

OFF-GRID RENEWABLE ENERGY STATISTICS 2019

STATISTIQUES D'ÉNERGIE RENOUVELABLE HORS RÉSEAU 2019

ESTADÍSTICAS DE ENERGÍA RENOVABLE FUERA DE LA RED 2019

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Statistical methodology (in English)
Méthodologie statistique (en anglais)
Metodología estadística (en inglés)

IRENA (2018), Measurement and estimation of off-grid solar, hydro and biogas energy, International Renewable Energy Agency (IRENA), Abu Dhabi. <https://www.irena.org/publications/2018/Dec/Measurement-and-estimation-of-off-grid-solar-hydro-and-biogas-energy>

Off-grid capacity

Capacité hors réseau

Capacidad fuera de la red

Hydropower

Hydroélectricité

Hidroeléctrica

MW	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	205.826	223.110	240.191	256.030	270.886	284.906	296.006	321.757	329.479	339.163
Africa	26.437	26.722	28.349	28.892	30.651	31.351	32.165	38.049	38.720	43.680
Cent Afr Rep	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200	0.200
Eswatini	1.690	1.690	1.690	1.690	1.690	1.690	1.690	1.690	1.690	1.690
Ethiopia	1.150	1.150	1.157	1.279	1.279	1.279	1.279	1.279	1.279	1.279
Guinea	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220	2.220
Kenya	3.415	3.495	5.115	5.115	5.115	5.115	5.755	5.755	6.115	6.435
Lesotho	0.190	0.190	0.190	0.190	0.190	0.190	0.190	0.190	0.190	0.190
Liberia	4.800	4.800	4.800	4.800	4.800	4.800	4.860	4.860	4.860	4.860
Madagascar							0.018	0.018	0.018	0.018
Malawi	1.340	1.340	1.340	1.400	1.400	1.400	1.400	1.400	1.700	1.700
Mali	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Mozambique	0.065	0.065	0.065	0.065	0.065	0.065	0.065	0.549	0.549	0.549
Nigeria								0.400	0.400	0.400
Rwanda	0.440	0.640	0.640	0.640	1.040	1.740	1.740	1.740	1.751	1.751
Sierra Leone					0.250	0.250	0.250	0.250	0.250	4.890
South Africa	6.756	6.761	6.761	7.091	7.096	7.096	7.192	7.192	7.192	7.192
Tanzania	2.830	2.830	2.830	2.860	2.860	2.860	2.860	7.860	7.860	7.860
Uganda	0.300	0.301	0.301	0.302	0.406	0.406	0.406	0.406	0.406	0.406
Zambia	0.700	0.700	0.700	0.700	1.700	1.700	1.700	1.700	1.700	1.700
Zimbabwe	0.338	0.338	0.338	0.338	0.338	0.338	0.338	0.338	0.338	0.338
Asia	172.796	189.062	204.478	219.691	232.653	245.691	255.690	269.850	276.765	281.459
Afghanistan	5.201	10.401	13.850	17.299	20.748	24.197	27.646	31.095	34.544	37.993
Bhutan	1.140	1.240	1.240	1.240	1.240	1.240	1.240	1.240	1.240	1.240
India	66.892	70.633	74.150	78.568	79.237	82.169	83.377	84.079	84.675	84.675
Indonesia	5.664	6.384	7.145	8.760	9.555	11.515	12.728	14.421	14.851	14.851
Malaysia	0.060	0.060	0.110	0.110	0.110	0.110	0.450	0.450	0.450	0.450
Myanmar	2.815	2.828	2.834	2.949	2.949	2.974	3.165	6.890	6.890	6.890
Nepal	30.203	31.396	33.091	35.544	38.802	42.168	45.456	49.102	51.012	52.257
Pakistan	1.625	5.750	10.820	11.596	15.104	15.554	15.619	15.619	15.619	15.619
Philippines	1.749	2.699	2.936	2.936	3.053	3.078	3.078	3.078	3.078	3.078
Sri Lanka	4.339	4.505	4.671	4.837	5.003	5.248	5.493	5.738	6.068	6.068
Tajikistan	9.528	9.586	10.051	12.272	13.272	13.858	13.858	14.358	14.558	14.558
Thailand	0.255	0.255	0.255	0.255	0.255	0.255	0.255	0.455	0.455	0.455
Timor Leste	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325	0.325
Viet Nam	43.000	43.000	43.000	43.000	43.000	43.000	43.000	43.000	43.000	43.000
C America + Carib	3.140	3.272	3.290	3.373	3.508	3.789	4.076	9.784	9.915	9.945
Cuba								5.432	5.432	5.432
Dominican Rep	0.052	0.184	0.202	0.285	0.362	0.514	0.801	1.077	1.208	1.238
El Salvador	0.082	0.082	0.082	0.082	0.140	0.140	0.140	0.140	0.140	0.140
Haiti	2.170	2.170	2.170	2.170	2.170	2.170	2.170	2.170	2.170	2.170
Honduras						0.129	0.129	0.129	0.129	0.129
Nicaragua	0.836	0.836	0.836	0.836	0.836	0.836	0.836	0.836	0.836	0.836
Oceania	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
Fiji	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
S America	2.454	3.054	3.074	3.074	3.074	3.074	3.074	3.074	3.079	3.079
Argentina	2.445	2.445	2.445	2.445	2.445	2.445	2.445	2.445	2.445	2.445
Brazil			0.020	0.020	0.020	0.020	0.020	0.020	0.020	0.020
Colombia									0.005	0.005
Peru	0.009	0.609	0.609	0.609	0.609	0.609	0.609	0.609	0.609	0.609

Solar lights and solar home systems (SHS)

Lampes solaires et systèmes solaires domestiques (SDD)

Lámparas solares y sistemas solares domésticos (SSD)

MW	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	36.229	48.996	65.562	85.602	118.706	171.599	219.055	258.323	280.956	331.281
Africa	5.808	5.893	5.904	7.338	11.496	23.476	40.340	61.048	81.148	102.360
Angola										0.001
Benin								0.064	0.246	0.278
Burkina Faso		0.001	0.005	0.023	0.079	0.213	0.381	0.593	0.591	0.644
Burundi						0.010	0.023	0.029	0.019	0.006
Cabo Verde										
Cameroon									0.089	0.133
Cent Afr Rep										
Chad										
Congo DR				0.022	0.086	0.284	0.503	0.567	0.445	0.784
Cote d'Ivoire								0.055	0.141	0.238
Egypt									4.889	4.889
Ethiopia				0.256	0.975	3.171	5.604	6.332	5.381	3.804
Gabon										
Gambia									0.002	0.004
Ghana						0.144	0.146	0.199	0.386	0.848
Guinea										
Guinea Bissau						0.051	0.102	0.152	0.203	0.254
Kenya				0.408	1.556	5.060	9.007	11.256	11.974	15.135
Lesotho					0.097	0.097	0.097	0.097	0.097	
Liberia								0.024	0.052	0.158
Madagascar									0.041	2.155
Malawi				0.051	0.081	0.144	0.222	0.568	0.802	0.975
Mali						0.188	0.272	0.493	0.576	1.266
Mauritania										
Mauritius				0.049	0.087	0.126	0.107	0.134	0.230	0.311
Morocco	4.578	4.583	4.583	4.583	4.583	4.583	4.583	15.857	15.857	15.857
Mozambique						0.010	0.031	0.031	0.084	0.143
Namibia									0.010	0.053
Niger								0.015	0.015	0.007
Nigeria				0.022	0.086	0.748	1.431	2.258	3.212	8.671
Rwanda				0.056	0.212	0.692	1.235	1.815	6.959	11.586
Senegal						0.049	0.097	0.303	0.434	0.724
Sierra Leone								0.129	0.177	0.258
Somalia									0.023	0.052
South Africa						0.265	0.530	0.852	1.136	1.601
South Sudan										
Sudan							0.000	0.000	0.000	
Tanzania				0.272	1.031	3.354	10.724	12.160	17.438	20.582
Togo									0.002	0.014
Tunisia	1.230	1.310	1.316	1.350	1.450	1.450	1.450	1.450	1.800	1.800
Uganda				0.074	0.283	1.023	1.905	4.014	8.873	10.624
Zambia								0.208	0.294	0.424
Zimbabwe				0.172	0.890	1.916	2.076	1.861	1.349	1.203
Asia	30.039	42.701	58.765	77.322	105.535	145.094	174.843	192.965	193.551	219.208
Afghanistan						0.470	0.941	1.509	1.637	1.766
Bangladesh	11.097	18.304	32.186	42.524	65.911	93.769	118.097	128.106	126.074	138.677
Bhutan				0.023	0.023	0.023				
Cambodia						0.541	0.735	1.238	1.892	1.907
India	7.615	10.754	11.515	17.401	21.043	29.873	33.584	38.727	40.694	53.310
Indonesia	1.360	1.621	1.636	1.660	1.726	1.926	2.195	2.179	2.031	1.946
Malaysia										
Mongolia	2.385	2.669	2.954	3.239	3.524	3.524	3.524	3.524	3.524	3.524
Myanmar				0.011	0.041	0.133	0.257	0.289	0.254	0.650
Nepal	2.006	3.071	3.513	4.732	5.434	6.931	7.575	9.214	9.268	8.805
Pakistan				0.007	0.026	0.085	0.166	0.264	0.235	0.198
Philippines							0.033	0.178	0.183	0.417
Sri Lanka	5.576	6.255	6.934	7.698	7.780	7.791	7.723	7.724	7.744	8.007
Thailand										
Timor Leste							0.013	0.013	0.013	
Viet Nam		0.027	0.027	0.027	0.027	0.027				
C America + Carib			0.004	0.016	0.174	0.178	0.365	0.394	0.516	0.913

