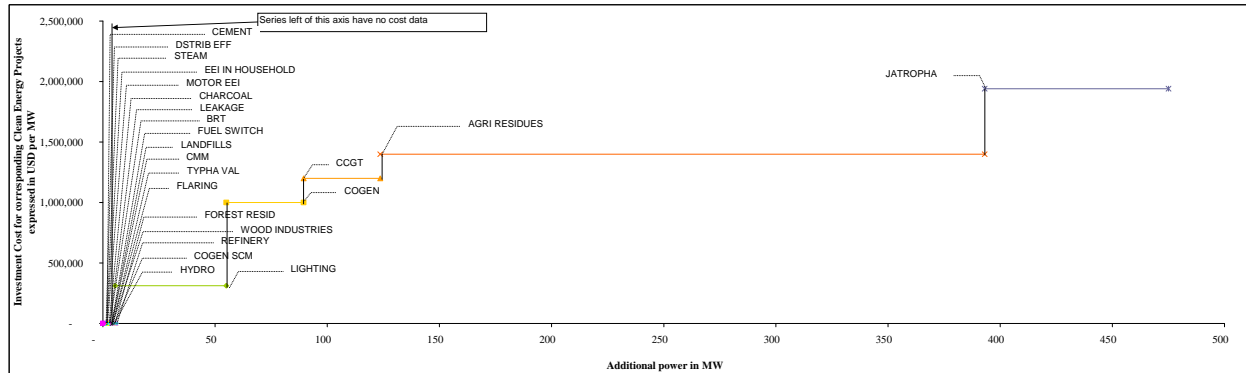


Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to implementation (load factor = 90%) MW
CEMENT	-	-
DISTRIB EFF IMP	-	-
STEAM	-	-
EEI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	2
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
FLARING	-	-
FOREST RESID	-	-
WOOD INDUSTRIES	-	-
REFINERY	-	-
COGEN SCM	-	-
HYDRO	-	-
LIGHTING	312,500	49
COGEN	1,000,000	34
CCGT	1,200,000	34
AGRI RESIDUES	1,400,000	288
JATROPHA	1,941,771	82

No cost data and/or no power generation from projects



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)
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Consolidated Results for Togo

Country Data for Togo

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	3	3	-	5	-	-	-	-	-	2	-	-
Annual emission reduction in tCO2 per year	207,862	122,251	-	1,386,898	-	-	-	-	-	521,613	-	-
Emissions reduction in percent of the country emissions	8.7%	5.1%	0.0%	58.3%	-	-	0.0%	-	0.0%	21.9%	-	0.0%
Reduction over project life (10 or 21 years)	2,078,619	1,222,508	-	13,869,984	-	-	-	-	-	10,953,867	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	20,786,189	12,225,077	-	138,699,837	-	-	-	-	-	109,538,667	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	10,393,094	6,112,538	-	69,349,919	-	-	-	-	-	54,769,334	-	-
Annual electricity generation of the project in GWh	273	302	-	2,125	-	-	-	-	-	646	-	-
Annual electricity generation of the country in GWh (base 2003)	97	97	97	97	97	97	97	97	97	97	97	97
Project electricity generation as a percent of the country electricity generation	3	3	-	22	-	-	-	-	-	7	-	-
Annual electricity consumption of the country (base 2003)	530	530	530	530	530	530	530	530	530	530	530	530
Additional power due to the project implementation (load factor = 90%) MW	34	34	-	269	-	-	-	-	-	82	-	-
Countries' installed power in MW	215	215	215	215	215	215	215	215	215	215	215	215
Additional power as a percent of the country power	15.9%	16.1%	0.0%	125.5%	0.0%	0.0%	0.0%	0.0%	0.0%	38.1%	0.0%	0.0%
Total cost of the project in million US\$	41	34	-	377	-	-	-	-	-	159	-	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	1	2	1	1	-	-	13	-	1	-	20
Annual emission reduction in tCO2 per year	10,331	62,090	58,355	3,826	8,430	-	139,150	-	48,375	-	1,007,610
Emissions reduction in percent of the country emissions	0.4%	2.6%	2.5%	0.2%	0.4%	0.0%	5.6%	0.0%	2.0%	0.0%	42.3%
Reduction over project life (10 or 21 years)	103,312	620,896	583,551	38,261	84,303	-	1,391,500	-	1,015,878	-	21,159,809
Value of the emission reduction in dollars (base 10 US\$/tCO2)	1,033,118	6,208,964	5,835,509	382,607	843,033	-	13,915,000	-	10,158,780	-	211,598,088
Value of the emission reduction in dollars (base 05 US\$/tCO2)	516,559	3,104,482	2,917,754	191,304	421,517	-	6,957,500	-	5,079,390	-	105,799,044
Annual electricity generation of the project in GWh	19	-	72	14	10	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	97	97	97	97	97	97	97	97	97	97	97
Project electricity generation as a percent of the country electricity generation	0	-	1	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	530	530	530	530	530	530	530	530	530	530	530
Additional power due to the project implementation (load factor = 90%) MW	2	-	49	2	1	-	-	-	-	-	-
Countries' installed power in MW	215	215	215	215	215	215	215	215	215	215	215
Additional power as a percent of the country power	1.1%	0.0%	23.0%	0.8%	0.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	15	-	-	-	1	-	-	-	-

