

RENEWABLE CAPACITY STATISTICS 2022

STATISTIQUES DE CAPACITÉ RENOUVELABLE 2022

ESTADÍSTICAS DE CAPACIDAD RENOVABLE 2022

Copyright © IRENA 2022

Unless otherwise stated, material in this publication may be freely used, shared, copied, reproduced, printed and/or stored, provided that appropriate acknowledgment is given of IRENA as the source and copyright holder. Material in this publication that is attributed to third parties may be subject to separate terms of use and restrictions, and appropriate permissions from these third parties may need to be secured before any use of such material.

ISBN: 978-92-9260-428-8

About IRENA

The International Renewable Energy Agency (IRENA) is an intergovernmental organisation that supports countries in their transition to a sustainable energy future, and serves as the principal platform for international co-operation, a centre of excellence, and a repository of policy, technology, resource and financial knowledge on renewable energy. IRENA promotes the widespread adoption and sustainable use of all forms of renewable energy, including bioenergy, geothermal, hydropower, ocean, solar and wind energy, in the pursuit of sustainable development, energy access, energy security and low-carbon economic growth and prosperity. www.irena.org

Acknowledgements

Prepared by: Arvydas Lebedys, Dennis Akande, Nicolas Coënt, Nazik Elhassan, Gerardo Escamilla, Iana Arkhipova and Adrian Whiteman. The authors also gratefully acknowledge the contribution to this dataset from national statistical focal points in countries.

For further information or to provide feedback, please contact the IRENA Statistics team (statistics@irena.org).

This report is available for download from: www.irena.org/Publications

Data can be downloaded at: www.irena.org/Statistics/Download-Data

This report should be cited: IRENA (2022), Renewable Energy Statistics 2022, The International Renewable Energy Agency, Abu Dhabi

Disclaimer

This publication and the material herein are provided "as is". All reasonable precautions have been taken by IRENA to verify the reliability of the material in this publication. However, neither IRENA nor any of its officials, agents, data or other third-party content providers provides a warranty of any kind, either expressed or implied, and they accept no responsibility or liability for any consequence of use of the publication or material herein.

The information contained herein does not necessarily represent the views of the Members of IRENA. The mention of specific companies or certain projects or products does not imply that they are endorsed or recommended by IRENA in preference to others of a similar nature that are not mentioned. The designations employed and the presentation of material herein do not imply the expression of any opinion on the part of IRENA concerning the legal status of any region, country, territory, city or area or of its authorities, or concerning the delimitation of frontiers or boundaries.

FOREWORD

The global shift to renewables is underway.

This latest edition of *Renewable Capacity Statistics* comes as a statement to the world that renewables are the *de-facto* energy choice for new power generation, despite the devastating effect the COVID-19 pandemic has had on society and public agenda priorities.

By the end of 2021, renewables accounted for 38 per cent of global installed capacity. The large existing stock of non-renewable energy signifies a carbon lock-in for many countries that must face the decision to decommission fossil fuel power plants before the end of their useful lifetimes. This is especially evident in those countries that depend almost entirely on large-scale fossil fuel power generation.

2021 was a strong year for the energy transition – the world added almost 257 Gigawatts (GW) of renewables, increasing the stock of renewable power by 9.1 per cent and contributing to an unprecedented 81 per cent of global power additions. Solar power alone accounted for over half of the renewable additions with a record 133 GW last year, followed by 93 GW of wind energy overall, with offshore wind energy capacity hitting a record 21 GW.

Indeed, this recent progress is encouraging, but enormous efforts are required urgently to stay on the pathway to the 1.5°C climate goal. Choosing renewables should be the standard for new power additions as we act resolutely to stop new fossil fuel power generation, phase out the assets, and upgrade infrastructure to ensure system flexibility that allows a higher integration of variable renewables.

The energy transition gained momentum last year, as countries continued to deliver on the decade of action through increased renewables deployment; but the rate of growth is still not sufficient to guarantee a net zero future. Renewables need to reach around 40 per cent in total energy generation across all sectors by 2030.

This report should serve not only as a valuable resource to quantify progress, but also as a stark reminder of the work that lies ahead to achieve a just, inclusive and sustainable future for all.

Francesco La Camera

Director-General

International Renewable Energy Agency

TABLE OF CONTENTS

TABLE DES MATIÈRES

TABLA DE CONTENIDOS

Total capacity - Capacité totale - Capacidad total

Total renewable energy Total énergies renouvelables Total energías renovables	2
Hydropower Hydroélectricité Hidroeléctrica	5
Renewable hydropower (including mixed plants) Hydroélectricité renouvelable (y compris les centrales mixtes) Hidroeléctrica renovable (incluidas las plantas mixtas)	8
Pure pumped storage Accumulation par pompage Hidroeléctrica de bombeo pura	11
Marine energy Énergie marine Energía marina	12
Wind energy Énergie éolienne Energía eólica	13
Onshore wind energy Énergie éolienne terrestre Energía eólica terrestre	16
Offshore wind energy Énergie éolienne maritime Energía eólica marina	19
Solar energy Énergie solaire Energía solar	20
Solar photovoltaic Solaire photovoltaïque Solar fotovoltaica	23
Concentrated solar power Solaire thermique à concentration Energía solar termoeléctrica	26
Bioenergy Bioénergie Bioenergía	27
Solid biofuels and renewable waste Biocombustibles solides et déchets renouvelables Biocombustibles sólidos y residuos renovables	29

Bagasse	
Bagasse	31
Bagazo	
Renewable municipal waste	
Déchets municipaux renouvelables	32
Residuos municipales renovables	
Other solid biofuels	
Autres biocarburants solides	33
Otros biocombustibles sólidos	
Liquid biofuels	
Biocarburants liquides	35
Biocarburantes líquidos	
Biogas	
Biogaz	36
Biogás	
Geothermal energy	
Énergie géothermique	38
Energía geotérmica	

Off-grid capacity - Capacité hors réseau - Capacidad fuera de la red

Total renewable energy	
Total énergies renouvelables	40
Total energías renovables	
Hydropower	
Hydroélectricité	42
Hidroeléctrica	
Solar photovoltaic	
Solaire photovoltaïque	43
Solar fotovoltaica	
Other renewable energy	
Autres énergies renouvelables	45
Otras energías renovables	

Other indicators - Autres indicateurs - Otros indicadores

Renewable energy share of electricity capacity	
La part d'énergie renouvelable dans la puissance installée	48
Proporción de energía renovable en la capacidad eléctrica	

NOTES TO THE TABLES

The renewable power capacity data shown in these tables represents the maximum net generating capacity of power plants and other installations that use renewable energy sources to produce electricity. For most countries and technologies, the data reflects the capacity installed and connected at the end of the calendar year. The data is presented in megawatts (MW) rounded to the nearest one megawatt, with figures between zero and 0.5MW shown as a 0.

Data has been obtained from a variety of sources, including: the IRENA questionnaire; official statistics; industry association reports; and other reports and news articles. Numbers followed by the letter "o" are figures that have been obtained from official sources such as national statistical offices, government departments, regulators and power companies. The letter "u" follows figures that have been obtained from unofficial sources, such as industry associations and news articles. The letter "e" follows figures that have been estimated by IRENA from a variety of different data sources. All data from the IRENA questionnaire is presented without any indicator.

Data are available for download at www.irena.org/statistics.

NOTES À PROPOS DES TABLEAUX

Les données sur les capacités électriques renouvelables présentées dans ces tableaux représentent la capacité maximale nette de génération des centrales électriques et autres installations utilisant des sources d'énergie renouvelables pour produire de l'électricité. Pour la plupart des pays et technologies, les données reflètent la capacité installée et connectée à la fin de l'année civile. Les données sont exprimées en mégawatts (MW) arrondies à l'unité la plus proche ; les valeurs inférieures à 0,5 MW apparaissent comme 0.

Les données proviennent de sources multiples, y compris : le questionnaire IRENA ; les statistiques officielles ; des rapports d'associations de l'industrie ; et d'autres rapports et articles de presse. Les valeurs suivies de la lettre "o" ont été obtenues à partir de sources officielles (par exemple instituts statistiques nationaux, agences gouvernementales, régulateurs, compagnies d'électricité). La lettre "u" correspond à des valeurs venant de sources non officielles comme des rapports d'associations de l'industrie ou des articles de journaux. La lettre "e" correspond à des valeurs qui ont été estimées par l'IRENA à partir de sources diverses. Toutes les données venant du questionnaire IRENA sont présentées sans indication.

Les données sont téléchargeables sur le site www.irena.org/statistics.

NOTAS A LAS TABLAS

Los datos de capacidad de generación eléctrica con energías renovables que se muestran en estas tablas representan la capacidad máxima de generación neta de las centrales eléctricas y otras instalaciones que utilizan fuentes de energías renovables para producir electricidad. Para la mayoría de los países y las tecnologías, los datos reflejan la capacidad instalada y conectada al final del año natural. Los datos se presentan en megavatios (MW) redondeados al megavatio entero más cercano, con cifras entre cero y 0,5 MW representadas como un 0.

Los datos se han obtenido a partir de una variedad de fuentes, incluyendo: el cuestionario de IRENA; estadísticas oficiales; informes de las asociaciones industriales; y otros informes y artículos de noticias. Los números acompañados de la letra "o" son cifras que se han obtenido a partir de fuentes oficiales, como oficinas nacionales de estadística, departamentos gubernamentales, reguladores y compañías eléctricas. La letra "u" acompaña a cifras que se han obtenido a partir de fuentes no oficiales, tales como asociaciones industriales y artículos de noticias. La letra "e" acompaña a números que han sido estimados por IRENA a partir de diversas fuentes de datos. Todos los datos provenientes del cuestionario de IRENA se presentan sin ningún indicador.

Los datos están disponibles para su descarga en www.irena.org/statistics.

COUNTRIES, AREAS AND REGIONS SHOWN IN THE TABLES

PAYS, ZONES ET RÉGIONS FIGURANT DANS LES TABLEAUX

PAÍSES, ZONAS Y REGIONES MOSTRADAS EN LAS TABLAS

Label/En-tête/Rótulo	English	Français	Español
WORLD	WORLD	MONDE	MUNDO
AFRICA	AFRICA	AFRIQUE	ÁFRICA
Algeria	Algeria	Algérie	Argelia
Angola	Angola	Angola	Angola
Benin	Benin	Bénin	Benín
Botswana	Botswana	Botswana	Botsuana
Burkina Faso	Burkina Faso	Burkina Faso	Burkina Faso
Burundi	Burundi	Burundi	Burundi
Cabo Verde	Cabo Verde	Cabo Verde	Cabo Verde
Cameroon	Cameroon	Cameroun	Camerún
Cent Afr Rep	Central African Republic	République centrafricaine	República Centroafricana
Chad	Chad	Tchad	Chad
Comoros	Comoros	Comores	Comoras
Congo DR	Democratic Republic of the Congo	République démocratique du Congo	República Democrática del Congo
Congo Rep	Congo	Congo	República del Congo
Cote d'Ivoire	Côte d'Ivoire	Côte d'Ivoire	Côte d'Ivoire
Djibouti	Djibouti	Djibouti	Djibouti
Egypt	Egypt	Égypte	Egipto
Eq Guinea	Equatorial Guinea	Guinée équatoriale	Guinea Ecuatorial
Eritrea	Eritrea	Érythrée	Eritrea
Eswatini	Eswatini	Eswatini	Eswatini
Ethiopia	Ethiopia	Éthiopie	Etiopía
Gabon	Gabon	Gabon	Gabón
Gambia	Gambia	Gambie	Gambia
Ghana	Ghana	Ghana	Ghana
Guinea	Guinea	Guinée	Guinea
Guinea Bissau	Guinea-Bissau	Guinée-Bissau	Guinea-Bisáu
Kenya	Kenya	Kenya	Kenia
Lesotho	Lesotho	Lesotho	Lesoto
Liberia	Liberia	Libéria	Liberia
Libya	Libya	Libye	Libia
Madagascar	Madagascar	Madagascar	Madagascar
Malawi	Malawi	Malawi	Malawi
Mali	Mali	Mali	Malí
Mauritania	Mauritania	Mauritanie	Mauritania
Mauritius	Mauritius	Maurice	Mauricio
Mayotte	Mayotte	Mayotte	Mayotte
Morocco	Morocco	Maroc	Marruecos
Mozambique	Mozambique	Mozambique	Mozambique
Namibia	Namibia	Namibie	Namibia
Niger	Niger	Niger	Níger
Nigeria	Nigeria	Nigéria	Nigeria
Reunion	Réunion	Réunion	Reunión
Rwanda	Rwanda	Rwanda	Rwanda
Saint Helena	Saint Helena, Ascension and Tristan da Cunha	Sainte-Hélène, Ascension et Tristan de Cunha	Santa Helena, Ascensión y Tristán de Acuña
Sao Tome Prn	Sao Tome and Principe	Sao Tomé-et-Príncipe	Santo Tomé y Príncipe
Senegal	Senegal	Sénégal	Senegal
Seychelles	Seychelles	Seychelles	Seychelles
Sierra Leone	Sierra Leone	Sierra Leone	Sierra Leona
Somalia	Somalia	Somalie	Somalia
South Africa	South Africa	Afrique du Sud	Sudáfrica
South Sudan	South Sudan	Soudan du Sud	Sudán del Sur
Sudan	Sudan	Soudan	Sudán

Label/En-tête/Rótulo	English	Français	Español
Tanzania	United Republic of Tanzania	République-Unie de Tanzanie	República Unida de Tanzania
Togo	Togo	Togo	Togo
Tunisia	Tunisia	Tunisie	Túnez
Uganda	Uganda	Ouganda	Uganda
Westn Sahara	Western Sahara	Sahara occidental	Sahara occidental
Zambia	Zambia	Zambie	Zambia
Zimbabwe	Zimbabwe	Zimbabwe	Zimbabue
ASIA	ASIA	ASIE	ASIA
Afghanistan	Afghanistan	Afghanistan	Afganistán
Bangladesh	Bangladesh	Bangladesh	Bangladesh
Bhutan	Bhutan	Bhoutan	Bután
Brunei Darism	Brunei Darussalam	Brunéi Darussalam	Brunei Darussalam
Cambodia	Cambodia	Cambodge	Camboya
China	China	Chine	China
China HK SAR	China, Hong Kong Special Administrative Region	Chine, région administrative spéciale de Hong Kong	China, región administrativa especial de Hong Kong
China Mac SAR	China, Macao Special Administrative Region	Chine, région administrative spéciale de Macao	China, región administrativa especial de Macao
Chinese Taipei	Chinese Taipei	Taipei chinois	China Taipéi
India	India	Inde	India
Indonesia	Indonesia	Indonésie	Indonesia
Japan	Japan	Japon	Japón
Kazakhstan	Kazakhstan	Kazakhstan	Kazajstán
Korea DPR	Democratic People's Republic of Korea	République démocratique populaire de Corée	República Popular Democrática de Corea
Korea Rep	Republic of Korea	République de Corée	República de Corea
Kyrgyzstan	Kyrgyzstan	Kirghizistan	Kirguistán
Lao PDR	Lao People's Democratic Republic	République démocratique populaire lao	República Democrática Popular Lao
Malaysia	Malaysia	Malaisie	Malasia
Maldives	Maldives	Maldives	Maldivas
Mongolia	Mongolia	Mongolie	Mongolia
Myanmar	Myanmar	Myanmar	Myanmar
Nepal	Nepal	Népal	Nepal
Pakistan	Pakistan	Pakistan	Pakistán
Philippines	Philippines	Philippines	Filipinas
Singapore	Singapore	Singapour	Singapur
Sri Lanka	Sri Lanka	Sri Lanka	Sri Lanka
Tajikistan	Tajikistan	Tadjikistan	Tayikistán
Thailand	Thailand	Thaïlande	Tailandia
Timor Leste	Timor-Leste	Timor-Leste	Timor-Leste
Turkmenistan	Turkmenistan	Turkménistan	Turkmenistán
Uzbekistan	Uzbekistan	Ouzbékistan	Uzbekistán
Viet Nam	Viet Nam	Viet Nam	Viet Nam
C AMERICA + CARIB	CENTRAL AMERICA AND THE CARIBBEAN	AMÉRIQUE CENTRALE ET CARAÏBES	CENTROAMÉRICA Y EL CARIBE
Anguilla	Anguilla	Anguilla	Anguila
Antigua Barb	Antigua and Barbuda	Antigua-et-Barbuda	Antigua y Barbuda
Aruba	Aruba	Aruba	Aruba
Bahamas	Bahamas	Bahamas	Bahamas
Barbados	Barbados	Barbade	Barbados
Belize	Belize	Belize	Belice
BES Islands	Bonaire, Sint Eustatius and Saba	Bonaire, Saint-Eustache et Saba	Bonaire, San Eustaquio y Saba
Br Virgin Is	British Virgin Islands	Îles Vierges britanniques	Islas Vírgenes Británicas
Cayman Is	Cayman Islands	Îles Caïmanes	Islas Caimán
Costa Rica	Costa Rica	Costa Rica	Costa Rica
Cuba	Cuba	Cuba	Cuba
Curacao	Curacao	Curaçao	Curacao
Dominica	Dominica	Dominique	Dominica
Dominican Rep	Dominican Republic	République dominicaine	República Dominicana

Label/En-tête/Rótulo	English	Français	Español
El Salvador	El Salvador	El Salvador	El Salvador
Grenada	Grenada	Grenade	Granada
Guadeloupe	Guadeloupe	Guadeloupe	Guadalupe
Guatemala	Guatemala	Guatemala	Guatemala
Haiti	Haiti	Haïti	Haití
Honduras	Honduras	Honduras	Honduras
Jamaica	Jamaica	Jamaïque	Jamaica
Martinique	Martinique	Martinique	Martinica
Montserrat	Montserrat	Montserrat	Montserrat
Nicaragua	Nicaragua	Nicaragua	Nicaragua
Panama	Panama	Panama	Panamá
Puerto Rico	Puerto Rico	Porto Rico	Puerto Rico
St Barth	Saint Barthélemy	Saint Barthélemy	San Bartolomé
St Kitts Nevis	Saint Kitts and Nevis	Saint-Kitts-et-Nevis	Saint Kitts y Nevis
St Lucia	Saint Lucia	Sainte-Lucie	Santa Lucía
St Maarten	Sint Maarten	Saint Martin (partie néerlandaise)	San Martín (parte neerlandesa)
St Martin	Saint Martin	Saint Martin (partie française)	San Martín (parte francesa)
St Vincent Gren	Saint Vincent and the Grenadines	Saint-Vincent-et-les Grenadines	San Vicente y las Granadinas
Trinidad Tobago	Trinidad and Tobago	Trinité-et-Tobago	Trinidad y Tabago
Turks Caicos	Turks and Caicos Islands	Îles Turques-et-Caïques	Islas Turcas y Caicos
US Virgin Is	United States Virgin Islands	Îles Vierges américaines	Islas Vírgenes Estadounidenses

EURASIA

EURASIA

EURASIE

EURASIA

Armenia	Armenia	Arménie	Armenia
Azerbaijan	Azerbaijan	Azerbaïdjan	Azerbaiyán
Georgia	Georgia	Géorgie	Georgia
Russian Fed	Russian Federation	Fédération de Russie	Federación de Rusia
Turkey	Turkey	Turquie	Turquía

EUROPE

EUROPE

EUROPE

EUROPA

Albania	Albania	Albanie	Albania
Andorra	Andorra	Andorre	Andorra
Austria	Austria	Autriche	Austria
Belarus	Belarus	Bélarus	Belarús
Belgium	Belgium	Belgique	Bélgica
Bosnia Herzg	Bosnia and Herzegovina	Bosnie-Herzégovine	Bosnia-Herzegovina
Bulgaria	Bulgaria	Bulgarie	Bulgaria
Croatia	Croatia	Croatie	Croacia
Cyprus	Cyprus	Chypre	Chipre
Czechia	Czech Republic	République tchèque	República Checa
Denmark	Denmark	Danemark	Dinamarca
Estonia	Estonia	Estonie	Estonia
Faroe Islands	Faroe Islands	Îles Féroé	Islas Feroe
Finland	Finland	Finlande	Finlandia
France	France	France	Francia
Germany	Germany	Allemagne	Alemania
Gibraltar	Gibraltar	Gibraltar	Gibraltar
Greece	Greece	Grèce	Grecia
Holy See	Holy See	Saint-Siège	Santa Sede
Hungary	Hungary	Hongrie	Hungría
Iceland	Iceland	Islande	Islandia
Ireland	Ireland	Irlande	Irlanda
Italy	Italy	Italie	Italia
Kosovo*	Kosovo*	Kosovo*	Kosovo*
Latvia	Latvia	Lettonie	Letonia
Liechtenstein	Liechtenstein	Liechtenstein	Liechtenstein
Lithuania	Lithuania	Lituanie	Lituania
Luxembourg	Luxembourg	Luxembourg	Luxemburgo
Malta	Malta	Malte	Malta
Moldova Rep	Republic of Moldova	République de Moldova	República de Moldavia
Monaco	Monaco	Monaco	Mónaco

Label/En-tête/Rótulo	English	Français	Español
Montenegro	Montenegro	Monténégro	Montenegro
Netherlands	Netherlands	Pays-Bas	Países Bajos
North Macedonia	North Macedonia	Macédoine du Nord	Macedonia del Norte
Norway	Norway	Norvège	Noruega
Poland	Poland	Pologne	Polonia
Portugal	Portugal	Portugal	Portugal
Romania	Romania	Roumanie	Rumania
San Marino	San Marino	Saint-Marin	San Marino
Serbia	Serbia	Serbie	Serbia
Slovakia	Slovakia	Slovaquie	Eslovaquia
Slovenia	Slovenia	Slovénie	Eslovenia
Spain	Spain	Espagne	España
Sweden	Sweden	Suède	Suecia
Switzerland	Switzerland	Suisse	Suiza
UK	United Kingdom of Great Britain and Northern Ireland	Royaume-Uni de Grande-Bretagne et d'Irlande du Nord	Reino Unido de Gran Bretaña e Irlanda del Norte
Ukraine	Ukraine	Ukraine	Ucrania
MIDDLE EAST	MIDDLE EAST	MOYEN-ORIENT	MEDIO ESTE
Bahrain	Bahrain	Bahreïn	Bahréin
Iran IR	Iran (Islamic Republic of)	République islamique d'Iran	Irán (República Islámica del)
Iraq	Iraq	Iraq	Iraq
Israel	Israel	Israël	Israel
Jordan	Jordan	Jordanie	Jordania
Kuwait	Kuwait	Koweït	Kuwait
Lebanon	Lebanon	Liban	Líbano
Oman	Oman	Oman	Omán
Qatar	Qatar	Qatar	Qatar
Saudi Arabia	Saudi Arabia	Arabie saoudite	Arabia Saudita
Palestine	State of Palestine	État de Palestine	Estado de Palestina
Syrian AR	Syrian Arab Republic	République arabe syrienne	República Árabe Siria
United Arab Em	United Arab Emirates	Émirats arabes unis	Emiratos Árabes Unidos
Yemen	Yemen	Yémen	Yemen
N AMERICA	NORTH AMERICA	AMÉRIQUE DU NORD	NORTEAMÉRICA
Bermuda	Bermuda	Bermudes	Bermudas
Canada	Canada	Canada	Canadá
Greenland	Greenland	Groenland	Groenlandia
Mexico	Mexico	Mexique	México
St Pierre Mq	Saint Pierre and Miquelon	Saint-Pierre-et-Miquelon	San Pedro y Miquelón
USA	United States of America	États-Unis d'Amérique	Estados Unidos de América
OCEANIA	OCEANIA	OCÉANIE	OCEANÍA
Amer Samoa	American Samoa	Samoa américaines	Samoa americana
Australia	Australia	Australie	Australia
Christmas Is	Christmas Island	Île Christmas	Isla de Navidad
Cocos Is	Cocos (Keeling) Islands	Îles Cocos	Islas Cocos
Cook Is	Cook Islands	Îles Cook	Islas Cook
Fiji	Fiji	Fidji	Fidji
Fr Polynesia	French Polynesia	Polynésie française	Polinesia francesa
Guam	Guam	Guam	Guam
Kiribati	Kiribati	Kiribati	Kiribati
Marshall Is	Marshall Islands	Îles Marshall	Islas Marshall
Micronesia	Micronesia (Federated States of)	Micronésie (États fédérés de)	Micronesia (Estados Federados de)
Nauru	Nauru	Nauru	Nauru
New Caledon	New Caledonia	Nouvelle-Calédonie	Nueva Caledonia
New Zealand	New Zealand	Nouvelle-Zélande	Nueva Zelandia
Niue	Niue	Nioué	Niue
Norfolk Is	Norfolk Island	Ile Norfolk	Isla Norfolk
Nth Mariana Is	Northern Mariana Islands	Îles Mariannes du Nord	Islas Marianas del Norte
Palau	Palau	Palaos	Palau

Label/En-tête/Rótulo	English	Français	Español
Papua N Guin	Papua New Guinea	Papouasie-Nouvelle-Guinée	Papua Nueva Guinea
Pitcairn	Pitcairn	Pitcairn	Pitcairn
Samoa	Samoa	Samoa	Samoa
Solomon Is	Solomon Islands	Îles Salomon	Islas Salomón
Tokelau	Tokelau	Tokelau	Tokelau
Tonga	Tonga	Tonga	Tonga
Tuvalu	Tuvalu	Tuvalu	Tuvalu
Vanuatu	Vanuatu	Vanuatu	Vanuatu
Wallis Fut Is	Wallis and Futuna Islands	Wallis-et-Futuna	Wallis y Futuna
S AMERICA	SOUTH AMERICA	AMÉRIQUE DU SUD	SUDAMERICA
Argentina	Argentina	Argentine	Argentina
Bolivia	Bolivia (Plurinational State of)	Bolivie (État plurinational de)	Bolivia (Estado Plurinacional de)
Brazil	Brazil	Brésil	Brasil
Chile	Chile	Chili	Chile
Colombia	Colombia	Colombie	Colombia
Ecuador	Ecuador	Equateur	Ecuador
Falklands Malv	Falkland Islands (Malvinas)	Îles Falkland (Malvinas)	Islas Malvinas (Falkland)
Fr Guiana	French Guiana	Guyane française	Guayana Francesa
Guyana	Guyana	Guyana	Guyana
Paraguay	Paraguay	Paraguay	Paraguay
Peru	Peru	Pérou	Perú
South Georgia	South Georgia and the South Sandwich Islands	Géorgie du Sud-et-les Îles Sandwich du Sud	Georgia del Sur y las Islas Sandwich del Sur
Suriname	Suriname	Suriname	Surinam
Uruguay	Uruguay	Uruguay	Uruguay
Venezuela	Venezuela (Bolivarian Republic of)	Venezuela (République bolivarienne du)	La República Bolivariana de Venezuela

Source: UN Standard Country or Area Codes for Statistical Use (M49 List)
<http://unstats.un.org/unsd/methods/m49/m49.htm>.

Note: (*) Throughout this publication, the designation Kosovo* is without prejudice to positions on status and in line with the United Nations Security Council Resolution 1244 (1999).

Total capacity

Capacité totale

Capacidad total

Total renewable energy

Total énergies renouvelables

Total energías renovables

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	1 443 923	1 566 148	1 698 319	1 851 651	2 013 932	2 184 709	2 357 495	2 541 688	2 807 265	3 063 926
Africa	28 445	30 648	32 661	34 982	37 643	43 090	48 443	50 575	53 608	55 705
Algeria	253	253	264	312	482	663	686	686	686	686
Angola	883	964	1 032	1 033	1 765	2 458	3 126	3 460	3 794	3 794
Benin	1	1	1	2	3	3	3	3	3	3
Botswana	2	2	2	2	3	3	4	6	6	6
Burkina Faso	38	38	39	41	43	80	95	98	98	98
Burundi	56	57	58	58	59	57	57	57	57	57
Cabo Verde	33	33	33	33	33	33	35	35	35	35
Cameroon	731	736	738	740	742	744	746	826	827	827
Cent Afr Rep	19	19	19	19	19	19	19	19	19	19
Chad	2	2	2	2	3	3	3	3	4	4
Comoros	1	1	1	1	1	1	1	1	1	1
Congo DR	2 514	2 515	2 516	2 529	2 545	2 560	2 736	2 746	2 746	2 746
Congo Rep	206	206	207	207	213	227	227	227	227	227
Cote d'Ivoire	606	607	608	609	609	887	892	892	892	892
Djibouti	0	0	0	0	0	0	0	0	0	20
Egypt	3 457	3 457	3 457	3 658	3 681	3 802	4 793	5 690	5 966	6 226
Eq Guinea	126	126	126	126	126	126	127	127	127	127
Eritrea	1	1	9	9	9	11	19	21	23	25
Eswatini	186	186	169	169	169	169	169	169	169	179
Ethiopia	2 081	2 224	2 230	2 619	2 649	4 366	4 451	4 451	4 713	4 759
Gabon	172	332	332	333	333	333	333	333	333	333
Gambia	3	3	3	3	3	3	3	3	3	3
Ghana	1 187	1 590	1 594	1 624	1 630	1 640	1 670	1 677	1 700	1 700
Guinea	129	132	132	382	382	382	382	382	382	832
Guinea Bissau				0	0	0	1	1	1	1
Kenya	1 095	1 107	1 278	1 592	1 630	1 668	2 057	2 064	2 243	2 384
Lesotho	75	75	75	75	75	75	75	75	75	75
Liberia	4	4	4	4	26	94	95	95	95	95
Libya	5	5	5	5	5	5	5	5	5	6
Madagascar	165	167	170	173	175	177	197	197	197	197
Malawi	302	305	371	375	376	383	405	466	467	527
Mali	301	363	371	372	373	375	375	375	425	455
Mauritania		22	23	53	69	69	121	122	122	122
Mauritius	142	145	161	171	189	191	230	246	246	246
Mayotte	13	13	13	13	13	15	15	15	18	18
Morocco	1 597	1 837	2 143	2 307	2 412	2 540	3 272	3 272	3 452	3 522
Mozambique	2 201	2 205	2 207	2 211	2 214	2 233	2 273	2 273	2 273	2 273
Namibia	342	345	347	351	383	427	445	497	501	501
Niger	4	5	6	7	8	9	27	27	27	27
Nigeria	2 132	2 133	2 135	2 137	2 139	2 140	2 140	2 149	2 150	2 154
Reunion	345	348	359	380	383	384	386	428	442	454
Rwanda	58	62	77	109	119	127	137	149	159	159
Sao Tome Prn	2	2	2	2	2	3	3	3	3	3
Senegal	31	32	34	34	67	132	173	251	355	421
Seychelles		6	7	7	8	9	10	10	10	15
Sierra Leone	54	55	90	90	91	99	99	99	99	99
Somalia	2	2	2	3	7	10	11	11	19	27
South Africa	1 003	1 500	2 710	3 429	4 650	6 548	7 907	8 011	9 518	10 193
South Sudan	0	0	0	0	0	0	1	1	1	1
Sudan	1 529	1 536	1 538	1 541	1 547	1 557	1 740	1 761	1 798	1 817
Tanzania	638	641	652	659	670	675	679	683	685	685
Togo	67	67	67	68	69	69	70	72	73	123
Tunisia	241	272	312	330	340	349	375	391	406	406
Uganda	616	746	766	782	784	827	907	1 177	1 194	1 199
Zambia	1 942	2 302	2 302	2 311	2 431	2 441	2 442	2 538	2 538	2 688
Zimbabwe	854	860	861	878	882	887	1 192	1 198	1 199	1 211
Asia	478 747	553 516	632 768	722 324	813 517	921 480	1 026 530	1 125 936	1 301 016	1 455 712
Afghanistan	289	294	299	303	349	355	355	364	364	372
Bangladesh	291	329	356	382	399	423	439	477	522	567
Bhutan	1 488	1 488	1 488	1 615	1 615	1 615	1 615	2 335	2 335	2 335
Brunei Darism	1	1	1	1	1	1	1	1	1	5
Cambodia	264	715	973	975	979	1 059	1 410	1 505	1 687	1 800
China	302 101	359 516	414 651	479 103	541 016	620 856	695 463	758 844	899 625	1 020 234
Chinese Taipei	3 280	3 501	3 751	4 015	4 411	4 944	5 940	7 480	9 248	11 240
India	60 456	63 589	71 889	78 579	90 411	105 253	118 195	128 428	134 455	147 122
Indonesia	7 489	8 261	8 417	8 574	9 064	9 459	9 805	10 300	10 507	11 157
Japan	38 996	46 084	56 103	67 486	76 219	84 187	91 309	99 269	106 862	111 860
Kazakhstan	2 578	2 608	2 805	2 893	2 951	3 015	3 369	4 214	4 997	7 086
Korea DPR	4 262	4 289	4 304	4 490	4 733	4 796	4 828	4 832	4 907	4 917
Korea Rep	3 687	4 330	5 716	7 217	9 354	11 442	13 951	18 054	20 411	24 365
Kyrgyzstan	3 072	3 572	3 671	3 677	3 677	3 689	3 673	3 673	3 677	3 684
Lao PDR	2 923	2 968	3 253	4 355	4 931	5 170	5 521	6 348	7 722	8 489
Malaysia	4 248	5 718	6 397	7 563	7 991	7 339	7 520	7 961	8 570	8 898
Maldives	3	3	5	6	9	12	18	22	28	32
Mongolia	35	85	85	85	97	180	251	276	277	277
Myanmar	2 721	2 865	3 043	3 267	3 346	3 400	3 409	3 452	3 448	3 444
Nepal	725	761	778	834	854	1 000	1 118	1 238	1 375	2 091
Pakistan	7 141	7 563	7 913	8 125	8 802	9 218	12 197	12 349	12 566	12 888