Bahamas			0.011	0.020	0.025	0.126	0.147	0.200	0.146	
Cuba						0.009	0.017	0.030	0.515	
Dominica									0.000	
Dominican Rep										
Guatemala						0.005	0.005	0.005	0.006	
Haiti				0.002	0.002	0.002		0.017	0.097	
Honduras				0.146	0.146	0.198	0.198	0.239	0.091	
Nicaragua		0.004	0.005	0.006	0.005	0.005	0.005	0.002	0.001	
Panama						0.021	0.021	0.023	0.028	
Puerto Rico									0.028	
Middle East			0.027	0.056	0.122	0.214	0.526	0.536	0.592	
Jordan			0.027	0.056	0.122	0.214	0.526	0.536	0.592	
Yemen										
Oceania	0.174	0.197	0.261	0.271	0.576	0.857	1.158	1.502	1.869	2.009
Fiji	0.174	0.197	0.261	0.261	0.540	0.737	0.929	0.929	0.929	0.955
Nauru										0.009
Papua N Guin				0.010	0.037	0.119	0.229	0.572	0.894	0.860
Samoa										0.025
Vanuatu									0.046	0.160
S America	0.207	0.205	0.629	0.628	0.868	1.872	2.134	1.889	3.335	6.200
Argentina			0.423	0.423	0.423	0.423	0.423			
Bolivia			0.000	0.000	0.000	0.349	0.352	0.355	0.307	0.351
Brazil	0.002								0.159	3.263
Chile										0.005
Colombia									0.876	0.876
Peru	0.205	0.205	0.206	0.205	0.444	1.100	1.359	1.533	1.993	1.704

Solar lights (<11 W)
Lampes solaires (<11 W)
Lámparas solares (<11 W)

MW	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	1.710	1.910	1.358	4.775	11.676	29.232	46.395	55.607	58.306	68.452
Africa				1.253	4.799	14.442	24.058	28.759	27.656	26.042
Angola										0.001
Benin								0.064	0.246	0.278
Burkina Faso				0.013	0.049	0.162	0.287	0.456	0.417	0.449
Burundi						0.010	0.023	0.029	0.019	0.006
Cabo Verde										
Cameroon									0.089	0.133
Cent Afr Rep										
Chad										
Congo DR				0.022	0.086	0.284	0.503	0.567	0.445	0.784
Cote d Ivoire								0.055	0.141	0.238
Ethiopia				0.256	0.975	3.171	5.597	6.324	5.356	3.780
Gabon										
Gambia									0.002	0.004
Ghana						0.016	0.018	0.071	0.257	0.372
Guinea										
Guinea Bissau										
Kenya				0.359	1.366	4.441	7.830	9.411	9.314	7.956
Liberia								0.024	0.052	0.158
Madagascar									0.041	0.374
Malawi				0.051	0.081	0.144	0.222	0.568	0.802	0.975
Mali								0.116	0.200	0.433
Mauritania										
Mauritius				0.049	0.087	0.126	0.107	0.134	0.230	0.311
Mozambique						0.010	0.031	0.031	0.058	0.116
Namibia									0.010	0.053
Niger							0.015	0.015	0.015	0.007
Nigeria				0.022	0.086	0.282	0.500	0.861	1.204	1.302
Rwanda				0.048	0.180	0.589	1.039	1.013	1.224	1.314
Senegal						0.049	0.097	0.303	0.434	0.724
Sierra Leone								0.129	0.177	0.258
Somalia									0.023	0.052
South Africa								0.057	0.077	0.277
South Sudan										
Sudan							0.000	0.000	0.000	
Tanzania				0.238	0.904	2.941	5.187	5.534	3.790	1.632
Togo									0.002	0.014
Uganda				0.024	0.093	0.303	0.528	0.926	1.596	2.642
Zambia								0.208	0.294	0.406
Zimbabwe				0.172	0.890	1.916	2.076	1.861	1.142	0.993
Asia	1.710	1.910	1.354	3.469	6.755	14.456	21.686	25.512	29.088	40.465
Afghanistan						0.342	0.683	1.025	1.025	1.025
Bangladesh								0.184	0.236	0.394
Bhutan				0.023	0.023	0.023				
Cambodia								0.055	0.103	0.118
India	1.710	1.910	1.354	3.318	6.407	13.404	19.863	22.908	26.510	37.566
Indonesia				0.024	0.090	0.290	0.560	0.543	0.395	0.310
Malaysia										
Myanmar				0.011	0.041	0.133	0.257	0.289	0.254	0.151
Nepal								0.014	0.075	0.086
Pakistan				0.007	0.026	0.085	0.166	0.264	0.235	0.198
Philippines							0.033	0.106	0.111	0.222
Sri Lanka				0.085	0.168	0.178	0.111	0.112	0.132	0.395
Thailand										
Timor Leste							0.013	0.013	0.013	
C America + Carib			0.004	0.016	0.029	0.033	0.136	0.156	0.224	0.281
Bahamas				0.011	0.020	0.025	0.126	0.147	0.200	0.146
Dominica										0.000
Dominican Rep										
Guatemala										0.001
Haiti					0.002	0.002	0.002		0.017	0.097
Honduras							0.003	0.003	0.003	

Nicaragua	0.004	0.005	0.006	0.005	0.005	0.005	0.002	0.001
Panama							0.002	0.007
Puerto Rico								0.028
Middle East		0.027	0.056	0.122	0.214	0.526	0.536	0.592
Jordan		0.027	0.056	0.122	0.214	0.526	0.536	0.592
Yemen								
Oceania		0.010	0.037	0.119	0.229	0.572	0.762	0.903
Fiji								0.026
Nauru								0.009
Papua N Guin		0.010	0.037	0.119	0.229	0.572	0.717	0.683
Samoa								0.025
Vanuatu							0.046	0.160
S America	0.000	0.001	0.001	0.060	0.072	0.082	0.038	0.170
Argentina								
Bolivia	0.000	0.000	0.000	0.056	0.059	0.062	0.014	0.058
Colombia							0.003	0.003
Peru		0.000	0.001	0.004	0.014	0.020	0.022	0.109

Solar home systems (SHS 11-50 W)
Systèmes solaires domestiques (SSD 11-50 W)
Sistemas solares domésticos (SSD 11-50 W)

MW	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	19.213	30.424	46.065	61.685	87.109	121.193	145.587	162.478	163.234	179.256
Africa				0.142	0.539	1.884	3.472	5.971	9.410	13.104
Cameroon										
Ethiopia							0.007	0.007	0.024	0.024
Ghana						0.128	0.128	0.128	0.128	0.168
Kenya				0.049	0.190	0.620	1.178	1.755	2.571	4.450
Madagascar										0.204
Mozambique									0.026	0.026
Nigeria									0.146	0.445
Rwanda				0.009	0.032	0.103	0.196	0.292	0.423	0.878
Senegal										
Tanzania				0.034	0.127	0.413	0.785	1.169	1.284	1.821
Uganda				0.049	0.190	0.620	1.178	2.620	4.600	4.860
Zambia										0.019
Zimbabwe									0.208	0.210
Asia	19.008	30.219	45.859	61.338	85.981	117.774	140.255	154.479	151.423	164.267
Afghanistan						0.064	0.128	0.289	0.353	0.417
Bangladesh	11.097	18.304	32.186	42.524	65.911	93.769	118.097	127.922	125.838	138.283
Cambodia						0.541	0.735	1.183	1.789	1.789
India	5.905	8.844	10.161	14.082	14.636	16.469	13.722	15.820	14.184	14.372
Indonesia										
Myanmar										0.500
Nepal	2.006	3.071	3.513	4.732	5.434	6.931	7.575	9.200	9.193	8.719
Philippines								0.065	0.065	0.187
C America + Carib					0.146	0.146	0.221	0.221	0.262	0.117
Guatemala							0.005	0.005	0.005	0.005
Honduras					0.146	0.146	0.195	0.195	0.236	0.091
Panama							0.021	0.021	0.021	0.021
Oceania									0.178	0.178
Papua N Guin									0.178	0.178
S America	0.205	0.205	0.206	0.205	0.444	1.390	1.639	1.806	1.962	1.591
Bolivia						0.293	0.293	0.293	0.293	0.293
Chile										0.005
Peru	0.205	0.205	0.206	0.205	0.444	1.096	1.345	1.513	1.668	1.292

Solar home systems (SHS >50 W)
Systèmes solaires domestiques (SSD >50 W)
Sistemas solares domésticos (SSD >50 W)

MW	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	15.306	16.663	18.139	19.142	19.920	21.175	27.073	40.239	59.416	83.572
Africa	5.808	5.893	5.904	5.943	6.159	7.150	12.811	26.318	44.083	63.214
Burkina Faso		0.001	0.005	0.011	0.029	0.051	0.094	0.137	0.174	0.195
Cote d'Ivoire										
Egypt									4.889	4.889
Ghana										0.308
Guinea Bissau						0.051	0.102	0.152	0.203	0.254
Kenya								0.090	0.090	2.730
Lesotho					0.097	0.097	0.097	0.097	0.097	
Madagascar										1.577
Mali						0.188	0.272	0.376	0.376	0.833
Morocco	4.578	4.583	4.583	4.583	4.583	4.583	4.583	15.857	15.857	15.857
Nigeria						0.466	0.931	1.397	1.862	6.925
Rwanda								0.510	5.312	9.394
South Africa						0.265	0.530	0.794	1.059	1.324
Tanzania							4.753	5.457	12.364	17.129
Tunisia	1.230	1.310	1.316	1.350	1.450	1.450	1.450	1.450	1.800	1.800
Uganda						0.100	0.200	0.468	2.678	3.122
Asia	9.321	10.572	11.551	12.515	12.799	12.864	12.902	12.974	13.040	14.476
Afghanistan						0.065	0.130	0.195	0.259	0.324
Bangladesh										
India										1.371
Indonesia	1.360	1.621	1.636	1.636	1.636	1.636	1.636	1.636	1.636	1.636
Mongolia	2.385	2.669	2.954	3.239	3.524	3.524	3.524	3.524	3.524	3.524
Philippines								0.008	0.008	0.008
Sri Lanka	5.576	6.255	6.934	7.613	7.613	7.613	7.613	7.613	7.613	7.613
Viet Nam		0.027	0.027	0.027	0.027	0.027				
C America + Carib							0.009	0.017	0.030	0.515
Cuba							0.009	0.017	0.030	0.515
Honduras										
Oceania	0.174	0.197	0.261	0.261	0.540	0.737	0.929	0.929	0.929	0.929
Fiji	0.174	0.197	0.261	0.261	0.540	0.737	0.929	0.929	0.929	0.929
Vanuatu										
S America	0.002		0.423	0.423	0.423	0.423	0.423		1.335	4.439
Argentina			0.423	0.423	0.423	0.423	0.423			
Brazil	0.002								0.159	3.263
Colombia									0.873	0.873
Peru									0.303	0.303