	All sectors/technologies aggregated
Projects number	52
PoA number	-
Annual emission reduction in tCO2 per year	3,576,891
Country GHG emissions in 2005	2,380,646
Emissions reduction in percent of the country emissions	150.2%
Reduction over project life (10 or 21 years)	53,122,487
Value of the emission reduction in dollars (base 10 US\$/tCO2)	531,224,869
Value of the emission reduction in dollars (base 05 US\$/tCO2)	265,612,435
Annual electricity generation of the project in GWh	3,461
Annual electricity generation of the country in GWh (base 2003)	97
Project electricity generation as a percent of the country electricity generation	36
Annual electricity consumption of the country (base 2003)	530
Additional power due to the project implementation (load factor = 90%) MW	426
Countries' installed power in MW	215
Additional power as a percent of the country power	221.2%
Total cost of the project in million US\$	629

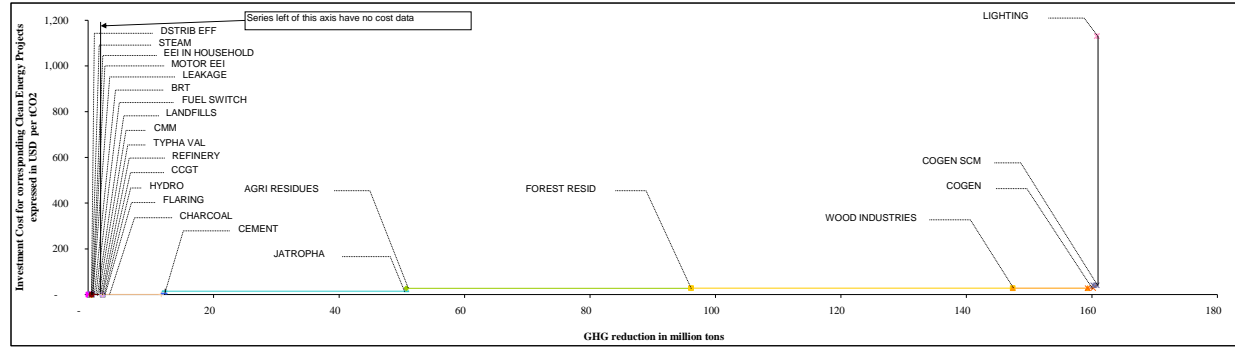
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

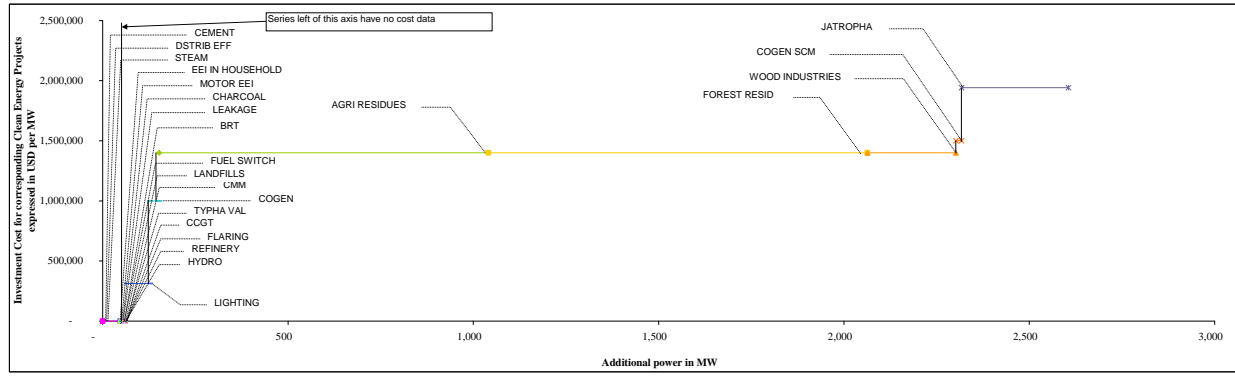
Sector	Investment Cost (\$/tCO2)	Reduction over the project lifetime (10 or 21 years)
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	2
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
REFINERY	-	-
CCGT	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	9
CEMENT	4	1
JATROPHA	15	39
AGRI RESIDUES	27	45
FOREST RESID	28	51
WOOD INDUSTRIES	28	12
COGEN	28	-
COGEN SCM	41	-
LIGHTING	1,130	0



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	-
DISTRIB EFF IMP	-	47
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	8
LEAKAGE	-	4
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
CMM	-	-
TYPHA VAL	-	-
CCGT	-	-
FLARING	-	-
REFINERY	-	-
HYDRO	-	-
LIGHTING	312,500	69
COGEN	1,000,000	24
AGRI RESIDUES	1,400,000	888
FOREST RESID	1,400,000	1,023
WOOD INDUSTRIES	1,400,000	238
COGEN SCM	1,500,000	16
JATROPHA	1,841,771	288



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

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Consolidated Results for Uganda