Total renewable energy

Total énergies renouvelables

Total energías renovables

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Philippines	4 849	4 857	5 281	5 625	6 272	6 424	6 596	6 772	6 986	7 617
Singapore	136	172	209	251	307	327	380	494	554	651
Sri Lanka	1 688	1 729	1 837	1 878	1 952	2 049	2 163	2 283	2 403	2 545
Tajikistan	4 811	4 814	5 035	5 033	5 039	5 039	5 153	5 273	5 273	5 274
Thailand	5 677	6 677	7 373	7 902	9 369	10 147	11 215	11 700	11 824	11 885
Timor Leste	1	1	1	1	1	1	1	1	1	1
Turkmenistan	1	1	1	1	1	1	1	1	1	2
Uzbekistan	1 822	1 823	1 872	1 882	1 883	1 861	1 919	1 912	2 009	2 147
Viet Nam	13 713	14 901	15 263	16 208	17 485	18 217	18 715	26 077	38 379	42 727
C America + Carib	9 510	9 871	10 457	11 908	13 520	14 307	15 073	16 235	16 795	17 352
Anguilla	0	0	1	1	2	2	1	2	2	2
Antigua Barb	0	0	0	3	4	4	9	9	17	17
Aruba	31	32	37	38	38	38	38	38	38	38
Bahamas	1	1	1	1	1	1	1	2	2	2
Barbados	2	2	7	9	20	21	22	35	50	50
Belize	84	84	85	86	102	110	111	103	103	103
BES Islands	11	11	11	11	13	16	17	18	18	18
Br Virgin Is	1	1	1	1	1	1	1	1	1	1
Cayman Is					3	9	10	11	13	14
Costa Rica	2 153	2 174	2 245	2 359	2 894	3 010	3 075	3 144	3 124	3 189
Cuba	594	555	596	629	610	675	758	1 085	1 252	1 281
Curacao	30	33	38	40	41	58	58	58	60	60
Dominica	7	7	7	7	7	7	7	7	7	7
Dominican Rep	717	723	734	745	872	906	1 053	1 350	1 428	1 532
El Salvador	950	974	1 010	924	982	1 169	1 281	1 486	1 593	1 593
Grenada	0	1	1	1	2	2	3	3	4	4
Guadeloupe	138	144	141	148	148	153	158	185	188	199
Guatemala	1 515	1 646	1 775	2 178	2 667	2 753	2 863	2 870	2 870	2 872
Haiti	57	58	58	58	58	59	80	81	81	81
Honduras	751	839	905	1 362	1 469	1 599	1 697	1 741	1 853	1 865
Jamaica	96	103	105	108	189	217	217	254	254	254
Martinique	63	65	66	69	71	73	112	128	131	132
Montserrat								0	0	1
Nicaragua	551	556	596	613	661	674	676	733	733	734
Panama	1 500	1 548	1 715	2 053	2 164	2 227	2 290	2 320	2 353	2 554
Puerto Rico	248	300	304	435	472	503	508	540	591	721
St Barth					0	0	0	0	0	0
St Kitts Nevis	2	3	4	4	4	4	4	4	4	4
St Lucia	0	0	0	1	1	1	4	4	4	4
St Martin		1	2	3	2	0	0	1	1	1
St Vincent Gren	6	6	6	6	7	7	7	8	8	8
Trinidad Tobago	3	3	3	4	4	4	4	4	4	4
Turks Caicos				0	0	0	0	1	1	1
US Virgin Is	1	1	5	9	9	5	10	10	10	10
Eurasia	76 998	81 330	84 813	88 617	91 668	96 620	100 650	104 442	110 177	115 741
Armenia	1 253	1 292	1 301	1 289	1 316	1 332	1 357	1 389	1 434	1 522
Azerbaijan	1 026	1 125	1 120	1 154	1 184	1 194	1 277	1 291	1 299	1 308
Georgia	2 710	2 734	2 872	2 877	2 936	3 178	3 172	3 461	3 345	3 461
Russian Fed	49 823	50 629	51 581	51 781	51 787	52 170	52 614	53 913	54 900	56 217
Turkey	22 186	25 551	27 940	31 516	34 446	38 746	42 230	44 389	49 199	53 233
Europe	395 036	418 841	439 808	464 891	488 495	512 781	537 416	574 735	608 346	647 398
Albania	1 629	1 782	1 726	1 799	1 914	2 049	2 107	2 177	2 307	2 312
Andorra	51	51	51	51	51	51	52	53	54	55
Austria	16 656	17 192	17 839	18 473	19 336	19 596	20 376	20 774	21 126	22 014
Belarus	55	74	81	97	222	300	390	415	492	601
Belgium	5 122	5 765	5 993	6 363	6 731	7 428	8 263	9 511	11 283	12 402
Bosnia Herzg	1 702	1 703	1 719	1 725	1 776	1 808	1 886	1 931	2 002	1 977
Bulgaria	4 021	4 076	4 120	4 137	4 143	4 294	4 316	4 322	4 361	4 452
Croatia	2 332	2 475	2 577	2 713	2 793	2 916	2 979	3 068	3 255	3 454
Cyprus	173	192	221	244	252	278	289	322	400	486
Czechia	3 998	4 095	4 170	4 214	4 212	4 272	4 265	4 349	4 402	4 415
Denmark	5 949	6 584	6 750	7 109	7 410	8 194	8 894	8 981	9 357	10 340
Estonia	441	519	561	594	607	615	609	716	829	989
Faroe Islands	48	48	60	60	60	60	56	53	59	59
Finland	5 213	5 516	5 747	6 142	6 746	7 512	7 563	7 890	8 774	9 629
France	37 095	38 692	40 563	42 799	44 845	47 820	50 539	53 463	55 574	59 546
Germany	78 150	83 766	90 325	97 851	104 436	112 514	118 905	125 068	131 731	138 151
Greece	6 570	7 672	8 010	8 138	8 424	8 686	9 020	9 923	10 921	11 520
Hungary	724	749	1 024	1 077	1 048	1 224	1 630	2 288	3 022	3 022
Iceland	2 543	2 652	2 653	2 658	2 659	2 711	2 862	2 869	2 879	2 879
Ireland	1 999	2 227	2 592	2 760	3 117	3 676	4 046	4 529	4 744	4 813
Italy	46 721	48 857	49 526	50 417	51 195	52 128	53 161	54 373	55 493	56 987
Kosovo*	44	44	44	44	81	121	121	139	137	242
Latvia	1 701	1 761	1 778	1 782	1 778	1 796	1 779	1 826	1 826	1 857
Lithuania	451	532	550	698	775	800	853	896	1 038	1 266
Luxembourg	187	211	225	239	301	318	324	386	430	456
Malta	19	32	58	78	98	116	137	160	193	201
Moldova Rep	64	67	69	69	71	82	106	110	112	130

Total renewable energy

Total énergies renouvelables

Total energías renovables

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Montenegro	630	631	655	665	671	750	752	800	821	821
Netherlands	3 473	4 169	4 661	5 738	7 200	7 924	9 867	12 580	18 477	22 954
North Macedonia	599	624	682	716	720	731	740	751	825	963
Norway	31 365	32 002	32 252	32 394	32 814	33 251	34 396	35 912	38 003	39 769
Poland	4 094	5 116	5 638	6 919	7 881	7 982	8 301	9 360	12 275	15 424
Portugal	10 955	11 143	11 573	12 153	13 208	13 541	13 753	14 118	14 208	15 061
Romania	8 354	10 098	11 152	11 212	11 162	11 145	11 169	11 169	11 121	11 138
Serbia	2 363	2 331	2 422	2 439	2 460	2 480	2 694	2 910	2 928	2 964
Slovakia	2 335	2 359	2 380	2 384	2 397	2 385	2 330	2 431	2 376	2 376
Slovenia	1 277	1 367	1 404	1 419	1 409	1 479	1 474	1 512	1 612	1 606
Spain	46 436	46 819	46 850	47 708	47 998	47 948	48 283	54 633	57 463	61 517
Sweden	24 293	24 645	25 528	26 869	27 805	28 179	29 180	31 156	31 951	34 525
Switzerland	14 065	14 409	14 638	15 040	16 259	17 049	17 470	17 826	18 337	18 813
UK	15 902	20 027	24 895	30 800	35 433	40 043	44 028	46 800	47 387	50 293
Ukraine	5 241	5 769	6 048	6 105	6 199	6 530	7 455	12 189	13 764	14 921
European Union (27)	319 453	337 355	352 546	371 007	387 887	405 554	423 137	450 726	479 193	511 578
Middle East	13 661	14 452	15 916	15 851	16 723	17 093	18 537	21 557	23 005	24 049
Bahrain	1	1	6	6	7	7	7	10	10	12
Iran IR	9 858	10 380	10 954	10 411	10 783	11 367	11 638	11 803	11 901	11 929
Iraq	2 274	2 304	2 311	2 311	2 311	1 594	1 594	1 594	1 594	1 594
Israel	301	410	623	813	942	1 051	1 353	2 118	2 531	2 614
Jordan	17	17	17	153	514	624	1 009	1 588	1 996	2 171
Kuwait	0	3	4	6	33	44	55	106	106	106
Lebanon	285	286	289	296	316	329	352	373	373	373
Oman		1	1	2	2	8	8	59	162	188
Palestine	1	1	3	12	25	35	40	82	117	117
Qatar	39	40	42	42	43	43	43	43	43	43
Saudi Arabia	14	22	24	24	24	37	87	113	113	443
Syrian AR	857	857	1 501	1 579	1 501	1 497	1 499	1 500	1 500	1 500
United Arab Em	13	128	136	136	142	356	599	1 919	2 307	2 706
Yemen	1	2	5	60	80	100	250	250	253	253
N America	263 279	272 622	286 380	308 002	331 723	348 336	367 056	388 933	419 978	457 857
Canada	84 363	86 409	89 354	95 457	97 328	98 501	99 807	100 392	100 632	102 932
Greenland	91	91	91	91	91	91	91	91	91	91
Mexico	14 781	15 202	16 626	17 409	19 072	19 920	22 132	25 126	26 306	29 443
St Pierre Mq	1	1								
USA	164 043	170 920	180 309	195 046	215 233	229 824	245 026	263 324	292 949	325 391
Oceania	22 199	23 715	25 236	26 386	27 344	28 568	30 778	36 037	42 910	45 136
Amer Samoa	2	2	2	2	4	4	5	5	5	5
Australia	14 649	16 068	17 370	18 415	19 339	20 492	22 645	27 826	34 536	36 617
Cook Is	0	1	2	3	3	3	5	5	5	5
Fiji	191	191	191	193	195	209	212	212	212	220
Fr Polynesia	61	65	72	76	79	83	85	89	89	89
Guam	0	1	1	32	35	35	35	35	35	35
Kiribati	0	1	1	2	3	3	3	3	3	3
Marshall Is	0	1	1	1	2	2	2	2	2	2
Micronesia	1	1	1	1	2	2	3	3	3	3
Nauru	0	0	0	0	1	1	1	2	2	2
New Caledon	119	119	120	123	125	142	145	178	199	199
New Zealand	6 841	6 930	7 133	7 173	7 186	7 207	7 251	7 285	7 425	7 562
Niue	0	0	0	0	0	0	0	1	1	1
Palau	1	1	1	1	1	1	2	2	2	2
Papua N Guin	313	314	314	333	333	333	333	335	335	335
Samoa	9	9	13	14	17	27	27	28	29	29
Solomon Is	1	1	2	2	3	4	4	4	4	4
Tokelau	1	1	1	1	1	1	1	1	1	1
Tonga	1	2	2	3	3	6	6	8	8	8
Tuvalu	0	0	0	2	2	2	2	2	2	2
Vanuatu	7	7	8	8	9	10	11	12	12	12
S America	156 047	161 153	170 280	178 690	193 299	202 433	213 012	223 237	231 432	244 975
Argentina	10 528	10 590	10 606	10 655	10 670	10 757	11 510	12 690	14 072	15 027
Bolivia	591	592	628	638	669	796	923	1 057	1 068	1 233
Brazil	96 117	99 835	106 445	112 641	121 374	128 417	136 579	144 552	150 046	159 943
Chile	7 056	7 678	8 329	8 452	9 299	10 289	10 856	11 498	12 619	14 890
Colombia	9 979	10 075	11 134	11 757	11 888	12 071	12 194	12 291	12 387	12 553
Ecuador	2 368	2 388	2 440	2 599	4 640	4 714	5 266	5 277	5 298	5 300
Falklands Malv	2	2	2	2	2	2	2	2	2	2
Fr Guiana	157	158	158	168	168	168	168	171	179	179
Guyana	54	55	55	55	46	48	51	53	53	53
Paraguay	8 810	8 849	8 849	8 849	8 849	8 849	8 849	8 832	8 832	8 832
Peru	3 713	3 784	4 055	4 647	5 725	5 820	6 100	6 289	6 345	6 431
South Georgia	0	0	0	0	0	0	0	0	0	0
Suriname	181	181	186	188	188	189	190	190	191	191
Uruguay	1 834	2 012	2 437	2 825	3 184	3 716	3 727	3 736	3 741	3 741
Venezuela	14 656	14 954	14 955	15 214	16 597	16 597	16 596	16 598	16 598	16 598

Hydropower Hydroélectricité Hidroeléctrica

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	1 090 111	1 137 100	1 175 994	1 210 655	1 245 903	1 270 876	1 293 619	1 311 765	1 335 114	1 360 054
Africa	27 371	28 565	28 653	29 181	31 107	34 215	35 595	36 312	36 921	37 525
Algeria	228	228	228	228	228	228	228	228	228	228
Angola	873	953	969	969	1 700	2 393	3 061	3 395	3 729	3 729
Benin	1	1	1	1	1	1	1	1	1	1
Burkina Faso	32	32	32	32	32	32	32	35	35	35
Burundi	51	51	51	51	51	48	48	48	48	48
Cameroon	729	733	733	733	733	732	732	812	812	812
Cent Afr Rep	19	19	19	19	19	19	19	19	19	19
Comoros	1	1	1	1	1	1	1	1	1	1
Congo DR	2 514	2 515	2 515	2 528	2 542	2 553	2 713	2 723	2 723	2 723
Congo Rep	194	194	194	194	201	214	214	214	214	214
Cote d'Ivoire	604	604	604	604	604	879	879	879	879	879
Egypt	2 800	2 800	2 800	2 800	2 800	2 800	2 832	2 832	2 832	2 832
Eq Guinea	126	126	126	126	126	126	127	127	127	127
Eswatini	62	62	62	62	62	62	62	62	62	62
Ethiopia	1 972	1 972	1 972	2 159	2 159	3 817	3 817	3 817	4 071	4 071
Gabon	170	330	330	330	330	330	330	330	330	330
Ghana	1 180	1 580	1 580	1 584	1 584	1 584	1 584	1 584	1 584	1 584
Guinea	128	128	128	368	368	368	368	368	368	818
Kenya	814	822	822	828	832	843	846	851	851	851
Lesotho	75	75	75	75	75	75	75	75	75	75
Liberia	4	4	4	4	26	92	92	92	92	92
Madagascar	162	162	163	164	164	164	164	164	164	164
Malawi	287	287	351	351	352	352	367	374	374	374
Mali	253	315	315	315	315	315	315	315	315	315
Mauritius	60	61	61	61	61	61	61	61	61	61
Morocco	1 770	1 770	1 770	1 770	1 770	1 770	1 770	1 770	1 770	1 770
Mozambique	2 186	2 186	2 186	2 187	2 187	2 204	2 204	2 204	2 204	2 204
Namibia	330	330	330	330	347	347	347	347	351	351
Nigeria	2 110	2 110	2 110	2 111	2 111	2 111	2 111	2 111	2 111	2 111
Reunion	133	134	134	134	133	133	133	133	133	133
Rwanda	57	60	66	94	98	99	99	110	120	120
Sao Tome Prn	2	2	2	2	2	2	2	2	2	2
Sierra Leone	54	54	56	56	56	61	61	61	61	61
South Africa	2 135	2 135	2 133	2 148	3 147	3 480	3 480	3 480	3 480	3 484
Sudan	1 322	1 322	1 322	1 322	1 322	1 322	1 482	1 482	1 482	1 482
Tanzania	571	571	571	576	582	583	583	589	589	589
Togo	67	67	67	67	67	67	67	67	67	67
Tunisia	62	62	62	62	62	62	66	66	66	66
Uganda	582	692	692	695	695	707	744	1 004	1 011	1 011
Zambia	1 900	2 260	2 260	2 268	2 388	2 398	2 398	2 399	2 399	2 549
Zimbabwe	753	758	758	773	777	781	1 081	1 081	1 081	1 081
Asia	414 318	451 248	479 635	500 107	516 267	531 202	544 168	554 578	569 777	594 269
Afghanistan	273	277	280	284	329	333	333	333	333	340
Bangladesh	220	230	230	230	230	230	230	230	230	230
Bhutan	1 488	1 488	1 488	1 614	1 614	1 614	1 614	2 334	2 334	2 334
Cambodia	225	683	929	930	930	980	1 330	1 330	1 330	1 330
China	249 470	280 440	304 860	319 530	332 070	343 775	352 261	358 040	370 280	390 920
Chinese Taipei	4 683	4 683	4 683	4 691	4 691	4 691	4 694	4 695	4 695	4 696
India	43 031	44 174	45 406	47 104	47 622	49 521	50 102	50 279	50 764	51 565
Indonesia	4 156	5 177	5 242	5 322	5 666	5 703	5 773	5 976	6 141	6 602
Japan	48 934	48 932	49 597	50 035	50 117	50 014	50 037	50 033	50 041	50 019
Kazakhstan	2 574	2 588	2 675	2 678	2 696	2 726	2 756	2 778	2 785	3 066
Korea DPR	4 260	4 283	4 293	4 467	4 701	4 761	4 790	4 790	4 865	4 865
Korea Rep	6 447	6 452	6 467	6 471	6 485	6 489	6 490	6 509	6 506	6 541
Kyrgyzstan	3 072	3 572	3 671	3 677	3 677	3 689	3 673	3 673	3 677	3 684
Lao PDR	2 922	2 928	3 212	4 313	4 889	5 122	5 382	6 209	7 583	8 349
Malaysia	3 449	4 535	4 761	5 742	6 121	6 145	6 165	6 185	6 197	6 211
Mongolia	29	29	29	29	31	31	31	31	31	31
Myanmar	2 673	2 812	2 985	3 198	3 264	3 304	3 304	3 304	3 304	3 304
Nepal	709	744	759	814	834	939	1 059	1 180	1 302	1 992
Pakistan	6 777	7 088	7 218	7 218	7 248	7 400	9 900	9 917	10 037	10 037
Philippines	3 579	3 579	3 594	3 613	3 623	3 632	3 719	3 761	3 780	3 785
Sri Lanka	1 590	1 622	1 670	1 689	1 728	1 747	1 798	1 815	1 799	1 799
Tajikistan	4 811	4 814	5 035	5 033	5 039	5 039	5 153	5 273	5 273	5 274
Thailand	3 568	3 575	3 608	3 639	3 649	3 649	3 667	3 667	3 667	3 667
Timor Leste	0	0	0	0	0	0	0	0	0	0
Turkmenistan	1	1	1	1	1	1	1	1	1	2
Uzbekistan	1 822	1 822	1 871	1 880	1 880	1 858	1 915	1 908	2 005	2 043
Viet Nam	13 552	14 718	15 069	15 905	17 131	17 809	17 989	20 326	20 817	21 582
C America + Carib	6 265	6 355	6 578	6 850	7 667	7 903	8 046	8 147	8 266	8 306
Belize	55	55	55	55	55	55	55	55	55	55
Costa Rica	1 749	1 762	1 782	1 811	2 256	2 350	2 373	2 343	2 332	2 379
Cuba	62	63	63	63	66	66	64	72	72	72
Dominica	7	7	7	7	7	7	7	7	7	7
Dominican Rep	613	614	617	617	617	617	617	618	625	625
El Salvador	487	487	488	494	494	574	574	573	573	573

Hydropower Hydroélectricité Hidroeléctrica

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Guadeloupe	9	9	9	9	9	11	11	11	11	11
Guatemala	986	997	1 001	1 087	1 392	1 438	1 502	1 574	1 577	1 579
Haiti	56	56	56	56	56	56	78	78	78	78
Honduras	539	558	624	656	670	676	714	729	837	849
Jamaica	23	30	30	30	30	30	30	30	30	30
Nicaragua	106	120	120	138	142	142	142	157	157	158
Panama	1 469	1 494	1 623	1 725	1 769	1 777	1 777	1 796	1 808	1 786
Puerto Rico	100	98	98	98	98	98	98	98	98	98
St Vincent Gren	6	6	6	6	6	6	6	6	6	6
Eurasia	74 340	77 952	80 223	82 610	83 479	84 566	85 705	86 718	89 220	89 922
Armenia	1 249	1 289	1 298	1 287	1 312	1 327	1 336	1 336	1 336	1 336
Azerbaijan	1 023	1 084	1 078	1 103	1 105	1 106	1 131	1 145	1 149	1 152
Georgia	2 710	2 734	2 872	2 877	2 916	3 158	3 152	3 439	3 323	3 439
Russian Fed	49 749	50 556	51 332	51 475	51 466	51 702	51 795	52 295	52 427	52 501
Turkey	19 609	22 289	23 643	25 868	26 681	27 273	28 291	28 503	30 984	31 493
Europe	209 203	211 130	211 880	214 432	217 891	219 575	220 613	221 539	222 656	224 067
Albania	1 628	1 781	1 725	1 798	1 913	2 047	2 105	2 162	2 289	2 289
Andorra	46	46	46	46	46	46	46	46	46	46
Austria	13 309	13 383	13 532	13 650	14 116	14 150	14 516	14 597	14 605	14 546
Belarus	32	32	33	34	74	95	95	95	96	96
Belgium	1 427	1 429	1 431	1 422	1 419	1 417	1 418	1 414	1 416	1 417
Bosnia Herzg	2 121	2 122	2 131	2 137	2 180	2 211	2 236	2 239	2 249	2 206
Bulgaria	3 181	3 203	3 219	3 219	3 223	3 372	3 379	3 378	3 376	3 376
Croatia	2 129	2 178	2 180	2 195	2 192	2 193	2 200	2 200	2 200	2 202
Czechia	2 212	2 252	2 252	2 260	2 262	2 265	2 264	2 265	2 265	2 283
Denmark	9	9	9	7	9	7	7	7	7	7
Estonia	8	8	5	6	6	7	7	6	8	9
Faroe Islands	39	39	39	39	39	39	40	40	40	40
Finland	3 080	3 108	3 132	3 133	3 133	3 156	3 152	3 157	3 164	3 178
France	25 657	25 646	25 577	25 552	25 621	25 707	25 727	25 869	25 712	25 712
Germany	11 257	11 239	11 234	11 255	11 207	11 120	10 684	10 733	10 792	10 653
Greece	3 236	3 238	3 389	3 392	3 392	3 392	3 409	3 412	3 417	3 424
Hungary	56	57	57	57	57	57	57	58	58	58
Iceland	1 877	1 984	1 984	1 987	1 987	1 995	2 099	2 104	2 114	2 114
Ireland	529	529	529	529	529	529	529	529	529	529
Italy	21 880	22 009	22 098	22 220	22 298	22 426	22 499	22 541	22 695	22 712
Kosovo*	43	43	43	43	78	80	80	95	95	95
Latvia	1 576	1 587	1 588	1 588	1 564	1 564	1 565	1 587	1 586	1 596
Lithuania	876	876	877	877	877	877	877	877	877	886
Luxembourg	1 134	1 134	1 330	1 330	1 330	1 331	1 330	1 330	1 331	1 331
Moldova Rep	64	64	64	64	64	64	64	64	64	64
Montenegro	629	630	653	662	668	675	676	676	697	697
Netherlands	37	37	37	37	37	37	37	37	37	37
North Macedonia	595	617	630	658	661	671	674	678	684	822
Norway	30 509	31 033	31 240	31 372	31 817	31 912	32 530	32 797	33 732	34 813
Poland	2 351	2 355	2 364	2 370	2 385	2 390	2 391	2 397	2 400	2 384
Portugal	5 712	5 661	5 715	6 168	6 960	7 226	7 236	7 262	7 241	7 241
Romania	6 548	6 610	6 613	6 730	6 734	6 692	6 701	6 686	6 652	6 655
Serbia	2 966	2 931	3 017	3 022	3 030	3 038	3 043	3 074	3 082	3 097
Slovakia	2 522	2 523	2 523	2 522	2 524	2 523	2 528	2 527	2 529	2 529
Slovenia	1 254	1 299	1 296	1 295	1 293	1 347	1 343	1 351	1 352	1 358
Spain	18 550	19 185	19 223	20 053	20 080	20 079	20 080	20 114	20 117	20 116
Sweden	16 414	16 494	15 996	16 329	16 466	16 502	16 431	16 462	16 406	16 406
Switzerland	13 803	13 817	13 744	13 815	14 806	15 353	15 542	15 574	15 594	15 594
UK	4 437	4 453	4 474	4 677	4 733	4 770	4 773	4 773	4 775	4 793
Ukraine	5 470	5 489	5 851	5 883	6 079	6 213	6 243	6 325	6 328	6 656
European Union (27)	145 205	146 311	146 468	148 457	149 976	150 628	150 630	151 060	151 035	150 908
Middle East	13 410	13 930	15 094	15 669	15 891	15 545	15 691	15 774	16 084	16 084
Iran IR	9 745	10 265	10 785	11 278	11 578	11 953	12 099	12 182	12 193	12 193
Iraq	2 514	2 514	2 514	2 514	2 514	1 797	1 797	1 797	1 797	1 797
Israel	7	7	7	7	7	7	7	7	306	306
Jordan	12	12	12	16	16	16	16	16	16	16
Lebanon	282	282	282	282	282	282	282	282	282	282
Syrian AR	850	850	1 494	1 572	1 494	1 490	1 490	1 490	1 490	1 490
N America	188 361	188 824	190 191	193 959	195 667	196 268	196 931	196 810	199 933	197 396
Canada	75 537	75 511	75 474	79 405	80 304	80 831	81 396	81 399	81 404	82 740
Greenland	91	91	91	91	91	91	91	91	91	91
Mexico	11 626	11 633	12 464	12 223	12 580	12 642	12 642	12 671	12 671	12 671
USA	101 107	101 589	102 162	102 240	102 692	102 703	102 801	102 649	105 767	101 894
Oceania	14 153	14 165	14 166	14 184	14 184	14 189	14 441	14 450	14 453	14 453
Australia	8 271	8 271	8 271	8 271	8 271	8 271	8 523	8 523	8 523	8 523
Fiji	139	138	138	138	138	138	138	138	138	138
Fr Polynesia	47	47	47	47	47	48	48	48	48	48

Hydropower Hydroélectricité Hidroeléctrica

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Micronesia			1	1	1	1	1	1	1	1
New Caledon	78	78	78	78	78	78	78	78	81	81
New Zealand	5 368	5 381	5 381	5 381	5 381	5 381	5 381	5 389	5 389	5 389
Papua N Guin	240	240	240	258	258	258	258	258	258	258
Samoa	9	9	9	9	9	12	13	14	14	14
Solomon Is	0	0	0	0	0	0	0	0	0	0
Vanuatu	1	1	1	1	1	1	1	1	1	1
S America	142 690	144 931	149 575	153 663	163 748	167 414	172 429	177 436	177 804	178 033
Argentina	11 110	11 110	11 112	11 182	11 244	11 247	11 292	11 314	11 348	11 350
Bolivia	501	501	494	495	495	620	666	736	736	736
Brazil	84 294	86 019	89 194	91 651	96 930	100 333	104 482	109 143	109 318	109 426
Chile	5 993	6 095	6 446	6 500	6 672	6 685	6 680	6 683	6 773	6 807
Colombia	9 777	9 868	10 900	11 501	11 611	11 731	11 842	11 926	11 954	11 954
Ecuador	2 264	2 264	2 248	2 408	4 447	4 516	5 066	5 076	5 098	5 099
Fr Guiana	119	119	119	119	119	119	119	119	119	119
Guyana	2	2	2	2	2	2	2	2	2	2
Paraguay	8 810	8 810	8 810	8 810	8 810	8 810	8 810	8 810	8 810	8 810
Peru	3 479	3 544	3 651	4 139	5 179	5 112	5 230	5 387	5 406	5 490
South Georgia	0	0	0	0	0	0	0	0	0	0
Suriname	180	180	180	180	180	180	180	180	180	180
Uruguay	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538	1 538
Venezuela	14 624	14 881	14 881	15 138	16 521	16 521	16 521	16 521	16 521	16 521

Renewable hydropower (including mixed plants)

Hydroélectricité renouvelable (y compris les centrales mixtes)

Hidroeléctrica renovable (incluidas las plantas mixtas)