Solar mini-grids

Mini-réseaux solaires

Mini-redes solares

MW	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	11.368	17.246	20.256	24.245	31.706	41.243	50.155	131.747	305.387	336.573
Africa	1.376	1.756	2.141	2.760	4.605	7.969	9.640	73.943	246.263	260.340
Algeria	0.454	0.454	0.454	0.454	0.454	0.454	0.454	49.100	219.100	219.100
Benin								0.072	0.667	0.667
Burkina Faso									0.086	0.135
Cabo Verde					0.027	0.027	0.040	0.149	0.149	0.149
Cameroon		0.010	0.010	0.010	0.010	0.010	0.010	0.082	0.154	11.431
Chad								0.122	0.122	0.122
Cote d'Ivoire								0.218	0.218	0.218
Egypt								10.000	10.000	10.000
Eritrea									0.350	0.350
Gambia								0.060	0.060	0.060
Ghana							0.012	0.012	0.222	0.234
Guinea Bissau									0.312	0.312
Kenya					0.714	0.754	0.804	0.769	0.848	0.848
Liberia										0.133
Madagascar			0.003	0.003	0.003	0.003	0.003	0.148	0.148	0.248
Mali	0.072	0.072	0.454	0.870	1.172	3.050	3.380	4.222	4.266	5.644
Mauritania								0.135	0.135	0.153
Mozambique							1.324	1.331	1.331	1.331
Namibia				0.202	0.202	0.202	0.494	0.494	0.494	0.494
Niger								0.028	0.028	0.069
Nigeria					0.083	0.167	0.295	0.878	0.962	1.045
Rwanda								3.346	3.376	3.475
Senegal		0.370	0.370	0.370	1.089	1.089	1.089	1.089	1.099	1.099
Sierra Leone						0.005	0.005	0.005	0.005	0.198
South Africa				0.001	0.001	0.001	0.001	0.001	0.001	0.033
Tanzania							0.033	0.107	0.141	0.488
Togo										0.400
Uganda	0.850	0.850	0.850	0.850	0.850	0.850	1.455	1.542	1.772	1.794
Zambia								0.001	0.001	0.013
Zimbabwe									0.099	0.099
Asia	9.991	14.864	16.724	19.369	24.835	31.009	38.245	49.907	50.632	55.792
Afghanistan			0.100	0.100	0.100	0.344	1.394	1.394	1.797	1.797
Bangladesh			0.100	0.100	0.100	0.100	0.540	1.921	1.921	5.661
India	3.030	3.700	4.420	4.720	5.030	5.340	6.420	6.940	7.080	7.460
Indonesia	6.961	10.462	11.402	11.547	16.703	22.323	25.261	34.056	34.106	35.025
Malaysia							1.525	2.412	2.412	2.412
Maldives							0.204	0.204	0.204	0.204
Myanmar								0.079	0.211	0.332
Nepal		0.702	0.702	2.902	2.902	2.902	2.902	2.902	2.902	2.902
Pakistan										
C America + Carib				0.253	0.346	0.346	0.346	0.546	0.549	12.307
Cuba										11.746
El Salvador				0.044	0.044	0.044	0.044	0.044	0.044	0.044
Guatemala				0.108	0.108	0.108	0.108	0.108	0.108	0.108
Haiti					0.093	0.093	0.093	0.293	0.296	0.296
Honduras				0.063	0.063	0.063	0.063	0.063	0.063	0.063
Nicaragua				0.039	0.039	0.039	0.039	0.039	0.039	0.039
Puerto Rico										0.012
Middle East		0.012	0.012	0.012	0.017	0.017	0.017	3.767	3.767	3.767
Palestine		0.012	0.012	0.012	0.017	0.017	0.017	0.017	0.017	0.017
United Arab Em								3.750	3.750	3.750
Oceania								0.555	0.555	0.555
Fiji								0.555	0.555	0.555
S America	0.002	0.614	1.379	1.850	1.903	1.903	1.907	3.030	3.622	3.813

Bolivia				0.119	0.119	0.119	0.119	0.119	0.119	0.119
Brazil					0.040	0.040	0.040	0.040	0.040	0.040
Colombia							0.004	0.004	0.596	0.787
Ecuador				0.084	0.096	0.096	0.096	0.096	0.096	0.096
Paraguay				0.079	0.079	0.079	0.079	0.079	0.079	0.079
Peru	0.002	0.002	0.002	0.192	0.192	0.192	0.192	0.192	0.192	0.192
Uruguay								0.052	0.052	0.052
Venezuela		0.612	1.377	1.377	1.377	1.377	1.377	2.448	2.448	2.448

Solar pumps

Pompes solaires

Bombas solares

MW	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	13.146	13.778	14.876	16.153	19.659	26.206	59.364	119.383	194.022	369.935
Africa	1.183	1.205	1.542	2.684	3.334	4.382	5.359	7.100	8.946	9.910
Algeria	0.050	0.050	0.050	0.051	0.056	0.057	0.073	0.076	0.076	0.076
Angola				0.000	0.010	0.016	0.016	0.016	0.016	0.016
Botswana					0.003	0.003	0.003	0.003	0.025	0.025
Burkina Faso				0.004	0.009	0.016	0.017	0.417	0.417	0.417
Burundi									0.002	0.002
Cabo Verde										
Cameroon					0.002	0.006	0.006	0.007	0.007	0.009
Chad			0.003	0.003	0.003	0.008	0.008	0.008	0.008	0.008
Congo DR						0.001	0.001	0.001	0.005	0.005
Congo Rep					0.003	0.015	0.019	0.020	0.032	0.032
Cote d'Ivoire							0.000	0.000	0.000	0.000
Djibouti			0.009	0.013	0.013	0.013	0.013	0.013	0.013	0.013
Egypt		0.002	0.043	0.043	0.097	0.325	0.607	1.138	1.389	1.575
Eritrea	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Ethiopia	0.001	0.001	0.002	0.002	0.015	0.015	0.025	0.041	0.086	0.112
Gabon				0.020	0.020	0.020	0.020	0.020	0.020	0.020
Gambia	0.050	0.052	0.163	0.163	0.163	0.223	0.249	0.249	0.561	0.562
Ghana								0.016	0.016	0.016
Guinea								0.002	0.002	0.002
Guinea Bissau		0.001	0.005	0.014	0.016	0.018	0.018	0.031	0.031	0.031
Kenya	0.014	0.020	0.025	0.027	0.069	0.111	0.220	0.298	0.349	0.422
Libya						0.004	0.004	0.004	0.004	0.004
Madagascar							0.011	0.011	0.011	0.011
Malawi					0.045	0.091	0.137	0.182	0.497	0.505
Mali	0.014	0.015	0.095	0.112	0.125	0.138	0.138	0.138	0.152	0.152
Mauritania				0.014	0.014	0.014	0.030	0.045	0.045	0.045
Morocco	0.047	0.047	0.058	0.086	0.318	0.634	0.800	1.014	1.307	1.361
Mozambique					0.001	0.001	0.008	0.011	0.021	0.021
Namibia	0.916	0.916	0.952	0.952	0.952	0.952	0.952	0.952	0.953	0.953
Niger		0.006	0.006	0.006	0.008	0.008	0.011	0.026	0.031	0.031
Nigeria	0.001	0.005	0.005	0.959	0.959	0.959	0.959	0.984	0.984	0.984
Rwanda										0.004
Senegal				0.010	0.030	0.089	0.136	0.164	0.261	0.459
Sierra Leone				0.002	0.002	0.002	0.002	0.002	0.002	0.002
Somalia							0.075	0.108	0.108	0.108
South Africa			0.012	0.016	0.076	0.076	0.087	0.090	0.100	0.100
South Sudan						0.015	0.015	0.015	0.030	0.030
Sudan	0.002	0.002	0.002	0.002	0.007	0.020	0.020	0.022	0.022	0.022
Tanzania			0.008	0.008	0.076	0.209	0.279	0.345	0.409	0.524
Tunisia	0.086	0.086	0.086	0.096	0.105	0.105	0.113	0.260	0.282	0.310
Uganda			0.020	0.077	0.122	0.167	0.212	0.260	0.515	0.520
Zambia										0.089
Zimbabwe	0.002	0.002	0.002	0.005	0.015	0.053	0.075	0.112	0.157	0.332
Asia	11.953	12.281	12.681	12.794	15.534	20.750	52.404	110.209	182.541	356.956
Afghanistan		0.002	0.002	0.002	0.004	0.011	0.011	0.011	0.074	0.099
Bangladesh		0.012	0.023	0.023	0.373	0.703	2.043	4.583	11.823	20.517
Cambodia		0.003	0.007	0.007	0.007	0.007	0.007	0.007	0.034	0.034
India	11.937	12.248	12.517	12.517	14.739	19.415	49.547	104.273	168.880	333.869
Indonesia	0.013	0.013	0.013	0.031	0.064	0.116	0.179	0.317	0.457	0.826
Korea DPR									0.004	0.004
Lao PDR	0.001	0.001	0.002	0.003	0.003	0.003	0.003	0.003	0.003	0.003
Malaysia			0.004	0.004	0.004	0.004	0.004	0.004	0.006	0.017
Myanmar			0.005	0.024	0.028	0.030	0.037	0.037	0.071	0.077
Nepal	0.002	0.002	0.077	0.152	0.227	0.302	0.377	0.578	0.694	0.869
Pakistan			0.025	0.025	0.079	0.125	0.153	0.199	0.221	0.252
Philippines						0.006	0.007	0.130	0.140	0.187
Sri Lanka	0.000	0.000	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Thailand			0.005	0.005	0.005	0.010	0.012	0.043	0.109	0.176
Timor Leste						0.017	0.023	0.023	0.023	0.023
C America + Carib	0.003	0.003	0.003	0.004	0.070	0.141	0.204	0.280	0.399	0.533