Country Data for Uganda

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	2	3	18	2	24	-	-	-	6	2	-
Annual emission reduction in tCO2 per year	-	86,108	57,904	4,538,738	5,127,209	1,195,430	-	-	-	1,834,466	53,381	-
Emissions reduction in percent of the country emissions	0.0%	5.3%	3.6%	281.0%	317.4%	74.0%	-	0.0%	0.0%	113.6%	3.3%	0.0%
Reduction over project life (10 or 21 years)	-	861,082	579,040	45,397,385	51,272,095	11,954,299	-	-	-	38,524,200	533,813	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	8,610,817	5,790,400	453,973,849	512,720,947	119,542,988	-	-	-	385,242,004	5,338,133	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	4,305,409	2,895,200	226,986,924	256,360,474	59,771,494	-	-	-	192,621,002	2,669,066	-
Annual electricity generation of the project in GWh	-	213	83	7,001	8,063	1,880	-	-	-	2,270	-	-
Annual electricity generation of the country in GWh (base 2003)	1,928	1,928	1,928	1,928	1,928	1,928	1,928	1,928	1,928	1,928	1,928	1,928
Project electricity generation as a percent of the country electricity generation	-	0	0	4	4	1	-	-	-	1	-	-
Annual electricity consumption of the country (base 2003)	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620
Additional power due to the project implementation (load factor = 90%) MW	-	24	16	888	1,023	238	-	-	-	288	-	-
Countries' installed power in MW	300	300	300	300	300	300	300	300	300	300	300	300
Additional power as a percent of the country power	0.0%	8.1%	5.2%	296.0%	340.9%	79.5%	0.0%	0.0%	0.0%	96.0%	0.0%	0.0%
Total cost of the project in million US\$	-	24	24	1,243	1,432	334	-	-	-	589	2	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	1	1	-	-	-	86	-	2	-	-
Annual emission reduction in tCO2 per year	2,991	43,733	1,911	517	8,504	-	932,808	-	83,965	-	-
Emissions reduction in percent of the country emissions	0.2%	2.7%	0.1%	0.0%	0.5%	0.0%	57.8%	0.0%	5.2%	0.0%	0.0%
Reduction over project life (10 or 21 years)	29,910	437,333	19,111	5,172	85,035	-	9,329,084	-	1,763,274	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	299,102	4,373,327	191,108	51,718	850,350	-	93,290,841	-	17,632,739	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	149,551	2,186,663	95,554	25,859	425,175	-	46,645,421	-	8,816,370	-	-
Annual electricity generation of the project in GWh	370	-	76	64	32	-	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	1,928	1,928	1,928	1,928	1,928	1,928	1,928	1,928	1,928	1,928	1,928
Project electricity generation as a percent of the country electricity generation	-	0	0	0	0	-	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620	1,620
Additional power due to the project implementation (load factor = 90%) MW	47	-	69	8	4	-	-	-	-	-	-
Countries' installed power in MW	300	300	300	300	300	300	300	300	300	300	300
Additional power as a percent of the country power	15.7%	0.0%	23.0%	2.7%	1.3%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	22	-	-	-	9	-	-	-	-

	All sectors/technologies aggregated
Projects number	144
PoA number	2
Annual emission reduction in tCO2 per year	13,968,787
Country GHG emissions in 2005	1,615,333
Emissions reduction in percent of the country emissions	864.8%
Reduction over project life (10 or 21 years)	160,790,832
Value of the emission reduction in dollars (base 10 US\$/tCO2)	1,607,908,324
Value of the emission reduction in dollars (base 05 US\$/tCO2)	803,954,162
Annual electricity generation of the project in GWh	20,052
Annual electricity generation of the country in GWh (base 2003)	1,928
Project electricity generation as a percent of the country electricity generation	10
Annual electricity consumption of the country (base 2003)	1,620
Additional power due to the project implementation (load factor = 90%) MW	2,536
Countries' installed power in MW	300
Additional power as a percent of the country power	868.5%
Total cost of the project in million US\$	3,649

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

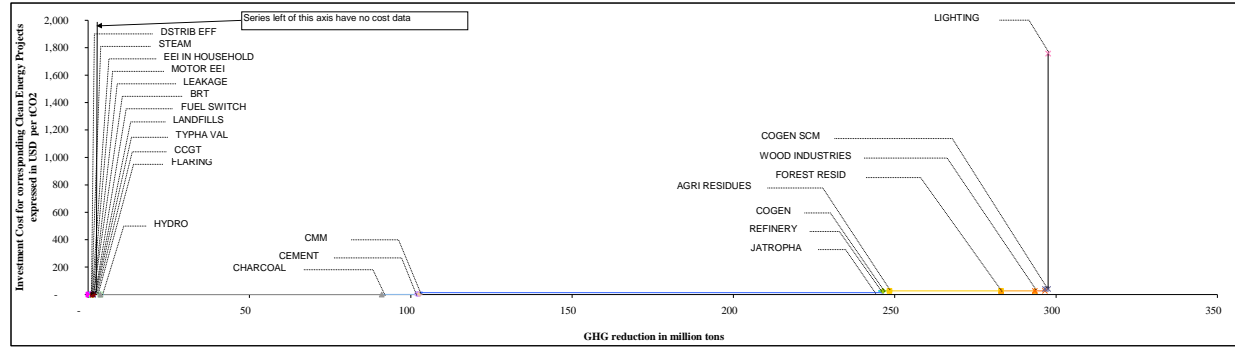
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Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

No cost data was available for the listed categories

Sector	Investment Cost (\$/tCO2)	Reduction over the project lifetime (t or 21 years)
DISTRIB EFF IMP	-	-
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	2
LANDFILLS	-	-
TYPHA VAL	-	-
COGT	-	-
FLARING	-	-
HYDRO	0	87
CHARCOAL	1	11
CEMENT	4	11
CMM	6	0
JATROPHA	15	143
REFINERY	26	1
COGEN	27	1
AGRI RESIDUES	27	36
FOREST RESID	28	10
WOOD INDUSTRIES	28	3
COGEN SCM	41	1
LIGHTING	1,757	0