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	984 506	1 029 368	1 066 520	1 098 751	1 128 966	1 151 032	1 173 258	1 191 156	1 211 092	1 230 040
Africa	25 507	26 701	26 789	27 317	28 244	31 019	32 399	33 116	33 725	34 329
Algeria	228	228	228	228	228	228 e	228 e	228 e	228 e	228 e
Angola	873 u	953 u	969 u	969 e	1 700 u	2 393 u	3 061 e	3 395 e	3 729 e	3 729 e
Benin	1	1	1	1	1	1	1	1 e	1 e	1 e
Burkina Faso	32 o	32 o	32 o	32 o	32 o	32 o	32 e	35 e	35 e	35 e
Burundi	51 o	51 o	51 o	51 o	51 o	48 e	48 e	48 e	48 e	48 e
Cameroon	729 e	733 o	733 e	733 e	733 e	732 e	732 e	812 e	812 e	812 e
Cent Afr Rep	19 e	19 e	19 e	19 e	19 e	19 e	19 e	19 e	19 e	19 e
Comoros	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e
Congo DR	2 514 e	2 515 e	2 515 e	2 528 e	2 542 e	2 553 e	2 713 u	2 723 e	2 723 e	2 723 e
Congo Rep	194 e	194 e	194 e	194 e	194 e	201 u	214 u	214 e	214 e	214 e
Cote d'Ivoire	604 o	604 o	604 o	604 o	604 o	879 u	879 e	879 e	879 e	879 e
Egypt	2 800 o	2 800 o	2 800 o	2 800 o	2 800 o	2 800 o	2 832 o	2 832 o	2 832 e	2 832 e
Eq Guinea	126 o	126 o	126 o	126 o	126 o	126 e	127 o	127 e	127 e	127 e
Eswatini	62	62	62	62	62 e	62 e	62 e	62 e	62 e	62 e
Ethiopia	1 972 e	1 972 e	1 972 e	2 159 e	2 159	3 817	3 817 e	3 817 e	4 071	4 071
Gabon	170 e	330 e	330 e	330 e	330 e	330 e	330 e	330 e	330 e	330 e
Ghana	1 180 o	1 580 o	1 580 o	1 584 o	1 584 o	1 584 o	1 584 e	1 584 e	1 584 o	1 584 e
Guinea	128 o	128 o	128 o	368 o	368 o	368 e	368 e	368 e	368 e	818 e
Kenya	814 e	822 e	822 e	828 e	832 e	843 e	846 e	851 e	851 e	851 e
Lesotho	75	75	75	75 e	75 e	75 e	75 e	75 e	75 e	75 e
Liberia	4 e	4 e	4 e	4 e	26 e	92 e	92 e	92 e	92 e	92 e
Madagascar	162 o	162 o	163 o	164 o	164 o	164 e	164 e	164 e	164 e	164 e
Malawi	287 e	287 e	351 e	351 e	352 e	352 e	367 e	374 e	374 e	374 e
Mali	253 e	315 e	315 e	315 e	315 e	315 e	315 e	315 e	315 e	315 e
Mauritius	60	61	61	61	61 o	61 e	61 e	61 e	61 e	61 e
Morocco	1 306	1 306	1 306	1 306	1 306	1 306	1 306	1 306 e	1 306 e	1 306 e
Mozambique	2 186 e	2 186 e	2 186 e	2 187 e	2 187 e	2 204 e	2 204 e	2 204 e	2 204 e	2 204 e
Namibia	330	330	330	330	347	347 o	347 o	347	351 u	351 e
Nigeria	2 110 o	2 110 o	2 110 o	2 111 o	2 111 o	2 111 o	2 111 e	2 111 e	2 111 e	2 111 e
Reunion	133 o	134 o	134 o	134 o	133 o	133 o	133 e	133 e	133 e	133 e
Rwanda	57 o	60 o	66 o	94 o	98 o	99 e	99 e	110 e	120 e	120 e
Sao Tome Prn	2 o	2 o	2 o	2 o	2 e	2 e	2 e	2 e	2 e	2 e
Sierra Leone	54 e	54 e	56 e	56 e	56 e	61 e	61 e	61 e	61 e	61 e
South Africa	735 e	735 e	733 e	748 e	748 e	748 e	748 e	748 e	748 e	752 e
Sudan	1 322 o	1 322 o	1 322 o	1 322 o	1 322 o	1 322 o	1 482 o	1 482 o	1 482 o	1 482 e
Tanzania	571 e	571 e	571 e	576 e	582 e	583 e	583 e	589 e	589 e	589 e
Togo	67 o	67 o	67 o	67 o	67 o	67 o	67 o	67 e	67 e	67 e
Tunisia	62 o	62 o	62 o	62 o	62 o	62 o	66 o	66 o	66 o	66 o
Uganda	582 o	692 e	692 e	695 e	695 e	707 e	744 e	1 004 e	1 011 e	1 011 e
Zambia	1 900 o	2 260 o	2 260 o	2 268 o	2 388 o	2 398 o	2 398 o	2 399 e	2 399 e	2 549 e
Zimbabwe	753	758	758	773 e	777 e	781 e	1 081 e	1 081 e	1 081 e	1 081 e
Asia	359 483	395 212	422 417	441 769	454 270	466 534	478 900	489 011	504 179	522 601
Afghanistan	273 e	277 e	280 e	284 e	329 e	333 e	333 e	333 e	333 e	340 e
Bangladesh	220 o	230 o	230 o	230 o	230 o	230 o	230 e	230 o	230 o	230 o
Bhutan	1 488 o	1 488 o	1 488 o	1 614 o	1 614 o	1 614 o	1 614 o	2 334 u	2 334 e	2 334 e
Cambodia	225 o	683 o	929 o	930 o	930 o	980 o	1 330 o	1 330 e	1 330 o	1 330 e
China	229 138	258 908	282 750	296 500	305 380	314 385	322 271	327 750 o	339 960 o	354 530 o
Chinese Taipei	2 081 o	2 081 o	2 081 o	2 089 o	2 089 o	2 089 o	2 092 o	2 093 o	2 093 o	2 094 o
India	38 245 e	39 388 e	40 621 e	42 319 e	42 836 e	44 735 e	45 316 e	45 494 o	45 979 e	46 779 e
Indonesia	4 156 e	5 177 e	5 242 e	5 322 e	5 666 e	5 703 e	5 773 o	5 976 o	6 141 o	6 602 o
Japan	27 815	27 813	27 873	28 111	28 193	28 120 e	28 143 e	28 139 o	28 147 o	28 125 o
Kazakhstan	2 574 o	2 588 o	2 675	2 678	2 696	2 726	2 756 u	2 778 e	2 785	3 066 o
Korea DPR	4 260 o	4 283 o	4 293 o	4 467 o	4 701 o	4 761 o	4 790 o	4 790 o	4 865 o	4 865 e
Korea Rep	1 747	1 752	1 767	1 771	1 785	1 789	1 790	1 809	1 806 o	1 841 o
Kyrgyzstan	3 072	3 572	3 671	3 677	3 677	3 689	3 673 o	3 673 e	3 677	3 684 u
Lao PDR	2 922 u	2 928 u	3 212 u	4 313 u	4 889 u	5 122 u	5 382 u	6 209 e	7 583 e	8 349 e
Malaysia	3 449 e	4 535 e	4 761 e	5 742 e	6 121 e	6 145 e	6 165 e	6 185 e	6 197 e	6 211 e
Mongolia	29 e	29 e	29 e	29 e	31 e	31 e	31 o	31 e	31	31 e
Myanmar	2 673 e	2 812 e	2 985 e	3 198 e	3 264 e	3 304 e	3 304 e	3 304 e	3 304 e	3 304 e
Nepal	709 o	744 o	759 o	814 o	834 o	939 o	1 059 e	1 180 e	1 302 e	1 992 e
Pakistan	6 777 e	7 088 e	7 218 e	7 218 e	7 248 e	7 400 e	9 900 e	9 917 e	10 037 e	10 037 e
Philippines	2 843 o	2 843 o	2 858 o	2 877 o	2 887 o	2 896 o	2 983 o	3 025 o	3 044 o	3 049 e
Sri Lanka	1 590 e	1 622 e	1 670 e	1 689 e	1 728 e	1 747 e	1 798 e	1 815 e	1 799 e	1 799 e
Tajikistan	4 811	4 814	5 035	5 033 o	5 039	5 039	5 153 e	5 175 e	5 273	5 274 e
Thailand	3 008 o	3 015 o	3 048 o	3 079 o	3 089 o	3 089 o	3 107 o	3 107 o	3 107 o	3 107 e
Timor Leste	0 o	0 o	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e
Turkmenistan	1	1	1	1	1	1	1	1 e	1	2 e
Uzbekistan	1 822	1 822	1 871	1 880	1 880	1 858	1 915 o	1 908	2 005	2 043 e
Viet Nam	13 552 e	14 718 e	15 069 e	15 905 e	17 131 e	17 809 e	17 989 e	20 326 e	20 817 e	21 582 e
C America + Carib	6 265	6 355	6 578	6 850	7 667	7 903	8 046	8 147	8 266	8 306
Belize	55	55	55	55	55	55	55	55	55	55 e
Costa Rica	1 749	1 762	1 782	1 811	2 256	2 350	2 373 o	2 343 o	2 332 o	2 379 o
Cuba	62	63	63	63	66	66	64 o	72 o	72 u	72
Dominica	7 o	7 o	7 o	7 o	7 o	7 o	7 o	7 o	7 o	7 e
Dominican Rep	613 o	614 o	617 o	617 o	617 o	617 o	617 e	618 e	625 o	625 e
El Salvador	487 e	487 e	488 e	494 e	494 e	574 e	574 e	573 o	573 e	573 e

Renewable hydropower (including mixed plants)

Hydroélectricité renouvelable (y compris les centrales mixtes)

Hidroeléctrica renovable (incluidas las plantas mixtas)

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Guadeloupe	9	9	9	9	9	11	11 e	11 o	11 e	11 e
Guatemala	986	997	1 001	1 087	1 392 o	1 438 o	1 502 o	1 574 o	1 577 o	1 579 o
Haiti	56 e	56 e	56 e	56 e	56 e	56 e	78 u	78 e	78 e	78 e
Honduras	539 o	558 o	624 o	656 o	670 e	676 e	714 e	729 e	837 e	849 e
Jamaica	23	30	30	30	30	30	30 e	30 e	30 e	30 e
Nicaragua	106	120	120	138	142 o	142 o	142 o	157 o	157 o	158 e
Panama	1 469	1 494	1 623	1 725	1 769	1 777 o	1 777	1 796	1 808 o	1 786 o
Puerto Rico	100	98 o	98 o	98 o	98 o	98 o	98 o	98 o	98 o	98 o
St Vincent Gren	6	6	6	6	6	6	6 e	6 e	6 e	6 e
Eurasia	73 124	76 736	79 007	81 394	82 263	83 350	84 489	85 502	87 864	88 566
Armenia	1 249 o	1 289 o	1 298 o	1 287 o	1 312 o	1 327	1 336 o	1 336 e	1 336 e	1 336 e
Azerbaijan	1 023	1 084	1 078	1 103	1 105	1 106 u	1 131 o	1 145	1 149 o	1 152 u
Georgia	2 710	2 734	2 872	2 877	2 916	3 158	3 152 o	3 439 o	3 323 o	3 439 o
Russian Fed	48 533	49 340	50 116	50 259	50 250	50 486	50 579	51 079	51 071	51 145 e
Turkey	19 609	22 289	23 643	25 868	26 681	27 273 o	28 291	28 503	30 984 o	31 493 o
Europe	182 375	183 397	183 678	186 049	189 296	191 108	192 249	193 176	194 294	195 725
Albania	1 628	1 781	1 725	1 798	1 913	2 047	2 105	2 162	2 289 u	2 289 e
Andorra	46 o	46 o	46 o	46 o	46 o	46 o	46 o	46 o	46 e	46 e
Austria	13 309	13 383	13 532	13 650	14 116	14 150	14 516	14 597	14 605	14 546 o
Belarus	32	32	33	34	74	95	95 o	95 e	96	96 e
Belgium	120	119	121	112	109	107	108	104	106	107 o
Bosnia Herzg	1 701 o	1 702 o	1 711 o	1 717 o	1 760 o	1 791	1 816	1 819	1 829 o	1 786 o
Bulgaria	2 317	2 339	2 355	2 355	2 359	2 508 e	2 515 o	2 514 e	2 512 o	2 512 o
Croatia	2 129	2 178	2 180	2 195	2 192	2 193	2 200	2 200 o	2 200 o	2 202 o
Czechia	1 065	1 080	1 080	1 088	1 090	1 093	1 093	1 094	1 094	1 111 o
Denmark	9	9	9	7	9	7	7	7	7 o	7 o
Estonia	8	8	5	6	6	7	7 e	6	8	9 o
Faroe Islands	39 o	39 o	39 o	39 o	39 o	39 o	40 o	40 o	40 e	40 e
Finland	3 080	3 108	3 132	3 133	3 133	3 156	3 152	3 157	3 164	3 178 o
France	23 849	23 838	23 849	23 824	23 893	23 979	23 999	24 141	23 985	23 985 o
Germany	5 607	5 589	5 580	5 589	5 629	5 627	5 329	5 378	5 438	5 441 o
Greece	3 236	3 238	3 389	3 392	3 392	3 392 e	3 409 o	3 412	3 417 o	3 424 o
Hungary	56	57	57	57	57	57 e	57 o	58	58 o	58 o
Iceland	1 877	1 984	1 984	1 987	1 987	1 995	2 099	2 104	2 114	2 114 e
Ireland	237	237	237	237	237	237 e	237 o	237	237	237 o
Italy	17 923	18 052	18 116	18 238	18 316	18 486	18 558 o	18 601	18 755	18 772 e
Kosovo*	43	43	43	43	78	80	80	95	95 e	95 e
Latvia	1 576	1 587	1 588	1 588	1 564	1 564	1 565	1 587	1 586	1 596 o
Lithuania	116	116	117	117	117	117 e	117 o	117 o	117 o	126 o
Luxembourg	34	34	34	34	34	35	34	34 e	35	35 o
Moldova Rep	64	64	64	64	64	64 o	64 o	64 e	64	64 e
Montenegro	629	630	653	662	668	675	676	676	697	697 o
Netherlands	37	37	37	37	37	37 e	37 e	37 o	37 o	37 o
North Macedonia	595	617	630	658	661	671	674	678	684	822 e
Norway	30 509	31 033	31 240	31 372	31 817	31 912	32 530	32 797 o	33 732 e	34 813 e
Poland	945	949	958	964	972	967	968	974 e	977 e	1 164 e
Portugal	5 712	5 661	5 715	6 168	6 960	7 226	7 236	7 262	7 241	7 241 o
Romania	6 456	6 518	6 521	6 638	6 642	6 600	6 609	6 595	6 561	6 564 e
Serbia	2 352	2 317	2 403	2 408	2 416	2 424	2 429	2 460	2 468 e	2 483 e
Slovakia	1 606	1 607	1 607	1 606	1 608	1 607	1 612	1 611	1 613	1 613 e
Slovenia	1 074	1 119	1 116	1 115	1 113	1 167	1 163	1 171	1 172	1 178 o
Spain	16 097	15 854	15 892	16 722	16 749	16 748	16 748	16 782	16 785	16 785 o
Sweden	16 315	16 395	15 897	16 230	16 367	16 502 e	16 431	16 462 e	16 406 e	16 406 e
Switzerland	13 347	13 361	13 288	13 346	14 279	14 826	14 980 o	15 012	15 032 o	15 032 o
UK	1 993	2 009	2 030	2 077	2 133	2 170 e	2 173	2 173 o	2 175 o	2 193 o
Ukraine	4 608	4 627	4 665	4 697	4 658	4 704	4 734	4 816	4 819	4 823 u
European Union (27)	123 174	123 374	123 386	125 363	126 963	127 831	127 972	128 401	128 377	128 596
Middle East	13 170	13 690	14 854	14 389	14 611	14 265	14 411	14 494	14 504	14 504
Iran IR	9 745	10 265	10 785	10 238 e	10 538 e	10 913 e	11 059 e	11 142 e	11 153 e	11 153 e
Iraq	2 274 e	2 274 e	2 274 e	2 274 e	2 274 e	1 557 e	1 557 e	1 557 e	1 557 e	1 557 e
Israel	7	7 e	7 o	7 e	7 e	7 e	7 e	7 e	6 o	6 e
Jordan	12 o	12 o	12 o	16 u	16 u	16 u	16 u	16 u	16 e	16 e
Lebanon	282 o	282 e	282 e	282 e	282 e	282 e	282 e	282 e	282 e	282 e
Syrian AR	850 o	850 o	1 494 o	1 572 o	1 494 o	1 490 o	1 490 o	1 490 e	1 490 e	1 490 e
N America	169 522	169 964	171 241	174 919	176 466	177 035	177 678	177 608	177 786	175 307
Canada	75 363	75 337	75 300	79 231	80 130	80 657	81 222	81 222	81 227 u	82 563 u
Greenland	91 o	91 o	91 o	91 o	91 o	91 o	91 e	91 o	91 e	91 e
Mexico	11 626	11 633	12 464	12 223	12 580	12 642 o	12 642 o	12 671 o	12 671 o	12 671 o
USA	82 442	82 903	83 386	83 374	83 665	83 644 o	83 722	83 624	83 797 o	79 982 o
Oceania	13 343	13 355	13 356	13 374	13 374	13 379	13 631	13 640	13 643	13 643
Australia	7 461	7 461	7 461	7 461	7 461	7 461	7 713 o	7 713 o	7 713 o	7 713 o
Fiji	139 u	138 u	138 u	138 u	138 u	138 u	138 u	138 e	138 e	138 e
Fr Polynesia	47 o	47 o	47 o	47 o	47 o	48 o	48 o	48 o	48 e	48 e

Renewable hydropower (including mixed plants) Hydroélectricité renouvelable (y compris les centrales mixtes) Hidroeléctrica renovable (incluidas las plantas mixtas)

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
New Caledon	78 o	78 o	78 o	78 o	78 o	78 o	78 o	78 e	81 o	81 e
New Zealand	5 368	5 381	5 381	5 381	5 381	5 381	5 381 o	5 389 o	5 389 o	5 389 e
Papua N Guin	240 u	240 u	240 u	258 u	258 u	258 u	258 u	258 e	258 e	258 e
Samoa	9 o	9 o	9 o	9 o	9 o	12 o	13 e	14 u	14 e	14 e
Solomon Is	0 o	0 o	0 o	0 o	0 o	0 o	0 o	0 e	0 e	0 e
Vanuatu	1 o	1 o	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e
S America	141 716	143 957	148 601	152 689	162 774	166 440	171 455	176 462	176 830	177 059
Argentina	10 136 o	10 136 o	10 138 o	10 208 o	10 270 o	10 273 e	10 318 e	10 340 e	10 374 e	10 376 e
Bolivia	501 o	501 o	494 o	495 o	495 o	620 o	666 e	736 o	736 e	736 e
Brazil	84 294	86 019	89 194 o	91 651 o	96 930 o	100 333 o	104 482 o	109 143 o	109 318 o	109 426 o
Chile	5 993 o	6 095 o	6 446 o	6 500 o	6 672 o	6 685 e	6 680 o	6 683 o	6 773 o	6 807 o
Colombia	9 777	9 868	10 900	11 501 e	11 611 e	11 731 o	11 842 o	11 926 e	11 954 e	11 954 e
Ecuador	2 264 o	2 264 o	2 248 o	2 408 o	4 447 o	4 516 e	5 066 o	5 076 o	5 098 o	5 099 o
Fr Guiana	119 o	119 o	119 o	119 o	119 o	119 o	119 o	119 o	119 e	119 o
Guyana	2 e	2 e	2 e	2 o	2 e	2 e	2 e	2 o	2 e	2 e
Paraguay	8 810	8 810	8 810	8 810	8 810	8 810	8 810 o	8 810	8 810 o	8 810 e
Peru	3 479 o	3 544 o	3 651 o	4 139 o	5 179 o	5 112 o	5 230 o	5 387 o	5 406 o	5 490 o
South Georgia	0	0	0	0	0	0	0	0	0 e	0 e
Suriname	180	180	180	180	180	180 e	180 e	180 e	180 e	180 e
Uruguay	1 538	1 538	1 538	1 538	1 538	1 538	1 538 o	1 538 e	1 538 o	1 538 e
Venezuela	14 624 o	14 881 o	14 881 u	15 138 u	16 521 e	16 521 e	16 521 e	16 521 u	16 521 e	16 521 e

Pure pumped storage Accumulation par pompage Hidroeléctrica de bombeo pura

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	105 605	107 732	109 474	111 905	116 937	119 844	120 360	120 609	124 022	130 014
Africa	1 864	1 864	1 864	1 864	2 863	3 196	3 196	3 196	3 196	3 196
Morocco	464	464	464	464	464	464 o	464	464 e	464 e	464 e
South Africa	1 400 u	1 400 u	1 400 u	1 400 u	2 399 u	2 732 u	2 732 e	2 732 e	2 732 e	2 732 u
Asia	54 835	56 035	57 218	58 338	61 998	64 668	65 268	65 568	65 598	71 668
China	20 333	21 533	22 110	23 030	26 690	29 390 e	29 990	30 290	30 320 u	36 390 o
Chinese Taipei	2 602 o	2 602 o	2 602 o	2 602 o	2 602 o	2 602 o	2 602 o	2 602 o	2 602 o	2 602 o
India	4 786 o	4 786 o	4 786 o	4 786 o	4 786 o	4 786 o	4 786 e	4 786 o	4 786 e	4 786 e
Japan	21 119	21 119	21 724	21 924	21 924	21 894	21 894 e	21 894 o	21 894 o	21 894 o
Korea Rep	4 700	4 700	4 700	4 700	4 700	4 700 o	4 700 o	4 700 o	4 700 o	4 700 o
Mongolia	0	0	0	0	0	0	0	0 e	0	0 e
Philippines	736 o	736 o	736 o	736 o	736 o	736 o	736 o	736 o	736 o	736 e
Thailand	560 o	560 o	560 o	560 o	560 o	560 o	560 o	560 o	560 o	560 e
Eurasia	1 216	1 216	1 216	1 216	1 216	1 216	1 216	1 216	1 356	1 356
Russian Fed	1 216	1 216	1 216	1 216	1 216	1 216	1 216	1 216	1 356	1 356 e
Europe	26 827	27 733	28 202	28 383	28 595	28 467	28 363	28 363	28 362	28 341
Belgium	1 307	1 310	1 310	1 310	1 310	1 310 e	1 310 o	1 310 e	1 310 o	1 310 o
Bosnia Herzg	420 o	420 o	420 o	420 o	420 o	420 o	420 e	420 o	420 o	420 o
Bulgaria	864	864	864	864	864	864 e	864 o	864 e	864 o	864 o
Czechia	1 147	1 172	1 172	1 172	1 172	1 172	1 172	1 172	1 172 o	1 172 o
France	1 808	1 808	1 728	1 728	1 728	1 728	1 728 o	1 728	1 728	1 728 o
Germany	5 650	5 650	5 654	5 666	5 578	5 493	5 355	5 355	5 354	5 212 o
Ireland	292	292	292	292	292	292 e	292 o	292	292 o	292 e
Italy	3 957	3 957	3 982	3 982	3 982	3 940	3 940 o	3 940	3 940 e	3 940 e
Lithuania	760	760	760	760	760	760 e	760 o	760 o	760 o	760 o
Luxembourg	1 100	1 100	1 296	1 296	1 296	1 296 e	1 296 e	1 296 e	1 296 o	1 296 o
Poland	1 406	1 406	1 406	1 406	1 413	1 423	1 423	1 423 e	1 423 e	1 220 o
Romania	92	92	92	92	92	92	92	92 e	92 o	92 e
Serbia	614	614	614	614	614	614	614 o	614 e	614 e	614 e
Slovakia	916	916	916	916	916	916 e	916	916 e	916 e	916 e
Slovenia	180	180	180	180	180	180 e	180	180 e	180	180 o
Spain	2 453	3 331	3 331	3 331	3 331	3 331	3 331	3 331	3 331	3 331 o
Sweden	99	99	99	99	99	99	99	99	99	99
Switzerland	456	456	456	469	527	527 e	562	562	562 e	562 o
UK	2 444	2 444	2 444	2 600	2 600	2 600	2 600	2 600 o	2 600 o	2 600 o
Ukraine	862	862	1 186	1 186	1 421	1 509 o	1 509 o	1 509 e	1 509	1 833 u
European Union (27)	22 031	22 937	23 082	23 094	23 013	22 797	22 658	22 658	22 657	22 312
Middle East	240	240	240	1 280	1 280	1 280	1 280	1 280	1 580	1 580
Iran IR				1 040	1 040	1 040	1 040 o	1 040 e	1 040 e	1 040 o
Iraq	240	240	240	240	240 e	240 e	240 e	240 e	240 e	240 e
Israel									300 u	300 e
N America	18 839	18 860	18 950	19 040	19 201	19 233	19 253	19 202	22 146	22 089
Canada	174	174	174	174	174 o	174 e	174 e	177	177 e	177 e
USA	18 665	18 686	18 776	18 866	19 027	19 059	19 079	19 025	21 969 o	21 912 o
Oceania	810	810	810	810	810	810	810	810	810	810
Australia	810	810	810	810	810	810	810	810 o	810 o	810 o
S America	974	974	974	974	974	974	974	974	974	974
Argentina	974 o	974 o	974 o	974 o	974 o	974 o	974 o	974 o	974 o	974 o

Marine energy

Énergie marine

Energía marina

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	509	510	513	513	519	522	526	525	524	524
Asia	259	259	259	259	259	259	259	260	260	260
China	4	4	4	4	4	4	4	4 e	5 u	5 e
Korea Rep	255 o	255 o	255 o	255	255	255 o	255 o	256	256 o	256 o
Singapore		0	0	0	0	0 e	0 o	0 e	0 e	0 e
Eurasia	2	2	2	2	2	2	2	2	2	2
Russian Fed	2 u	2 u	2 u	2 u	2 u	2 u	2 o	2 e	2	2 e
Europe	228	228	231	231	237	240	244	242	241	241
Denmark	0 u									
Faroe Islands				0 u					0 o	0 e
France	216	218	220	218	220	219	218	214	212	212 e
Italy		0 u	0 u	0 u	0 u	0 e	0 e	0 e	0 u	0 e
Netherlands	0 u	u	0 u	2 u	2 e	2 e	2 e	2 u	2 e	2 e
Norway	2 u	0 u	0 u	0 u	0 u	0 e	0 e	0 e	0 e	0 e
Portugal	0	0	1			0				
Spain	0 u	0 u	0 u	0 u	5	5	5	5 e	5 e	5 e
Sweden	0 u	0 u	0 u	0 u	0 u	0 e	0 e			
UK	9	8	9	9	9	13	18	20	22 o	22 o
European Union (27)	217	219	222	221	227	227	226	221	219	219
N America	20	20	20	20	20	20	20	20	20	20
Canada	20	20	20	20	20	20	20 e	20 e	20 e	20 e
USA		0 u	0 e	0 u	0 u	0 o				
Oceania	1	1	1	1	1	1	1	1	1	1
Australia	1	1	1	1	1	1 e	1 e	1 o	1 e	1 e
New Zealand	0							0 o	0 o	0 e
S America	0	0	0	0	0	0	0	0	0	0
Brazil	0	0	0	0	0	0	0 o	0 o	0 o	0 o

Wind energy

Énergie éolienne

Energía eólica

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	266 918	299 840	349 307	416 170	466 866	514 215	563 466	621 270	731 763	824 874
Africa	1 128	1 742	2 399	3 320	3 826	4 579	5 472	5 529	6 485	7 334
Algeria			10	10	10	10	10	10	10	10
Cabo Verde	27	27	27	27	27	27	28	28	28	28
Chad					1	1	1	1	1	1
Djibouti										20
Egypt	555	555	555	755	755	755	1 130	1 132	1 380	1 640
Eritrea	1	1	1	1	1	1	1	1	1	1
Ethiopia	81	171	171	324	324	324	324	324	324	324
Gambia	1	1	1	1	1	1	1	1	1	1
Ghana				0	0	0	0	0	0	0
Kenya	6	6	6	26	26	26	336	336	336	436
Madagascar	0	0	0	0	0	0	0	0	0	0
Mauritania		4	4	34	34	34	34	34	34	34
Mauritius	1	1	1	1	11	11	11	11	11	11
Morocco	255	495	797	797	897	1 023	1 225	1 225	1 405	1 435
Namibia	0	0	0	0	0	5	5	5	5	5
Reunion	15	15	15	15	17	17	17	17	17	17
Senegal								55	159	159
Seychelles		6	6	6	6	6	6	6	6	6
Somalia	2	2	2	3	3	4	4	4	4	4
South Africa	10	257	569	1 079	1 473	2 094	2 094	2 094	2 516	2 956
Tanzania									2	2
Tunisia	173	200	233	240	240	240	245	245	245	245
Asia	82 809	99 542	124 336	161 804	184 185	205 015	229 093	257 667	332 302	385 396
Afghanistan	0	0	0	0	0	0	0	0	0	0
Bangladesh	2	2	2	3	3	3	3	3	3	3
Bhutan				1	1	1	1	1	1	1
Cambodia	0	0	0	0	0	0	0	0	0	0
China	61 597	76 731	96 819	131 048	148 517	164 374	184 665	209 582	282 113	328 973
Chinese Taipei	571	614	637	647	682	692	713	845	937	1 033
India	17 300	18 420	22 465	25 088	28 700	32 848	35 288	37 505	38 559	40 067
Indonesia	1	1	1	1	1	1	144	154	154	154
Japan	2 562	2 646	2 753	2 808	3 247	3 483	3 498	3 951	4 371	4 471
Kazakhstan	2	4	53	72	98	112	121	284	486	1 170
Korea DPR	0	0	0	0	0	1	1	1	1	1
Korea Rep	464	576	612	847	1 067	1 215	1 420	1 494	1 636	1 708
Maldives	1	1	1	1	1	1	1	1	1	1
Mongolia	1	51	51	51	51	101	156	156	156	156
Myanmar				0	0	0	0	0	0	0
Nepal		0	0	0	0	0	0	0	0	0
Pakistan	56	106	206	308	591	789	1 186	1 236	1 236	1 335
Philippines	33	33	337	427	427	427	427	443	443	443
Singapore						0	0	0	0	0
Sri Lanka	77	81	121	131	131	131	128	128	179	253
Thailand	112	223	225	234	507	628	1 103	1 507	1 507	1 507
Uzbekistan						1	1	1	1	1
Viet Nam	31	53	53	136	160	205	237	375	518	4 118
C America + Carib	728	822	946	1 302	1 544	1 599	1 709	1 945	1 969	2 001
Antigua Barb									4	4
Aruba	30	30	30	30	30	30	30	30	30	30
Barbados					0	0	0	0	0	0
Belize	0	0	0	0	0	0	0	0	0	0
BES Islands	11	11	11	11	11	11	11	11	11	11
Br Virgin Is	1	1	1	1	1	1	1	1	1	1
Costa Rica	144	144	193	272	365	378	408	411	394	394
Cuba	12	12	12	12	12	12	12	12	12	12
Curacao	30	30	30	30	30	47	47	47	47	47
Dominica	0	0	0	0	0	0	0	0	0	0
Dominican Rep	85	85	85	85	135	135	183	370	370	370
El Salvador									36	36
Grenada	0	0	0	0	0	0	0	0	0	0
Guadeloupe	23	23	23	27	26	26	26	42	42	52
Guatemala				76	76	76	107	107	107	107
Haiti							0	0	0	0
Honduras	102	152	152	152	175	225	225	241	241	241
Jamaica	39	39	39	39	99	99	99	99	99	99
Martinique	1	1	1	1	1	1	1	13	15	14
Nicaragua	147	147	186	186	186	186	186	186	186	186
Panama		20	55	253	270	270	270	270	270	270
Puerto Rico	101	125	125	125	125	101	101	102	102	125
St Kitts Nevis	2	2	2	2	2	2	2	2	2	2
Trinidad Tobago				0	0	0	0	0	0	0
US Virgin Is		0	0	0	0	0	0	0	0	0
Eurasia	2 276	2 775	3 645	4 525	5 801	6 566	7 146	7 783	9 868	12 653

Wind energy

Énergie éolienne

Energía eólica

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Armenia	3	3	3	3	3	3	3	3	3	3
Azerbaijan	2	3	3	8	16	16	66	66	66	67
Georgia					20	20	20	21	21	21
Russian Fed	10	10	10	11	11	11	52	102	945	1 955
Turkey	2 261	2 760	3 630	4 503	5 751	6 516	7 005	7 591	8 832	10 607
Europe	107 196	118 181	130 209	143 010	155 763	170 624	181 904	196 339	207 878	222 052
Austria	1 337	1 675	2 110	2 489	2 730	2 887	3 133	3 224	3 226	3 524
Belarus	5	7	9	22	62	84	92	112	112	112
Belgium	1 370	1 780	1 944	2 176	2 370	2 788	3 268	3 863	4 681	4 780
Bosnia Herzg	0	0	0	0	0	0	51	87	135	135
Bulgaria	677	683	699	699	699	698	699	703	703	705
Croatia	180	254	339	418	483	576	586	646	801	988
Cyprus	147	147	147	158	158	158	158	158	158	158
Czechia	258	262	278	281	282	308	316	339	339	339
Denmark	4 162	4 819	4 886	5 077	5 245	5 489	6 115	6 103	6 259	7 014
Estonia	266	248	275	300	310	312	310	316	317	317
Faroe Islands	9	9	20	20	20	20	16	13	19	19
Finland	257	447	627	1 005	1 565	2 044	2 041	2 284	2 586	3 257
France	7 607	8 156	9 201	10 298	11 567	13 499	14 900	16 457	17 484	18 676
Germany	30 979	33 477	38 614	44 580	49 435	55 580	58 721	60 742	62 188	63 760
Greece	1 753	1 809	1 978	2 091	2 370	2 624	2 877	3 589	4 119	4 457
Hungary	325	329	329	329	329	329	329	323	321	321
Iceland		2	3	3	3	2	2	2	2	2
Ireland	1 704	1 923	2 283	2 451	2 802	3 319	3 674	4 126	4 307	4 332
Italy	8 102	8 542	8 683	9 137	9 384	9 737	10 230	10 679	10 871	11 276
Kosovo*	1	1	1	1	1	34	34	34	32	137
Latvia	59	66	69	68	70	77	78	78	78	81
Lithuania	275	279	288	436	509	518	533	534	540	671
Luxembourg	58	58	58	64	120	120	123	136	153	157
Malta	0	0	0	0	0	0	0	0	0	0
Moldova Rep		1	1	1	2	9	33	35	37	51
Montenegro						72	72	118	118	118
Netherlands	2 433	2 713	2 865	3 391	4 257	4 202	4 393	4 484	6 619	7 801
North Macedonia			37	37	37	37	37	37	37	37
Norway	705	818	859	867	883	1 207	1 710	2 914	4 030	4 650
Poland	2 564	3 429	3 836	4 886	5 747	5 759	5 766	5 837	6 298	6 958
Portugal	4 412	4 610	4 857	4 937	5 124	5 124	5 172	5 223	5 122	5 248
Romania	1 822	2 773	3 244	3 130	3 025	3 030	3 032	3 038	3 013	3 013
Serbia	1	1	1	10	17	25	227	398	398	398
Slovakia	3	5	3	3	3	4	3	4	3	3
Slovenia	2	2	3	3	3	3	3	3	3	2
Spain	22 789	22 958	22 925	22 943	22 990	23 124	23 405	25 590	26 819	27 497
Sweden	3 606	4 194	5 088	5 819	6 435	6 611	7 300	8 681	9 976	12 080
Switzerland	49	60	60	60	75	75	75	75	87	87
UK	9 030	11 282	13 074	14 306	16 126	19 585	21 767	24 095	24 485	27 130
Ukraine	248	362	514	514	526	553	621	1 258	1 402	1 761
European Union (27)	97 187	105 678	115 670	127 212	138 055	148 964	157 211	167 233	177 057	187 497
Middle East	115	122	165	286	423	504	609	775	923	1 029
Bahrain	1	1	1	1	1	1	1	1	1	1
Iran IR	106	108	149	153	191	259	282	305	308	310
Israel	6	6	6	6	27	27	27	27	27	27
Jordan	1	1	1	118	198	198	280	373	518	622
Kuwait		2	2	2	2	12	12	12	12	12
Lebanon	1	2	3	3	3	3	3	3	3	3
Oman								50	50	50
Saudi Arabia						3	3	3	3	3
Syrian AR	1	1	1	1	1	1	1	1	1	1
United Arab Em		1	2	2						
N America	67 092	69 897	76 495	87 058	97 310	104 046	112 208	123 516	138 863	154 733
Canada	6 201	7 801	9 694	11 214	11 973	12 250	12 816	13 413	13 627	14 304
Greenland							0	0	0	0
Mexico	1 815	2 122	2 569	3 271	4 051	4 199	4 876	6 050	6 504	7 692
St Pierre Mq	1	1								
USA	59 075	59 973	64 232	72 573	81 286	87 597	94 516	104 052	118 732	132 738
Oceania	3 235	3 895	4 531	4 922	5 066	5 553	6 184	7 023	9 442	9 922
Australia	2 561	3 221	3 797	4 181	4 324	4 812	5 442	6 279	8 603	8 951
Cook Is	0	0	0	0	0	0	0	0	0	0
Fiji	10	10	10	10	10	10	10	10	10	10
Fr Polynesia	0	0	0	0	0	0	0	0	0	0
Guam					0	0	0	0	0	0
Marshall Is							0	0	0	0
Micronesia							1	1	1	1
New Caledon	38	38	38	38	38	38	38	38	38	38
New Zealand	623	623	682	689	689	689	689	689	784	917