Barbados						0.001	0.001	0.001	0.001	0.001
Belize										
Cayman Is						0.000	0.000	0.000	0.000	0.000
Costa Rica					0.002	0.002	0.002	0.002	0.020	0.044
Cuba									0.000	0.000
Dominican Rep	0.001	0.001	0.001	0.001	0.004	0.007	0.007	0.007	0.019	0.101
El Salvador										0.025
Guadeloupe										
Guatemala							0.001	0.011	0.025	0.025
Haiti					0.021	0.042	0.063	0.084	0.105	0.105
Honduras					0.039	0.078	0.117	0.156	0.195	0.195
Jamaica						0.006	0.008	0.013	0.013	0.013
Martinique					0.002	0.002	0.002	0.002	0.002	0.003
Nicaragua	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.012	0.015
Panama			0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.005
St Kitts Nevis							0.001	0.001	0.001	0.001
Middle East	0.006	0.008	0.012	0.020	0.027	0.145	0.577	0.910	1.077	1.143
Iran IR	0.005	0.005	0.007	0.007	0.014	0.014	0.014	0.014	0.014	0.014
Iraq		0.002	0.004	0.004	0.004	0.009	0.039	0.039	0.039	0.104
Lebanon	0.002	0.002	0.002	0.002	0.002	0.032	0.269	0.269	0.269	0.269
Oman									0.011	0.011
Syrian AR				0.008	0.008	0.018	0.018	0.018	0.024	0.024
United Arab Em						0.002	0.002	0.017	0.017	0.017
Yemen						0.070	0.235	0.552	0.704	0.704
Oceania							0.001	0.001	0.027	0.027
Papua N Guin							0.001	0.001	0.001	0.001
Tonga									0.026	0.026
Vanuatu										
S America	0.001	0.282	0.637	0.650	0.694	0.788	0.819	0.882	1.031	1.365
Argentina			0.001	0.002	0.006	0.035	0.037	0.037	0.064	0.236
Bolivia						0.001	0.002	0.025	0.054	0.093
Brazil		0.001	0.001	0.001	0.001	0.001	0.001	0.010	0.012	0.029
Chile			0.002	0.006	0.035	0.037	0.042	0.052	0.075	0.081
Colombia			0.003	0.009	0.012	0.023	0.032	0.038	0.042	0.088
Ecuador			0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Guyana	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Paraguay	0.001	0.001	0.002	0.004	0.012	0.042	0.048	0.062	0.067	0.090
Peru			0.000	0.000	0.000	0.018	0.023	0.023	0.035	0.048
Uruguay						0.001	0.005	0.007	0.053	0.070
Venezuela		0.280	0.628	0.628	0.628	0.628	0.628	0.628	0.628	0.628

Solar pumps (agriculture)

Pompes solaires (agriculture)

Bombas solares (agricultura)

MW	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	12.896	13.239	13.858	13.977	16.998	22.967	54.754	111.951	185.528	360.866
Africa	0.955	0.974	1.286	1.366	1.762	2.530	3.213	4.200	5.467	6.263
Algeria				0.001	0.006	0.008	0.023	0.026	0.026	0.026
Angola				0.000	0.000	0.000	0.000	0.000	0.000	0.000
Botswana					0.003	0.003	0.003	0.003	0.014	0.014
Cameroon							0.000	0.001	0.001	0.001
Congo DR						0.001	0.001	0.001	0.001	0.001
Congo Rep					0.003	0.015	0.019	0.020	0.023	0.023
Cote d'Ivoire							0.000	0.000	0.000	0.000
Djibouti			0.009	0.013	0.013	0.013	0.013	0.013	0.013	0.013
Egypt		0.002	0.043	0.043	0.097	0.325	0.607	1.138	1.358	1.543
Eritrea	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Ethiopia							0.010	0.010	0.034	0.034
Gabon				0.020	0.020	0.020	0.020	0.020	0.020	0.020
Gambia	0.050	0.052	0.163	0.163	0.163	0.223	0.249	0.249	0.554	0.555
Ghana								0.016	0.016	0.016
Kenya	0.014	0.020	0.025	0.027	0.027	0.027	0.051	0.087	0.087	0.159
Madagascar							0.011	0.011	0.011	0.011
Malawi						0.001	0.002	0.002	0.272	0.280
Mali			0.080	0.080	0.093	0.106	0.106	0.106	0.106	0.106
Mauritania				0.000	0.000	0.000	0.016	0.016	0.016	0.016
Morocco	0.001	0.001	0.012	0.040	0.272	0.588	0.754	0.965	1.240	1.294
Mozambique					0.001	0.001	0.008	0.008	0.018	0.018
Namibia	0.803	0.803	0.839	0.839	0.839	0.839	0.839	0.839	0.840	0.840
Niger		0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.010	0.010
Nigeria		0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.004
Rwanda										0.004
Senegal				0.006	0.006	0.036	0.073	0.089	0.169	0.338
Somalia							0.032	0.032	0.032	0.032
South Africa			0.012	0.016	0.076	0.076	0.087	0.090	0.099	0.099
Sudan					0.005	0.018	0.018	0.020	0.020	0.020
Tanzania			0.008	0.008	0.008	0.063	0.073	0.079	0.079	0.098
Tunisia	0.086	0.086	0.086	0.096	0.105	0.105	0.113	0.235	0.257	0.285
Uganda								0.004	0.004	0.004
Zambia										0.089
Zimbabwe				0.003	0.013	0.051	0.073	0.110	0.143	0.309
Asia	11.937	12.261	12.561	12.578	15.154	20.218	51.063	106.957	179.005	353.115
Afghanistan									0.046	0.046
Bangladesh		0.012	0.023	0.023	0.373	0.703	1.343	3.183	10.273	18.967
Cambodia									0.025	0.025
India	11.937	12.248	12.517	12.517	14.739	19.415	49.547	103.293	167.900	332.889
Indonesia				0.018	0.018	0.018	0.054	0.165	0.233	0.445
Lao PDR		0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Malaysia								0.000	0.002	0.002
Myanmar							0.000	0.000	0.005	0.006
Nepal								0.117	0.233	0.350
Pakistan			0.013	0.013	0.016	0.062	0.090	0.137	0.157	0.187
Philippines						0.006	0.007	0.010	0.020	0.028
Sri Lanka	0.000	0.000	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Thailand			0.005	0.005	0.005	0.010	0.012	0.043	0.102	0.161
Timor Leste							0.006	0.006	0.006	0.006
C America + Carib	0.002	0.002	0.002	0.003	0.009	0.014	0.015	0.026	0.071	0.173
Barbados						0.001	0.001	0.001	0.001	0.001
Belize										
Cayman Is						0.000	0.000	0.000	0.000	0.000
Costa Rica					0.002	0.002	0.002	0.002	0.020	0.037
Dominican Rep				0.001	0.003	0.006	0.006	0.006	0.018	0.100
Guatemala								0.011	0.012	0.012
Jamaica						0.000	0.002	0.002	0.002	0.002
Martinique					0.002	0.002	0.002	0.002	0.002	0.003
Nicaragua	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.012	0.014

Panama			0.000	0.000	0.000	0.000	0.000	0.000	0.005	0.005
Middle East	0.002	0.002	0.002	0.009	0.009	0.051	0.276	0.544	0.619	0.685
Iraq										0.065
Lebanon	0.002	0.002	0.002	0.002	0.002	0.032	0.178	0.178	0.178	0.178
Oman									0.011	0.011
Syrian AR				0.008	0.008	0.008	0.008	0.008	0.008	0.008
United Arab Em						0.002	0.002	0.017	0.017	0.017
Yemen						0.010	0.089	0.342	0.406	0.406
Oceania							0.001	0.001	0.001	0.001
Papua N Guin							0.001	0.001	0.001	0.001
Vanuatu										
S America	0.001	0.001	0.008	0.020	0.064	0.155	0.185	0.223	0.365	0.629
Argentina			0.001	0.002	0.006	0.035	0.037	0.037	0.062	0.182
Bolivia						0.001	0.002	0.007	0.033	0.061
Brazil									0.002	0.018
Chile			0.002	0.006	0.035	0.037	0.042	0.052	0.075	0.081
Colombia			0.003	0.008	0.011	0.023	0.031	0.037	0.042	0.088
Paraguay	0.001	0.001	0.002	0.004	0.012	0.042	0.048	0.062	0.067	0.090
Peru			0.000	0.000	0.000	0.015	0.020	0.021	0.032	0.042
Uruguay						0.001	0.005	0.007	0.052	0.068

Solar pumps (public water supply)

Pompes solaires (alimentation en eau publique)

Bombas solares (suministro público de agua)