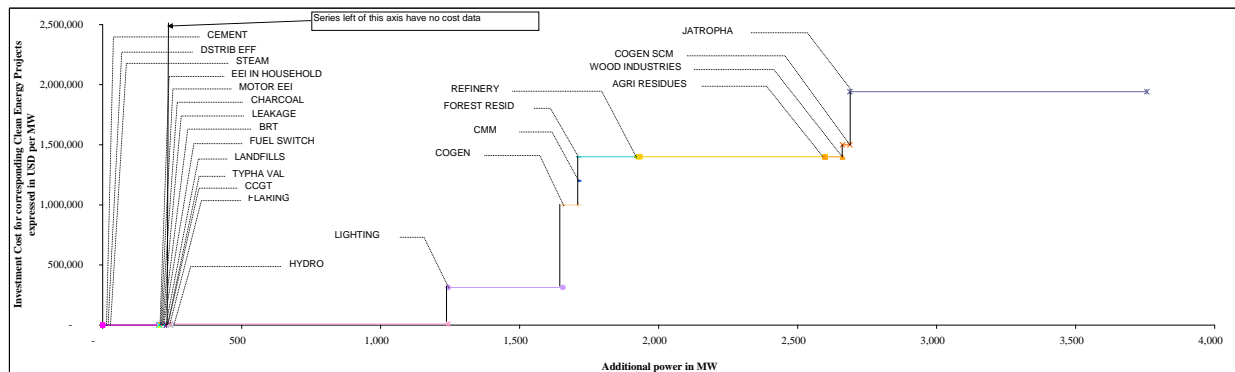


Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

No cost data and/or no power generation from projects

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) / MW
CEMENT	-	-
DISTRIB EFF IMP	-	203
STEAM	-	-
EI IN HOUSEHOLD	-	-
MOTOR EEI	-	26
CHARCOAL	-	14
LEAKAGE	-	-
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
TYPHA VAL	-	-
COGT	-	-
FLARING	-	-
HYDRO	9,000	1,000
LIGHTING	312,500	412
COGEN	1,000,000	55
CMM	1,200,000	2
FOREST RESID	1,400,000	209
REFINERY	1,400,000	11
AGRI RESIDUES	1,400,000	667
WOOD INDUSTRIES	1,400,000	63
COGEN SCM	1,500,000	27
JATROPHA	1,841,771	1,068



Note A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

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Consolidated Results for Zambia

Country Data for Zambia

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	3	1	13	9	6	-	-	-	21	1	1
Annual emission reduction in tCO2 per year	-	203,281	98,280	3,453,616	1,047,689	314,012	-	-	-	6,804,058	50,739	57,328
Emissions reduction in percent of the country emissions	0.0%	8.3%	4.0%	141.2%	42.8%	12.8%	0.0%	0.0%	0.0%	278.2%	2.1%	2.3%
Reduction over project life (10 or 21 years)	-	2,032,805	982,800	34,536,162	10,476,889	3,140,121	-	-	-	142,885,220	507,387	573,284
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	20,328,055	9,828,000	345,361,619	104,768,886	31,401,213	-	-	-	1,428,852,195	5,073,869	5,732,837
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	10,164,027	4,914,000	172,680,809	52,384,443	15,700,607	-	-	-	714,426,098	2,536,934	2,866,418
Annual electricity generation of the project in GWh	-	480	140	5,258	1,648	494	-	-	-	8,421	-	94
Annual electricity generation of the country in GWh (base 2003)	8,350	8,350	8,350	8,350	8,350	8,350	8,350	8,350	8,350	8,350	8,350	8,350
Project electricity generation as a percent of the country electricity generation	-	0	0	1	0	0	-	-	-	1	-	0
Annual electricity consumption of the country (base 2003)	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760
Additional power due to the project implementation (load factor = 90%) MW	-	55	27	667	209	63	-	-	-	1,068	-	11
Countries' installed power in MW	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790
Additional power as a percent of the country power	0.0%	3.1%	1.5%	37.3%	11.7%	3.5%	0.0%	0.0%	0.0%	59.7%	0.0%	0.6%
Total cost of the project in million US\$	-	55	40	934	293	88	-	-	-	2,074	2	15

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	3	1	-	1	1	102	-	3	1	-
Annual emission reduction in tCO2 per year	8,333	103,244	7,335	1,051	31,649	37,378	1,101,042	-	111,954	4,152,542	-
Emissions reduction in percent of the country emissions	0.3%	4.2%	0.3%	0.0%	1.3%	1.5%	45.0%	0.0%	4.6%	169.8%	0.0%
Reduction over project life (10 or 21 years)	83,330	1,032,437	73,352	10,512	316,495	373,783	11,010,423	-	2,351,032	87,203,300	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	833,297	10,324,366	733,520	105,118	3,164,947	3,737,829	110,104,233	-	23,510,319	872,033,898	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	416,649	5,162,183	366,760	52,559	1,582,473	1,868,914	55,052,116	-	11,755,160	436,016,949	-
Annual electricity generation of the project in GWh	1,603	-	452	202	113	12	-	-	-	5,932	-
Annual electricity generation of the country in GWh (base 2003)	8,350	8,350	8,350	8,350	8,350	8,350	8,350	8,350	8,350	8,350	8,350
Project electricity generation as a percent of the country electricity generation	-	0	0	0	0	0	-	-	-	1	-
Annual electricity consumption of the country (base 2003)	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760	5,760
Additional power due to the project implementation (load factor = 90%) MW	203	-	412	26	14	2	-	-	-	1,000	-
Countries' installed power in MW	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790	1,790
Additional power as a percent of the country power	11.4%	0.0%	23.0%	1.4%	0.8%	0.1%	0.0%	0.0%	0.0%	55.9%	0.0%
Total cost of the project in million US\$	-	-	129	-	-	2	11	-	-	9	-

	All sectors/technologies aggregated
Projects number	159
PoA number	9
Annual emission reduction in tCO2 per year	17,583,532
Country GHG emissions in 2005	2,445,731
Emissions reduction in percent of the country emissions	718.9%
Reduction over project life (10 or 21 years)	297,589,420
Value of the emission reduction in dollars (base 10 US\$/tCO2)	2,975,894,199
Value of the emission reduction in dollars (base 05 US\$/tCO2)	1,487,947,100
Annual electricity generation of the project in GWh	24,849
Annual electricity generation of the country in GWh (base 2003)	8,350
Project electricity generation as a percent of the country electricity generation	3
Annual electricity consumption of the country (base 2003)	5,760
Additional power due to the project implementation (load factor = 90%) MW	3,344
Countries' installed power in MW	1,790
Additional power as a percent of the country power	209.8%
Total cost of the project in million US\$	3,650