Wind energy Énergie éolienne Energía eólica

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Samoa			1	1	1	1	1	1	1	1
Tokelau								0	0	0
Tonga		0	0	0	0	0	0	2	2	2
Vanuatu	3	3	4	4	4	3	3	3	3	3
S America	2 340	2 864	6 580	9 943	12 947	15 727	19 141	20 694	24 034	29 754
Argentina	137	190	215	187	187	227	750	1 609	2 624	3 292
Bolivia	0	0	3	3	27	27	27	27	27	128
Brazil	1 894	2 202	4 888	7 633	10 129	12 304	14 843	15 438	17 198	21 161
Chile	202	301	736	910	1 039	1 305	1 524	1 620	2 149	3 137
Colombia	18	18	18	18	18	18	18	18	18	18
Ecuador	2	19	21	21	21	21	21	21	21	21
Falklands Malv	2	2	2	2	2	2	2	2	2	2
Guyana	0	0	0	0	0	0	0	0	0	0
Peru	1	1	143	240	240	240	372	372	409	409
South Georgia	0	0	0	0	0	0	0	0	0	0
Uruguay	53	59	481	857	1 211	1 511	1 511	1 514	1 514	1 514
Venezuela	30	71	71	71	71	71	71	71	71	71

Onshore wind energy

Énergie éolienne terrestre

Energía eólica terrestre

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	261 584	292 668	340 815	404 453	452 524	495 378	539 840	592 888	697 401	769 196
Africa	1 128	1 742	2 399	3 320	3 826	4 579	5 472	5 529	6 485	7 334
Algeria			10	10	10	10 e	10 e	10 e	10 e	10 e
Cabo Verde	27	27	27	27	27	27	28 e	28 e	28 e	28 e
Chad					1 u	1 e	1 e	1 e	1 o	1 e
Djibouti										20 u
Egypt	555 o	555 o	555 o	755 o	755 o	755 o	1 130 o	1 132 e	1 380 e	1 640 e
Eritrea	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e
Ethiopia	81	171	171	324	324 u	324 e	324 e	324 e	324	324
Gambia	1 o	1 o	1 o	1 o	1 o	1 o	1 e	1 e	1 e	1 e
Ghana				0 o	0 e	0 e	0 e	0 e	0 e	0 e
Kenya	6 o	6 o	6 o	26 e	26 e	26 e	336 e	336 e	336 e	436 e
Madagascar	0 o	0 o	0 o	0 o	0 o	0 e	0 e	0 e	0 e	0 e
Mauritania		4 o	4 o	34 o	34 o	34 o	34 e	34 e	34 e	34 e
Mauritius	1	1	1	1	11	11 e	11 e	11 e	11 e	11 e
Morocco	255	495	797	797	897	1 023 o	1 225 o	1 225 e	1 405 e	1 435 e
Namibia	0 e	0 e	0 e	0 e	0 e	5 u	5 e	5	5 e	5 e
Reunion	15 o	15 o	15 o	15 o	17 o	17 e	17 o	17 e	17 e	17 e
Senegal								55 o	159 o	159 e
Seychelles		6 o	6 o	6 o	6 o	6 o	6 e	6 e	6 e	6 e
Somalia	2 u	2 u	2 u	3 u	3 u	4 u	4 e	4 e	4	4 e
South Africa	10 o	257 o	569 o	1 079 o	1 473 o	2 094 o	2 094 o	2 094 e	2 516 u	2 956 e
Tanzania									2 u	2 u
Tunisia	173 o	200 o	233 o	240 o	240 o	240 o	245 o	245 o	245 o	245 e
Asia	82 488	99 055	123 820	161 082	182 506	202 010	224 260	251 372	322 883	357 574
Afghanistan	0 u	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e
Bangladesh	2 o	2 o	2 o	3 o	3 o	3 o	3 e	3 o	3 o	3 o
Bhutan				1 u	1 e	1 e	1 e	1 e	1 e	1 e
Cambodia	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e
China	61 306	76 314	96 379	130 489	147 037	161 586	180 077	203 652 e	273 123 o	302 583 e
Chinese Taipei	571 o	614 o	637 o	647 o	682 o	684 o	705 o	717 o	809 o	796 o
India	17 300 o	18 420 o	22 465 o	25 088 o	28 700 o	32 848 o	35 288 o	37 505 o	38 559 o	40 067 o
Indonesia	1 o	1 o	1 o	1 o	1 o	1 o	144 o	154 o	154 e	154 o
Japan	2 537	2 596	2 703	2 755	3 187	3 418	3 433	3 886	4 306 o	4 406 o
Kazakhstan	2	4	53	72	98	112	121 o	284 e	486	1 170 o
Korea DPR	0 u	0 u	0 u	0 u	0 u	1 o	1 e	1 e	1 e	1 e
Korea Rep	459	571	602	837	1 027	1 170	1 347	1 421	1 500 o	1 572 o
Maldives	1 u	1 u	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e
Mongolia	1 e	51 e	51 e	51 e	51 e	101 e	156 o	156 e	156 e	156 e
Myanmar				0 e	0 e	0 e	0 e	0 e	0 e	0 e
Nepal		0 u	0 u	0 u	0 u	0 e	0 o	0 o	0 e	0 e
Pakistan	56 e	106 e	206 e	308 e	591 e	789 e	1 186 e	1 236 e	1 236 e	1 335 e
Philippines	33 o	33 o	337 o	427 o	427 o	427 o	443 o	443 o	443 o	443 e
Singapore						0 u	0 e	0 e	0 e	0 e
Sri Lanka	77 o	81 o	121 o	131 o	131 o	131 o	128 o	128 e	179 o	253 e
Thailand	112	223	225	234	507	628 o	1 103 o	1 507 o	1 507 o	1 507 e
Uzbekistan						1 o	1 o	1 e	1	1 e
Viet Nam	31	37	37 u	37 u	61 e	106 e	138 u	275 e	419 e	3 124 e
C America + Carib	728	822	946	1 302	1 544	1 599	1 709	1 945	1 969	2 001
Antigua Barb									4 u	4 e
Aruba	30	30	30	30	30	30	30 e	30 o	30 e	30 e
Barbados					0	0	0 e	0 e	0 e	0 e
Belize	0 u	0 u	0 u	0 u	0 u	0 u	0 u	0 u	0 u	0 e
BES Islands	11 o	11 o	11 o	11 o	11 o	11 o	11 e	11 e	11 e	11 e
Br Virgin Is	1	1	1	1	1	1	1 e	1 e	1 e	1 e
Costa Rica	144	144	193	272	365	378	408 o	411 o	394 o	394 o
Cuba	12	12	12	12	12	12	12 e	12	12	12
Curacao	30	30	30	30	30	47 o	47 o	47 o	47 o	47 e
Dominica	0 o	0 o	0 o	0 o	0 o	0 o	0 o	0 e	0 e	0 e
Dominican Rep	85	85	85	85	135 o	135 o	183 o	370 o	370 o	370
El Salvador									36 o	36 e
Grenada	0 u	0 u	0 u	0 u	0 u	0 u	0 u	0 e	0 e	0 e
Guadeloupe	23	23	23	27	26	26	26	42	42	52
Guatemala				76	76	76	107 o	107 o	107 o	107 o
Haiti							0 u	0 e	0 e	0 e
Honduras	102	152 o	152	152	175	225	225	241 u	241 e	241 e
Jamaica	39	39	39	39	99	99	99 e	99 e	99 o	99 e
Martinique	1 o	1 o	1 o	1 o	1 o	1 e	1 o	13	15	14
Nicaragua	147 e	147	186	186	186	186	186 o	186 o	186 o	186 e
Panama		20	55	253	270	270	270 o	270	270 e	270 o
Puerto Rico	101	125	125	125	125	101	101 e	102 o	102 e	125 o
St Kitts Nevis	2	2	2	2	2	2 u	2 e	2 e	2 e	2 e
Trinidad Tobago				0	0	0	0 e	0 e	0 e	0 e
US Virgin Is		0 o	0 o	0 o	0 o	0 o	0 e	0 e	0 e	0 e
Eurasia	2 276	2 775	3 645	4 525	5 801	6 566	7 146	7 783	9 868	12 653

Onshore wind energy

Énergie éolienne terrestre

Energía eólica terrestre

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Armenia	3	3	3	3	3 o	3 e	3 o	3 e	3 e	3 e
Azerbaijan	2 e	3	3	8	16 u	16 u	66 o	66 e	66	67
Georgia					20	20	20	21	21 o	21 o
Russian Fed	10	10	10 e	11 e	11 e	11 e	52 e	102 e	945	1 955 o
Turkey	2 261	2 760	3 630	4 503	5 751	6 516	7 005	7 591	8 832 o	10 607 o
Europe	102 183	111 497	122 234	132 014	143 130	154 822	163 141	174 282	182 964	194 237
Austria	1 337	1 675	2 110	2 489	2 730	2 887	3 133	3 224	3 226	3 524 u
Belarus	5	7	9	22	62	84	92	112	112	112 e
Belgium	989	1 072	1 236	1 464	1 658	1 910	2 082	2 308	2 419	2 518 o
Bosnia Herzg	0 o	0 o	0 o	0 o	0 o	0 o	51	87	135 u	135 u
Bulgaria	677	683	699	699	699	698	699	703	703	705 o
Croatia	180	254	339	418	483	576	586	646	801	988 u
Cyprus	147	147	147	158	158	158	158	158 o	158 o	158 e
Czechia	258	262	278	281	282	308	316	339	339	339 o
Denmark	3 240	3 548	3 615	3 806	3 974	4 225	4 414	4 402	4 559	4 708 o
Estonia	266	248	275	300	310	312	310	316	317	317 u
Faroe Islands	9 o	9 o	20 o	20 o	20 o	20 e	16 o	13 o	19 o	19 e
Finland	231 e	421 e	601 e	973 e	1 533 e	1 971	1 968 o	2 211	2 513	3 184 u
France	7 607	8 156	9 201	10 298	11 567	13 497	14 898	16 455	17 482	18 674 o
Germany	30 711 o	32 969 o	37 620 o	41 297 o	45 303	50 174	52 328	53 187	54 414	56 013 o
Greece	1 753	1 809	1 978	2 091	2 370	2 624	2 877	3 589	4 119	4 457 u
Hungary	325	329	329	329	329	329 u	329 o	323	321	321 e
Iceland		2	3	3	3	2	2	2	2	2 e
Ireland	1 679	1 898	2 258	2 426	2 776	3 294	3 649	4 101	4 282	4 307 o
Italy	8 102	8 542	8 683	9 137	9 384	9 737	10 230	10 679	10 871	11 276 o
Kosovo*	1	1	1	1	1	34	34	34	32 u	137 u
Latvia	59	66	69	68	70	77	78	78	78 o	81 o
Lithuania	275	279	288	436	509	518	533	534	540	671 o
Luxembourg	58	58	58	64	120	120	123	136	153	157 u
Malta	0	0	0	0 o	0	0	0 e	0 e	0 e	0 e
Moldova Rep		1	1	1	2 o	9 o	33	35	37 o	51 o
Montenegro						72 u	72	118 u	118 e	118 u
Netherlands	2 205 o	2 485 o	2 637 o	3 034 o	3 300 o	3 245	3 436	3 527	4 159	5 341 o
North Macedonia			37	37	37	37 u	37 u	37 o	37 o	37 u
Norway	703 e	816 e	857	865 e	881 e	1 205 o	1 708	2 912	4 028	4 644 o
Poland	2 564	3 429	3 836	4 886	5 747	5 759	5 766	5 837	6 298	6 958 u
Portugal	4 410	4 608	4 855	4 935	5 124	5 124	5 172	5 215	5 097	5 223 o
Romania	1 822	2 773	3 244	3 130	3 025	3 030	3 032	3 038	3 013	3 013 u
Serbia	1	1	1	10 e	17	25 u	227	398	398	398 o
Slovakia	3	5	3	3	3	4 u	3	4	3	3 e
Slovenia	2	2	3	3	3	3	3	3	3	2 o
Spain	22 789	22 953 e	22 920	22 938 e	22 985	23 119	23 400	25 585	26 814	27 492 o
Sweden	3 443	3 982	4 875	5 606	6 232	6 408	7 097	8 478	9 773	11 877 u
Switzerland	49	60	60	60	75	75 u	75 o	75 e	87 o	87 u
UK	6 035	7 586	8 573	9 212	10 833	12 597	13 551	14 125	14 102 o	14 430 u
Ukraine	248	362	514	514	526	553	621 o	1 258 o	1 402	1 761 u
European Union (27)	95 172	102 692	112 198	121 311	130 717	140 152	146 666	155 149	162 528	172 389
Middle East	115	122	165	286	423	504	609	775	923	1 029
Bahrain	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e
Iran IR	106	108	149	153	191	259 o	282 o	305	308	310 o
Israel	6	6 e	6 o	6 e	27 e	27 e	27 e	27 e	27 e	27 e
Jordan	1 o	1 o	1 o	118 o	198 o	198 o	280 o	373 u	518 o	622 u
Kuwait		2 u	2 e	2 e	2 e	12 e	12 e	12 e	12 e	12 e
Lebanon	1 u	2 u	3 u	3 e	3 e	3 e	3 e	3 e	3 e	3 e
Oman								50	50 e	50 e
Saudi Arabia						3 u	3 e	3 o	3 e	3 e
Syrian AR	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e
United Arab Em		1 e	2 e	2 e	u	u	u	u	u	u
N America	67 092	69 897	76 495	87 058	97 281	104 017	112 179	123 487	138 834	154 691
Canada	6 201	7 801	9 694	11 214	11 973	12 250	12 816 u	13 413 u	13 627	14 304
Greenland							0 o	0 o	0 e	0 e
Mexico	1 815	2 122	2 569	3 271	4 051	4 199 o	4 876 o	6 050 o	6 504 o	7 692 o
St Pierre Mq	1 u	1 u								
USA	59 075	59 973	64 232	72 573	81 257	87 568	94 487	104 023 o	118 703 o	132 696 o
Oceania	3 235	3 895	4 531	4 922	5 066	5 553	6 184	7 023	9 442	9 922
Australia	2 561	3 221	3 797	4 181	4 324	4 812	5 442	6 279	8 603 o	8 951 o
Cook Is	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e
Fiji	10 u	10 u	10 u	10 u	10 u	10 u	10 u	10 e	10 e	10 e
Fr Polynesia	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e
Guam					0 o	0 o	0 e	0 e	0 e	0 e
Marshall Is							0 u	0 e	0 e	0 e
Micronesia							1 u	1 e	1 e	1 e
New Caledon	38 o	38 o	38 o	38 o	38 o	38 o	38 o	38 e	38 e	38 e
New Zealand	623	623	682	689	689	689	689 o	689 o	784 o	917

Onshore wind energy

Énergie éolienne terrestre

Energía eólica terrestre

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Samoa			1 o	1 o	1 o	1 o	1 o	1 e	1 e	1 e
Tokelau								0 o	0 e	0 e
Tonga		0 e	0 e	0 o	0 o	0 o	0 o	2 u	2 e	2 e
Vanuatu	3 o	3 o	4 o	4 o	4 o	3 o	3 o	3 o	3 e	3 e
S America	2 340	2 864	6 580	9 943	12 947	15 727	19 141	20 694	24 034	29 754
Argentina	137 o	190 o	215 o	187 o	187 o	227 e	750 e	1 609 o	2 624 e	3 292 e
Bolivia	0	0	3 o	3 o	27 o	27 o	27 o	27 o	27 o	128 o
Brazil	1 894	2 202 o	4 888 o	7 633 o	10 129 o	12 304 o	14 843 o	15 438 o	17 198 o	21 161 o
Chile	202	301	736	910	1 039	1 305 o	1 524 o	1 620 o	2 149 o	3 137 o
Colombia	18 o	18 o	18 o	18 o	18 o	18 o	18 o	18 o	18	18
Ecuador	2	19	21 o	21 o	21 o	21 o	21 e	21 o	21 o	21 o
Falklands Malv	2 e	2 e	2 e	2 o	2 o	2 o	2 o	2 e	2 e	2 e
Guyana	0	0	0	0	0	0	0 e	0 e	0 e	0 e
Peru	1	1	143	240 o	240 o	240 o	372 e	372 e	409 e	409 o
South Georgia	0	0	0	0	0	0	0	0	0 e	0 e
Uruguay	53	59	481	857	1 211	1 511	1 511	1 514	1 514 o	1 514 e
Venezuela	30	71 u	71 u	71 u	71 u	71 u	71 u	71 u	71 e	71 e

Offshore wind energy

Énergie éolienne maritime

Energía eólica marina

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	5 334	7 171	8 492	11 717	14 342	18 837	23 626	28 382	34 362	55 678
Asia	321	488	516	722	1 680	3 006	4 833	6 295	9 418	27 822
China	291	417	440	559	1 480	2 788 u	4 588 u	5 930	8 990 o	26 390 o
Chinese Taipei						8 u	8 u	128 o	128 o	237 o
Japan	25	50	50	53	60	65 u	65 u	65 o	65 o	65 o
Korea Rep	5	5	11	11	41	46 e	73 u	73 u	136 u	136 e
Viet Nam		16 e	16 u	99 u	99 o	99 o	99 e	99 u	99 e	994 e
Europe	5 013	6 684	7 976	10 996	12 633	15 802	18 763	22 058	24 915	27 814
Belgium	381	708	708	712	712	877	1 186	1 556	2 262	2 262 o
Denmark	922	1 271	1 271	1 271	1 271	1 264	1 701	1 701	1 701 o	2 306 o
Finland	26 u	26 u	26 u	32 u	32 u	73	73 o	73	73 u	73 u
France						2 u	2 o	2 u	2 u	2 u
Germany	268 o	508 o	994 o	3 283 o	4 132 o	5 406	6 393	7 555	7 774	7 747 o
Ireland	25	25	25	25	25	25 u	25 o	25	25 o	25 e
Netherlands	228 o	228 o	228 o	357 o	957 o	957 u	957 u	957 u	2 460	2 460 o
Norway	2 u	2 u	2 u	2 u	2 u	2 o	2 u	2 u	2 e	6 u
Portugal	2	2	2	2				8	25	25 u
Spain		5 u	5 u	5 u	5 u	5 u	5	5 o	5 e	5 o
Sweden	163	212	213	213	203	203 e	203	203 u	203 u	203 u
UK	2 995 o	3 696 o	4 501 o	5 093 o	5 293 o	6 988	8 217	9 971	10 383 o	12 700 u
European Union (27)	2 015	2 985	3 472	5 900	7 337	8 812	10 545	12 085	14 529	15 108
N America			0	0	29	29	29	29	29	42
USA			0 u	0 u	29	29	29 o	29 o	29 o	42 o

Solar energy

Énergie solaire

Energía solar

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	104 312	141 169	180 216	228 054	300 199	395 276	488 820	591 059	716 788	849 473
Africa	411	732	1 738	2 256	3 413	5 236	8 195	9 500	10 789	11 387
Algeria	25	25	26	74	244	425	448	448	448	448
Angola	10	11	12	13	13	13	13	13	13	13
Benin			0	1	3	3	3	3	3	3
Botswana	2	2	2	2	3	3	4	6	6	6
Burkina Faso	6	6	7	8	10	47	62	62	62	62
Burundi	2	3	3	3	4	5	5	5	5	5
Cabo Verde	6	6	6	6	6	6	8	8	8	8
Cameroon	3	4	6	7	9	12	14	14	14	14
Cent Afr Rep	0	0	0	0	0	0	0	0	0	0
Chad	0	0	0	0	0	0	0	0	1	1
Congo DR	0	0	1	1	3	5	20	20	20	20
Congo Rep	0	0	0	0	0	1	1	1	1	1
Cote d'Ivoire	2	3	4	5	5	8	13	13	13	13
Djibouti	0	0	0	0	0	0	0	0	0	0
Egypt	35	35	35	36	59	180	764	1 647	1 675	1 675
Eq Guinea										
Eritrea	0	0	8	8	8	10	18	20	22	24
Eswatini	1	1	1	1	1	1	1	1	1	11
Ethiopia	1	3	9	10	14	12	12	12	20	21
Gabon	1	1	1	1	1	1	1	1	1	1
Gambia	2	2	2	2	2	2	2	2	2	2
Ghana		3	6	31	38	47	78	85	108	108
Guinea	1	3	3	13	13	13	13	13	13	13
Guinea Bissau				0	0	0	1	1	1	1
Kenya	3	7	16	30	31	38	105	106	106	147
Lesotho		0	0	0	0	0	0	0	0	0
Liberia	0	0	0	0	0	2	3	3	3	3
Libya	5	5	5	5	5	5	5	5	5	6
Madagascar	3	5	7	9	11	13	33	33	33	33
Malawi	3	5	8	12	12	19	26	80	82	142
Mali	16	16	16	17	18	19	19	19	70	100
Mauritania		18	18	18	35	35	87	88	88	88
Mauritius	1	2	18	19	27	29	67	83	83	83
Mayotte	13	13	13	13	13	15	15	15	18	18
Morocco	35	35	40	200	202	204	734	734	734	774
Mozambique	2	5	7	10	13	15	55	55	55	55
Namibia	11	15	16	21	36	75	93	145	145	145
Niger	4	5	6	7	8	9	27	27	27	27
Nigeria	15	15	16	17	18	19	19	28	28	33
Reunion	153	156	167	187	186	188	190	191	205	217
Rwanda	0	1	10	14	19	28	38	38	38	38
Sao Tome Prn		0	0	0	0	0	0	0	0	0
Senegal	6	7	9	9	42	107	148	171	171	238
Seychelles		0	1	1	2	3	4	4	4	9
Sierra Leone	0	0	0	0	0	4	4	4	4	4
Somalia			0	0	5	7	7	7	16	24
South Africa	11	262	1 163	1 352	2 174	3 447	4 801	4 905	5 990	6 221
South Sudan	0	0	0	0	0	0	1	1	1	1
Sudan	8	15	17	20	26	36	59	80	117	136
Tanzania	1	4	11	13	19	22	26	24	24	24
Togo	0	0	1	2	2	3	4	5	6	56
Tunisia	6	10	17	28	38	47	64	80	95	95
Uganda	17	19	20	22	24	44	67	77	87	92
Zambia		0	0	0	0	0	1	96	96	96
Zimbabwe	1	2	3	4	5	6	11	16	18	30
Asia	16 210	36 225	60 687	90 573	140 470	211 815	276 339	332 679	410 144	485 848
Afghanistan	16	17	18	19	20	22	22	31	31	31
Bangladesh	66	94	119	145	161	185	201	239	284	329
Bhutan	0	0	0	0	0	0	0	0	0	0
Brunei Darism	1	1	1	1	1	1	1	1	1	5
Cambodia	5	6	9	12	18	29	29	124	315	428
China	6 719	17 759	28 399	43 549	77 819	130 832	175 262	204 971	253 964	306 973
Chinese Taipei	231	410	636	884	1 245	1 768	2 738	4 150	5 817	7 700
India	982	1 599	3 773	5 693	9 979	18 252	27 453	35 203	39 385	49 684
Indonesia	26	38	42	79	88	98	65	155	185	211
Japan	6 632	13 599	23 339	34 150	42 040	49 500	56 162	63 192	69 764	74 191
Kazakhstan	2	16	76	144	157	175	490	1 150	1 719	2 834
Korea DPR	2	6	11	23	32	35	38	42	42	52
Korea Rep	1 024	1 555	2 481	3 615	4 502	5 835	8 099	11 952	14 575	18 161
Lao PDR	0	0	2	2	2	8	34	34	34	34
Malaysia	32	139	205	266	344	394	545	894	1 483	1 787
Maldives	1	2	4	5	7	11	16	21	27	31
Mongolia	5	5	5	5	15	48	64	89	90	90
Myanmar	3	4	6	21	32	44	48	88	84	80
Nepal	9	11	12	13	14	54	52	51	67	93
Pakistan	46	101	165	266	590	655	679	763	860	1 083
Philippines	2	3	28	173	784	908	917	982	1 058	1 370

Solar energy

Énergie solaire

Energía solar

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Singapore	8	12	25	46	97	116	161	276	336	433
Sri Lanka	10	13	20	31	63	131	185	285	371	434
Thailand	382	829	1 304	1 425	2 451	2 702	2 967	2 988	2 988	3 049
Timor Leste	1	1	1	1	1	1	1	1	1	1
Uzbekistan	1	1	1	1	2	3	4	4	4	104
Viet Nam	5	5	5	5	5	8	105	4 993	16 660	16 660
C America + Carib	202	282	343	1 040	1 246	1 611	1 997	2 483	2 791	3 276
Anguilla	0	0	1	1	2	2	1	2	2	2
Antigua Barb	0	0	0	3	4	4	9	9	13	13
Aruba	1	2	5	6	6	6	6	6	6	6
Bahamas	1	1	1	1	1	1	1	2	2	2
Barbados	2	2	7	9	20	21	22	35	50	50
Belize	2	2	3	4	4	4	4	6	7	7
BES Islands				0	2	4	6	7	7	7
Br Virgin Is	0	0	0	0	0	0	0	0	0	0
Cayman Is					3	9	10	11	13	14
Costa Rica	10	13	17	22	24	28	28	48	57	74
Cuba	1	11	22	24	37	65	128	159	217	246
Curacao	0	3	8	10	11	11	12	12	13	13
Dominica	0	0	0	0	1	1	0	0	0	0
Dominican Rep	2	8	15	25	73	106	205	315	386	490
El Salvador	0	13	13	24	25	121	198	403	478	478
Grenada	0	1	1	1	2	2	3	3	4	4
Guadeloupe	60	67	67	67	68	70	70	81	85	86
Guatemala	2	3	10	93	93	99	101	101	101	101
Haiti	1	1	2	2	2	3	3	3	3	3
Honduras	5	5	5	393	414	454	514	514	514	514
Jamaica	2	2	4	7	28	56	56	93	93	93
Martinique	60	62	63	65	67	68	71	76	76	78
Montserrat								0	0	1
Nicaragua		1	1	1	1	14	14	16	16	16
Panama	3	4	6	49	93	147	210	222	242	465
Puerto Rico	47	77	82	212	247	302	305	336	384	491
St Barth					0	0	0	0	0	0
St Kitts Nevis	0	0	1	1	2	2	2	2	2	2
St Lucia	0	0	0	1	1	1	4	4	4	4
St Martin		1	2	3	2	0	0	1	1	1
St Vincent Gren	0	0	0	1	1	1	1	2	2	2
Trinidad Tobago	3	3	3	4	4	4	4	4	4	4
Turks Caicos				0	0	0	0	1	1	1
US Virgin Is	1	1	5	9	9	5	10	10	10	10
Eurasia	13	21	48	316	936	3 678	5 651	7 359	8 230	9 704
Armenia					1	2	17	50	95	183
Azerbaijan	1	1	2	5	25	28	35	35	38	43
Georgia					0	0	0	1	1	1
Russian Fed	0	1	5	61	76	225	535	1 276	1 428	1 661
Turkey	12	19	41	250	834	3 422	5 064	5 996	6 668	7 817
Europe	73 723	84 170	91 092	99 605	106 171	112 302	121 620	142 436	162 835	185 877
Albania	1	1	1	1	1	1	1	14	17	22
Andorra			0	0	0	0	1	2	3	4
Austria	337	626	785	937	1 096	1 269	1 455	1 702	2 043	2 692
Belarus			4	6	47	80	154	154	160	269
Belgium	2 647	2 902	3 015	3 132	3 329	3 621	4 000	4 637	5 575	6 585
Bosnia Herzg	0	1	7	8	14	16	18	22	35	53
Bulgaria	1 013	1 020	1 026	1 029	1 028	1 036	1 033	1 048	1 097	1 186
Croatia	4	19	33	48	56	60	68	85	109	109
Cyprus	17	35	64	76	84	110	118	151	229	316
Czechia	2 022	2 064	2 067	2 075	2 068	2 070	2 075	2 086	2 123	2 119
Denmark	402	571	607	782	851	906	998	1 080	1 304	1 540
Estonia	0	2	3	7	10	15	32	121	208	414
Faroe Islands								0	0	0
Finland	8	9	11	17	39	82	140	222	318	404
France	4 359	5 277	6 034	7 138	7 702	8 610	9 672	10 817	12 031	14 718
Germany	34 077	36 710	37 900	39 224	40 679	42 293	45 158	48 914	53 721	58 461
Greece	1 536	2 579	2 596	2 604	2 604	2 606	2 652	2 834	3 288	3 530
Hungary	12	35	89	172	235	344	728	1 400	2 131	2 131
Iceland	1	1	1	3	4	4	5	7	7	7
Ireland	1	1	2	2	6	17	32	58	93	136
Italy	16 790	18 190	18 600	18 907	19 289	19 688	20 114	20 871	21 656	22 698
Kosovo*				0	2	7	7	10	10	10
Latvia	0	0	0	0	1	1	2	3	5	8
Lithuania	7	68	69	69	70	78	92	133	248	338
Luxembourg	75	95	110	116	122	128	131	160	187	209
Malta	16	29	55	75	94	112	132	155	188	196
Moldova Rep			1	1	2	2	3	5	4	8
Montenegro	1	1	2	3	3	3	4	5	6	7
Netherlands	287	650	1 007	1 526	2 135	2 911	4 608	7 226	10 950	14 249