MW	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	0.250	0.539	1.018	2.176	2.661	3.239	4.610	7.432	8.493	9.069
Africa	0.229	0.230	0.257	1.318	1.572	1.853	2.146	2.900	3.479	3.647
Algeria	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050	0.050
Angola					0.009	0.015	0.015	0.015	0.015	0.015
Botswana									0.012	0.012
Burkina Faso				0.004	0.009	0.016	0.017	0.417	0.417	0.417
Burundi									0.002	0.002
Cabo Verde										
Cameroon					0.002	0.006	0.006	0.006	0.006	0.008
Chad			0.003	0.003	0.003	0.008	0.008	0.008	0.008	0.008
Congo DR									0.004	0.004
Congo Rep									0.009	0.009
Egypt									0.032	0.032
Ethiopia	0.001	0.001	0.002	0.002	0.015	0.015	0.015	0.031	0.052	0.078
Gambia									0.007	0.007
Guinea								0.002	0.002	0.002
Guinea Bissau		0.001	0.005	0.014	0.016	0.018	0.018	0.031	0.031	0.031
Kenya					0.042	0.084	0.169	0.211	0.262	0.263
Libya						0.004	0.004	0.004	0.004	0.004
Madagascar										0.000
Malawi					0.045	0.090	0.135	0.180	0.225	0.225
Mali	0.014	0.015	0.015	0.032	0.032	0.032	0.032	0.032	0.046	0.046
Mauritania				0.014	0.014	0.014	0.014	0.029	0.029	0.029
Morocco	0.046	0.046	0.046	0.046	0.046	0.046	0.046	0.049	0.067	0.067
Mozambique								0.003	0.003	0.003
Namibia	0.113	0.113	0.113	0.113	0.113	0.113	0.113	0.113	0.113	0.113
Niger					0.002	0.002	0.006	0.021	0.021	0.021
Nigeria	0.001	0.001	0.001	0.954	0.954	0.954	0.954	0.979	0.979	0.979
Senegal				0.004	0.024	0.053	0.063	0.075	0.091	0.121
Sierra Leone				0.002	0.002	0.002	0.002	0.002	0.002	0.002
Somalia							0.043	0.075	0.075	0.075
South Africa									0.001	0.001
South Sudan						0.015	0.015	0.015	0.030	0.030
Sudan	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Tanzania					0.068	0.146	0.206	0.266	0.330	0.426
Tunisia								0.025	0.025	0.025
Uganda			0.020	0.077	0.122	0.167	0.212	0.257	0.512	0.517
Zimbabwe	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.002	0.014	0.022
Asia	0.015	0.020	0.120	0.216	0.380	0.532	1.341	3.252	3.536	3.841
Afghanistan		0.002	0.002	0.002	0.004	0.011	0.011	0.011	0.027	0.052
Bangladesh							0.700	1.400	1.550	1.550
Cambodia		0.003	0.007	0.007	0.007	0.007	0.007	0.007	0.009	0.009
India								0.980	0.980	0.980
Indonesia	0.013	0.013	0.013	0.013	0.046	0.098	0.125	0.152	0.224	0.381
Korea DPR									0.004	0.004
Lao PDR	0.001	0.001	0.001	0.002	0.002	0.002	0.002	0.002	0.002	0.002
Malaysia			0.004	0.004	0.004	0.004	0.004	0.004	0.004	0.014
Myanmar			0.005	0.024	0.028	0.030	0.036	0.036	0.066	0.072
Nepal	0.002	0.002	0.077	0.152	0.227	0.302	0.377	0.461	0.461	0.519
Pakistan			0.012	0.012	0.062	0.062	0.062	0.062	0.065	0.065
Philippines								0.120	0.120	0.160
Thailand									0.007	0.016
Timor Leste						0.017	0.017	0.017	0.017	0.017
C America + Carib	0.001	0.001	0.001	0.001	0.061	0.127	0.189	0.254	0.327	0.360
Costa Rica										0.007
Cuba									0.000	0.000
Dominican Rep	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
El Salvador										0.025
Guadeloupe										
Guatemala							0.001	0.001	0.013	0.013
Haiti					0.021	0.042	0.063	0.084	0.105	0.105

Honduras					0.039	0.078	0.117	0.156	0.195	0.195
Jamaica						0.006	0.006	0.012	0.012	0.012
Nicaragua										0.001
St Kitts Nevis							0.001	0.001	0.001	0.001
Middle East	0.005	0.007	0.011	0.011	0.018	0.094	0.301	0.366	0.458	0.458
Iran IR	0.005	0.005	0.007	0.007	0.014	0.014	0.014	0.014	0.014	0.014
Iraq		0.002	0.004	0.004	0.004	0.009	0.039	0.039	0.039	0.039
Lebanon							0.091	0.091	0.091	0.091
Syrian AR						0.011	0.011	0.011	0.016	0.016
Yemen						0.060	0.146	0.211	0.298	0.298
Oceania									0.026	0.026
Tonga									0.026	0.026
S America	0.000	0.281	0.630	0.630	0.630	0.633	0.633	0.659	0.667	0.736
Argentina									0.002	0.054
Bolivia							0.000	0.018	0.021	0.032
Brazil		0.001	0.001	0.001	0.001	0.001	0.001	0.010	0.010	0.011
Chile										0.000
Colombia				0.001	0.001	0.001	0.001	0.001	0.001	0.001
Ecuador			0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
Guyana	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Peru						0.003	0.003	0.003	0.003	0.006
Uruguay									0.001	0.002
Venezuela		0.280	0.628	0.628	0.628	0.628	0.628	0.628	0.628	0.628

Other off-grid solar PV Autre solaire PV hors réseau Otra solar PV fuera de la red

MW	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	5.754	6.754	11.018	55.945	135.839	261.483	355.358	442.958	545.900	681.565
Africa	0.843	1.088	1.166	1.537	1.997	6.046	19.758	47.513	56.832	62.693
Algeria	0.685	0.685	0.685	0.685	0.685	0.685	0.685	0.685	0.685	0.685
Angola						0.021	0.320	0.320	0.320	0.320
Benin							0.050	0.050	0.050	0.050
Botswana		0.020	0.035	0.065	0.208	0.308	0.453	0.538	0.538	0.538
Burundi								0.023	0.023	0.023
Cameroon					0.011	0.011	0.011	0.017	0.023	0.023
Chad						0.043	0.043	0.043	0.043	0.043
Congo DR				0.001	0.001	0.104	0.104	0.104	1.787	3.446
Cote d'Ivoire							0.009	0.010	0.010	0.010
Eritrea					0.004	0.004	0.314	0.314	0.314	0.314
Eswatini										0.003
Ethiopia		0.026	0.026	0.028	0.109	0.109	3.453	3.468	8.510	8.513
Gambia					0.004	0.007	0.007	0.007	0.007	0.007
Ghana							3.200	3.219	3.220	3.220
Guinea						3.371	3.371	13.271	13.276	13.276
Kenya	0.150	0.165	0.171	0.484	0.550	0.742	5.529	17.270	17.513	20.435
Liberia				0.018	0.018	0.018	0.018	0.018	0.018	0.026
Malawi					0.003	0.003	0.003	0.003	0.003	0.043
Mali	0.002	0.002	0.002	0.002	0.059	0.088	0.098	0.098	0.237	0.237
Mauritania						0.010	0.010	0.010	0.010	0.010
Mozambique			0.000	0.000	0.000	0.038	0.124	0.256	0.488	0.488
Namibia										
Niger						0.003	0.003	0.003	0.003	0.003
Nigeria		0.184	0.190	0.190	0.190	0.190	0.196	5.196	6.846	7.247
Rwanda	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006
Senegal					0.000	0.000	0.000	0.004	0.004	0.004
Seychelles								0.500	0.500	0.500
Sierra Leone				0.008	0.008	0.024	0.024	0.024	0.130	0.170
Somalia				0.000	0.000	0.000	0.060	0.060	0.060	0.060
South Africa							0.804	0.804	0.804	1.554
South Sudan				0.000	0.007	0.046	0.046	0.055	0.069	0.076
Sudan						0.008	0.015	0.015	0.015	0.015
Tanzania			0.023	0.023	0.057	0.078	0.078	0.078	0.227	0.233
Togo						0.007	0.007	0.007	0.008	0.008
Uganda			0.027	0.027	0.077	0.122	0.167	0.212	0.258	0.278
Zambia							0.000	0.276	0.276	0.276
Zimbabwe						0.001	0.551	0.551	0.551	0.552
Asia	4.190	4.934	7.318	51.871	130.830	238.079	316.519	370.112	461.173	587.612
Afghanistan			0.000	0.000	16.000	16.000	16.000	16.000	16.644	16.644
Bangladesh							1.180	10.200	15.392	35.372
India	3.020	3.530	4.910	47.198	108.905	214.949	291.777	336.173	421.206	476.247
Indonesia	1.170	1.341	1.341	2.591	3.841	4.993	4.993	5.069	5.115	5.216
Korea DPR						0.033	0.033	0.033	0.033	0.033
Mongolia				1.008	1.008	1.008	1.008	1.008	1.008	1.008
Myanmar			0.000	0.000	0.000	0.000	0.000	0.000	0.146	0.256
Nepal				0.008	0.008	0.008	0.008	0.008	0.008	40.016
Pakistan						0.000	0.026	0.031	0.031	11.231
Philippines						0.021	0.427	0.522	0.522	0.522
Thailand			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Timor Leste					0.001	0.001	0.001	0.001	0.001	0.001
Viet Nam		0.063	1.066	1.066	1.067	1.067	1.067	1.067	1.067	1.067
C America + Carib		0.010	0.554	0.555	0.610	14.552	16.128	17.961	19.274	22.441
Antigua Barb									0.010	0.414
Costa Rica									0.053	0.053
Cuba								0.326	0.326	0.326
Dominican Rep						1.500	3.000	4.500	5.750	8.490
El Salvador						12.361	12.361	12.361	12.361	12.361
Haiti		0.010	0.553	0.553	0.609	0.689	0.764	0.772	0.772	0.772
Honduras							0.001	0.001	0.002	0.002

Nicaragua			0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000
Panama				0.001	0.001	0.001	0.001	0.001	0.001	0.001
Puerto Rico										0.022
US Virgin Is										0.000
Middle East					0.007	0.034	0.140	0.268	0.485	0.506
Jordan						0.000	0.000	0.000	0.000	0.000
Lebanon					0.002	0.029	0.122	0.129	0.238	0.258
Palestine					0.005	0.005	0.005	0.005	0.005	0.005
Saudi Arabia							0.014	0.014	0.014	0.014
Syrian AR								0.000	0.000	0.001
United Arab Em								0.120	0.228	0.228
Yemen								0.000	0.000	0.000
Oceania			0.014	0.014	0.017	0.085	0.118	1.195	2.224	2.265
Cook Is						0.010	0.010	0.010	0.010	0.010
Fiji			0.014	0.014	0.014	0.024	0.028	0.728	1.728	1.769
Kiribati						0.010	0.010	0.017	0.017	0.017
Micronesia						0.010	0.010	0.010	0.010	0.010
Papua N Guin					0.003	0.011	0.040	0.305	0.334	0.334
Solomon Is						0.010	0.010	0.010	0.010	0.010
Vanuatu						0.010	0.010	0.116	0.116	0.116
S America	0.721	0.722	1.966	1.968	2.379	2.687	2.693	5.909	5.911	6.048
Argentina	0.041	0.041	1.285	1.285	1.285	1.285	1.285	1.285	1.285	1.285
Bolivia		0.000	0.001	0.002	0.004	0.009	0.009	0.009	0.009	0.009
Brazil	0.680	0.680	0.680	0.680	0.680	0.680	0.680	3.880	3.880	3.880
Chile										0.133
Colombia								0.013	0.013	0.013
Paraguay										0.003
Peru					0.410	0.712	0.719	0.722	0.725	0.725
Venezuela	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001

Biogas (electricity)
Biogaz (électricité)
Biogás (electricidad)