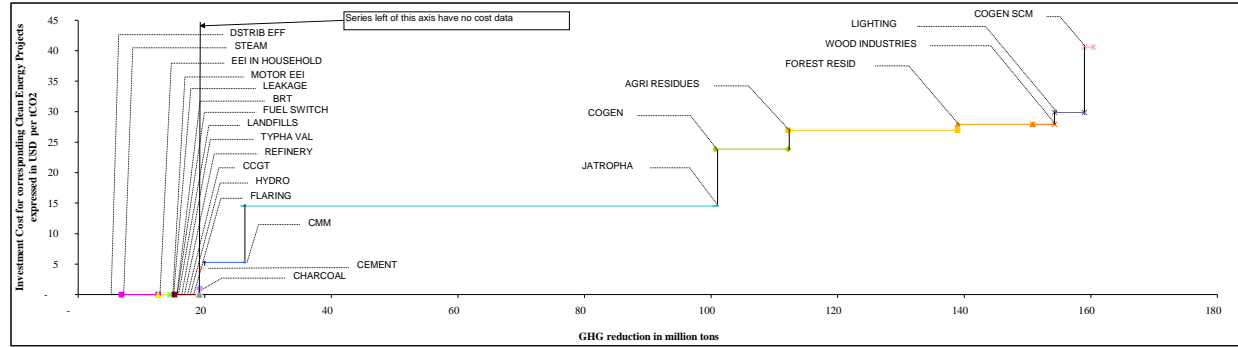
A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs).

Potential for Emission Reductions

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per tCO2)

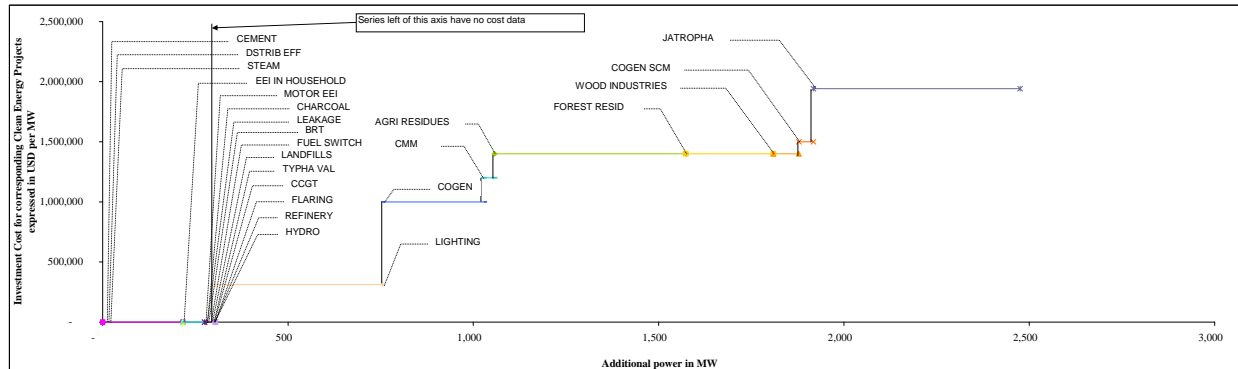
Sector	Investment Cost (\$/tCO2)	Reduction over 21 years (tCO2)
DISTRIB EFF IMP	-	-
STEAM	-	-
EEI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
LEAKAGE	-	-
BRT	-	4
FUEL SWITCH	-	-
LANDFILLS	-	-
TYPHA VAL	-	-
REFINERY	-	-
CCGT	-	-
HYDRO	-	-
FLARING	-	-
CHARCOAL	1	0
CEMENT	4	0
CMM	5	6
JATROPHA	15	75
COGEN	24	11
AGRI RESIDUES	27	27
FOREST RESID	28	12
WOOD INDUSTRIES	28	9
LIGHTING	30	9
COGEN SCM	41	1



Potential for Additional Generation Capacity

(Ranked by Investment Cost for Corresponding Clean Energy Projects expressed in USD per MW)

Sector	Investment Cost (\$/MW)	Additional power due to the project (load factor = 90%) (MW)
CEMENT	-	216
DISTRIB EFF IMP	-	-
STEAM	-	-
EEI IN HOUSEHOLD	-	-
MOTOR EEI	-	-
CHARCOAL	-	59
LEAKAGE	-	29
BRT	-	-
FUEL SWITCH	-	-
LANDFILLS	-	-
TYPHA VAL	-	-
CCGT	-	-
FLARING	-	-
REFINERY	-	-
HYDRO	-	-
LIGHTING	312,500	452
COGEN	1,000,000	274
CMM	1,200,000	28
AGRI RESIDUES	1,400,000	516
FOREST RESID	1,400,000	236
WOOD INDUSTRIES	1,400,000	69
COGEN SCM	1,500,000	39
JATROPHA	1,841,771	558



A carbon crediting period of 10 years was used for all sectors with the exception of Jatropa, BRT, Hydro and Fuel Switch. For these of the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM projects activities generating certified emissions reductions (CERs). Lifetime considered for corresponding CDM project activities is the most probable crediting period as defined by the CDM, e.g. one single 10 years crediting period or 7 years renewed three times, depending of the type of project considered.