Solar energy

Énergie solaire

Energía solar

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
North Macedonia	4	7	15	17	17	17	21	26	94	94
Norway	10	11	13	15	27	45	68	120	160	225
Poland	1	2	27	108	187	287	562	1 539	3 955	6 257
Portugal	238	296	415	447	513	579	667	901	1 100	1 801
Romania	41	761	1 293	1 326	1 372	1 374	1 386	1 398	1 383	1 398
Serbia	7	10	13	16	17	18	21	23	31	52
Slovakia	513	533	533	533	533	528	472	590	535	535
Slovenia	142	187	223	238	233	247	247	278	370	367
Spain	6 569	6 994	7 001	7 008	7 017	7 027	7 068	11 143	12 589	15 952
Sweden	24	43	60	104	153	244	428	714	1 107	1 577
Switzerland	437	756	1 061	1 394	1 664	1 906	2 173	2 498	2 973	3 449
UK	1 753	2 937	5 528	9 601	11 914	12 760	13 073	13 346	13 462	13 689
Ukraine	372	748	819	841	955	1 200	2 003	5 936	7 331	8 062
European Union (27)	71 460	80 033	83 974	88 080	91 888	96 630	104 461	120 677	138 982	160 382
Middle East	309	569	819	1 076	1 582	2 217	3 410	6 181	7 473	8 411
Bahrain	1	1	5	5	6	6	6	9	10	11
Iran IR	0	1	9	9	43	184	286	346	430	456
Iraq		30	37	37	37	37	37	37	37	37
Israel	278	383	593	772	880	988	1 291	2 056	2 472	2 555
Jordan	0	0	0	6	287	397	700	1 186	1 448	1 521
Kuwait	0	0	2	3	31	32	43	93	93	93
Lebanon	0	0	2	9	22	35	58	79	79	79
Oman		1	1	2	2	8	8	9	112	138
Palestine	1	1	3	12	25	35	40	82	117	117
Qatar	1	2	4	4	5	5	5	5	5	5
Saudi Arabia	14	22	24	24	24	34	84	109	109	439
Syrian AR						0	1	2	2	2
United Arab Em	13	126	133	134	141	355	598	1 918	2 306	2 705
Yemen	1	2	5	60	80	100	250	250	253	253
N America	9 452	14 364	19 668	26 248	38 014	47 173	57 220	68 593	84 067	105 878
Canada	766	1 210	1 843	2 519	2 665	2 932	3 095	3 327	3 342	3 630
Greenland							0	0	0	0
Mexico	73	109	174	287	633	1 126	2 555	4 440	5 163	7 040
USA	8 613	13 045	17 651	23 442	34 716	43 115	51 570	60 826	75 562	95 209
Oceania	3 829	4 609	5 356	6 077	6 856	7 572	8 875	13 286	17 706	19 442
Amer Samoa	2	2	2	2	4	4	5	5	5	5
Australia	3 799	4 568	5 287	5 946	6 689	7 354	8 625	12 969	17 344	19 076
Cook Is	0	1	2	3	3	3	5	5	5	5
Fiji	1	1	2	3	5	7	9	10	10	10
Fr Polynesia	14	17	25	28	32	35	37	41	41	41
Guam	0	1	1	32	35	35	35	35	35	35
Kiribati	0	1	1	2	3	3	3	3	3	3
Marshall Is	0	1	1	1	2	2	2	2	2	2
Micronesia	1	1	1	1	1	1	2	2	2	2
Nauru	0	0	0	0	1	1	1	2	2	2
New Caledon	3	3	3	7	9	26	29	62	80	80
New Zealand	4	8	22	37	53	70	90	116	142	146
Niue	0	0	0	0	0	0	0	1	1	1
Palau	1	1	1	1	1	1	2	2	2	2
Papua N Guin	0	0	0	1	1	1	1	3	3	3
Samoa	0	0	3	5	7	14	14	14	14	14
Solomon Is	1	1	1	1	2	3	3	3	3	3
Tokelau	1	1	1	1	1	1	1	1	1	1
Tonga	1	2	2	3	3	6	6	6	6	6
Tuvalu	0	0	0	2	2	2	2	2	2	2
Vanuatu	0	0	0	0	2	3	4	4	4	4
S America	164	197	464	862	1 511	3 672	5 512	8 541	12 753	19 649
Argentina	6	8	8	9	9	9	191	442	764	1 071
Bolivia	4	6	6	6	6	8	70	120	120	170
Brazil	7	13	21	46	128	1 207	2 435	4 613	7 879	13 055
Chile	2	15	221	576	1 125	1 809	2 137	2 654	3 205	4 468
Colombia	1	1	1	1	2	11	13	26	86	184
Ecuador	0	4	26	26	26	26	27	28	28	28
Falklands Malv				0	0	0	0	0	0	0
Fr Guiana	36	37	37	47	47	47	47	47	55	55
Guyana	1	1	1	2	2	3	6	8	8	8
Paraguay	0	0	0	0	0	0	0	0	0	0
Peru	103	109	130	135	146	298	324	335	335	336
Suriname	1	1	6	6	7	8	9	9	9	9
Uruguay	1	1	3	6	10	243	248	254	258	258
Venezuela	2	2	3	5	5	5	4	5	5	5

Solar photovoltaic Solaire photovoltaïque Solar fotovoltaica

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	101 745	137 227	175 617	223 204	295 229	390 207	483 012	584 686	710 281	843 086
Africa	346	667	1 573	1 931	2 988	4 711	7 210	8 415	9 704	10 302
Algeria			1	49	219	400 o	423 u	423 e	423 e	423 e
Angola	10 e	11 e	12 e	13 e	13 e	13 e	13 e	13 e	13 e	13 e
Benin			0	1	3	3	3	3 e	3 e	3 e
Botswana	2 e	2 e	2 e	2 e	3 e	3 e	4 e	6 e	6 e	6 e
Burkina Faso	6 e	6 e	7 e	8 e	10 e	47 e	62 e	62 e	62 e	62 e
Burundi	2 e	3 e	3 e	3 e	4 e	5 e	5 e	5 e	5 e	5 e
Cabo Verde	6	6	6	6	6	6	8 e	8 e	8 e	8 e
Cameroon	3 e	4 e	6 e	7 e	9 e	12 e	14 e	14 e	14 e	14 e
Cent Afr Rep	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0	0 e	0 e
Chad	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	1 u	1 e
Congo DR	0 e	0 e	1 e	1 e	3 u	5 u	20 e	20 e	20 e	20 e
Congo Rep	0 e	0 e	0 e	0 e	0 e	1 e	1 e	1 e	1 e	1 e
Cote d'Ivoire	2 e	3 e	4 e	5 e	5 e	8 e	13 e	13 e	13 e	13 e
Djibouti	0 e	0 e	0 e	0 e	0 u	0 u	0 u	0 u	0 e	0 e
Egypt	15	15	15	16 o	39 u	160 o	744 o	1 627 o	1 655 u	1 655 e
Eritrea	0 e	0 e	8 e	8 e	8 e	10 e	18 e	20 e	22 e	24 e
Eswatini	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	11 e
Ethiopia	1	3	9	10	14	12	12	12	20	21
Gabon	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e
Gambia	2 e	2 e	2 e	2 e	2 e	2 e	2 e	2 e	2 e	2 e
Ghana		3 o	6 o	31 o	38 o	47 o	78 e	85 e	108 o	108 e
Guinea	1 e	3 e	3 e	13 e	13 e	13 e	13 e	13 e	13 e	13 e
Guinea Bissau				0 e	0 e	0 e	1 o	1 e	1 e	1 e
Kenya	3 e	7 e	16 e	30 e	31 e	38 e	105 e	106 e	106 u	147 e
Lesotho		0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e
Liberia	0 u	0 u	0 u	0 u	0 u	2 u	3 u	3 e	3 e	3 e
Libya	5 u	5 u	5 u	5 u	5 u	5 u	5 e	5 e	5 e	6 u
Madagascar	3 e	5 e	7 e	9 e	11 e	13 e	33	33 e	33 e	33 e
Malawi	3 e	5 e	8 e	12 e	12 e	19 e	26 e	80 e	82 e	142 e
Mali	16 e	16 o	16 e	17 e	18 e	19 e	19 e	19 e	70 e	100 u
Mauritania		18 o	18 o	18 o	35 o	35 o	87 u	88 u	88 e	88 e
Mauritius	1	2	18	19	27 e	29 e	67 e	83 e	83 e	83 e
Mayotte	13 o	13 o	13 o	13 o	13 o	15 o	15 o	15 e	18	18
Morocco	15	15	20	20	22	24 o	194 o	194 o	194	234 e
Mozambique	2 e	5 e	7 e	10 e	13 e	15 e	55 e	55 e	55 e	55 e
Namibia	11 e	15 e	16 e	21 e	36 e	75 e	93 e	145 e	145 e	145 e
Niger	4 e	5 e	6 e	7 e	8 e	9 u	27 u	27 u	27 e	27 e
Nigeria	15 e	15 e	16 e	17 e	18 e	19 e	19 u	28 e	28 e	33 e
Reunion	153 o	156 o	167 o	187 o	186 o	188 o	190 o	191 e	205 e	217 e
Rwanda	0 e	1 e	10 e	14 e	19 e	28 e	38 e	38 e	38 e	38 e
Sao Tome Prn		0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e
Senegal	6 e	7 e	9 e	9 e	42 e	107 e	148 e	171 e	171 e	238 e
Seychelles		0 o	1 o	1 o	2 o	3 e	4 e	4 e	4 e	9 e
Sierra Leone	0 u	0 u	0 u	0 u	0 u	4 u	4 u	4 e	4 e	4 u
Somalia			0 e	0 e	5 e	7 e	7 e	7 e	16 u	24 u
South Africa	11 e	262 e	1 063 e	1 252 e	1 974 e	3 147 e	4 401 e	4 405 e	5 490 e	5 721 e
South Sudan	0 e	0 e	0 e	0 e	0 u	0 u	1 e	1 u	1 e	1 u
Sudan	8 u	15 u	17 u	20 u	26 u	36 u	59 u	80 u	117 u	136 u
Tanzania	1 e	4 e	11 e	13 e	19 e	22 e	26 e	24 e	24 e	24 e
Togo	0 e	0 e	1 e	2 e	2 e	3 e	4 e	5 e	6 e	56 u
Tunisia	6 e	10 e	17 e	28 e	38 e	47 e	64 e	80 u	95 e	95 e
Uganda	17 e	19 e	20 e	22 e	24 e	44 e	67 e	77 e	87 e	92 e
Zambia	e	0 e	0 e	0 e	0 e	0 e	1 e	96 e	96 e	96 e
Zimbabwe	1 e	2 e	3 e	4 e	5 e	6 e	11 e	16 e	18 e	30 e
Asia	16 200	36 055	60 343	90 228	140 105	211 451	275 760	331 936	409 250	484 930
Afghanistan	16 e	17 e	18 e	19 e	20 e	22 e	22 e	31 e	31 e	31 e
Bangladesh	66 o	94 o	119 o	145 o	161 o	185 o	201 o	239 e	284 e	329 e
Bhutan	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e
Brunei Darism	1	1	1	1	1	1	1	1	1 o	5 e
Cambodia	5 e	6 e	9 e	12 e	18 e	29 e	29 e	124 e	315 e	428 e
China	6 718	17 748	28 388	43 538	77 788	130 801	175 016	204 575 e	253 418 o	306 403 e
Chinese Taipei	231 o	410 o	636 o	884 o	1 245 o	1 768 o	2 738 o	4 150 o	5 817 o	7 700 o
India	979 e	1 446 e	3 444 e	5 365 e	9 651 e	17 923 e	27 125 e	34 861 e	39 043 e	49 342 e
Indonesia	26 e	38 e	42 e	79 e	88 e	98 e	65 o	155 o	185 o	211 o
Japan	6 632	13 599	23 339	34 150	42 040	49 500	56 162	63 192	69 764 o	74 191 o
Kazakhstan	2 e	16	76	144	157	175	490 o	1 150 e	1 719	2 834 e
Korea DPR	2 u	6 u	11 u	23 u	32 u	35 u	38 u	42 u	42 e	52 e
Korea Rep	1 024	1 555	2 481	3 615	4 502 o	5 835	8 099	11 952	14 575 o	18 161 o
Lao PDR	0 e	0 e	2 e	2 e	2 e	8 e	34 e	34 e	34 e	34 e
Malaysia	32 o	139 o	205 e	266 e	344 e	394 e	545 e	894 e	1 483 e	1 787 e
Maldives	1 o	2 o	4 o	5 o	7 o	11 o	16 o	21 u	27 u	31 u
Mongolia	5 e	5 e	5 e	5 e	15 e	48 e	64 e	89 e	90	90 e
Myanmar	3 e	4 o	6 o	21 o	32 o	44 o	48 o	88 u	84 e	80 e
Nepal	9 o	11 o	12 o	13 o	14 o	54 e	52 e	51 e	67 e	93 e
Pakistan	46 e	101 e	165 e	266 e	590 e	655 e	679 e	763 e	860 e	1 083 e
Philippines	2 o	3 o	28 o	173 o	784 o	908 o	917 o	982 o	1 058 o	1 370 e
Singapore	8 o	12 o	25 o	46 o	97 o	116 o	161 o	276 o	336 o	433 o
Sri Lanka	10 e	13 e	20 e	31 e	63 e	131 e	185 e	285 e	371 e	434 e

Solar photovoltaic Solaire photovoltaïque Solar fotovoltaica

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Thailand	377	824	1 299	1 420	2 446	2 697	2 962 o	2 983 o	2 983 o	3 044 e
Timor Leste	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e
Uzbekistan		1	1	1	2	3	4	4 e	4 e	104 e
Viet Nam	5 e	5 e	5 e	5 e	5 e	8 e	105 e	4 993 e	16 660 e	16 660 e
C America + Carib	202	282	343	1 040	1 246	1 611	1 997	2 483	2 791	3 276
Anguilla	0 e	0 e	1 e	1 e	2 e	2 e	1 e	2 e	2 e	2 e
Antigua Barb	0	0	0	3	4 e	4 e	9 e	9 e	13 e	13 e
Aruba	1 e	2 e	5 e	6	6	6	6 e	6 e	6 e	6 e
Bahamas	1 e	1 e	1 e	1 e	1 e	1 e	1 e	2 e	2 e	2 e
Barbados	2 u	2 u	7	9	20 u	21 u	22 u	35 u	50 o	50 e
Belize	2	2	3	4	4	4	4 e	6 u	7 e	7 e
BES Islands			0	2	2	4	6 o	7 o	7 e	7 e
Br Virgin Is	0	0	0	0	0	0	0 e	0 e	0 e	0 e
Cayman Is					3 u	9 u	10 u	11 u	13 o	14
Costa Rica	10 o	13 o	17 o	22 o	24 o	28 o	28 o	48 e	57 e	74 e
Cuba	1	11	22	24	37	65 u	128 u	159 u	217 u	246
Curacao	0	3	8	10	11 o	11 o	12 o	12 e	13 o	13 e
Dominica	0	0	0	0	1	1	0 e	0 e	0 e	0 e
Dominican Rep	2	8	15	25	73	106	205	315 o	386 o	490 e
El Salvador	0 e	13 e	13 e	24 e	25 e	121	198	403 o	478 e	478 e
Grenada	0 o	1 o	1 o	1 o	2 o	2 o	3 o	3 o	4	4
Guadeloupe	60	67	67	67	68	70	70 o	81 o	85 o	86
Guatemala	2 e	3 e	10 e	93 e	93 e	99 e	101 e	101 e	101 e	101 e
Haiti	1 e	1 e	2 e	2 e	2 e	3 e	3 e	3 e	3 e	3 e
Honduras	5 e	5 e	5 e	393 e	414 e	454 e	514 e	514 o	514 o	514 e
Jamaica	2	2 e	4 e	7 e	28 e	56 e	56 e	93 e	93 e	93 e
Martinique	60	62	63 o	65	67	68	71	76	76	78
Montserrat								0 u	0 e	1
Nicaragua		1 o	1	1	1	14 o	14 o	16 o	16 o	16 e
Panama	3	4	6	49	93	147 o	210 e	222 u	242 e	465 o
Puerto Rico	47 o	77 o	82 o	212 o	247 o	302 e	305 o	336 o	384 e	491 e
St Barth					0 o	0 o	0 o	0 e	0 e	0 e
St Kitts Nevis	0	0	1 e	1 e	2 e	2 e	2 e	2 e	2 e	2 e
St Lucia	0	0	0	1	1	1	4 u	4 e	4 o	4 e
St Martin		1	2	3	2 o	0 o	0 e	1 o	1 o	1 e
St Vincent Gren	0	0	0	1	1	1	1 e	2 u	2 e	2 e
Trinidad Tobago	3	3	3	4	4	4	4	4	4	4
Turks Caicos				0 o	0 e	0 u	0 u	1 u	1 e	1 e
US Virgin Is	1 e	1 e	5 e	9 e	9 e	5 e	10	10	10	10
Eurasia	13	20	47	315	935	3 677	5 650	7 358	8 229	9 703
Armenia					1	2	17 o	50 o	95 e	183 e
Azerbaijan	1	1	2 u	5	25	28 u	35 o	35	38 u	43 e
Georgia					0 u	0 u	0 u	1 u	1 e	1 e
Russian Fed	0	1	5 e	61 e	76 e	225 e	535 e	1 276 e	1 428	1 661 e
Turkey	12 u	18 u	40	249	833	3 421 o	5 063	5 995	6 667 o	7 816 o
Europe	71 716	81 859	88 780	97 293	103 859	109 989	119 308	140 115	160 514	183 556
Albania	1 e	1 e	1 e	1 e	1	1	1 e	14	17 e	22 e
Andorra			0 o	0 o	0 o	0 o	1 o	2 o	3 o	4 e
Austria	337	626	785	937	1 096	1 269	1 455	1 702	2 043	2 692 e
Belarus			4	6	47	80	154	154	160	269
Belgium	2 647	2 902	3 015	3 132	3 329	3 621	4 000	4 637	5 575	6 585 o
Bosnia Herzg	0 o	1 o	7 o	8 o	14 o	16	18 o	22	35 o	53 e
Bulgaria	1 013	1 020	1 026	1 029	1 028	1 036	1 033	1 048	1 097	1 186 o
Croatia	4	19	33	48	56	60	68	85	109	109 o
Cyprus	17	35	64	76	84	110	118	151	229	316 e
Czechia	2 022	2 064	2 067	2 075	2 068	2 070	2 075	2 086	2 123	2 119 o
Denmark	402	571	607	782	851	906	998 o	1 080	1 304	1 540 o
Estonia	0 u	2 u	3 u	7 u	10	15	32	121	208	414 o
Faroe Islands								0	0 o	0 e
Finland	8	9	11	17	39	82	140	222	318	404 e
France	4 359	5 277	6 034	7 138	7 702	8 610	9 672	10 808	12 022	14 709 e
Germany	34 075	36 708	37 898	39 222	40 677	42 291	45 156	48 912	53 719	58 459 o
Greece	1 536	2 579	2 596	2 604	2 604	2 606	2 652	2 834	3 288	3 530 o
Hungary	12	35	89	172	235	344	728	1 400	2 131	2 131 e
Iceland	1 e	1 e	1 e	3 e	4 e	4 e	5 e	7 e	7 e	7 e
Ireland	1	1	2	2	6	17	32	58 o	93 e	136 e
Italy	16 785	18 185	18 594	18 901	19 283	19 682	20 108	20 865	21 650	22 692 o
Kosovo*				0 o	2	7	7 o	10	10 e	10 e
Latvia	0 e	0 e	0 e	0	1	1	2	3	5	8 o
Lithuania	7	68	69	69	70	78	92	133	248	338 e
Luxembourg	75	95	110	116	122	128	131	160	187	209 o
Malta	16	29	55	75	94	112	132	155	188	196 o
Moldova Rep			1	1	2 o	2 o	3	5	4	8 o
Montenegro	1 e	1 e	2 e	3	3 e	3 e	4	5	6	7 e
Netherlands	287	650	1 007	1 526	2 135	2 911	4 608	7 226	10 950	14 249 o
North Macedonia	4	7	15	17	17	17	21	26 o	94	94 e
Norway	10 u	11 u	13 u	15 u	27 u	45 u	68	120	160	225 e
Poland	1	2	27	108	187	287	562	1 539	3 955	6 257

Solar photovoltaic Solaire photovoltaïque Solar fotovoltaica

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Portugal	238	296	415	447	513	579	667	901	1100	1801 e
Romania	41	761	1293	1326	1372	1374	1386	1398	1383	1398 o
Serbia	7 e	10 e	13 e	16 e	17 e	18 e	21 e	23 e	31	52 e
Slovakia	513	533	533	533	533	528	472	590	535	535 e
Slovenia	142	187	223	238	233	247	247	278	370	367 o
Spain	4 569	4 690	4 697	4 704	4 713	4 723	4 764	8 839	10 285	13 648 e
Sweden	24	43	60	104	153	244	428	714	1107	1577 e
Switzerland	437	756	1061	1394	1664	1906 o	2173	2 498	2 973 o	3 449 e
UK	1 753	2 937	5 528	9 601	11 914	12 760	13 073	13 346	13 462 o	13 689 o
Ukraine	372	748	819 o	841 o	955 o	1 200 o	2 003 o	5 936 o	7 331	8 062 u
European Union (27)	69 453	77 722	81 662	85 768	89 576	94 318	102 149	118 356	136 661	158 061
Middle East	303	463	713	970	1 476	2 111	3 254	5 733	7 031	7 969
Bahrain	1 u	1 e	5 u	5 e	6 u	6 e	6 u	9 o	10 o	11 u
Iran IR	0	1	9	9	43	184 o	286 e	346 e	430 e	456 e
Iraq		30 o	37 o	37 e	37 e	37 e	37 e	37 e	37 e	37 e
Israel	272	377	587	766	874	982	1 285	1 807	2 230 o	2 313
Jordan	0 o	0 o	0 o	6 o	287 u	397 u	700 u	1186 u	1 448 u	1 521 e
Kuwait	0 o	0 o	2 o	3 o	31 o	32 o	43	43 o	43 e	43 e
Lebanon	0 e	0 e	2 e	9 e	22 e	35 e	58 o	79 o	79 e	79 o
Oman		1 u	1 e	2 e	2 e	8 e	8 e	9 e	112 e	138 e
Palestine	1	1	3	12	25	35	40	82 o	117 e	117 e
Qatar	1 u	2 u	4 u	4 e	5 u	5 e	5 e	5 e	5 e	5 e
Saudi Arabia	14 u	22 u	24 e	24 e	24 e	34 e	34 e	59 e	59 e	389 e
Syrian AR						0 u	1 u	2 u	2 e	2 e
United Arab Em	13 e	26 e	33 e	33 e	40 e	255 u	498 o	1 818 o	2 205 u	2 605 e
Yemen	1 o	2 o	5 o	60 o	80 o	100 e	250 u	250 e	253 u	253 e
N America	8 976	13 078	18 001	24 490	36 256	45 415	55 448	66 821	82 305	104 369
Canada	766	1 210	1 843	2 519	2 665	2 932	3 095	3 327	3 342 u	3 630
Greenland							0 o	0 o	0 e	0 e
Mexico	73 o	109 o	174 o	287 o	633 o	1 126 o	2 541 u	4 426 o	5 149 o	7 026 o
USA	8 137	11 759	15 984	21 684	32 958	41 357	49 812	59 068	73 814 o	93 713 o
Oceania	3 826	4 606	5 353	6 074	6 853	7 570	8 873	13 284	17 704	19 440
Amer Samoa	2 o	2 o	2 o	2 o	4 e	4 e	5 e	5 e	5 e	5 e
Australia	3 796	4 565	5 284	5 943	6 686	7 352	8 623	12 967	17 342 o	19 074 o
Cook Is	0 e	1 e	2 e	3 e	3 e	3 e	5 e	5 e	5 e	5 e
Fiji	1 u	1 u	2 u	3 u	5 u	7 u	9 u	10 u	10 e	10 e
Fr Polynesia	14 o	17 o	25 o	28 o	32 o	35 o	37 o	41 o	41 o	41 e
Guam	0 o	1 o	1 o	32 o	35 o	35 o	35 e	35 e	35 e	35 e
Kiribati	0 o	1 o	1 u	2 u	3 u	3 u	3 e	3 e	3 e	3 e
Marshall Is	0 e	1 e	1 e	1 e	2 e	2 e	2 e	2 e	2 e	2 e
Micronesia	1 e	1 e	1 e	1 e	1 e	1 e	2 u	2 e	2 e	2 e
Nauru	0 e	0 e	0 e	0 e	1 e	1 e	1 e	2 e	2 e	2 e
New Caledon	3 o	3 o	3 o	7 o	9 o	26 o	29 o	62 e	80 e	80 e
New Zealand	4	8	22	37	53	70	90	116	142 o	146
Niue	0 e	0 e	0 e	0 e	0 e	0 e	0 e	1 u	1 e	1 e
Palau	1 o	1 o	1 o	1 o	1 o	1 o	2 e	2 e	2 e	2 e
Papua N Guin	0 e	0 e	0 e	1 u	1 u	1 u	1 u	3 e	3 e	3 e
Samoa	0 e	0 e	3 e	5 e	7 e	14 e	14 e	14 e	14 e	14 e
Solomon Is	1 e	1 e	1 e	1 e	2 e	3 e	3 e	3 u	3 e	3 e
Tokelau	1 u	1 u	1 u	1 u	1 u	1 e	1 e	1 e	1 e	1 e
Tonga	1 e	2 o	2 o	3 o	3 o	6 o	6 o	6 e	6 e	6 e
Tuvalu	0 o	0 o	0 o	2 o	2 o	2 o	2 e	2 e	2 e	2 e
Vanuatu	0 e	0 e	0 e	0 e	2 e	3 e	4 e	4 e	4 e	4 e
S America	164	197	464	862	1 511	3 672	5 512	8 541	12 753	19 541
Argentina	6 o	8 o	8 o	9 o	9 o	9 e	191 e	442 o	764 e	1 071 e
Bolivia	4 e	6 e	6 e	6 e	6 e	8 e	70 o	120 o	120 e	170 e
Brazil	7 e	13 e	21 e	46 e	128 e	1 207 e	2 435 e	4 613 o	7 879 o	13 055 o
Chile	2	15	221	576	1 125	1 809 o	2 137 o	2 654 o	3 205 o	4 360 o
Colombia	1	1	1	1	2	11	13	26	86	184 e
Ecuador	0	4 o	26 o	26 o	26 o	26 o	27 e	28 o	28 o	28 o
Falklands Malv				0 o	0 o	0 o	0 o	0 e	0 e	0 e
Fr Guiana	36 o	37 o	37 o	47 o	47 o	47 o	47 o	47 o	55 e	55
Guyana	1	1	1	2	2	3	6 e	8 e	8 e	8 e
Paraguay	0 o	0 o	0 o	0 o	0 o	0 o	0 o	0 o	0 e	0 e
Peru	103 e	109 e	130 e	135 e	146 e	298 e	324 o	335 o	335 e	336 o
Suriname	1 e	1 e	6 e	6 e	7 e	8 e	9 o	9 e	9 e	9 e
Uruguay	1	1 o	3 o	6 o	10 o	243	248	254	258 o	258 e
Venezuela	2	2	3	5	5	5	4 e	5 o	5 e	5 e

Concentrated solar power

Solaire thermique à concentration

Energía solar termoeléctrica

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	2 567	3 942	4 599	4 850	4 970	5 069	5 808	6 373	6 507	6 387
Africa	65	65	165	325	425	525	985	1 085	1 085	1 085
Algeria	25 o	25 o	25 o	25 o	25 o	25 e	25 e	25 e	25 e	25 e
Egypt	20	20	20	20	20	20 o	20 e	20 e	20 e	20 e
Morocco	20	20	20	180	180	180 o	540	540	540	540 e
South Africa			100 o	100 o	200 o	300 o	400 o	500 u	500 o	500 e
Asia	10	170	345	345	365	365	580	744	894	918
China	1	11	11	11	31 u	31 u	246 u	396 u	546 u	570 u
India	4 e	154 u	329 u	329 u	329 u	329 u	329 u	343 u	343 u	343 u
Korea Rep	0 e	0 e	0 e	0 e	0 e	0 e				
Thailand	5	5	5	5	5	5	5 e	5 e	5 e	5 e
Eurasia		1	1	1	1	1	1	1	1	1
Turkey		1 o	1 o	1 o	1 o	1 o	1 o	1 e	1 e	1 e
Europe	2 007	2 311	2 312	2 312	2 312	2 312	2 312	2 321	2 321	2 321
France								9 o	9 e	9 e
Germany	2	2	2	2	2	2 e	2	2	2 e	2 e
Italy	5 o	5 o	6 o	6 o	6 o	6 o	6 e	6 e	6 e	6 e
Romania						0	0	0 e	0 e	0 e
Spain	2 000	2 304	2 304	2 304	2 304	2 304	2 304	2 304	2 304 o	2 304 o
European Union (27)	2 007	2 311	2 312	2 312	2 312	2 312	2 312	2 321	2 321	2 321
Middle East	6	106	106	106	106	106	156	448	442	442
Israel	6 e	6 e	6 e	6 e	6 e	6 e	6 e	248 u	242 o	242 e
Kuwait								50 e	50 e	50 e
Saudi Arabia							50 u	50 e	50 e	50 e
United Arab Em		100 o	100 o	100 u	100 u	100 u	100 e	100 e	100 e	100 e
N America	476	1 286	1 667	1 758	1 758	1 758	1 772	1 772	1 762	1 510
Mexico							14 o	14 o	14 o	14 o
USA	476	1 286	1 667	1 758	1 758	1 758 o	1 758 o	1 758 o	1 748 o	1 496 o
Oceania	3	3	3	3	3	2	2	2	2	2
Australia	3	3	3	3	3	2	2	2 o	2 e	2 e
S America										108
Chile										108

Bioenergy Bioénergíe Bioenergía

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	77 198	84 545	90 605	96 351	105 245	110 966	118 256	123 940	133 025	143 371
Africa	1 187	1 261	1 361	1 463	1 499	1 576	1 687	1 739	1 740	1 785
Angola			51	51	51	51	51	51	51	51
Burkina Faso		0	0	1	1	1	1	1	1	1
Burundi	4	4	4	4	4	4	4	4	4	4
Chad	2	2	2	2	2	2	2	2	2	2
Congo DR	0	0	0	0	0	2	3	3	3	3
Congo Rep	12	12	12	12	12	12	12	12	12	12
Egypt	67	67	67	67	67	67	67	79	79	79
Eswatini	123	123	106	106	106	106	106	106	106	106
Ethiopia	20	71	71	119	145	205	290	290	290	335
Gabon				1	1	1	1	1	1	1
Ghana	7	7	8	8	8	8	8	8	8	8
Kenya	67	67	67	88	88	87	87	87	87	87
Madagascar	0	0	0	0	0	0	0	0	0	0
Malawi	12	12	12	12	12	12	12	12	12	12
Mali	32	32	40	40	40	40	40	40	40	40
Mauritius	79	80	80	91	91	91	91	91	91	91
Morocco	1	1	1	5	7	7	7	7	7	7
Mozambique	14	14	14	14	14	14	14	14	14	14
Namibia	0	0	0	0	0	0	0	0	0	0
Nigeria	6	8	9	9	10	10	10	10	10	10
Reunion	44	44	44	45	46	46	46	87	87	87
Rwanda	1	1	1	1	1	1	1	1	1	1
Senegal	25	25	25	25	25	25	25	25	25	25
Sierra Leone			34	34	34	34	34	34	34	34
South Africa	246	246	246	251	256	260	265	265	265	265
Sudan	199	199	199	199	199	199	199	199	199	199
Tanzania	66	66	70	70	70	70	70	70	70	70
Uganda	16	36	54	65	65	76	96	96	96	96
Zambia	43	43	43	43	43	43	43	43	43	43
Zimbabwe	100	100	100	100	100	100	100	100	100	100
Asia	16 265	18 548	21 214	24 022	30 332	33 630	37 563	41 778	49 590	56 917
Bangladesh	3	3	4	5	5	5	5	5	5	5
Cambodia	34	26	34	32	30	50	51	51	42	42
China	4 617	6 089	6 653	7 977	9 269	11 234	13 235	16 537	23 583	29 753
Chinese Taipei	396	396	396	395	395	395	397	393	400	408
India	3 929	4 180	5 030	5 478	8 895	9 417	10 137	10 226	10 532	10 592
Indonesia	1 970	1 701	1 729	1 734	1 775	1 849	1 875	1 884	1 896	1 912
Japan	1 475	1 514	1 630	1 901	2 213	2 608	3 033	3 506	4 099	4 592
Kazakhstan		0	0	0	0	1	1	2	8	16
Korea Rep	197	192	601	729	1 745	2 348	2 387	2 543	2 140	2 400
Lao PDR		40	40	40	40	40	105	105	105	105
Malaysia	768	1 045	1 431	1 555	1 526	800	810	883	891	900
Myanmar	45	49	52	48	49	52	57	59	59	59
Nepal	7	7	7	7	7	7	7	7	6	6
Pakistan	263	269	325	333	374	374	433	433	433	433
Philippines	124	131	143	233	259	276	341	393	513	827
Singapore	128	160	183	205	210	211	218	218	218	218
Sri Lanka	12	13	26	26	30	40	51	54	54	59
Thailand	2 175	2 610	2 796	3 165	3 322	3 728	4 037	4 097	4 222	4 222
Viet Nam	125	125	136	161	188	195	384	383	384	367
C America + Carib	1 660	1 772	1 953	2 075	2 433	2 529	2 656	2 939	3 047	3 047
Aruba			2	2	2	2	2	2	2	2
Belize	28	28	28	28	44	52	52	42	42	42
Costa Rica	34	38	36	37	43	47	60	79	80	80
Cuba	519	470	499	530	495	532	554	842	951	951
Dominican Rep	16	16	16	17	47	47	47	47	47	47
El Salvador	259	270	305	202	259	270	305	305	300	300
Guadeloupe	31	31	31	31	31	31	35	35	35	35
Guatemala	473	598	714	873	1 056	1 091	1 103	1 036	1 036	1 036
Honduras	106	124	124	161	210	210	210	221	221	221
Jamaica	32	32	32	32	32	32	32	32	32	32
Martinique	2	2	2	3	3	3	39	39	39	39
Nicaragua	134	134	134	134	177	177	179	220	220	220
Panama	28	30	30	27	32	33	33	33	33	33
Puerto Rico					2	2	4	4	7	7
St Lucia					0	0	0	0	0	0
Eurasia	1 340	1 406	1 628	1 679	1 767	1 887	2 005	2 201	2 519	3 059
Azerbaijan		37	37	38	38	43	45	45	45	45
Russian Fed	1 197	1 197	1 370	1 370	1 370	1 373	1 373	1 373	1 373	1 373
Turkey	142	172	221	271	359	472	587	784	1 101	1 641
Europe	30 066	31 404	33 095	34 493	35 520	36 948	39 781	40 921	41 470	41 846
Albania						1	1	1	1	1