MW	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	1.400	1.470	2.156	3.180	4.710	11.712	15.614	18.114	23.115	26.640	29.690
Africa				0.004	0.139	0.139	0.156	0.216	1.531	1.551	1.551
Gabon									1.200	1.200	1.200
Ghana					0.120	0.120	0.120	0.120	0.135	0.135	0.135
Kenya				0.004	0.019	0.019	0.019	0.079	0.079	0.079	0.079
Mozambique										0.010	0.010
Nigeria										0.010	0.010
Senegal									0.100	0.100	0.100
Uganda							0.017	0.017	0.017	0.017	0.017
Asia	1.400	1.400	2.070	2.790	4.027	10.300	12.209	13.555	16.281	19.426	20.226
Bangladesh			0.670	1.390	2.060	2.750	3.420	4.120	4.250	4.700	4.700
Cambodia									1.500	1.500	1.500
India					0.567	1.150	2.389	3.035	4.131	4.826	5.626
Myanmar	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400	1.400
Philippines						5.000	5.000	5.000	5.000	5.000	5.000
Viet Nam										2.000	2.000
C America + Carib			0.016	0.316	0.458	1.187	3.163	3.457	4.417	4.677	4.677
Costa Rica			0.016	0.316	0.316	0.396	2.216	2.216	2.683	2.683	2.683
Dominican Rep					0.142	0.791	0.947	1.227	1.720	1.970	1.970
Honduras								0.014	0.014	0.014	0.014
Nicaragua										0.010	0.010
S America		0.070	0.070	0.070	0.086	0.086	0.086	0.886	0.886	0.986	3.236
Argentina										0.100	0.100
Bolivia											2.000
Colombia											0.250
Ecuador		0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070	0.070
Peru					0.016	0.016	0.016	0.016	0.016	0.016	0.016
Uruguay								0.800	0.800	0.800	0.800

Biogas production

Production de biogaz

Produccion de biogas

Total biogas production

Production totale de biogaz

Producción total de biogás

1,000 m ³	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	13 644 173	14 799 692	16 061 010	16 883 791	16 848 386	16 857 191	16 527 461	15 847 893	15 874 758	15 833 438
Africa	296	881	3 184	8 229	18 214	27 968	39 201	45 636	51 461	55 156
Benin			8	15	20	26	39	36	34	33
Botswana			1	1	1	1	1	1	1	1
Burkina Faso		0	41	264	737	1 469	1 999	2 482	3 041	3 240
Cameroon		10	31	45	68	85	126	143	139	132
Ethiopia	57	74	498	1 449	2 904	4 720	6 176	7 419	8 748	9 972
Gabon								610	610	610
Ghana	110	110	110	292	292	292	4 292	4 302	4 499	4 499
Kenya		2	503	1 899	3 933	6 940	8 638	9 725	10 336	10 363
Mali						6	76	113	161	161
Mozambique									15	15
Nigeria		347	347	353	353	353	298	298	325	325
Rwanda	128	252	615	1 070	4 608	5 128	6 638	7 313	8 647	8 903
Senegal			15	249	394	612	900	1 600	2 139	3 309
Tanzania	2	61	653	1 490	2 886	5 099	6 424	7 163	7 546	7 851
Uganda		25	363	1 102	1 787	3 004	3 305	3 670	3 885	3 974
Zambia							35	70	373	617
Zimbabwe					232	232	253	691	960	1 151
Asia	13 643 049	14 796 521	16 049 315	16 866 791	16 819 116	16 810 958	16 464 056	15 590 158	15 603 803	15 545 167
Afghanistan									25	25
Bangladesh	35 219	40 129	46 457	51 865	57 991	63 591	68 881	71 354	73 266	73 565
Bhutan				22	168	455	774	1 376	1 944	2 244
Cambodia	2 194	3 710	5 880	8 658	11 023	11 526	12 427	16 302	16 680	16 641
China	11 388 364	12 548 896	13 740 204	14 487 465	14 349 844	14 304 143	13 962 937	13 103 930	13 103 930	13 103 930
India	2 015 253	1 954 801	1 959 466	1 975 503	1 996 494	1 979 659	1 918 719	1 837 628	1 819 907	1 758 722
Indonesia		54	1 428	4 023	6 951	9 863	12 341	13 696	16 368	17 445
Lao PDR	242	769	1 580	2 659	4 045	4 021	3 937	3 809	3 639	3 390
Myanmar	921	948	948	948	1 073	1 073	1 069	1 069	1 069	1 049
Nepal	100 117	110 940	122 035	132 393	141 880	150 666	166 689	181 965	190 188	200 472
Pakistan		58	510	1 258	2 053	2 915	4 658	4 839	5 033	4 908
Philippines					8 760	8 760	8 760	8 760	8 760	8 760
Sri Lanka	4 194	4 257	4 321	4 296	4 272	4 247	4 222	4 091	3 822	3 515
Thailand								490	490	490
Viet Nam	96 546	131 958	166 484	197 700	234 564	270 039	298 641	340 848	358 682	350 011
C America + Carib	646	613	6 793	6 999	7 736	14 950	17 313	17 754	21 024	34 148
Costa Rica		4	304	304	505	7 468	7 468	7 774	9 965	9 965
Cuba	644	606	6 487	6 568	6 536	6 649	8 691	8 102	8 198	21 105
Dominican Rep				124	693	830	1 075	1 507	1 726	1 726
El Salvador									120	120
Grenada									2	5
Honduras							17	17	17	17
Jamaica	2	2	2	2	2	2	2	2	2	2
Nicaragua						1	61	352	738	951
Panama									250	250
St Lucia									8	8
S America	182	1 678	1 718	1 772	3 319	3 315	6 891	194 346	198 470	198 966
Argentina									3 997	3 997
Bolivia	36	72	112	148	195	191	187	196	192	371
Brazil								187 434	187 434	187 434
Colombia									18	335
Ecuador	146	146	146	146	146	146	146	151	264	264
Peru		1 460	1 460	1 478	1 478	1 478	1 478	1 486	1 486	1 486
Uruguay							3 580	3 580	3 580	3 580
Venezuela					1 500	1 500	1 500	1 500	1 500	1 500

Production of biogas for cooking
Production de biogaz pour la cuisson
Producción de biogás para cocinar

1,000 m ³	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	13 642 994	14 796 906	16 051 909	16 873 450	16 824 746	16 824 739	16 485 616	15 611 234	15 629 071	15 586 222
Africa	187	771	3 056	7 908	16 433	26 177	32 757	37 325	42 464	45 977
Benin			8	15	20	26	39	36	34	33
Burkina Faso		0	41	264	737	1 469	1 999	2 482	3 041	3 240
Cameroon		10	31	45	68	85	126	143	139	132
Ethiopia	57	74	498	1 449	2 904	4 720	6 176	7 419	8 748	9 972
Kenya		2	487	1 877	3 911	6 918	8 386	9 473	10 084	10 111
Mali						6	76	113	113	113
Nigeria		347	347	347	347	347	292	292	294	294
Rwanda	128	252	615	1 070	3 148	3 668	4 754	4 950	6 109	6 365
Senegal			15	249	394	612	900	1 235	1 774	2 944
Tanzania	2	61	653	1 490	2 886	5 099	6 424	7 163	7 546	7 851
Uganda		25	363	1 102	1 787	2 995	3 296	3 661	3 876	3 964
Zambia							35	70	373	617
Zimbabwe					232	232	253	288	332	340
Asia	13 642 128	14 795 458	16 048 098	16 864 671	16 807 438	16 797 576	16 449 777	15 571 108	15 583 392	15 523 892
Afghanistan									25	25
Bangladesh	35 219	39 987	46 162	51 427	57 407	62 864	68 005	70 451	72 265	72 565
Bhutan				22	168	455	774	1 376	1 944	2 244
Cambodia	2 194	3 710	5 880	8 658	11 023	11 526	12 427	13 382	13 760	13 721
China	11 388 364	12 548 896	13 740 204	14 487 465	14 349 844	14 304 143	13 962 937	13 103 930	13 103 930	13 103 930
India	2 015 253	1 954 801	1 959 466	1 974 741	1 995 081	1 976 685	1 914 996	1 832 583	1 814 065	1 752 020
Indonesia		54	1 428	4 023	6 951	9 863	12 341	13 696	16 368	17 445
Lao PDR	242	769	1 580	2 659	4 045	4 021	3 937	3 809	3 639	3 390
Myanmar		27	27	27	152	152	148	148	148	128
Nepal	100 117	110 940	122 035	132 393	141 880	150 666	166 689	181 965	190 188	200 472
Pakistan		58	510	1 258	2 053	2 915	4 658	4 839	5 033	4 908
Sri Lanka	4 194	4 257	4 321	4 296	4 272	4 247	4 222	4 080	3 770	3 459
Thailand										
Viet Nam	96 546	131 958	166 484	197 700	234 564	270 039	298 641	340 848	358 257	349 586
C America + Carib	644	606	647	728	696	810	2 910	2 608	2 913	16 029
Cuba	644	606	647	728	696	809	2 851	2 262	2 358	15 265
Nicaragua						1	59	346	555	764
S America	36	72	108	144	180	176	172	193	302	324
Argentina										
Bolivia	36	72	108	144	180	176	172	180	177	173
Colombia										26
Ecuador								5	118	118
Peru								7	7	7

Production of biogas for off-grid electricity
 Production de biogaz pour l'électricité hors réseau
 Producción de biogás para electricidad fuera de la red

1,000 m ³	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	1 067	1 213	1 672	2 788	13 104	17 924	20 451	25 878	27 571	28 904
Africa			6	75	75	84	199	618	655	655
Gabon								305	305	305
Ghana				64	64	64	64	69	69	69
Kenya			6	11	11	11	126	126	126	126
Mozambique									15	15
Nigeria									22	22
Senegal								110	110	110
Uganda						9	9	9	9	9
Asia	921	1 063	1 216	2 120	11 678	13 382	14 279	18 549	19 869	20 728
Bangladesh		142	295	438	584	727	876	903	1 001	1 001
Cambodia								2 920	2 920	2 920
India				761	1 413	2 974	3 723	5 045	5 843	6 701
Myanmar	921	921	921	921	921	921	921	921	921	921
Philippines					8 760	8 760	8 760	8 760	8 760	8 760
Viet Nam									425	425
C America + Carib		4	304	428	1 187	4 294	4 556	5 293	5 520	5 520
Costa Rica		4	304	304	494	3 464	3 464	3 770	3 770	3 770
Dominican Rep				124	693	830	1 075	1 507	1 726	1 726
Honduras							17	17	17	17
Jamaica										
Nicaragua									8	8
S America	146	146	146	164	164	164	1 417	1 417	1 527	2 001
Argentina									110	110
Bolivia										183
Colombia										292
Ecuador	146	146	146	146	146	146	146	146	146	146
Peru				18	18	18	18	18	18	18
Uruguay							1 253	1 253	1 253	1 253