Consolidated Results for Zimbabwe

Country Data for Zimbabwe

	Combined Cycle	Fossil-fuel based cogeneration	Efficiency improvements in sugar mill cogeneration	Biomass from agricultural residues	Biomass from forest residues	Biomass from residual waste from wood industries	Typha valorization for power generation	Methane emission reduction from oil production facilities (Flaring)	Landfill gas capture to energy	Biofuel from Jatropha	Emission reductions in cement plants	Emission reductions in refineries
Projects number	-	14	2	10	10	7	-	-	-	11	1	-
Annual emission reduction in tCO2 per year	-	1,147,852	145,089	2,677,503	1,184,944	345,170	-	-	-	3,551,844	42,282	-
Emissions reduction in percent of the country emissions	0.0%	9.7%	1.2%	22.7%	10.1%	2.9%	0.0%	0.0%	0.0%	30.1%	0.4%	0.0%
Reduction over project life (10 or 21 years)	-	11,478,517	1,450,890	26,775,027	11,849,435	3,451,701	-	-	-	74,588,724	422,822	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	-	114,785,165	14,508,900	267,750,270	118,494,351	34,517,006	-	-	-	745,887,239	4,228,224	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	-	57,392,583	7,254,450	133,875,135	59,247,176	17,258,503	-	-	-	372,943,619	2,114,112	-
Annual electricity generation of the project in GWh	-	2,399	207	4,068	1,864	543	-	-	-	4,306	-	-
Annual electricity generation of the country in GWh (base 2003)	8,880	8,880	8,880	8,880	8,880	8,880	8,880	8,880	8,880	8,880	8,880	8,880
Project electricity generation as a percent of the country electricity generation	-	0	0	0	0	0	-	-	-	0	-	-
Annual electricity consumption of the country (base 2003)	11,560	11,560	11,560	11,560	11,560	11,560	11,560	11,560	11,560	11,560	11,560	11,560
Additional power due to the project implementation (load factor = 90%) MW	-	274	39	516	236	69	-	-	-	558	-	-
Countries' installed power in MW	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960
Additional power as a percent of the country power	0.0%	14.0%	2.0%	26.3%	12.1%	3.5%	0.0%	0.0%	0.0%	28.4%	0.0%	0.0%
Total cost of the project in million US\$	-	274	59	722	331	96	-	-	-	1,083	2	-

	Efficiency improvements in electricity distribution	Efficiency improvement in steam systems	CFL for energy efficiency in lighting	Energy efficiency improvements in household appliances	Energy efficiency improvements in industrial equipments (motors)	Coal mine methane	Efficiency improvements in charcoal production	Methane leakage reduction	Efficiency improvements in transport (BRT)	Hydroelectricity projects	Fuel switch
Projects number	-	15	1	2	1	3	2	-	1	-	-
Annual emission reduction in tCO2 per year	682,183	582,980	472,337	185,287	71,735	635,431	18,974	-	186,590	-	-
Emissions reduction in percent of the country emissions	5.8%	4.9%	4.0%	1.6%	0.6%	5.4%	0.2%	0.0%	1.6%	0.0%	0.0%
Reduction over project life (10 or 21 years)	6,821,826	5,829,796	4,723,370	1,852,866	717,346	6,354,309	189,738	-	3,918,387	-	-
Value of the emission reduction in dollars (base 10 US\$/tCO2)	68,218,257	58,297,959	47,233,704	18,528,657	7,173,459	63,543,086	1,897,377	-	39,183,865	-	-
Value of the emission reduction in dollars (base 05 US\$/tCO2)	34,109,129	29,148,980	23,616,852	9,264,329	3,586,729	31,771,543	948,689	-	19,591,933	-	-
Annual electricity generation of the project in GWh	1,705	-	494	463	228	208	-	-	-	-	-
Annual electricity generation of the country in GWh (base 2003)	8,880	8,880	8,880	8,880	8,880	8,880	8,880	8,880	8,880	8,880	8,880
Project electricity generation as a percent of the country electricity generation	0	-	0	0	0	0	-	-	-	-	-
Annual electricity consumption of the country (base 2003)	11,560	11,560	11,560	11,560	11,560	11,560	11,560	11,560	11,560	11,560	11,560
Additional power due to the project implementation (load factor = 90%) MW	-	216	452	59	29	28	-	-	-	-	-
Countries' installed power in MW	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960	1,960
Additional power as a percent of the country power	11.0%	0.0%	23.0%	3.0%	1.5%	1.4%	0.0%	0.0%	0.0%	0.0%	0.0%
Total cost of the project in million US\$	-	-	141	-	-	34	0	-	-	-	-

	All sectors/technologies aggregated
Projects number	70
PoA number	10
Annual emission reduction in tCO2 per year	11,930,198
Country GHG emissions in 2005	11,781,942
Emissions reduction in percent of the country emissions	101.3%
Reduction over project life (10 or 21 years)	160,424,752
Value of the emission reduction in dollars (base 10 US\$/tCO2)	1,604,247,519
Value of the emission reduction in dollars (base 05 US\$/tCO2)	802,123,760
Annual electricity generation of the project in GWh	16,574
Annual electricity generation of the country in GWh (base 2003)	8,880
Project electricity generation as a percent of the country electricity generation	2
Annual electricity consumption of the country (base 2003)	11,560
Additional power due to the project implementation (load factor = 90%) MW	2,024
Countries' installed power in MW	1,960
Additional power as a percent of the country power	126.3%
Total cost of the project in million US\$	2,742

A carbon crediting period of 10 years was used for all sectors with the exception of Jatropha, BRT, Hydro and Fuel Switch. For these the study assumed a crediting period of 21 years (3 x 7 years). This was done so as to reflect the difference in capital investment useful life across sectors (up to 30 years for Hydro, etc.)