Bioenergy Bioénergíe Bioenergía

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Andorra	5	5	5	5	5	5	5	5	5	5
Austria	1 672	1 507	1 411	1 396	1 393	1 290	1 271	1 249	1 251	1 251
Belarus	19	35	35	35	40	41	48	53	124	124
Belgium	986	965	913	943	923	912	887	906	922	931
Bosnia Herzg					1	1	1	3	3	3
Bulgaria	14	34	40	54	57	52	69	57	48	48
Croatia	19	24	25	53	63	87	115	127	135	145
Cyprus	9	10	10	10	10	10	13	13	13	13
Czechia	653	690	745	771	773	802	782	830	846	846
Denmark	1 376	1 185	1 248	1 243	1 305	1 791	1 774	1 791	1 785	1 778
Estonia	167	261	278	281	281	281	259	273	296	249
Faroe Islands									0	0
Finland	1 868	1 952	1 977	1 987	2 009	2 230	2 230	2 227	2 706	2 790
France	1 050	1 187	1 242	1 306	1 447	1 496	1 733	1 818	1 846	1 939
Germany	7 471	7 964	8 202	8 429	8 660	8 982	9 662	9 994	10 344	10 449
Greece	45	46	47	51	58	64	82	88	97	108
Hungary	331	328	549	519	427	491	513	504	509	509
Ireland	57	66	70	70	72	103	103	107	107	107
Italy	3 178	3 344	3 359	3 367	3 439	3 450	3 491	3 454	3 439	3 439
Latvia	66	108	121	126	143	154	134	158	156	171
Lithuania	53	69	76	76	79	87	111	112	133	131
Luxembourg	20	23	23	24	25	36	36	56	56	56
Malta	3	3	3	3	5	5	5	5	5	5
Moldova Rep	0	2	3	3	3	6	6	6	7	6
Netherlands	716	769	752	782	769	772	827	831	870	865
North Macedonia				4	5	7	8	10	10	10
Norway	140	140	140	140	87	87	87	81	81	81
Poland	583	735	816	961	974	968	1 004	1 010	1 045	1 045
Portugal	568	551	561	577	587	582	648	702	715	741
Romania	35	46	94	118	123	140	141	139	165	164
Serbia	4	4	5	5	10	13	17	28	31	31
Slovakia	213	214	237	242	253	246	243	226	225	225
Slovenia	59	59	62	63	60	62	60	60	67	59
Spain	981	1 013	1 032	1 035	1 037	1 045	1 057	1 112	1 264	1 278
Sweden	4 348	4 013	4 483	4 716	4 850	4 822	5 021	5 299	4 462	4 462
Switzerland	232	232	229	240	241	242	242	241	245	245
UK	3 117	3 791	4 254	4 808	5 251	5 514	6 997	7 165	7 243	7 259
Ukraine	13	31	50	53	60	73	98	180	212	275
European Union (27)	26 615	27 240	28 445	29 279	29 898	31 038	32 391	33 312	33 672	33 969
Middle East	67	72	79	100	107	107	107	107	105	105
Iran IR	7	7	11	11	11	11	11	11	11	11
Israel	10	14	17	28	28	28	28	28	26	26
Jordan	4	4	4	13	13	13	13	13	13	13
Lebanon	2	2	2	2	9	9	9	9	9	9
Palestine						0	0	0	0	0
Qatar	38	38	38	38	38	38	38	38	38	38
Syrian AR	7	7	7	7	7	7	7	7	7	7
United Arab Em		1	1	1	1	1	1	1	1	1
Yemen										0
N America	13 777	14 947	15 628	16 309	16 470	16 654	16 536	15 690	15 704	17 054
Canada	2 013	2 041	2 497	2 473	2 540	2 642	2 654	2 410	2 416	2 416
Mexico	444	515	606	722	882	1 027	1 109	1 014	1 016	1 064
USA	11 321	12 392	12 526	13 115	13 049	12 985	12 774	12 267	12 271	13 574
Oceania	1 009	1 001	1 012	1 015	1 050	1 066	1 066	1 066	1 078	1 086
Australia	827	817	824	826	864	864	864	864	875	876
Fiji	42	42	42	42	42	54	54	54	54	61
New Caledon	0	0	0	0	0	0	0	0	0	0
New Zealand	120	120	124	125	122	126	126	126	126	126
Papua N Guin	16	18	18	18	18	18	18	18	18	18
Samoa									1	1
Solomon Is	1	1	1	1	1	1	1	1	1	1
Vanuatu	3	3	3	3	3	3	3	3	3	3
S America	11 827	14 134	14 635	15 196	16 067	16 570	16 857	17 500	17 774	18 473
Argentina	249	256	244	252	203	248	250	298	310	288
Bolivia	85	85	126	134	142	142	160	174	185	200
Brazil	9 922	11 601	12 343	13 311	14 187	14 574	14 819	15 357	15 650	16 300
Chile	859	1 267	926	466	466	466	502	502	452	438
Colombia	182	187	215	237	257	310	320	320	329	397
Ecuador	101	101	144	144	146	152	152	152	152	153
Fr Guiana	2	2	2	2	2	2	2	5	5	5
Guyana	51	51	51	51	42	42	42	42	42	42
Paraguay	0	39	39	39	39	39	39	22	22	22
Peru	131	131	131	133	160	170	174	195	195	195
Suriname				2	2	2	2	2	2	2
Uruguay	243	413	415	424	424	424	430	431	431	431

Solid biofuels and renewable waste

Biocombustibles solides et déchets renouvelables

Biocombustibles sólidos y residuos renovables

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	61 998	68 517	73 246	78 246	86 224	91 221	97 365	102 055	109 878	119 213
Africa	1 177	1 250	1 350	1 437	1 464	1 538	1 643	1 684	1 684	1 729
Angola			51 e	51 e	51 e	51 e	51 e	51 e	51 e	51 e
Burundi	4 e	4 o	4 e	4 e	4 e	4 e	4 e	4 e	4 e	4 e
Chad	2 o	2 o	2 o	2 o	2 o	2 o	2 o	2 o	2 o	2 e
Congo DR	0 e	0 e	0 e	0 e	0 e	2 e	3 e	3 e	3 e	3 e
Congo Rep	12 e	12 e	12 e	12 e	12 e	12 e	12 e	12 e	12 e	12 e
Egypt	67	67	67	67	67	67	67	67	67 e	67 e
Eswatini	123	123	106	106	106 e	106 e	106 e	106 e	106 e	106 e
Ethiopia	20	71	71	119	145	205	290	290 e	290	335
Ghana	7 e	7 e	8 e	8 e	8 e	8 e	8 e	8 e	8 e	8 e
Kenya	67 e	67 e	67 e	85 e	85 e	85 e	85 e	85 e	85 e	85 e
Madagascar	0 o	0 o	0 o	0 o	0 o	0 e	0 e	0 e	0 e	0 e
Malawi	12 e	12 e	12 e	12 e	12 e	12 e	12 e	12 e	12 e	12 e
Mali	32 e	32 o	40 e	40 e	40 e	40 u	40 e	40 e	40 e	40 e
Mauritius	77 o	77 o	77 o	87 o	87 o	87 o	87 o	87 e	87 e	87 e
Mozambique	14 e	14 e	14 e	14 e	14 e	14 e	14 e	14 e	14 e	14 e
Namibia	0	0	0	0	0 e	0 e	0 e	0	0 e	0 e
Nigeria	6 u	8 u	9 u	9 u	10 u	10 u	10 u	10 e	10 e	10 e
Reunion	42 e	42 e	42 e	42 e	42 e	42 e	42 e	83 u	83 e	83 e
Rwanda	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e
Senegal	25 e	25 e	25 e	25 e	25 e	25 e	25 e	25 e	25 e	25 e
Sierra Leone			34 e	34 e	34 e	34 e	34 e	34 e	34 e	34 e
South Africa	242 e	242 e	242 e	242 e	242 e	242 e	242 e	242 e	242 e	242 e
Sudan	199 u	199 e	199 e	199 e	199 e	199 e	199 e	199 e	199 e	199 u
Tanzania	66 o	66 o	70 o	70 o	70 o	70 e	70 e	70 e	70 e	70 e
Uganda	16 e	36 e	54 e	65 e	65 e	76 e	96 e	96 e	96 e	96 e
Zambia	43 e	43 e	43 e	43 e	43 e	43 e	43 e	43 e	43 e	43 e
Zimbabwe	100 e	100 e	100 e	100 e	100 e	100 e	100 e	100 e	100 e	100 e
Asia	15 756	17 898	20 012	22 689	28 833	31 914	35 605	39 579	46 926	53 729
Bangladesh				0 o	0 o	0 o	0 o	0 o	0 o	0 o
Cambodia	34 o	26 o	34 o	31 o	29 o	49 o	49 o	49 e	40 e	40 e
China	4 479	5 896	6 343	7 646	8 920	10 780	12 605	15 738	22 298 o	28 042 o
Chinese Taipei	396 o	396 o	396 o	393 o	393 o	393 o	395 o	391 o	399 o	407 o
India	3 925 o	4 175 o	5 023 o	5 469 o	8 885 o	9 405 o	10 124 o	10 212 o	10 518 o	10 578 o
Indonesia	1 961 o	1 683 o	1 709 o	1 679 o	1 711 o	1 748 o	1 766 e	1 771 e	1 775 e	1 775 e
Japan	1 468	1 504	1 615	1 878	2 179	2 561	2 974	3 436	4 022 o	4 507 o
Korea Rep	89	93	124	255	1 256	1 853	1 899	2 056	1 730 e	1 940 e
Lao PDR		40 o	40 o	40 o	40 o	40 e	105 o	105 e	105 e	105 e
Malaysia	755 o	1 030 o	1 413 o	1 535 o	1 468 o	738 o	740 e	780 e	780 e	780 e
Maldives								0 o	0 e	0 e
Myanmar	43 e	47 e	51 e	46 e	48 e	51 e	55 e	57 e	57 e	57 e
Nepal	7 e	7 e	7 e	7 e	7 e	7 e	7 e	7 e	6 e	6 e
Pakistan	254 e	260 e	316 e	324 e	365 e	365 e	423 e	423 e	423 o	423 e
Philippines	100 o	100 o	112 o	202 o	219 o	235 o	287 o	339 o	457 o	764 o
Singapore	128 o	160 e	183 e	205 e	210 e	211 e	218 e	218 e	218 o	218 o
Sri Lanka	12 o	13 o	26 o	26 o	30 o	40 o	51 o	54 e	54 e	59 e
Thailand	1 981 o	2 345 o	2 485 o	2 793 o	2 887 o	3 253 o	3 532 o	3 567 o	3 668 o	3 668 e
Viet Nam	125 e	125 e	136 e	161 e	186 e	186 e	375 e	374 e	375 e	358 e
C America + Carib	1 648	1 758	1 940	2 059	2 402	2 494	2 614	2 896	3 000	3 002
Aruba			2	2	2	2	2	2	2 e	2 e
Belize	28	28	28	28	44	52 u	52 e	42	42 e	42 e
Costa Rica	30	34	34	34	40	45	57 o	76 o	76 e	76 e
Cuba	519	470	498	530 o	495 o	532 e	554 e	841 e	951 e	951 e
Dominican Rep	15 e	15 e	15 e	15 e	45 e	45 e	45 e	45 e	45 e	45 e
El Salvador	252	263	298	195	252	263	298	298	294 o	294 e
Guadeloupe	31	31	31	31	31	31 u	31 e	31 e	31 e	31 e
Guatemala	473	597	713	869	1 053 o	1 084 o	1 096 o	1 029 o	1 029 o	1 030 o
Honduras	105 o	123 o	123 o	161 o	206 o	206 o	206 o	218 o	218 o	218 o
Jamaica	32	32	32	32	32	32	32 e	32 e	32 e	32 e
Martinique	2	2	2	2	2	2	38	38	38	38 e
Nicaragua	134 o	134 o	134 o	134 o	177	177	177 o	218 o	218 o	218 e
Panama	28	30	30	27	24	25 o	25 e	25 e	25 e	25 o
Puerto Rico							2 o	2 o	2 o	2 o
St Lucia					0 e	0 e	0 e	0 e	0 e	0 e
Eurasia	1 207	1 244	1 417	1 419	1 462	1 498	1 547	1 633	1 737	2 038
Azerbaijan		37	37	37	37 e	42	44 o	44 e	44	44 e
Russian Fed	1 197 e	1 197 e	1 370 e	1 370 e	1 370 e	1 373 e	1 373 e	1 373 e	1 373 e	1 373 e
Turkey	10	10	10	12	55	83	130	216	320 o	622 o
Europe	18 530	19 329	20 466	21 351	21 969	22 957	25 097	25 501	25 551	25 706
Albania						1 u	1 u	1 u	1 e	1 e
Andorra	5 o	5 o	5 o	5 o	5 o	5 o	5 o	5 o	5 e	5 e
Austria	1 393 e	1 307 e	1 221 e	1 202 e	1 188 e	1 108 e	1 094 o	1 085 e	1 086 e	1 086 e

Solid biofuels and renewable waste

Biocombustibles sólidos et déchets renouvelables

Biocombustibles sólidos y residuos renovables

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Belarus	13	13	13	13	13	13	16	16	86	86 e
Belgium	790	764	681	716	691 e	685	652	665 o	700	709 e
Bosnia Herzg							0	1	1 o	1 e
Bulgaria	14	30	30	34	19	23	33 e	24 e	15	15 o
Croatia	7	7	8	25	26	42	65	76	80	90 o
Czechia	353 e	329 e	378 e	403 e	404 e	430 e	413 e	462 e	480 e	480 e
Denmark	1 296 e	1 085 e	1 152 e	1 139 e	1 198 e	1 683 e	1 666 e	1 683 e	1 666 e	1 659 e
Estonia	163	255	270	270	270	270 e	250	265	285 o	238 o
Finland	1 822 e	1 864 e	1 877 e	1 885 e	1 895 e	2 114 e	2 114 o	2 111	2 590	2 674 o
France	794	889	900	920	1 034	1 052	1 268	1 318	1 299 e	1 362 e
Germany	2 273 o	2 553 o	2 533 o	2 554 e	2 579 e	2 605 e	2 648 e	2 682 e	2 648 e	2 607 e
Greece				2 e	2 e	3 e	12	13	14	14 o
Hungary	278	265	486	447	351	409	437	425	424	424 e
Ireland	13 e	13 e	16 e	16 e	16 e	47 e	47 e	48	48 o	48 e
Italy	915	1 024	1 033	1 031	1 094	1 092	1 145	1 124	1 128	1 128 e
Latvia	23	55	63	66	81	94	73	97 e	96 e	111 o
Lithuania	38	53	56	55	54	62	76	77	97	94 o
Luxembourg	10	13	12	13	13	23	24 e	44 e	44 o	44 o
Netherlands	497	539	515	543	548	551 e	622	628	661	650 o
North Macedonia							1 o	2 o	2 e	2 e
Norway	123	123	123	123	77	77 e	77 e	74 u	74 e	74 e
Poland	455	582	629	745	749	738	778	777	784	784 e
Portugal	517	496	495	511	519	512	577	630	644	666 e
Romania	30	35	79	104	107	119	119	119	136	135 o
Serbia								2	2 e	2 e
Slovakia	172	179	159	151	160	155	154	144 e	143 e	143 e
Slovenia	30	30	30	30	30	33	32	34	35	27 o
Spain	748	770	790	789	789	793	793	839 o	989	1 003 o
Sweden	3 815 e	3 460 e	3 959 e	4 138 e	4 333 e	4 273 e	4 484 e	4 402 e	3 565 e	3 565 e
Switzerland	199	199	197	211	212	212 e	212 o	211 o	211 o	211 e
UK	1 742	2 377	2 723	3 180	3 477	3 695	5 161	5 333	5 405 o	5 418 o
Ukraine	6	17	35	35	39	39 o	52 o	87	109	152 u
European Union (27)	16 519	16 669	17 440	17 859	18 220	18 989	19 683	19 923	19 809	19 908
Middle East	33	33	33	33	33	33	33	33	30	30
Israel	3	3	3 e	3 e	3 e	3 e	3 e	3 e	o	
Qatar	30 u	30 u	30 u	30 u	30 u	30 u	30 e	30 e	30 e	30 e
Yemen										0 o
N America	11 318	12 369	12 927	13 632	13 739	13 760	13 562	12 924	12 923	14 264
Canada	1 897	1 925	2 381	2 357	2 424	2 503	2 515 e	2 271 e	2 271 e	2 271 e
Mexico	406	478	570	686	797 e	854 o	889 o	812 e	813 o	853 o
USA	9 015 o	9 966 o	9 977 o	10 590 o	10 519 o	10 404 o	10 159 o	9 841 o	9 840 o	11 140 o
Oceania	729	729	730	730	806	823	823	823	827	835
Australia	597	597	598	598	674 o	674 e	674 e	674 e	678 e	678 e
Fiji	42 u	42 u	42 u	42 u	42 u	54 u	54 u	54 e	54 e	61 e
New Zealand	75	75	75	75	75	80	80	80	80 o	80 e
Papua N Guin	15 u	15 u	15 u	15 u	15 u	15 u	15 u	15 e	15 e	15 e
Solomon Is	1 e	1 e	1 e	1 u	1 u	1 u	1 u	1 e	1 e	1 e
S America	11 601	13 907	14 372	14 897	15 517	16 205	16 440	16 983	17 199	17 879
Argentina	233 e	240 e	227 e	235 e	187 e	227 e	228 e	254 e	255 e	219 e
Bolivia	85 o	85 o	126 o	134 o	142 o	142 o	142 o	169 o	180 o	195 e
Brazil	9 746	11 424	12 145	13 088 o	13 722 e	14 307 o	14 512 o	14 981 o	15 228 o	15 883 o
Chile	832 e	1 240 e	884 e	417 e	410 e	410 e	410 e	442 o	396 o	375 o
Colombia	182 u	187 u	215 u	237 u	253 u	306 u	316 u	316 e	319 e	387 e
Ecuador	101 o	101 o	144 o	144 o	144 o	144 e	144 e	144 o	144 o	144 o
Fr Guiana	2 o	2 o	2 o	2 o	2 o	2 o	2 o	5 o	5 e	5 o
Guyana	51	51	51	51	42	42	42	42	42 e	42 e
Paraguay		39	39	39	39	39	39 e	20 e	20 e	20 e
Peru	126 o	126 o	126 o	126 o	153 o	163 o	163 o	185 o	185 e	185 o
Suriname				2	2	2	2 e	2 e	2 e	2 e
Uruguay	242	412	412	422	422	422	422	423 e	423 o	423 e

Bagasse Bagasse Bagazo

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	12 989	14 704	15 702	16 810	17 705	18 303	19 103	19 760	20 161	20 649
Africa	1 124	1 195	1 304	1 390	1 416	1 488	1 568	1 609	1 609	1 654
Angola			51 e	51 e	51 e	51 e	51 e	51 e	51 e	51 e
Burundi	4 e	4 o	4 e	4 e	4 e	4 e	4 e	4 e	4 e	4 e
Chad	2 o	2 o	2 o	2 o	2 o	2 o	2 o	2 o	2 o	2 e
Congo Rep	5 e	5 e	5 e	5 e	5 e	5 e	5 e	5 e	5 e	5 e
Egypt	67	67	67	67	67	67	67	67	67 e	67 e
Eswatini	106	106	106	106	106 e	106 e	106 e	106 e	106 e	106 e
Ethiopia	20	71	71	119	145	205	265	265	265	310
Kenya	67 e	67 e	67 e	85 e	85 e	85 e	85 e	85 e	85 e	85 e
Malawi	12 e	12 e	12 e	12 e	12 e	12 e	12 e	12 e	12 e	12 e
Mali	32 e	32 o	40 e	40 e	40 e	40 u	40 e	40 e	40 e	40 e
Mauritius	77 o	77 o	77 o	87 o	87 o	87 o	87 o	87 e	87 e	87 e
Mozambique	14 e	14 e	14 e	14 e	14 e	14 e	14 e	14 e	14 e	14 e
Nigeria	5 u	5 u	5 u	5 u	5 u	5 u	5 u	5 e	5 e	5 e
Reunion	42 e	42 e	42 e	42 e	42 e	42 e	42 e	83 u	83 e	83 e
Rwanda	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e
Senegal	25 e	25 e	25 e	25 e	25 e	25 e	25 e	25 e	25 e	25 e
Sierra Leone			32 u	32 e	32 e	32 e	32 e	32 e	32 e	32 e
South Africa	242 e	242 e	242 e	242 e	242 e	242 e	242 e	242 e	242 e	242 e
Sudan	199 u	199 e	199 e	199 e	199 e	199 e	199 e	199 e	199 e	199 u
Tanzania	46 o	46 o	46 o	46 o	46 o	46 e	46 e	46 e	46 e	46 e
Uganda	16 e	36 e	54 e	65 e	65 e	76 e	96 e	96 e	96 e	96 e
Zambia	43 e	43 e	43 e	43 e	43 e	43 e	43 e	43 e	43 e	43 e
Zimbabwe	100	100	100	100 e	100 e	100 e	100 e	100 e	100 e	100 e
Asia	735	787	854	940	977	997	1 350	1 377	1 457	1 617
Cambodia	16 o	16 o	16 o	16 o	16 o	36 o	36 o	36 e	27 e	27 e
Indonesia	200 o	208 o	219 o	219 o	219 o	219 o	219 o	219 e	219 e	219 e
Lao PDR		40 o	40 o	40 o	40 o	40 e	105 o	105 e	105 e	105 e
Myanmar	43 e	47 e	51 e	46 e	48 e	47 e	52 e	54 e	54 e	54 e
Nepal	6 e	6 e	6 e	6 e	6 e	6 e	6 e	6 e	6 e	6 e
Pakistan	254 e	254 e	306 e	314 e	314 e	314 e	372 o	372 o	372 o	372 e
Philippines	92 o	92 o	92 o	149 o	161 o	161 o	208 o	233 o	321 o	498 o
Viet Nam	125 e	125 e	125 e	150 e	174 e	174 e	353 u	352 e	353 e	336 e
C America + Carib	1 638	1 746	1 925	2 010	2 308	2 395	2 515	2 795	2 900	2 901
Belize	28	28	28	28	44	52 u	52 e	42	42 e	42 e
Costa Rica	30	34	34	34	40	40	53 o	71 o	71 o	71 o
Cuba	519	470	498	529	494	531 e	553 e	841	950	950 o
Dominican Rep	14 o	14 o	14 o	14 o	44 o	44 o	44 e	44 e	44 e	44 e
El Salvador	252	263	298	195	252	263	298	298	294 o	294 e
Guadeloupe	30	30	30	30	30	30	30 e	30 e	30 e	30 e
Guatemala	473	594	711	867	1 050 o	1 081 o	1 094 o	1 026 o	1 026 o	1 027 o
Honduras	99 o	118 o	118 o	122 o	122 o	122 o	122 o	132 o	132 o	132 o
Jamaica	32	32	32	32	32	32	32 e	32 e	32 e	32 e
Martinique							36	36	36	36 e
Puerto Rico							2 o	2 o	2 o	2 o
Europe				2	2	2	2	2	2	2
Portugal				2	2	2	2	2	2	2 e
European Union (27)	72	72	72	74	74	74	110	151	151	151
N America	323	424	527	660	771	827	865	791	791	831
Mexico	323	424	527	660	771 e	827 o	865 o	791 e	791 o	831 o
Oceania	453	453	453	453	529	529	529	529	533	541
Australia	424	424	424	424	500 o	500 o	500 o	500 e	504 o	504 o
Fiji	29 u	29 u	29 u	29 u	29 u	29 u	29 u	29 e	29 e	37 e
S America	8 716	10 099	10 638	11 355	11 702	12 064	12 272	12 656	12 869	13 102
Argentina	65 e	64 e	47 e	64 e	45 e	50 e	50 e	56 o	57 e	57 e
Bolivia	85 o	85 o	126 o	134 o	142 o	142 o	160 o	169 o	180 o	195 e
Brazil	8 095	9 435	9 881	10 549	10 874	11 168	11 348 o	11 714 o	11 913 o	12 063 o
Colombia	182 u	187 u	215 u	237 u	253 u	306 u	316 u	316 e	319 e	387 e
Ecuador	101 o	101 o	144 o	144 o	144 o	144 e	144 e	144 o	144 o	144 o
Guyana	51	51	51	51	42	42	42	42	42 e	42 e
Paraguay		39	39	39	39	39	39 e	20 e	20 e	20 e
Peru	126 o	126 o	126 o	126 o	153 o	163 o	163 o	185 o	185 e	185 o
Uruguay	10	10	10	10	10	10	10	10 e	10 o	10 e

Renewable municipal waste Déchets municipaux renouvelables Residuos municipales renovables

CAP (MW)	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	6 899	7 375	8 513	8 728	9 674	10 496	11 410	12 655	14 212	17 035	19 520
Africa								25	25	25	25
Ethiopia								25	25 e	25	25
Asia	2 233	2 605	3 183	3 446	3 995	4 535	5 329	6 383	7 840	10 523	12 974
China	1 131	1 144	1 700	1 893	2 342	2 870	3 640	4 575	6 009	8 682 o	11 022 o
Chinese Taipei	312 o	315 o	315 o	315 o	315 o	315 o	315 o	316 o	316 o	316 o	316 o
India	83 o	94 o	105 o	124 o	137 o	139 o	146 o	159 o	165 o	188 o	217 o
Indonesia	13 o	13 o	13 o	18 o	8 o	8 o	8 o	8 o	8 o	8 e	8 e
Japan	503	838	852	876	900	919	935	958	975	963 o	1 033 o
Korea Rep	41	43	38	50	95	77	54	64	64	54 e	60 e
Malaysia	9	9	9	9	7 o	7 o	7 o	7 o	7 o	7 o	7 o
Maldives									0 o	0 e	0 e
Myanmar							0 u	0 e	0 e	0 e	0 e
Singapore	128 o	128 o	128 o	128 o	128 o	128 o	128 o	128 o	128 o	128 o	128 o
Sri Lanka											5 u
Thailand	13 o	21 o	24 o	33 o	66 o	73 o	96 o	159 o	157 o	167 o	167 e
Viet Nam						1 u	1 e	11 e	11 e	11 e	11 e
C America + Carib	2	2	2	4	4	4	4	4	4	4	4
Aruba				2	2	2	2	2	2	2 e	2 e
Martinique	2	2	2	2	2	2	2	2	2	2	2 e
Eurasia			37	37	37	37	42	45	46	50	61
Azerbaijan			37	37	37	37 e	42	44 o	44 e	44	44 e
Turkey								1	2	6 o	17 o
Europe	3 408	3 492	3 998	3 947	4 296	4 576	4 692	4 851	4 944	5 081	5 089
Albania							1 u	1 u	1 u	1 e	1 e
Andorra	5 o	5 o	5 o	5 o	5 o	5 o	5 o	5 o	5 o	5 e	5 e
Austria	242	288	290	262	263	271	271	270	272	270	270 e
Belgium	120	112	124	124	124	125	125	125	126	136	135 o
Czechia	22	23	23	23	23	28	28 e	28 o	28	28 e	28 e
Denmark	147	140	166	163	166	166	182	181	182	181	176 o
Estonia			105	105	105	105	105 e	85	85	85 o	83 o
Finland	76 e	95 e	113 e	126 e	134 e	148 e	148 e	148 o	148	148	197 o
France	422	435	442	440	394	424	429	441	444	452	452 e
Germany	743	715	930	944	962	979	1 004	1 063	1 084	1 051	1 010 o
Hungary	19	18	18	19	25	29	23	23	23	27	27 e
Ireland		8	8	11	11	11	41	41	41	41 o	41 o
Italy	371	377	418	413	415	409	408	412	396	402	402 e
Lithuania			10	10	10	15	17	14	14	34	36
Luxembourg	10	10	10	9	9	9	9	9 e	9 e	9 o	9 o
Netherlands	325	325	325	325	325	325	325 e	400	389	390	373 o
Norway	44	44	44	44	44	50	50 e	50 e	47	47 e	47 e
Poland				8	22	30	43	45	45	50	50 e
Portugal	38	38	38	39	40	42	41	41	41	41	41 o
Slovakia	3	3	3	6	6	10	6	6	6 e	6 e	6 e
Spain	112	112	117	117	117	117	121	121	121 o	121	134 o
Sweden	286	293	340	230	438	564	567	566	568	623	623 e
Switzerland	175	199	199	197	211	212	212 e	212 o	211 o	211 o	211 e
UK	251	257	273	340	465	514	545	568	661	723 o	733 o
European Union (27)	2 936	2 990	3 480	3 364	3 573	3 797	3 880	4 017	4 021	4 096	4 094
Middle East	33	33	33	33	33	33	33	33	33	30	30
Israel	3	3	3	3 e	3 e	3 e	3 e	3 e	3 e		
Qatar	30 u	30 u	30 u	30 u	30 u	30 u	30 u	30 e	30 e	30 e	30 e
N America	1 223	1 244	1 260	1 260	1 308	1 308	1 307	1 307	1 307	1 307	1 307
Canada	18	39	39	39	39	39	38	38 e	38 e	38 e	38 e
USA	1 205 o	1 205 o	1 222 o	1 222 o	1 270 o	1 270 o	1 270 o	1 270 o	1 270 o	1 270 o	1 270 o
Oceania											0
Australia											0 o
S America						3	3	5	13	14	30
Brazil						3 o	3 o	5 o	13 o	14 o	30 o