Production of biogas for industry
 Production de biogaz pour l'industrie
 Producción de biogás para la industria

1,000 m ³	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total			5 840	5 959	7 459	11 452	17 779	18 339	18 609	18 609
Africa				119	119	119	4 119	4 679	4 789	4 789
Gabon								305	305	305
Ghana				119	119	119	4 119	4 119	4 228	4 228
Senegal								256	256	256
C America + Carib			5 840	5 840	5 840	9 833	9 833	9 833	9 993	9 993
Costa Rica						3 993	3 993	3 993	3 993	3 993
Cuba			5 840	5 840	5 840	5 840	5 840	5 840	5 840	5 840
Nicaragua									160	160
S America					1 500	1 500	3 827	3 827	3 827	3 827
Ecuador										
Uruguay							2 327	2 327	2 327	2 327
Venezuela					1 500	1 500	1 500	1 500	1 500	1 500

Production of biogas for commercial and public services
 Production de biogaz pour les services commerciaux et publics
 Producción de biogás para servicios comerciales y públicos

1,000 m ³	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	112	112	128	135	1 606	1 606	2 029	2 934	5 706	5 894
Africa	110	110	122	128	1 588	1 588	2 011	2 894	3 431	3 614
Botswana			1	1	1	1	1	1	1	1
Ghana	110	110	110	110	110	110	110	110	198	198
Kenya			11	11	11	11	11	11	11	11
Mali									49	49
Nigeria				6	6	6	6	6	6	6
Rwanda					1 460	1 460	1 883	2 363	2 538	2 538
Zimbabwe								403	628	811
Asia								18	59	63
Sri Lanka								11	52	56
Thailand								7	7	7
C America + Carib	2	2	2	2	2	2	2	7	2 201	2 202
Costa Rica									2 191	2 191
Grenada									2	2
Jamaica	2	2	2	2	2	2	2	2	2	2
Nicaragua								5	6	7
S America			4	4	15	15	15	15	15	15
Bolivia			4	4	15	15	15	15	15	15

Production of biogas for agriculture
 Production de biogaz pour l'agriculture
 Producción de biogás para la agricultura

1,000 m ³	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total		1 460	1 460	1 460	1 471	1 471	1 587	189 508	193 802	193 808
Africa							115	119	122	122
Ghana								4	4	4
Kenya							115	115	115	115
Nigeria									2	2
Asia								484	484	484
Thailand								484	484	484
C America + Carib					11	11	12	12	398	404
Costa Rica					11	11	11	11	11	11
Cuba									120	120
El Salvador										3
Grenada										13
Nicaragua							1	1	9	250
Panama									250	250
St Lucia									8	8
S America		1 460	1 460	1 460	1 460	1 460	1 460	188 894	192 798	192 798
Argentina									3 887	3 887
Brazil								187 434	187 434	187 434
Colombia									18	18
Peru		1 460	1 460	1 460	1 460	1 460	1 460	1 460	1 460	1 460

Off-grid energy access

Accès à l'énergie hors réseau

Acceso a la energía fuera de la red

Number of people connected to hydropower

Nombre de personnes connectées à l'hydroélectricité

Número de personas conectadas a la hidroelectricidad

Thousands	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	2 811	3 486	4 151	4 615	5 097	5 496	5 776	6 174	6 371	6 641
Africa	240	251	285	295	330	340	341	414	420	559
Cent Afr Rep										
Eswatini										
Ethiopia	5	5	7	10	10	10	10	10	10	10
Guinea	28	28	28	28	28	28	28	28	28	28
Kenya	59	63	96	96	96	96	96	96	96	97
Lesotho	1	1	1	1	1	1	1	1	1	1
Liberia	62	62	62	62	62	62	63	63	63	63
Madagascar							1	1	1	1
Malawi	32	32	32	37	37	37	37	37	42	42
Mali	2	2	2	2	2	2	2	2	2	2
Mozambique	1	1	1	1	1	1	1	8	8	8
Nigeria								27	27	27
Rwanda	6	12	12	12	17	26	26	26	27	27
Sierra Leone					4	4	4	4	4	142
South Africa	0	0	0	0	0	0	0	0	0	0
Tanzania	35	35	35	35	35	35	35	74	74	74
Uganda	1	3	3	3	5	5	5	5	5	5
Zambia	5	5	5	5	30	30	30	30	30	30
Zimbabwe	2	2	2	2	2	2	2	2	2	2
Asia	2 527	3 189	3 819	4 273	4 719	5 104	5 379	5 686	5 876	6 006
Afghanistan	128	286	383	481	578	676	774	871	969	1 066
Bhutan	8	9	9	9	9	9	9	9	9	9
India	836	1 016	1 184	1 396	1 429	1 569	1 627	1 661	1 690	1 690
Indonesia	114	123	132	147	159	180	203	220	227	227
Malaysia	0	0	1	1	1	1	1	1	1	1
Myanmar	37	37	38	40	40	41	46	101	101	101
Nepal	806	837	883	948	1 035	1 125	1 212	1 310	1 360	1 394
Pakistan	96	339	638	683	890	917	917	917	917	917
Philippines	28	65	70	70	73	73	73	73	73	73
Sri Lanka	15	17	19	22	24	28	31	35	40	40
Tajikistan	56	56	59	72	78	81	81	84	85	85
Thailand	19	19	19	19	19	19	19	19	19	19
Timor Leste	5	5	5	5	5	5	5	5	5	5
Viet Nam	380	380	380	380	380	380	380	380	380	380
C America + Carib	39	41	41	41	42	47	50	69	71	71
Cuba								17	17	17
Dominican Rep	1	2	3	3	4	6	9	11	13	13
El Salvador	1	1	1	1	1	1	1	1	1	1
Haiti	34	34	34	34	34	34	34	34	34	34
Honduras						2	2	2	2	2
Nicaragua	4	4	4	4	4	4	4	4	4	4
Oceania	3	3	3	3	3	3	3	3	3	3
Fiji	3	3	3	3	3	3	3	3	3	3
S America	2	2	2	2	2	2	2	2	2	2
Argentina	2	2	2	2	2	2	2	2	2	2
Brazil			0	0	0	0	0	0	0	0
Colombia										
Peru	0	0	0	0	0	0	0	0	0	0

Number of people using solar lights (<11 W)
 Nombre de personnes utilisant des lampes solaires (<11 W)
 Número de personas que usan lámparas solares (<11 W)

Thousands	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	1 231	1 375	977	5 818	15 677	40 084	64 416	88 916	100 853	120 173
Africa				1 680	6 465	19 784	33 229	46 758	48 531	47 318
Angola										1
Benin								143	950	1 021
Burkina Faso				23	89	288	508	990	1 076	1 732
Burundi						26	58	74	48	16
Cabo Verde										
Cameroon									220	381
Cent Afr Rep										
Chad										
Congo DR				37	139	454	801	1 004	1 050	2 052
Cote d'Ivoire								144	300	430
Ethiopia				361	1 375	4 471	7 891	10 810	9 811	7 589
Gabon										
Gambia									8	16
Ghana						29	32	98	255	465
Guinea										
Guinea Bissau										
Kenya				452	1 720	5 594	9 864	13 487	14 070	12 359
Liberia								55	119	188
Madagascar									88	328
Malawi				70	109	195	300	606	972	1 401
Mali								277	473	822
Mauritania										
Mauritius				33	60	87	74	93	159	215
Mozambique						19	62	62	103	113
Namibia									9	35
Niger							39	39	39	19
Nigeria				31	117	382	674	1 450	2 275	2 498
Rwanda				64	245	796	1 403	1 619	1 746	1 881
Senegal						190	380	744	923	1 396
Sierra Leone								100	228	409
Somalia									61	136
South Africa								200	235	422
South Sudan										
Sudan							1	1	1	
Tanzania				357	1 357	4 413	7 783	10 249	8 509	5 184
Togo									1	21
Uganda				34	131	426	743	1 405	2 349	3 851
Zambia								693	957	1 131
Zimbabwe				217	1 123	2 415	2 616	2 417	1 495	1 204
Asia	1 231	1 375	974	4 067	9 041	19 851	30 366	40 270	50 124	70 315
Afghanistan						221	443	664	664	664
Bangladesh								329	358	901
Bhutan				10	10	10				
Cambodia								46	148	178
India	1 231	1 375	974	3 902	8 624	18 723	28 353	37 413	46 973	66 140
Indonesia				27	104	338	655	665	611	634
Malaysia										
Myanmar				14	54	175	338	421	414	254
Nepal								59	207	232
Pakistan				14	54	176	340	403	434	526
Philippines							80	111	131	323
Sri Lanka				100	196	209	129	131	154	462
Thailand										
Timor Leste							28	28	28	
C America + Carib			3	4	8	7	9	6	35	116
Bahamas										
Dominica										1
Dominican Rep										
Guatemala										4
Haiti					3	3	3		27	68
Honduras							2	2	2	

Nicaragua	3	4	5	4	4	4	2	1
Panama							3	12
Puerto Rico								31
Middle East		50	104	226	398	977	997	1100
Jordan		50	104	226	398	977	997	1100
Yemen								
Oceania		15	58	187	363	836	1095	1189
Fiji								86
Nauru								25
Papua N Guin		15	58	187	363	836	1067	958
Samoa								22
Vanuatu							28	98
S America	0	1	2	28	51	69	71	136
Argentina								
Bolivia	0	1	1	21	27	33	25	50
Colombia							5	6
Peru		1	1	8	25	37	40	79