Note Clean Energy projects simultaneously deliver power and generate emission reductions. Therefore, investment costs related to emission reductions cannot be isolated from investment costs related to power generation. As a consequence, unitary cost expressed in US\$/tCO2 presented here are not marginal emissions abatement costs but investment costs corresponding to the associated clean energy projects divided by the volume of emission reductions generated by these projects during their lifetime as CDM project activities generating certified emissions reductions (CERs).

Errata: The following table contains corrected values for electricity generation of potential clean energy projects expressed as a percent of the country electricity generation.

	Angola	Benin	Bissau Guinea	Botswana	Burkina	Burundi	Cameroon	Cap-Vert	Central African Republic	Chad	Comoros	Congo Dem	Congo Rep	E. Guinea	Ethiopia
Combined Cycle	257.5%	97.5%	0.0%	0.0%	0.0%	0.0%	11.9%	0.0%	0.0%	423.8%	0.0%	0.0%	27.6%	146.2%	10.2%
Fossil-fuel based cogeneration	58.4%	128.1%	158.7%	98.6%	77.4%	66.6%	12.2%	139.5%	70.8%	21.4%	88.3%	13.9%	46.6%	6867.3%	24.6%
Efficiency improvements in sugar mill cogeneration	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.6%	0.0%	0.0%	17.5%	0.0%	1.5%	0.0%	0.0%	2.8%
Biomass from agricultural residues	273.9%	1810.6%	396.7%	4.9%	804.1%	475.8%	110.7%	0.0%	592.5%	1764.1%	0.0%	164.8%	74.4%	63.3%	760.3%
Biomass from forest residues	48.8%	0.0%	0.0%	16.5%	0.0%	0.0%	58.5%	0.0%	196.7%	1584.1%	0.0%	278.2%	135.9%	632.8%	855.8%
Biomass from residual waste from wood industries	32.5%	0.0%	0.0%	6.6%	0.0%	0.0%	27.2%	0.0%	92.5%	489.8%	0.0%	40.1%	150.3%	886.1%	75.6%
Typha valorization for power generation	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Methane emission reduction from oil production facilities (Flaring)	3173.7%	0.0%	0.0%	0.0%	0.0%	0.0%	112.9%	0.0%	9085.2%	0.0%	0.0%	20.0%	3342.8%	61458.7%	0.0%
Landfill gas capture to energy	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Biofuel from jatropha	738.2%	533.5%	746.6%	708.0%	1018.1%	0.0%	136.1%	0.0%	6810.0%	3173.3%	0.0%	493.8%	1101.4%	1138.9%	554.9%
Emission reductions in cement plants	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Emission reductions in refineries	7.9%	0.0%	0.0%	0.0%	0.0%	0.0%	4.2%	0.0%	0.0%	0.0%	0.0%	1.1%	23.2%	0.0%	0.0%
Efficiency improvements in electricity distribution	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%
Efficiency improvement in steam systems	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CFL for energy efficiency in lighting	8.8%	10.0%	14.5%	3.5%	16.4%	9.2%	5.8%	5.7%	12.3%	14.8%	14.4%	16.1%	31.2%	11.7%	7.6%
Energy efficiency improvements in household appliances	3.0%	10.0%	2.2%	10.6%	3.3%	3.8%	3.5%	3.6%	2.6%	2.2%	2.4%	0.4%	3.3%	3.3%	3.2%
Energy efficiency improvements in industrial equipments (motors)	1.8%	4.9%	1.8%	4.7%	2.4%	2.2%	1.8%	1.9%	1.8%	1.8%	1.9%	1.1%	3.3%	2.1%	1.8%
Coal mine methane	0.0%	0.0%	0.0%	5.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%
Efficiency improvements in charcoal production	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Methane leakage reduction	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Efficiency improvements in transport (BRT)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Hydroelectricity projects	125.0%	0.0%	0.0%	0.0%	224.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	78.2%	151.2%	0.0%	0.0%
Fuel switch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
All sectors/technologies aggregated	4749.7%	2613.6%	1339.8%	878.5%	2164.8%	576.7%	505.7%	169.9%	7798.4%	16597.2%	126.2%	1128.5%	5116.2%	71229.6%	2316.0%