Other solid biofuels

Autres biocarburants solides

Otros biocombustibles sólidos

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	41 633	45 301	48 817	51 762	58 023	61 508	65 607	68 084	72 681	79 043
Africa	53	55	46	46	47	49	50	50	50	50
Congo DR	0 e	0 e	0 e	0 e	0 e	2 e	3 e	3 e	3 e	3 e
Congo Rep	7 e	7 e	7 e	7 e	7 e	7 e	7 e	7 e	7 e	7 e
Eswatini	17	17								
Ghana	7 e	7 e	8 e	8 e	8 e	8 e	8 e	8 e	8 e	8 e
Madagascar	0 o	0 o	0 o	0 o	0 o	0 e	0 e	0 e	0 e	0 e
Namibia	0	0	0	0	0 e	0 e	0 e	0	0 e	0 e
Nigeria	1 u	3 u	4 u	4 u	5 u	5 u	5 u	6 e	6 e	6 e
Sierra Leone			2 e	2 e	2 e	2 e	2 e	2 e	2 e	2 e
Tanzania	20 o	20 o	24 o	24 o	24 o	24 e	24 e	24 e	24 e	24 e
Zimbabwe	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e
Asia	12 416	13 929	15 712	17 754	23 321	25 588	27 871	30 362	34 946	39 137
Bangladesh				0 o	0 o	0 o	0 o	0 o	0 o	0 o
Cambodia	18 o	10 o	18 o	15 o	13 o	13 o	13 o	13 e	13 e	13 e
China	3 336	4 196	4 450	5 304	6 050	7 140	8 030	9 729	13 617 o	17 021 o
Chinese Taipei	81 o	81 o	81 o	79 o	79 o	79 o	79 o	75 o	83 o	91 o
India	3 831 o	4 070 o	4 899 o	5 332 o	8 746 o	9 258 o	9 965 o	10 046 o	10 331 o	10 361 o
Indonesia	1 748 o	1 462 o	1 472 o	1 452 o	1 484 o	1 522 o	1 540 e	1 545 e	1 548 e	1 548 e
Japan	630	652	739	978	1 260	1 626	2 016	2 461	3 059 o	3 474 o
Korea Rep	46	55	74	160	1 179	1 799	1 835	1 992	1 676 e	1 880 e
Malaysia	746 o	1 022 o	1 404 o	1 528 o	1 462 o	732 o	734 e	774 e	774 e	774 e
Myanmar	0 e	0 e	0 e	0 e	0 e	3 e	3 e	3 e	3 e	3 e
Nepal	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e		
Pakistan		6 e	10 e	10 e	51 e	51 e	51 e	51 e	51 o	51 e
Philippines	8 o	8 o	20 o	53 o	58 o	74 o	80 o	107 o	136 o	266 o
Singapore		32 e	55 e	77 e	82 e	83 e	90 e	90 e	90 o	90 o
Sri Lanka	12 o	13 o	26 o	26 o	30 o	40 o	51 o	54 e	54 e	54 e
Thailand	1 960	2 321	2 452	2 727	2 815	3 157 o	3 373 o	3 410 o	3 501 o	3 501 e
Viet Nam			11 u	11 u	11 u	11 u	11 u	11 e	11 e	11 e
C America + Carib	8	10	11	45	90	95	95	96	96	96
Costa Rica						5	5	5	5 e	5 e
Cuba			1	1 o	1 o	1 o	1 e	1 e	1 e	1 e
Dominican Rep	2 e	2 e	2 e	2 e	2 e	2 e	2 e	2 e	2 e	2 e
Guadeloupe	1	1	1	1	1	1 u	1 e	1 e	1 e	1 e
Guatemala		3	3	3	3	3	3 o	3 o	3 o	3 o
Honduras	6 o	6 o	6 o	39 o	84 o	84 o	84 o	86 o	86 o	86 o
St Lucia					0 e	0 e	0 e	0 e	0 e	0 e
Eurasia	1 207	1 207	1 380	1 382	1 425	1 456	1 501	1 587	1 687	1 978
Russian Fed	1 197 e	1 197 e	1 370 e	1 370 e	1 370 e	1 373 e	1 373 e	1 373 e	1 373 e	1 373 e
Turkey	10	10	10	12	55	83	129	214	314 o	605 o
Europe	15 038	15 331	16 519	17 053	17 391	18 263	20 244	20 555	20 468	20 615
Austria	1 105 e	1 017 e	959 e	939 e	917 e	838 e	824 o	813 e	816 e	816 e
Belarus	13	13	13	13	13	13	16	16	86	86 e
Belgium	678	640	558	591	566 e	559	526	539 o	564	574 e
Bosnia Herzg							0	1	1 o	1 e
Bulgaria	14	30	30	34	19	23	33 e	24 e	15	15 o
Croatia	7	7	8	25	26	42	65	76	80	90 o
Czechia	330 e	306 e	355 e	380 e	376 e	402 e	385 e	434 e	452 e	452 e
Denmark	1 156 e	919 e	989 e	973 e	1 032 e	1 501 e	1 485 e	1 501 e	1 485 e	1 483 e
Estonia	163	150	165	165	165	165	165	180	200	155 o
Finland	1 727	1 751	1 751	1 751	1 747	1 966	1 966	1 963	2 442	2 477 o
France	360	446	461	526	610	623	827	874	847 e	910 e
Germany	1 558 o	1 623 o	1 589 o	1 592 e	1 600 e	1 601 e	1 585 e	1 598 e	1 597 e	1 597 e
Greece				2 e	2 e	3 e	12	13	14	14 o
Hungary	260	247	467	422	322	386	414	402	397	397 e
Ireland	5 e	5 e	5 e	5 e	5 e	5 e	5 e	7	7	7 e
Italy	538	606	620	616	685	684	733	728	726	726 o
Latvia	23	55	63	66	81	94	73	97 e	96 e	111 o
Lithuania	38	43	46	45	39	45	62	63	63	58 o
Luxembourg		4	4	4	4	15	15	35	35 o	35 o
Netherlands	172	215	190	218	223	226	222	239	271	277 o
North Macedonia							1 o	2 o	2 e	2 e
Norway	79	79	79	79	27	27 e	27 e	27 u	27 e	27 e
Poland	455	582	629	737	727	709	735	732	734	734 e
Portugal	479	458	456	469	475	469	534	587	601	623 e
Romania	30	35	79	104	107	119	119	119	136	135 o
Serbia								2	2 e	2 e
Slovakia	169	176	153	145	150	149	148	138	137	137 e
Slovenia	30	30	30	30	30	33	32	34	35	27 o
Spain	636	653	673	672	672	672	672	718	868	869 o
Sweden	3 522 e	3 120 e	3 729 e	3 700 e	3 769 e	3 706 e	3 918 e	3 834 e	2 942 e	2 942 e
UK	1 485	2 104	2 383	2 715	2 963	3 150	4 593	4 673	4 682 o	4 685 o

Other solid biofuels Autres biocarburants solides Otros biocombustibles sólidos

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Ukraine	6	17	35	35	39	39 o	52 o	87	109	152 u
European Union (27)	13 458	13 118	14 004	14 211	14 349	15 034	15 555	15 750	15 561	15 662
Middle East										0
Yemen										0 o
N America	9 751	10 684	11 140	11 664	11 660	11 626	11 389	10 825	10 825	12 126
Canada	1 858	1 886	2 342	2 318	2 385	2 465	2 477	2 233	2 233 e	2 233 e
Mexico	83	54	43	26	26	27	23 o	21 e	22 o	23 o
USA	7 810	8 744	8 755	9 320	9 249	9 134	8 889	8 571	8 570 o	9 871 o
Oceania	275	275	276	276	276	293	293	293	293	293
Australia	173	173	174	174	174	174 e	174 e	174 o	174 e	174 e
Fiji	12 u	12 u	12 u	12 u	12 u	24 u	24 u	24 e	24 e	24 e
New Zealand	75	75	75	75	75	80	80	80	80 o	80 e
Papua N Guin	15 u	15 u	15 u	15 u	15 u	15 u	15 u	15 e	15 e	15 e
Solomon Is	1 e	1 e	1 e	1 u	1 u	1 u	1 u	1 e	1 e	1 e
S America	2 885	3 808	3 733	3 542	3 812	4 139	4 163	4 314	4 316	4 747
Argentina	167 e	175 e	181 e	171 e	141 e	177 e	178 e	198 e	198 e	162 e
Brazil	1 651	1 989	2 264	2 539 o	2 846 e	3 136 o	3 159 o	3 255 o	3 301 o	3 790 o
Chile	832 e	1 240 e	884 e	417 e	410 e	410 e	410 e	442 o	396 o	375 o
Colombia						0 o	0 o			
Fr Guiana	2 o	2 o	2 o	2 o	2 o	2 o	2 o	5 o	5 e	5 o
Guyana				0	0	0	1	1	1 e	1 e
Suriname				2	2	2	2 e	2 e	2 e	2 e
Uruguay	232	402	402	412	412	412	412	413 e	413 o	413 e

Liquid biofuels

Biocarburants liquides

Biocarburantes líquidos

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	2 066	2 041	2 338	2 419	2 322	2 357	2 402	2 627	2 548	2 584
Africa		0	0	0	0	0	0	0	0	0
Burkina Faso		0 u	0 u	0 u	0 e	0 e	0 e	0 e	0 e	0 e
Tanzania			0 u	0 e	0 e	0 e	0 e	0 e	0 e	0 e
Asia			356	361	360	359	348	348	293	329
Korea Rep			356	361	360	359	348	348	293 e	329 e
Eurasia			7	7	7	12	19	19	19	19
Turkey			7	7	7	12	19	19	19 e	19 e
Europe	1 855	1 879	1 797	1 865	1 792	1 813	1 791	2 128	2 105	2 105
Austria	6	6	1	3	3	1	1	1	0	0 e
Belgium	55	50	51	49	45	45	45	45 e	23	23 e
Denmark		7		1	0	1	1	1	0 e	0 e
France				3	4	0	0	0	15	15 e
Germany	277	263	232	232	231	230	230	231	231 e	231 e
Italy	989	1 003	990	1 000	993 e	987	971	948	932	932 e
Poland	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e
Slovenia		1	1	1	1	1	1	1 o	1	1 e
Spain							6	6 e	6 e	6 e
Sweden	528	548	522	576	515	547	535	895	895 e	895 e
European Union (27)	1 855	1 879	1 797	1 865	1 792	1 813	1 791	2 128	2 105	2 105
N America	204	155	155	155	155	165	236	123	123	123
USA	204	155	155	155	155 o	165	236	123	123 e	123 o
Oceania	3	3	3	3	3	3	3	3	3	3
Fiji	0 u	0 u	0 u	0 u	0 u	0 u	0 u	0 e	0 e	0 e
New Caledon	0 o	0 o	0 o	0 o	0 o	0 o	0 o	0 e	0 e	0 e
Solomon Is			0 e	0 e	0 e	0 e	0 e	0 e	0 e	0 e
Vanuatu	3 e	3 e	3 e	3 e	3 e	3 e	3 e	3 e	3 e	3 e
S America	4	4	19	27	4	5	5	5	5	5
Brazil	4	4	19	27	4 o	5 o	5 o	5 o	5 o	5 o

Biogas Biogaz Biogás

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	13 134	13 987	15 021	15 687	16 698	17 388	18 489	19 258	20 599	21 574
Africa	10	11	11	26	35	38	43	54	55	55
Burkina Faso				1 o	1 o	1 o	1 e	1 e	1 e	1 e
Egypt				1 e	1 e	1 e	1 e	12 o	12 e	12 e
Gabon				0 o	0 o	0 e	0 o	0 e	0 e	0 e
Ghana				0 o	0 o	0 e	0 o	0 e	1 e	1 e
Kenya	0 e	0 e	0 e	3 e	3 e	2 e	2 e	2 e	2 e	2 e
Mauritius	2	3	3	3	3 o	3 e	3 e	3 e	3 e	3 e
Morocco	1 o	1 o	1 o	5 o	7	7	7	7	7	7 e
Nigeria					0 u	0 u	0 u	0 e	0 e	0 e
Reunion	2 o	2 o	2 o	3 o	4 o	4 e	4 o	4 e	4 e	4 e
South Africa	4 e	4 e	4 e	9 e	14 e	18 e	23 u	23 e	23 e	23 e
Tanzania	1 o	1 o	1 o	1 o	1 u	1 e	1 e	1 e	1 e	1 e
Asia	509	650	846	972	1 139	1 357	1 610	1 852	2 371	2 859
Bangladesh	3 o	3 o	4 o	4 o	5 o	5 o	5 o	5 o	5 o	5 e
Cambodia				2 e	2 e	2 e	2 e	2 e	2 e	2 e
China	138	193	310	331	350	454	630	799	1 285 o	1 711 o
Chinese Taipei				1 o	1 o	1 o	1 e	1 o	1 o	1 e
India	4 o	6 o	7 o	10 o	10 o	13 e	14 e	14 e	14 e	14 e
Indonesia	9 o	18 o	19 o	55 o	64 e	101 e	109 e	112 o	120 e	137 e
Japan	7	10	15	23	34	47	59	70	77 o	85 o
Kazakhstan		0	0	0	0	1 o	1 o	2 e	8	16 e
Korea Rep	108	99	121	113	129	136 o	140	139	117 e	131 e
Lao PDR							0 o	0 o	0 o	0 o
Malaysia	12 o	14 o	18 o	20 o	58 o	62 o	70 o	103 e	111 e	120 e
Myanmar	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e
Pakistan	9 e	9 e	9 e	9 e	9 e	9 e	10 e	10 e	10 e	10 e
Philippines	24 u	31 e	31 e	31 e	40 e	42 e	54 e	54 o	56 e	63 e
Sri Lanka				0 o	0 o	0 o	0 o	0 e	0 e	0 u
Thailand	193	266	312	373	435	475	505 o	530 o	554 o	554 e
Viet Nam					2 e	9 e	9 e	9 e	9 e	9 e
C America + Carib	12	14	13	16	31	35	42	43	46	45
Costa Rica	4	4	2	3	3	3	3 o	4	5	5 o
Cuba			1 e	1 e	1 e	1 e	1 e	1 e	1 e	1 e
Dominican Rep	1 o	1 o	1 o	2 o	2 o	2 o	2 e	2 e	2 e	2 e
El Salvador	6	6	6	7	7	7	7	7	7 o	7 e
Guadeloupe	0	0	0	0	0	0	5 o	5 o	5 o	5 e
Guatemala		1	1	4	4	7	7 o	7 o	7 o	6 o
Honduras	1 o	1 o	1 e	0 e	4 e	4 e	4 e	4 e	4 e	4 e
Martinique				1	1 o	1 o	1	1	1	1 e
Nicaragua					0 e	0 e	2 e	2 e	2 e	2 e
Panama					8	8 o	8 e	8 o	8 e	8 o
Puerto Rico				o	2 o	2 o	2 o	2 o	5 e	5 o
Eurasia	133	162	204	253	298	378	440	549	763	1 001
Armenia	1									
Azerbaijan				1	1	1	1 o	1 e	1	1 o
Turkey	132	162	204	252	297	377	438	548	762 o	1 000 o
Europe	9 681	10 196	10 831	11 277	11 759	12 178	12 892	13 291	13 814	14 035
Austria	273 e	194 e	189 e	191 e	202 e	180 e	175 o	164 e	165 e	165 e
Belarus	6	22	22	22	27	28	33 o	38 e	39	39 e
Belgium	141	151	181	179	188	183	190	197	199	199 e
Bosnia Herzg					1 u	1 e	1	2	2 o	2 e
Bulgaria		4	10	20	38	29	36 e	33 e	33 e	33 o
Croatia	12	17	17	28	37 o	45 o	51 o	52 e	55 o	55 o
Cyprus	9	10	10	10	10	10 e	13 e	13 e	13 o	13 e
Czechia	300 o	361 o	367 o	368 o	369 o	372 o	369 o	368 e	366 e	366 e
Denmark	80 e	93 e	96 e	104 e	107 e	108 e	108 e	108 e	119 e	119 e
Estonia	4 e	6 e	8 e	11 e	11 e	11 e	9 e	8 e	11 e	11 o
Faroe Islands									0 o	0 e
Finland	46 e	88 e	100 e	102 e	114	116	116	116	116 o	116 e
France	256	298	342	383	409	444	465	500	533	563 o
Germany	4 921 o	5 148 o	5 437 o	5 643 o	5 850 o	6 147 o	6 784 o	7 081 o	7 465 e	7 611 e
Greece	45 u	46 u	47 u	49 u	56 u	62 u	70 u	75 o	83 e	94 e
Hungary	53	63	63	72	76	82	76	79	85	85 e
Ireland	44 o	52 o	53 o	53 o	56 o	56 o	57	59 e	59 o	59 e
Italy	1 274	1 317	1 336	1 336	1 352	1 372	1 375	1 382	1 379	1 379 o
Latvia	43 e	53 e	58 e	60 e	62 e	60	61	61 e	60 e	60 o
Lithuania	15	16	20	21	25 e	25 e	35 o	35 o	36 e	37 e
Luxembourg	10	10	10	12	12	12 e	12 e	12 e	12 o	12 o
Malta	3	3	3	3	5	5	5 e	5 e	5 e	5 e
Moldova Rep	0	2	3	3	3	6	6	6	7	6 o
Netherlands	219 e	230 e	237 e	239 e	221 e	221 e	205 e	203 e	209 e	215 e
North Macedonia				4	5	7	7 o	8	8 o	8 e
Norway	17	17	17	17	10	10 e	10 e	7	7 e	7 e

Biogas Biogaz Biogás

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Poland	128 o	153 o	187 o	216 o	225 o	229 e	225 e	233 e	261 e	261 e
Portugal	51	55	66	66	68	70	71	72	71	75 e
Romania	5	11	15	14	16	22	22	20	30	30 e
Serbia	4	4	5	5	10	13	17	26	29	29 e
Slovakia	41	35	78	91	93	91	89	82	82 e	82 e
Slovenia	29	28	31	32	29	27	27	25	30	30 o
Spain	233	243	243	245	248	251	258	267	269	269 e
Sweden	5 e	5 e	2 e	2 e	2 e	2 e	2 o	2 e	2 e	2 e
Switzerland	33	33	32	29	29 o	30	30	30	34 o	34 e
UK	1 375 o	1 414 o	1 531 o	1 628 o	1 774 o	1 819 o	1 836 o	1 832 o	1 838 o	1 841 o
Ukraine	7 o	14 o	15 o	18 o	21 o	34 o	46 o	93	103	123 e
European Union (27)	8 241	8 692	9 208	9 555	9 885	10 236	10 918	11 260	11 759	11 957
Middle East	34	39	46	66	73	74	74	74	75	75
Iran IR	7	7	11	11 e	11 e	11 e	11 e	11 e	11 e	11 o
Israel	7 e	11 e	14 e	25 e	25 e	25 e	25 e	25 e	26 e	26 e
Jordan	4 o	4 o	4 o	13 u	13 u	13 e	13 e	13 e	13 e	13 e
Lebanon	2 u	2 u	2 u	2 u	9 e	9 e	9 e	9 e	9 e	9 e
Palestine						0	0 e	0 e	0 e	0 e
Qatar	8 u	8 u	8 u	8 u	8 u	8 u	8 e	8 e	8 e	8 e
Syrian AR	7 e	7 e	7 e	7 e	7 e	7 e	7 e	7 e	7 e	7 e
United Arab Em		1 o	1 o	1 o	1 o	1 o	1 e	1 u	1 u	1 e
N America	2 255	2 423	2 546	2 522	2 576	2 728	2 738	2 644	2 657	2 667
Canada	116	116	116	116	116	139	139 e	139	145 u	145 u
Mexico	37	36	36	36	85 o	173 o	220 o	202 e	204	211 e
USA	2 102	2 271	2 394	2 370	2 375	2 416	2 379	2 303	2 308 o	2 310 o
Oceania	277	269	279	282	241	240	240	240	248	248
Australia	230	220	226	228	190 o	190 o	190 o	190	197 o	198 o
New Zealand	45	45	49	50	47	46 o	46 o	46 o	46 e	46 e
Papua N Guin	2 u	4 u	4 u	4 u	4 u	4 u	4 u	4 e	4 e	4 e
Samoa									1 o	1 o
S America	222	223	245	272	546	360	411	512	570	589
Argentina	17 o	17 o	17 o	17 o	17 o	21 o	23 o	44 o	55 e	69 e
Bolivia								5 o	5 o	5 o
Brazil	172	173	178 o	196 o	461 o	262 o	302 o	372 o	417 o	413 o
Chile	27	27	42	49	53	56 o	57 o	60 o	55 o	64 o
Colombia					4	4	4 o	4 o	9 o	9
Ecuador					2 o	7 o	7 o	7 o	7 o	8 o
Paraguay	0 e	0 e	0 e	0 e	0 e	0 e	0 e	2 o	2 e	2 e
Peru	5 o	5	5 o	7 o	7 o	7 o	10 o	10	10 o	10 o
Uruguay	1	1	2 e	2 e	2 e	2 e	8 e	8 e	8 e	8 e

Geothermal energy

Énergie géothermique

Energía geotérmica

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	10 479	10 717	11 157	11 812	12 137	12 697	13 169	13 738	14 073	15 644
Africa	213	213	373	626	660	680	691	691	870	870
Ethiopia	7	7	7	7	7	7	7 e	7 o	7	7
Kenya	206 o	206 o	366 o	619 o	653 o	673 o	684 o	684 o	863 o	863 o
Asia	3 721	3 728	3 854	3 896	4 001	4 226	4 375	4 540	4 540	4 691
China	26	26	26	26	26	26	26			
Chinese Taipei							0 o	0 o	0 o	5 o
Indonesia	1 336 o	1 344 o	1 404 o	1 438 o	1 533 o	1 808 o	1 948 o	2 131 o	2 131 o	2 277 o
Japan	512	512	508	516	526	476	473	481	481 o	481 o
Philippines	1 847 o	1 847 o	1 916 o	1 916 o	1 916 o	1 916 o	1 928 o	1 928 o	1 928 o	1 928 o
Thailand	0	0	0	0	0	0	0 e	0 o	0 o	0 e
C America + Carib	656	641	637	640	629	665	665	722	723	723
Costa Rica	218	218	218	217	207	207	207 o	262 o	262 o	262 o
El Salvador	204	204	204	204	204	204	204 o	204 o	204 o	204 e
Guadeloupe	15	15	12	15	15	15 u	15 e	15 o	15 e	15 e
Guatemala	54	49	49	49	49	49	49 o	52 o	49 o	49 o
Honduras							35 o	35 o	39 o	39 o
Nicaragua	165	155	155	155	155	155	155 o	153 o	153 o	153 e
Eurasia	243	390	483	702	899	1 138	1 357	1 596	1 695	1 758
Russian Fed	81	79	78	78	78	74	74	81	81	81 e
Turkey	162	311	405	624	821	1 064 o	1 283	1 515	1 613 o	1 676 o
Europe	1 448	1 461	1 503	1 503	1 507	1 558	1 617	1 622	1 627	1 657
Austria	1	1	1	1	1	1	1	1 e	1 o	1 e
Croatia							10	10 o	10 o	10 o
France	14	15	15	15	16	16	16	16	16	16 e
Germany	16	26	29	29	33	32	35	40	40 e	40 e
Hungary						3 u	3 e	3	3 o	3 e
Iceland	665	665	665	665	665	710	756	756	756	756 e
Italy	728	729	768	768	767	767	767 e	767	772	802 o
Portugal	25	25	25	25	25	29	29	29	29	29 o
Romania			0 o	0 o	0 o	0 o	0	0 u	0 o	0 e
European Union (27)	798	811	849	852	857	863	876	881	886	916
N America	3 416	3 430	3 327	3 448	3 443	3 409	3 395	3 506	3 538	4 865
Mexico	824	823	813	906	926	926 o	951 o	951 o	951 o	976 o
USA	2 592	2 607	2 514	2 542	2 517	2 483	2 444	2 555	2 587 o	3 889 o
Oceania	782	854	980	997	997	997	1 021	1 021	1 040	1 040
Australia	0	0	0	0	0	0 e		0 u	0 e	0 e
New Zealand	726	798	924	941	941	941	965	965	984 o	984 e
Papua N Guin	56 u	56 u	56 u	56 u	56 u	56 u	56 u	56 e	56 e	56 e
S America						24	48	40	40	40
Chile						24 o	48	40 o	40 o	40 o

Off-grid capacity

Capacité hors réseau

Capacidad fuera de la red

Total renewable energy

Total énergies renouvelables

Total energías renovables

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	5 068.753	5 553.931	6 545.231	7 246.170	7 920.126	7 967.120	9 872.200	10 282.536	10 759.426	11 225.005
Africa	401.893	461.391	546.402	683.215	944.246	1 233.719	1 415.176	1 528.603	1 593.221	1 675.223
Algeria			11.300	59.300	229.300	410.200	433.000	433.000	433.000	433.000
Angola	31.263	32.458	34.821	35.726	36.236	48.656	48.656	48.656	48.656	48.656
Benin					1.500	1.500	1.500	1.500	1.540	1.540
Botswana	0.315	0.415	0.560	0.853	1.925	2.047	2.352	2.352	2.389	2.389
Burkina Faso	5.800	6.450	7.150	8.150	10.150	12.150	27.150	29.650	29.650	29.650
Burundi	6.803	7.803	8.003	8.303	9.303	10.303	10.303	10.303	10.303	10.303
Cabo Verde	0.074	0.151	0.305	0.618	0.674	0.735	0.801	0.846	0.846	0.846
Cameroon	3.100	3.900	5.900	7.700	9.300	11.896	14.492	14.492	14.617	14.742
Cent Afr Rep	0.500	0.500	0.500	0.500	0.500	0.500	0.500	0.516	0.516	0.516
Chad	0.003	0.050	0.050	0.172	1.273	1.273	1.290	1.290	1.327	1.327
Congo DR	97.247	98.349	98.568	111.732	114.297	129.095	154.587	164.487	164.487	164.487
Congo Rep	0.120	0.230	0.460	0.460	0.460	0.570	0.720	0.720	0.720	0.720
Cote d'Ivoire	1.973	2.908	3.834	5.059	5.059	8.278	13.144	13.144	13.144	13.144
Djibouti	0.300	0.300	0.300	0.300	0.362	0.362	0.362	0.362	0.362	0.362
Egypt	20.000	20.000	20.000	21.000	35.000	35.000	49.200	35.200	35.390	35.390
Eritrea	0.848	0.860	8.684	8.684	9.034	11.034	18.534	20.784	23.034	25.284
Eswatini	2.461	2.478	2.504	2.504	2.504	2.504	2.504	2.504	2.504	2.504
Ethiopia	2.427	4.623	10.410	11.169	15.325	13.779	13.631	13.631	21.469	22.469
Gabon	1.600	1.600	1.600	2.800	2.887	2.887	2.887	2.887	2.887	2.887
Gambia	1.991	1.995	2.000	2.000	2.000	2.002	2.002	2.002	2.002	2.002
Ghana	6.774	7.269	10.562	15.541	19.405	24.407	31.052	37.878	44.350	44.350
Guinea	2.820	5.591	5.591	15.493	15.499	15.499	15.503	15.503	15.503	15.503
Guinea Bissau				0.312	0.312	0.312	1.169	1.169	1.169	1.169
Kenya	8.582	12.440	21.973	36.056	40.705	54.082	65.386	65.386	65.470	65.470
Lesotho	0.180	0.343	0.343	0.343	0.343	0.343	0.343	0.343	0.343	0.343
Liberia	4.040	4.040	4.040	4.057	4.059	6.406	6.583	6.583	6.583	6.583
Libya	4.900	4.900	4.900	4.900	4.900	5.110	5.110	5.110	5.111	6.333
Madagascar	6.450	8.985	11.630	14.660	16.660	18.760	18.760	18.760	18.760	18.760
Malawi	4.081	5.965	8.234	12.657	12.957	20.037	26.594	81.323	82.635	82.635
Mali	47.741	47.741	56.150	57.178	57.571	59.252	59.252	59.297	59.542	89.542
Mauritania		7.400	7.551	7.566	24.166	24.166	25.466	25.609	25.609	25.609
Morocco	20.000	20.000	23.800	23.800	25.870	27.895	27.895	27.903	28.000	28.000
Mozambique	1.575	5.175	7.900	11.060	14.060	16.060	16.060	16.060	16.060	16.060
Namibia	10.702	13.402	14.178	14.178	14.178	14.187	21.940	23.880	23.880	23.880
Niger	4.000	5.000	6.000	7.000	8.000	9.041	20.041	20.041	20.041	20.041
Nigeria	21.200	22.900	24.600	26.400	27.830	28.030	28.195	37.174	37.643	37.643
Reunion								1.340	1.340	1.340
Rwanda	1.359	2.538	3.081	7.007	12.231	17.426	27.756	28.264	28.414	28.414
Sao Tome Prn		0.063	0.098	0.119	0.157	0.316	0.334	0.334	0.334	0.334
Senegal	5.900	7.000	7.000	7.000	7.000	7.000	7.000	7.000	7.000	7.000
Seychelles		0.068	0.068	0.068	0.068	0.068	1.022	1.022	1.022	1.022
Sierra Leone	0.487	0.634	0.645	0.670	0.734	8.720	9.136	9.136	9.136	9.176
Somalia	2.200	2.200	2.300	2.970	7.470	10.444	10.618	10.618	19.088	27.088
South Africa	7.109	7.204	7.500	7.650	7.650	7.650	7.650	9.516	9.516	9.516
South Sudan	0.160	0.160	0.160	0.160	0.428	0.449	0.737	0.835	0.835	1.278
Sudan	8.066	14.666	16.584	19.911	26.219	35.800	59.478	80.199	116.840	135.570
Tanzania	32.464	34.974	46.248	53.675	59.329	63.677	68.076	65.249	65.249	65.249
Togo	0.346	0.426	0.815	1.696	2.131	2.527	3.490	5.460	5.460	5.493
Tunisia	1.555	1.555	1.563	1.710	2.060	2.076	2.076	7.076	7.076	7.076
Uganda	17.320	27.500	29.000	34.500	36.500	39.400	39.240	39.360	39.520	39.679
Zambia	2.607	2.667	2.667	1.917	1.951	1.951	2.081	9.921	9.921	9.921
Zimbabwe	2.450	3.515	4.272	5.931	6.714	7.857	9.518	12.928	12.928	12.928
Asia	4 086.464	4 412.121	5 256.872	5 734.556	6 100.857	5 815.261	7 357.613	7 619.641	8 005.909	8 388.692
Afghanistan	36.970	41.140	46.109	50.127	54.814	58.416	57.948	57.482	57.138	57.138
Bangladesh	69.771	98.329	124.037	146.782	153.261	170.363	162.471	171.884	163.010	146.833
Bhutan	8.353	8.353	8.353	8.353	8.353	8.353	8.590	8.590	8.590	8.590
Cambodia	2.257	2.798	2.992	4.995	5.676	5.691	5.096	5.012	4.549	4.549
China	391.330	508.330	586.930	655.530	710.490	747.190	786.950	826.710	866.470	906.230
India	768.979	935.774	1 201.010	1 355.564	1 566.152	1 805.507	2 079.650	2 081.682	2 238.922	2 415.717
Indonesia	1 915.888	1 655.872	1 671.392	1 682.078	1 689.607	1 726.910	2 671.190	2 682.150	2 744.610	2 861.960
Kazakhstan	2.436	15.262	71.255	86.517	99.689	116.656	281.060	608.000	807.000	885.256
Korea DPR	2.494	6.339	11.158	22.994	31.734	35.380	38.380	41.380	41.380	41.380
Lao PDR	2.015	2.475	2.907	3.259	3.414	3.414	3.704	3.704	3.704	3.704
Malaysia	504.974	732.644	1 101.978	1 240.665	1 245.868	534.533	539.550	539.580	539.580	539.580
Maldives	2.731	3.160	5.289	6.206	8.895	12.198	17.885	22.012	28.112	32.212
Mongolia	8.583	8.583	8.583	8.583	8.583	8.583	8.583	8.583	8.577	8.571
Myanmar	50.291	55.809	61.811	75.584	88.119	102.289	110.740	113.730	109.744	105.695
Nepal	47.373	52.380	56.387	61.872	63.953	104.949	103.242	102.760	110.030	112.194
Pakistan	15.878	16.433	16.633	16.782	16.775	27.987	29.071	39.290	39.290	39.290
Philippines	26.540	31.567	32.007	35.370	44.320	44.601	53.806	89.426	89.329	89.329
Sri Lanka	12.786	13.041	13.218	13.464	13.815	14.078	14.274	14.243	13.963	13.963
Tajikistan	43.200	43.200	43.200	43.200	43.200	43.200	44.160	44.160	44.160	45.260
Timor Leste	1.097	1.114	1.133	1.141	1.449	1.448	1.448	1.448	1.436	1.426
Uzbekistan		1.000	1.000	1.000	2.200	3.025	3.325	3.325	3.325	3.325
Viet Nam	172.518	178.518	189.490	214.490	240.490	240.490	336.490	154.490	82.990	66.490