Number of people using SHS (11-50 W)
 Nombre de personnes utilisant des SSD (11-50 W)
 Número de personas que usan SSD (11-50 W)

Thousands	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	2 748	4 305	6 168	8 334	11 508	15 573	18 741	21 201	21 468	20 682
Africa				43	165	571	1 055	1 825	2 470	3 195
Cameroon										
Ethiopia							1	1	3	3
Ghana						35	35	35	35	44
Kenya				14	53	173	330	491	674	986
Madagascar										52
Mozambique									3	3
Nigeria									39	109
Rwanda				3	10	31	59	88	103	214
Senegal										
Tanzania				11	42	138	262	390	428	542
Uganda				16	60	194	369	820	1 127	1 181
Zambia										3
Zimbabwe									58	58
Asia	2 732	4 289	6 152	8 274	11 284	14 857	17 507	19 180	18 749	17 289
Afghanistan						6	12	21	27	33
Bangladesh	1 221	2 013	3 540	4 678	7 440	10 291	13 288	14 155	13 929	12 383
Cambodia						55	73	115	172	172
India	1 134	1 698	1 951	2 707	2 822	3 202	2 710	3 150	2 882	2 985
Indonesia										
Myanmar										49
Nepal	377	577	660	890	1 022	1 303	1 424	1 730	1 728	1 639
Philippines								10	10	28
C America + Carib					21	21	34	34	38	17
Guatemala							2	2	2	2
Honduras					21	21	27	27	31	10
Panama							5	5	5	5
Oceania									34	34
Papua N Guin									34	34
S America	16	16	16	16	37	124	145	162	177	147
Bolivia						30	30	30	30	30
Chile										1
Peru	16	16	16	16	37	94	115	132	147	116

Number of people using SHS (>50 W)
 Nombre de personnes utilisant des SSD (>50 W)
 Número de personas que usan SSD (>50 W)

Thousands	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	715	753	798	830	871	936	1 010	1 271	2 116	3 297
Africa	424	429	430	432	446	500	565	836	1 604	2 680
Burkina Faso		0	0	1	2	4	7	10	12	14
Cote d'Ivoire										
Egypt									29	29
Ghana										15
Guinea Bissau						3	6	8	11	14
Kenya								3	3	151
Lesotho					7	7	7	7	7	
Madagascar										92
Mali						7	11	15	15	32
Morocco	357	357	357	357	357	357	357	483	483	483
Nigeria						26	52	79	105	398
Rwanda								31	249	449
South Africa						14	27	41	55	68
Tanzania							13	60	412	685
Tunisia	68	72	72	74	80	80	80	80	99	99
Uganda						3	6	20	126	150
Asia	285	318	347	376	396	400	403	407	411	503
Afghanistan						4	8	12	15	19
Bangladesh										
India										88
Indonesia	11	13	13	13	13	13	13	13	13	13
Mongolia	168	188	209	229	249	249	249	249	249	249
Philippines								0	0	0
Sri Lanka	107	116	125	134	134	134	134	134	134	134
Viet Nam		1	1	1	1	1				
C America + Carib							0	1	1	7
Cuba							0	1	1	7
Honduras										
Oceania	5	6	8	8	16	22	27	27	27	27
Fiji	5	6	8	8	16	22	27	27	27	27
Vanuatu										
S America	0		14	14	14	14	14		72	80
Argentina			14	14	14	14	14			
Brazil	0								1	8
Colombia									57	57
Peru									15	15

Number of people connected to solar mini-grids (Tier 1)
 Personnes connectées aux mini-réseaux solaires (N.1)
 Número de personas conectadas a mini-redes solares (N.1)

Thousands	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	0	146	216	230	323	385	567	691	805	959
Africa		1	3	8	101	163	233	282	384	464
Benin									79	79
Burkina Faso									3	10
Cameroon		1	1	1	1	1	1	8	15	19
Ghana							2	2	2	2
Kenya					63	63	63	75	77	77
Liberia										16
Madagascar			2	2	2	2	2	2	2	2
Mali				5	31	84	119	144	150	157
Mauritania							16	16	16	16
Mozambique						1	3	3	3	3
Nigeria					5	9	24	29	33	38
Rwanda										10
Senegal									1	1
Sierra Leone										24
Tanzania						2	2	2	2	9
Zambia								1	1	1
Asia							112	187	199	273
Bangladesh								25	25	65
India							112	152	165	197
Myanmar								10	10	11
C America + Carib									0	0
Haiti									0	0
S America	0	145	213	222	222	222	222	222	222	222
Bolivia										
Brazil										
Ecuador										
Paraguay										
Peru	0	0	0	9	9	9	9	9	9	9
Venezuela		145	213	213	213	213	213	213	213	213

Number of people connected to solar mini-grids (Tier 2+)
 Personnes connectées aux mini-réseaux solaires (N.2)
 Número de personas conectadas a mini-redes solares (N.2)

Thousands	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	219	338	381	506	627	757	853	1195	1 498	1 809
Africa	18	35	36	46	108	151	171	334	624	769
Algeria	6	6	6	6	6	6	6	91	344	344
Benin								1	3	3
Burkina Faso									1	1
Cabo Verde					0	0	0	1	1	1
Cameroon										120
Chad								1	1	1
Cote d'Ivoire								4	4	4
Egypt								25	25	25
Eritrea									16	16
Gambia								2	2	2
Ghana									2	2
Guinea Bissau									7	7
Kenya						2	3	3	4	4
Madagascar								6	6	8
Mali	3	3	4	13	13	44	49	65	65	79
Mauritania									0	0
Mozambique						11	11	11	11	11
Namibia				1	1	1	3	3	3	3
Niger							1	1	1	2
Nigeria								14	14	14
Rwanda								5	6	6
Senegal		17	17	17	78	78	78	78	78	78
Sierra Leone						0	0	0	0	0
South Africa				0	0	0	0	0	0	0
Tanzania							2	2	4	6
Togo										4
Uganda	9	9	9	9	9	9	19	22	24	25
Zimbabwe									3	3
Asia	201	302	345	460	516	603	679	795	805	893
Afghanistan			2	2	2	5	14	14	20	20
Bangladesh			2	2	2	2	12	39	39	109
India	111	135	162	173	184	197	197	197	197	197
Indonesia	90	136	148	150	195	266	319	408	408	421
Malaysia							1	3	3	3
Maldives							2	2	2	2
Myanmar									4	9
Nepal		31	31	133	133	133	133	133	133	133
Pakistan										
C America + Carib					2	2	2	5	5	85
Cuba										80
Haiti					2	2	2	5	5	5
Middle East		0	0	0	0	0	0	0	0	0
Palestine		0	0	0	0	0	0	0	0	0
Oceania								14	14	14
Fiji								14	14	14
S America				0	1	1	1	46	48	48
Bolivia				0	0	0	0	0	0	0
Brazil					1	1	1	1	1	1
Ecuador					0	0	0	0	0	0
Paraguay				0	0	0	0	0	0	0
Peru										
Uruguay								0	0	0
Venezuela								44	44	44

Number of people using biogas electricity
 Nombre de personnes utilisant l'électricité biogaz
 Número de personas que usan electricidad a partir de biogás

Thousands	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	226.5	226.5	226.5	230.4	232.1	234.3	236.3	271.4	276.8	292.8
Africa						0.1	0.1	0.1	0.7	0.7
Uganda						0.1	0.1	0.1	0.1	0.1
Mozambique									0.6	0.6
Asia	226.5	226.5	226.5	230.2	231.9	234.0	236.0	271.1	275.9	291.9
Cambodia								34.3	34.3	34.3
India				3.7	5.4	7.5	9.5	10.3	15.1	31.1
Myanmar	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5	226.5
S America				0.2	0.2	0.2	0.2	0.2	0.2	0.2
Peru				0.2	0.2	0.2	0.2	0.2	0.2	0.2

Number of people using biogas for cooking

Nombre de personnes utilisant le biogaz pour la cuisson

Número de personas que usan biogás para cocinar

Thousands	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total	102 735	115 000	120 021	126 512	128 145	127 672	125 148	125 670	125 797	125 645
Africa	1	6	24	63	132	215	274	320	373	417
Benin			0	0	0	0	0	0	0	0
Burkina Faso		0	0	3	8	16	22	27	33	36
Cameroon		0	0	0	1	1	1	1	1	1
Ethiopia	0	1	4	11	22	36	48	57	67	77
Kenya		0	4	14	30	54	65	74	78	79
Mali						0	1	2	2	2
Nigeria		3	3	3	3	3	2	2	2	2
Rwanda	1	2	5	8	23	27	35	37	45	47
Senegal			0	3	6	11	19	30	45	71
Tanzania	0	1	5	12	24	42	53	59	62	64
Uganda		0	3	8	14	23	25	28	30	31
Zambia							0	1	3	5
Zimbabwe					2	2	2	2	2	2
Asia	102 729	114 989	119 991	126 442	128 006	127 449	124 850	125 327	125 399	125 126
Afghanistan									0	0
Bangladesh	146	166	194	217	244	269	291	303	312	314
Bhutan				0	1	4	6	12	16	19
Cambodia	19	32	50	74	94	98	106	114	117	117
China	90 455	102 763	107 442	113 523	114 668	113 938	111 355	111 938	111 938	111 938
India	10 822	10 497	10 522	10 604	10 713	10 615	10 283	9 841	9 741	9 408
Indonesia		0	6	17	30	42	53	58	70	74
Lao PDR	1	4	8	13	20	20	19	19	18	17
Myanmar		0	0	0	1	1	1	1	1	1
Nepal	875	970	1 067	1 158	1 240	1 317	1 457	1 591	1 663	1 753
Pakistan		1	4	11	18	25	41	42	44	43
Sri Lanka	18	18	18	18	18	18	18	17	16	15
Thailand										
Viet Nam	394	539	680	807	957	1 102	1 219	1 391	1 462	1 427
C America + Carib	4	4	4	4	4	5	21	20	22	99
Cuba	4	4	4	4	4	5	21	17	18	94
Nicaragua						0	0	2	4	5
S America	1	1	2	2	3	3	3	3	4	4
Argentina										
Bolivia	1	1	2	2	3	3	3	3	3	3
Colombia										0
Ecuador								0	1	1
Peru								0	0	0



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