	Gabon	Gambia	Ghana	Guinea	Ivory Coast	Kenya	Liberia	Madagascar	Malawi	Mali	Mauritania	Mauritius	Mozambique	Namibia	Niger
Combined Cycle	6.6%	0.0%	18.9%	18.9%	42.3%	8.1%	0.0%	0.0%	0.0%	21.9%	0.0%	19.6%	0.8%	0.0%	52.3%
Fossil-fuel based cogeneration	23.9%	0.0%	15.2%	0.0%	32.1%	45.1%	17.6%	0.0%	41.0%	10.3%	501.2%	14.1%	3.8%	33.7%	49.5%
Efficiency improvements in sugar mill cogeneration	0.7%	0.0%	0.0%	0.0%	1.0%	6.6%	0.0%	13.2%	10.9%	0.0%	0.0%	13.8%	0.0%	0.0%	0.0%
Biomass from agricultural residues	12.6%	0.0%	149.4%	246.0%	143.8%	199.2%	0.0%	318.9%	580.0%	504.0%	0.0%	0.0%	64.4%	10.9%	68.5%
Biomass from forest residues	62.3%	0.0%	84.1%	0.0%	45.8%	91.1%	0.0%	89.0%	0.0%	0.0%	0.0%	0.0%	31.9%	0.0%	0.0%
Biomass from residual waste from wood industries	138.2%	0.0%	14.9%	0.0%	21.5%	18.1%	0.0%	23.8%	0.0%	0.0%	0.0%	0.0%	6.7%	0.0%	0.0%
Typha valorization for power generation	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Methane emission reduction from oil production facilities (Flaring)	770.3%	0.0%	5.5%	0.0%	99.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Landfill gas capture to energy	0.0%	0.0%	1.1%	0.0%	0.5%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Biofuel from jatropha	195.3%	0.0%	48.8%	360.7%	79.3%	136.0%	0.0%	813.9%	104.2%	786.1%	781.2%	77.7%	641.1%	1405.3%	0.0%
Emission reductions in cement plants	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Emission reductions in refineries	4.4%	0.0%	3.3%	0.0%	5.5%	7.1%	0.0%	7.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Efficiency improvements in electricity distribution	19.2%	0.0%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%
Efficiency improvement in steam systems	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CFL for energy efficiency in lighting	6.7%	0.0%	6.2%	11.0%	9.2%	4.7%	0.0%	7.6%	5.9%	24.4%	17.0%	15.6%	5.1%	0.0%	20.0%
Energy efficiency improvements in household appliances	3.4%	0.0%	3.5%	2.7%	1.5%	3.2%	0.0%	3.2%	3.5%	0.9%	2.0%	4.2%	2.5%	0.0%	5.7%
Energy efficiency improvements in industrial equipments (motors)	1.8%	0.0%	1.9%	1.8%	1.2%	1.6%	0.0%	1.8%	1.8%	1.8%	1.9%	2.7%	1.8%	3.2%	3.8%
Coal mine methane	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Efficiency improvements in charcoal production	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Methane leakage reduction	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Efficiency improvements in transport (BRT)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Hydroelectricity projects	0.0%	0.0%	0.0%	424.6%	44.5%	0.0%	0.0%	0.0%	0.0%	243.0%	0.0%	0.0%	102.5%	264.1%	0.0%
Fuel switch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
All sectors/technologies aggregated	1245.4%	0.0%	370.8%	1099.3%	560.1%	506.6%	0.0%	1226.0%	849.1%	1581.6%	1322.5%	104.0%	315.3%	972.2%	1624.0%

	Nigeria	Rwanda	Senegal	Seychelles	Sierra Leone	Somalia	South Africa	Sudan	Swaziland	Tanzania	Togo	Uganda	Zambia	Zimbabwe	AFRICA (All)
Combined Cycle	152.1%	0.0%	17.5%	0.0%	0.0%	0.0%	3.5%	19.5%	0.0%	23.5%	281.4%	0.0%	0.0%	0.0%	15.9%
Fossil-fuel based cogeneration	79.0%	171.1%	26.3%	59.5%	23.4%	11.9%	52.5%	48.8%	80.1%	20.2%	311.4%	11.0%	5.7%	27.0%	47.8%
Efficiency improvements in sugar mill cogeneration	0.0%	0.0%	1.8%	0.0%	0.0%	0.6%	0.6%	6.2%	61.6%	4.6%	0.0%	4.3%	1.7%	2.6%	1.1%
Biomass from agricultural residues	156.7%	660.6%	136.7%	0.0%	68.8%	0.0%	23.7%	29.0%	58.6%	468.6%	2190.4%	363.1%	63.0%	45.8%	66.3%
Biomass from forest residues	69.5%	0.0%	0.0%	0.0%	434.9%	801.4%	3.0%	0.0%	39.6%	154.9%	0.0%	418.2%	19.7%	21.0%	30.1%
Biomass from residual waste from wood industries	26.8%	0.0%	0.0%	0.0%	28.2%	24.1%	4.1%	0.0%	0.0%	40.6%	0.0%	97.5%	5.9%	6.1%	9.8%
Typha valorization for power generation	0.0%	0.0%	337.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	1.4%
Methane emission reduction from oil production facilities (Flaring)	1025.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	521.9%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	108.1%
Landfill gas capture to energy	0.0%	0.0%	1.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Biofuel from jatropha	50.0%	0.0%	160.8%	118.2%	313.2%	5141.3%	11.9%	0.0%	42.5%	319.8%	665.5%	117.8%	100.8%	49.5%	66.9%
Emission reductions in cement plants	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Emission reductions in refineries	8.3%	0.0%	7.6%	0.0%	15.0%	0.8%	12.2%	0.0%	1.9%	0.0%	0.0%	1.1%	0.0%	1.8%	0.0%
Efficiency improvements in electricity distribution	7.0%	19.2%	19.2%	0.0%	19.2%	19.2%	7.0%	0.0%	19.2%	19.2%	19.2%	19.2%	19.2%	19.2%	9.8%
Efficiency improvement in steam systems	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
CFL for energy efficiency in lighting	7.2%	8.5%	11.6%	3.2%	1.8%	7.5%	4.5%	0.0%	7.1%	6.9%	74.5%	3.9%	5.4%	5.6%	5.3%
Energy efficiency improvements in household appliances	3.4%	5.3%	2.0%	3.8%	2.0%	3.2%	3.6%	14.8%	10.8%	3.4%	14.8%	2.4%	2.4%	5.2%	3.4%
Energy efficiency improvements in industrial equipments (motors)	1.9%	2.8%	1.8%	1.8%	1.8%	1.8%	1.8%	0.0%	5.0%	1.8%	10.8%	1.7%	1.4%	2.6%	1.8%
Coal mine methane	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	4.9%	0.2%	0.0%	0.0%	0.1%	2.3%	0.2%
Efficiency improvements in charcoal production	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Methane leakage reduction	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Efficiency improvements in transport (BRT)	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Hydroelectricity projects	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	71.0%	0.0%	11.0%
Fuel switch	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
All sectors/technologies aggregated	1587.9%	867.5%	724.2%	186.4%	918.9%	6024.9%	117.4%	637.7%	329.2%	1065.3%	3567.9%	1040.1%	297.6%	186.6%	380.5%