Total renewable energy

Total énergies renouvelables

Total energías renovables

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
C America + Carib	56.604	75.828	81.152	84.060	83.660	96.470	107.170	108.717	109.007	109.730
Antigua Barb					0.010	0.414	0.414	0.414	0.414	0.414
Bahamas	0.020	0.025	0.126	0.147	0.200	0.146	0.115	0.058	0.058	0.058
Belize	1.895	1.930	2.110	3.410	3.410	3.410	3.410	0.640	0.640	0.640
Costa Rica						4.500	4.500	6.081	6.140	6.140
Cuba						0.467	0.835	8.900	9.124	9.847
Dominica	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010	0.010
Dominican Rep	16.190	18.254	20.310	22.591	24.701	33.949	39.951	40.143	40.178	40.178
El Salvador	0.184	12.545	12.545	12.545	12.545	12.418	14.856	4.016	4.016	4.016
Guatemala	1.525	2.560	5.434	8.308	8.308	8.308	8.308	8.308	8.308	8.308
Haiti	0.730	0.831	0.927	1.154	1.195	1.275	1.318	1.371	1.371	1.371
Honduras	5.156	5.156	5.170	5.170	5.270	3.000	2.970	9.584	9.584	9.584
Jamaica		0.006	0.008	0.013	0.013	0.013	0.013	0.013	0.013	0.013
Nicaragua	0.400	0.400	0.400	0.400	0.010	0.010	1.912	4.312	4.312	4.312
Panama	30.494	34.011	34.011	30.211	27.711	28.211	28.211	24.520	24.520	24.520
Puerto Rico						0.062	0.070	0.070	0.042	0.042
St Kitts Nevis			0.001	0.001	0.001	0.001	0.001	0.001	0.001	0.001
St Lucia					0.176	0.176	0.176	0.176	0.176	0.176
US Virgin Is		0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100	0.100
Middle East	4.452	38.981	53.050	108.394	128.551	148.596	303.153	306.298	311.738	311.753
Iran IR	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.378	0.378
Iraq	1.340	30.840	37.840	37.840	37.840	37.840	37.840	37.840	37.840	37.840
Jordan	0.073	0.141	0.236	0.557	0.593	0.588	0.623	0.670	2.385	2.385
Kuwait		2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400	2.400
Lebanon	0.504	2.061	3.390	3.397	3.507	3.527	7.880	7.880	7.880	7.890
Oman					0.011	0.011	0.011	0.011	0.011	0.011
Palestine								1.833	1.833	1.833
Saudi Arabia			0.014	0.014	0.014	0.014	0.014	0.014	0.014	0.014
Syrian AR	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600	0.600
United Arab Em	0.190	0.192	3.192	3.208	3.208	3.238	3.407	4.672	5.597	5.597
Yemen	1.367	2.369	5.000	60.000	80.000	100.000	250.000	250.000	252.800	252.805
Oceania	156.022	158.024	160.132	163.454	167.856	170.106	172.262	174.751	174.965	174.998
Amer Samoa					1.504	1.854	1.854	1.854	1.854	1.854
Cook Is	0.047	0.047	0.047	0.047	0.047	0.047	1.769	1.769	1.769	1.769
Fiji	1.594	1.156	1.352	2.052	4.052	4.119	4.521	4.571	4.722	4.755
Fr Polynesia	1.748	1.848	2.948	3.148	3.248	3.548	3.448	3.548	3.548	3.548
Kiribati	0.466	0.502	0.743	1.389	1.397	1.397	1.397	1.397	1.397	1.397
Marshall Is	0.300	0.480	0.650	0.650	0.650	0.650	0.667	0.667	0.667	0.667
Micronesia	0.297	0.388	0.388	0.388	0.388	0.388	0.395	0.395	0.395	0.395
Nauru		0.008	0.008	0.008	0.008	0.009	0.009	0.167	0.167	0.167
New Caledon	0.500	0.500	0.500	0.500	0.500	0.760	0.760	0.760	0.760	0.760
Palau					0.170	0.170	0.170	0.235	0.235	0.235
Papua N Guin	149.140	151.046	151.046	151.585	151.936	151.902	151.665	153.403	153.403	153.403
Samoa	0.014	0.014	0.014	0.014	0.014	0.039	0.039	0.197	0.197	0.197
Solomon Is	1.492	1.492	1.768	1.768	1.949	2.324	2.324	2.324	2.324	2.324
Tokelau	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021	0.021
Tonga	0.131	0.234	0.234	0.240	0.277	0.277	0.277	0.277	0.277	0.277
Tuvalu	0.192	0.192	0.192	1.308	1.316	1.321	1.332	1.332	1.332	1.332
Vanuatu	0.080	0.096	0.221	0.336	0.379	1.280	1.614	1.834	1.897	1.897
S America	363.318	407.586	447.623	472.491	494.956	502.968	516.826	544.526	564.586	564.609
Argentina	4.801	3.695	6.237	4.748	4.753	4.753	4.753	13.509	13.509	13.509
Bolivia	72.301	73.705	96.035	105.735	105.735	105.735	123.160	128.550	139.550	139.550
Brazil	0.721	0.721	0.721	3.930	4.091	7.212	7.227	7.241	7.241	7.241
Chile	0.765	0.765	0.765	0.765	0.765	0.765	0.765	0.765	1.445	1.445
Colombia	1.381	1.442	1.477	1.840	1.897	6.937	8.994	16.937	24.085	24.085
Ecuador	6.880	7.200	10.250	12.250	12.320	12.320	13.879	13.879	13.879	13.902
Falklands Malv	0.340	0.340	0.340	0.410	0.410	0.410	0.410	0.410	0.410	0.410
Fr Guiana	1.211	1.211	1.211	1.211	1.211	1.211	1.211	4.311	4.311	4.311
Guyana	46.279	46.496	46.706	47.151	37.787	37.800	38.419	38.563	38.563	38.563
Paraguay	0.005	0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.057	0.057
Peru	194.107	195.845	205.543	214.442	244.947	238.135	224.136	222.219	222.219	222.219
South Georgia	0.256	0.256	0.256	0.256	0.256	0.256	0.256	0.256	0.256	0.256
Suriname	0.661	0.943	1.195	2.845	3.310	4.312	4.906	4.906	5.562	5.562
Uruguay	0.500	0.520	1.340	1.361	1.927	7.575	13.573	17.433	18.009	18.009
Venezuela	33.110	74.390	75.490	75.490	75.490	75.490	75.080	75.490	75.490	75.490

Hydropower Hydroélectricité Hidroeléctrica

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	676.606	694.102	705.620	749.928	758.795	780.237	1 730.912	1 753.962	1 775.102	1 888.568
Africa	161.915	172.775	176.206	199.651	203.528	239.144	248.984	262.284	262.434	262.434
Angola	21.659 u	21.659 u	22.859 u	22.859 u	22.859 u	35.279 u	35.279 e	35.279 e	35.279 e	35.279 e
Burkina Faso								2.500 u	2.500 e	2.500 e
Burundi	1.603 o	1.603 o	1.603 o	1.603 o	1.603 o	1.603 e	1.603 e	1.603 e	1.603 e	1.603 e
Cameroon	0.300 e	0.300 o	0.300 e	0.300 e	0.300 e	0.300 e	0.300 e	0.300 e	0.300 e	0.300 e
Cent Afr Rep	0.200 e	0.200 e	0.200 e	0.200 e	0.200 e	0.200 e	0.200 e	0.200 e	0.200 e	0.200 e
Congo DR	97.000 e	97.800 e	97.800 e	110.900 e	110.900 e	121.700 e	131.700 u	141.600 u	141.600 e	141.600 e
Eswatini	1.700	1.700	1.700	1.700	1.700 e	1.700 e	1.700 e	1.700 e	1.700 e	1.700 e
Ethiopia	1.279 e	1.279 e	1.279 e	1.279 e	1.279	1.279	1.279 e	1.279 e	1.279	1.279
Gabon	0.200 e	0.200 e	0.200 e	0.200 e	0.287 e	0.287 e	0.287 e	0.287 e	0.287 e	0.287 e
Guinea	2.220 o	2.220 o	2.220 o	2.220 o	2.220 o	2.220 e	2.220 e	2.220 e	2.220 e	2.220 e
Kenya	5.139 e	5.139 e	5.779 e	5.779 e	9.269 e	15.389 e	15.389 e	15.389 e	15.389 e	15.389 e
Lesotho	0.180	0.180	0.180	0.180 e	0.180 e	0.180 e	0.180 e	0.180 e	0.180 e	0.180 e
Liberia	4.000 e	4.000 e	4.000 e	4.000 e	4.000 e	4.000 e	4.000 e	4.000 e	4.000 e	4.000 e
Madagascar	3.509 o	3.574 o	4.219 o	5.249 o	5.249 o	5.349 e	5.349 e	5.349 e	5.349 e	5.349 e
Malawi	1.400 e	1.400 e	1.400 e	1.400 e	1.700 e	1.700 e	1.700 e	2.000 e	2.000 e	2.000 e
Mozambique	0.075 e	0.275 e	0.900 e	1.060 e	1.060 e	1.060 e	1.060 e	1.060 e	1.060 e	1.060 e
Nigeria				0.400 o	0.400 o	0.400 o	0.400 o	0.400 e	0.400 e	0.400 e
Rwanda	1.140 o	1.840 o	1.840 o	1.840 o	1.840 o	2.276 o	2.276 e	2.276 e	2.426 o	2.426 e
Sierra Leone	0.250 e	0.250 e	0.250 e	0.250 e	0.250 e	4.890 e	4.890 e	4.890 e	4.890 e	4.890 e
South Africa	7.109 e	7.204 e	7.500 e	7.650 e	7.650 e	7.650 e	7.650 e	7.650 e	7.650 e	7.650 e
Tanzania	8.800 e	8.800 e	8.800 e	14.620 e	14.620 e	15.420 e	15.420 e	15.420 e	15.420 e	15.420 e
Uganda		9.000 e	9.000 e	12.500 e	12.500 e	12.800 e	12.640 e	12.600 e	12.600 e	12.600 e
Zambia	2.607 o	2.607 o	2.607 o	1.857 o	1.857 o	1.857 o	1.857 o	2.497 u	2.497 e	2.497 e
Zimbabwe	1.545	1.545	1.570	1.605 e	1.605 e	1.605 e	1.605 e	1.605 e	1.605 e	1.605 e
Asia	280.703	293.130	303.165	319.625	326.340	331.049	1 270.239	1 281.533	1 301.823	1 415.289
Afghanistan	20.748 e	24.197 e	27.646 e	31.095 e	34.544 e	37.993 e	37.993 e	37.993 e	37.993 e	37.993 e
Bhutan	8.078 o	8.078 o	8.078 o	8.078 o	8.078 o	8.078 o	8.315 o	8.315 o	8.315 o	8.315 o
India	79.237 e	82.169 e	83.377 e	84.079 e	84.675 e	84.675 e	84.675 e	84.675 o	84.675 e	84.675 e
Indonesia	9.555 e	11.515 e	12.764 e	14.457 e	14.887 e	14.887 e	944.880 o	944.880 o	964.300 o	1 075.550 o
Lao PDR	2.005 u	2.005 u	2.005 u	2.005 u	2.005 u	2.005 u	2.005 u	2.005 e	2.005 e	2.005 e
Malaysia	0.110 e	0.110 e	0.450 e	0.450 e	0.450 e	0.465 e	0.465 e	0.495 e	0.495 e	0.495 e
Mongolia	2.992 e	2.992 e	2.992 e	2.992 e	2.992 e	2.992 e	2.992 e	2.992 e	2.992 e	2.992 e
Myanmar	2.949 e	2.974 e	3.165 e	6.890 e	6.890 e	6.890 e	6.890 e	6.890 e	6.890 e	6.890 e
Nepal	38.802 o	42.168 o	45.456 o	49.102 o	51.012 o	52.257 o	52.257 e	53.506 e	54.376 e	55.492 e
Pakistan	15.104 e	15.554 e	15.619 e	15.619 e	15.619 e	15.619 e	15.619 e	15.634 e	15.634 e	15.634 e
Philippines	9.595 o	9.595 o	9.595 o	12.595 o	12.595 o	12.595 o	20.595 o	30.595 o	30.595 o	30.595 e
Sri Lanka	5.003 e	5.248 e	5.493 e	5.738 e	6.068 e	6.068 e	6.068 e	6.068 e	6.068 e	6.068 e
Tajikistan	43.200	43.200	43.200	43.200	43.200	43.200	44.160 e	44.160 e	44.160 e	45.260 u
Timor Leste	0.325 o	0.325 o	0.325 e	0.325 e	0.325 e	0.325 e	0.325 e	0.325 e	0.325 e	0.325 e
Viet Nam	43.000 e	43.000 e	43.000 e	43.000 e	43.000 e	43.000 e	43.000 e	43.000 e	43.000 e	43.000 e
C America + Carib	0.902	1.173	1.460	1.736	1.557	1.688	1.738	3.665	3.685	3.685
Cuba								1.900 o	1.900 u	1.900
Dominican Rep	0.362 o	0.633 o	0.920 o	1.196 o	1.317 o	1.448 o	1.528	1.665 o	1.685 o	1.685 e
El Salvador	0.140 e	0.140 e	0.140 e	0.140 e	0.140 e	0.140 e	0.140 e	0.030 o	0.030 e	0.030 e
Honduras					0.100 e	0.100 e	0.070 e	0.070 e	0.070 e	0.070 e
Nicaragua	0.400	0.400	0.400	0.400						
Middle East	1.340	1.340	1.340	1.340	1.340	1.340	1.340	1.340	1.340	1.340
Iraq	1.340 e	1.340 e	1.340 e	1.340 e	1.340 e	1.340 e	1.340 e	1.340 e	1.340 e	1.340 e
Oceania	77.605	76.714	76.789	76.789	76.942	76.942	76.942	76.942	76.942	76.942
Fiji	1.021 u	0.130 u	0.130 u	0.130 u	0.130 u	0.130 u	0.130 u	0.130 e	0.130 e	0.130 e
Papua N Guin	76.395 u	76.395 u	76.395 u	76.395 u	76.395 u	76.395 u	76.395 u	76.395 e	76.395 e	76.395 e
Solomon Is	0.189 o	0.189 o	0.189 o	0.189 o	0.339 o	0.339 o	0.339 o	0.339 e	0.339 e	0.339 e
Vanuatu			0.075 e	0.075 e	0.078 e	0.078 e	0.078 e	0.078 e	0.078 e	0.078 e
S America	154.141	148.970	146.660	150.787	149.088	130.074	131.669	128.198	128.878	128.878
Argentina	4.706 o	3.600 o	6.136 o	4.026 o	4.055 o	4.055 e	4.055 e	4.055 e	4.055 e	4.055 e
Bolivia	8.000	8.000		1.200	1.200	1.200	0.800 e	0.800 o	0.800 e	0.800 e
Chile	0.765 o	0.765 o	0.765 o	0.765 o	0.765 o	0.765 o	0.765 o	0.765 o	1.445 o	1.445 o
Colombia				0.318 e	0.318 e	5.318 o	5.318 o	9.405 e	9.405 e	9.405 e
Ecuador	4.400 o	4.400 o	3.660 o	5.660 o	5.660 o	5.660 e	6.060 o	6.060 o	6.060 o	6.060 o
Fr Guiana	1.050 o	1.050 o	1.050 o	1.050 o	1.050 o	1.050 o	1.050 o	1.050 o	1.050 o	1.050 o
Guyana	2.019 e	2.175 e	2.330 e	2.330 o	2.330 e	2.330 e	2.330 e	2.350 o	2.350 e	2.350 e
Peru	132.141 o	127.920 o	131.659 o	134.228 o	132.500 o	108.456 o	110.061 o	102.073 o	102.073 o	102.073 o
South Georgia	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250	0.250 e	0.250 e
Suriname				0.150	0.150	0.180 e	0.180 e	0.180 e	0.180 e	0.180 e
Venezuela	0.810 o	0.810 o	0.810 u	0.810 u	0.810 e	0.810 e	0.800 e	1.210 o	1.210 e	1.210 e

Solar photovoltaic Solaire photovoltaïque Solar fotovoltaica

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	716.236	1 071.997	1 407.342	1 794.485	2 291.707	2 932.667	3 666.758	4 190.925	4 547.311	4 865.165
Africa	154.622	197.140	253.760	365.258	620.051	871.039	1 042.166	1 142.188	1 206.656	1 268.658
Algeria			1.100	49.100	219.100	400.000 o	423.000 u	423.000 e	423.000 e	423.000 e
Angola	9.604 e	10.799 e	11.962 e	12.867 e	13.377 e	13.377 e	13.377 e	13.377 e	13.377 e	13.377 e
Benin					1.500	1.500	1.500	1.500 e	1.540 o	1.540 e
Botswana	0.315 e	0.415 e	0.560 e	0.853 e	1.925 e	2.047 e	2.352 e	2.352 e	2.389 e	2.389 e
Burkina Faso	5.800 e	6.300 e	7.000 e	8.000 e	10.000 e	12.000 e	27.000 o	27.000 e	27.000 e	27.000 e
Burundi	1.200 e	2.200 e	2.400 e	2.700 e	3.700 e	4.700 e	4.700 e	4.700 e	4.700 e	4.700 e
Cabo Verde	0.074	0.151	0.305	0.618	0.674	0.735	0.801 e	0.846 u	0.846 e	0.846 e
Cameroon	2.800 e	3.600 e	5.600 e	7.400 e	9.000 e	11.596 e	14.192 e	14.192 e	14.317 e	14.442 e
Cent Afr Rep	0.300 e	0.300 e	0.300 e	0.300 e	0.300 e	0.300 e	0.300 e	0.316	0.316 e	0.316 e
Chad	0.003 e	0.050 e	0.050 e	0.172 e	0.173 e	0.173 e	0.190 e	0.190 e	0.227	0.227 e
Congo DR	0.087 e	0.389 e	0.608 e	0.672 e	3.237 u	5.235 u	19.927 e	19.927 e	19.927 e	19.927 e
Congo Rep	0.120 e	0.230 e	0.460 e	0.460 e	0.460 e	0.570 e	0.720 e	0.720 e	0.720 e	0.720 e
Cote d'Ivoire	1.973 e	2.908 e	3.834 e	5.059 e	5.059 e	8.278 e	13.144 e	13.144 e	13.144 e	13.144 e
Djibouti	0.300 e	0.300 e	0.300 e	0.300 e	0.362 u	0.362 u	0.362 u	0.362 u	0.362 e	0.362 e
Egypt	15.000	15.000	15.000	16.000 o	30.000 o	30.000 o	44.200 o	30.200 o	30.390 o	30.390 e
Eritrea	0.023 e	0.035 e	7.859 e	7.859 e	8.209 e	10.209 e	17.709 e	19.959 e	22.209 e	24.459 e
Eswatini	0.761 e	0.778 e	0.804 e	0.804 e	0.804 e	0.804 e	0.804 e	0.804 e	0.804 e	0.804 e
Ethiopia	1.148	3.344	9.131	9.890	14.040	12.494	12.346	12.346	20.184	21.184
Gabon	1.400 e	1.400 e	1.400 e	1.400 e	1.400 e	1.400 e	1.400 e	1.400 e	1.400 e	1.400 e
Gambia	1.991 e	1.995 e	2.000 e	2.000 e	2.000 e	2.002 e	2.002 e	2.002 e	2.002 e	2.002 e
Ghana		0.495 o	2.288 o	7.247 o	11.111 o	16.113 o	22.758 o	29.584 o	36.056 o	36.056 e
Guinea	0.600 e	3.371 e	3.371 e	13.273 e	13.279 e	13.279 e	13.283 e	13.283 e	13.283 e	13.283 e
Guinea Bissau				0.312 e	0.312 e	0.312 e	1.169 o	1.169 e	1.169 e	1.169 e
Kenya	2.889 e	6.747 e	15.640 e	29.673 e	30.832 e	37.979 e	49.393 e	49.393 e	49.477 u	49.477 e
Lesotho		0.163 e	0.163 e	0.163 e	0.163 e	0.163 e	0.163 e	0.163 e	0.163 e	0.163 e
Liberia	0.040 u	0.040 u	0.040 u	0.057 u	0.059 u	2.406 u	2.583 u	2.583 e	2.583 e	2.583 e
Libya	4.900 u	4.900 u	4.900 u	4.900 u	4.900 u	5.110 u	5.110 e	5.110 e	5.111 e	6.333 u
Madagascar	2.600 e	5.000 e	7.000 e	9.000 e	11.000 e	13.000 e	13.000 e	13.000 e	13.000 e	13.000 e
Malawi	2.681 e	4.565 e	6.834 e	11.257 e	11.257 e	18.337 e	24.894 e	79.323 e	80.635 u	80.635 e
Mali	15.741 e	15.741 o	16.150 e	17.178 e	17.571 e	19.252 e	19.252 e	19.297 e	19.542 e	49.542 u
Mauritania		3.000 o	3.151 o	3.166 o	19.766 o	19.766 o	21.066 u	21.209 u	21.209 e	21.209 e
Morocco	15.000	15.000	18.800	18.800	20.870	22.895 o	22.895 o	22.903 o	23.000 o	23.000 e
Mozambique	1.500 e	4.900 e	7.000 e	10.000 e	13.000 e	15.000 e	15.000 e	15.000 e	15.000 e	15.000 e
Namibia	10.700 e	13.400 e	14.176 e	14.176 e	14.176 e	14.176 e	21.929 e	23.869	23.869 e	23.869 e
Niger	4.000 e	5.000 e	6.000 e	7.000 e	8.000 e	9.041 u	20.041 u	20.041 u	20.041 e	20.041 e
Nigeria	15.200 e	15.400 e	15.600 e	17.000 e	17.200 e	17.400 e	17.565 u	26.439 u	26.908 u	26.908 e
Reunion								1.340 u	1.340 e	1.340 e
Rwanda	0.219 e	0.698 e	1.241 e	5.167 e	10.391 e	15.150 e	25.480 e	25.988 e	25.988 e	25.988 e
Sao Tome Prn		0.063 e	0.098 e	0.119 e	0.157 e	0.316 e	0.334 e	0.334 e	0.334 e	0.334 e
Senegal	5.900 e	7.000 e	7.000 e	7.000 e	7.000 e	7.000 e	7.000 e	7.000 e	7.000 e	7.000 e
Seychelles		0.068 o	0.068 o	0.068 o	0.068 o	1.022 e	1.022 e	1.022 e	1.022 e	1.022 e
Sierra Leone	0.237 u	0.384 u	0.395 u	0.420 u	0.484 u	3.830 u	4.246 u	4.246 e	4.246 e	4.286 u
Somalia			0.100 e	0.170 e	4.670 e	6.894 e	7.068 e	7.068 e	15.538 u	23.538 u
South Africa								1.866 u	1.866 e	1.866 e
South Sudan	0.160 e	0.160 e	0.160 e	0.160 e	0.428 u	0.449 u	0.737 e	0.835 u	0.835 e	1.278 u
Sudan	8.066 u	14.666 u	16.584 u	19.911 u	26.219 u	35.800 u	59.478 u	80.199 u	116.840 u	135.570 u
Tanzania	1.164 e	3.674 e	11.188 e	12.795 e	18.424 e	21.972 e	26.371 e	23.544 e	23.544 e	23.544 e
Togo	0.346 e	0.426 e	0.815 e	1.696 e	2.131 e	2.527 e	3.490 o	5.460 o	5.460 e	5.493 u
Tunisia	1.555 e	1.555 e	1.563 e	1.710 e	2.060 e	2.076 e	2.076 e	7.076 u	7.076 e	7.076 e
Uganda	17.320 e	18.500 e	20.000 e	22.000 e	24.000 e	26.600 e	26.600 e	26.600 e	26.920 e	27.079 e
Zambia		0.060 e	0.060 e	0.060 e	0.094 e	0.094 e	0.224 e	7.424 e	7.424 e	7.424 e
Zimbabwe	0.905 e	1.970 e	2.702 e	4.326 e	5.109 e	6.252 e	7.913 e	11.323 e	11.323 e	11.323 e
Asia	508.605	766.339	1 016.259	1 218.487	1 426.017	1 774.227	2 182.214	2 593.826	2 871.450	3 126.513
Afghanistan	16.122 e	16.843 e	18.363 e	18.932 e	20.170 e	20.323 e	19.855 e	19.389 e	19.045 e	19.045 e
Bangladesh	66.021 o	93.909 o	118.917 o	140.132 o	146.211 o	163.313 o	155.421 o	164.834 e	155.660 e	139.483 e
Bhutan	0.275 e	0.275 e	0.275 e	0.275 e	0.275 e	0.275 e	0.275 e	0.275 e	0.275 e	0.275 e
Cambodia	0.007 e	0.548 e	0.742 e	1.245 e	1.926 e	1.941 e	1.346 e	1.262 e	0.799 e	0.799 e
China	217.800	297.800	337.800	357.800	367.800	376.800	385.800	394.800 e	403.800 o	412.800 e
India	149.717 e	269.577 e	381.328 e	486.114 e	637.861 e	870.886 e	1 098.628 e	1 130.378 e	1 190.378 e	1 367.173 e
Indonesia	22.333 e	29.357 e	32.628 e	41.621 e	41.720 e	43.023 e	41.050 o	50.010 o	61.490 o	67.590 o
Kazakhstan	2.436 e	15.262	71.255	86.517	99.689	116.656	281.060	608.000	807.000	885.256 e
Korea DPR	2.294 u	6.139 u	10.958 u	22.794 u	31.534 u	34.780 u	37.780 u	40.780 u	40.780 e	40.780 e
Lao PDR	0.010 e	0.470 e	0.902 e	1.254 e	1.409 e	1.409 e	1.409 e	1.409 e	1.409 e	1.409 e
Malaysia	0.004 o	0.004 o	1.528 e	2.415 e	2.418 e	2.428 e	7.445 e	7.445 e	7.445 e	7.445 e
Maldives	1.324 o	1.753 o	3.882 o	4.799 o	7.488 o	10.791 o	16.478 o	20.605 u	26.705 u	30.805 u
Mongolia	4.585 e	4.585 e	4.585 e	4.585 e	4.585 e	4.585 e	4.585 o	4.585 e	4.585 e	4.585 e
Myanmar	2.800 e	4.209 o	6.271 o	20.819 o	32.008 o	43.781 o	47.542 o	48.482 o	44.496 o	40.447 e
Nepal	8.571 o	10.143 o	10.862 o	12.701 o	12.872 o	52.623 e	50.816 e	49.055 e	55.455 e	56.503 e
Pakistan	0.213 e	0.318 e	0.453 e	0.602 e	0.595 e	11.789 e	12.199 e	22.403 e	22.403 e	22.403 e
Philippines	1.020 o	1.047 o	1.487 o	1.850 o	1.895 o	2.176 o	3.381 o	13.001 o	12.904 o	12.904 e
Sri Lanka	7.783 e	7.793 e	7.725 e	7.726 e	7.747 e	8.010 e	8.206 e	8.175 e	7.895 e	7.895 e
Timor Leste	0.772 e	0.789 e	0.808 e	0.816 e	1.124 e	1.123 e	1.123 e	1.123 e	1.111 e	1.101 e
Uzbekistan		1.000	1.000	1.000	2.200	3.025	3.325	3.325	3.325	3.325 e
Viet Nam	4.518 e	4.518 e	4.490 e	4.490 e	4.490 e	4.490 e	4.490 e	4.490 e	4.490 e	4.490 e
C America + Carib	12.344	28.104	32.858	38.785	40.562	48.143	56.745	50.065	50.335	51.058
Antigua Barb					0.010 e	0.414 e	0.414 e	0.414 e	0.414 e	0.414 e

Solar photovoltaic Solaire photovoltaïque Solar fotovoltaica

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Bahamas	0.020 e	0.025 e	0.126 e	0.147 e	0.200 e	0.146 e	0.115 e	0.058 e	0.058 e	0.058 e
Belize	1.875	1.910	2.090	3.390	3.390	3.390	3.390 e	0.620 u	0.620 e	0.620 e
Costa Rica								1.581 e	1.640 e	1.640 e
Cuba						0.467 u	0.835 u	7.000 u	7.224 u	7.947
Dominican Rep		1.500	3.000	4.500	6.173	15.192	20.992	21.047 o	21.062 o	21.062 e
El Salvador	0.044 e	12.405 e	12.405 e	12.405 e	12.405 e	12.278	14.716	3.986 o	3.986 e	3.986 e
Guatemala	1.525 e	2.560 e	5.434 e	8.308 e	8.308 e	8.308 e	8.308 e	8.308 e	8.308 e	8.308 e
Haiti	0.730 e	0.831 e	0.927 e	1.154 e	1.195 e	1.275 e	1.294 e	1.347 e	1.347 e	1.347 e
Honduras	5.156 e	5.156 e	5.156 e	5.156 e	5.156 e	2.886 e	2.886 e	3.200	3.200	3.200 e
Jamaica		0.006 e	0.008 e	0.013 e	0.013 e	0.013 e	0.013 e	0.013 e	0.013 e	0.013 e
Nicaragua								2.400 o	2.400 o	2.400 e
Panama	2.994	3.711	3.711	3.711	3.711	3.711 o	3.711 e	0.020 u	0.020 e	0.020 o
Puerto Rico						0.062 e	0.070 o	0.070 o	0.042 e	0.042 e
St Kitts Nevis			0.001 e	0.001 e	0.001 e	0.001 e	0.001 e	0.001 e	0.001 e	0.001 e
Middle East	2.012	32.641	45.710	101.054	121.211	141.256	295.813	298.958	304.388	304.398
Iran IR	0.378	0.378	0.378	0.378	0.378	0.378	0.378 e	0.378 e	0.378 e	0.378 e
Iraq		29.500 o	36.500 o	36.500 e	36.500 e	36.500 e	36.500 e	36.500 e	36.500 e	36.500 e
Jordan	0.073 o	0.141 o	0.236 o	0.557 o	0.593 o	0.588 o	0.623 o	0.670 o	2.375 o	2.375 e
Lebanon	0.004 e	0.061 e	0.390 e	0.397 e	0.507 e	0.527 e	4.880 o	4.880 o	4.880 e	4.890 o
Oman					0.011 e	0.011 e	0.011 e	0.011 e	0.011 e	0.011 e
Palestine								1.833 o	1.833 e	1.833 e
Saudi Arabia			0.014 e	0.014 e	0.014 e	0.014 e	0.014 e	0.014 e	0.014 e	0.014 e
United Arab Em	0.190 e	0.192 e	3.192 e	3.208 e	3.208 e	3.238 u	3.407 o	4.672 o	5.597 u	5.597 e
Yemen	1.367 o	2.369 o	5.000 o	60.000 o	80.000 o	100.000 e	250.000 u	250.000 e	252.800 u	252.800 e
Oceania	5.205	6.186	8.219	11.581	15.830	18.080	20.235	22.724	22.938	22.971
Amer Samoa					1.504 e	1.854 e	1.854 e	1.854 e	1.854 e	1.854 e
Cook Is	0.047 e	0.047 e	0.047 e	0.047 e	0.047 e	0.047 e	1.769 e	1.769 e	1.769 e	1.769 e
Fiji	0.555 u	1.002 u	1.198 u	1.898 u	3.898 u	3.965 u	4.367 u	4.417 u	4.568 e	4.601 e
Fr Polynesia	1.500 o	1.600 o	2.700 o	2.900 o	3.000 o	3.300 o	3.200 o	3.300 o	3.300 o	3.300 e
Kiribati	0.466 o	0.502 o	0.743 o	1.389 o	1.397 o	1.397 o	1.397 e	1.397 e	1.397 e	1.397 e
Marshall Is	0.300 e	0.480 e	0.650 e	0.650 e	0.650 e	0.650 e	0.666 u	0.666 e	0.666 e	0.666 e
Micronesia	0.297 e	0.388 e	0.388 e	0.388 e	0.388 e	0.388 e	0.395 u	0.395 e	0.395 e	0.395 e
Nauru		0.008 e	0.008 e	0.008 e	0.008 e	0.009 e	0.009 e	0.167 e	0.167 e	0.167 e
New Caledon	0.500 o	0.500 o	0.500 o	0.500 o	0.500 o	0.760 o	0.760 o	0.760 e	0.760 e	0.760 e
Palau					0.170 o	0.170 o	0.170 e	0.235 u	0.235 e	0.235 e
Papua N Guin	0.339 e	0.339 e	0.339 e	0.878 u	1.229 u	1.195 u	0.958 u	2.696 e	2.696 e	2.696 e
Samoa	0.014 e	0.014 e	0.014 e	0.014 e	0.014 e	0.039 e	0.039 e	0.197 e	0.197 e	0.197 e
Solomon Is	0.803 e	0.803 e	1.079 e	1.079 e	1.110 e	1.485 e	1.485 e	1.485 u	1.485 e	1.485 e
Tokelau	0.021 u	0.021 u	0.021 u	0.021 u	0.021 u	0.021 e	0.021 e	0.021 e	0.021 e	0.021 e
Tonga	0.131 o	0.234 o	0.234 o	0.240 o	0.277 o	0.277 o	0.277 o	0.277 o	0.277 o	0.277 o
Tuvalu	0.192 o	0.192 o	0.192 o	1.308 o	1.316 o	1.321 o	1.332 o	1.332 o	1.332 e	1.332 e
Vanuatu	0.040 e	0.056 e	0.106 e	0.261 e	0.301 e	1.202 e	1.536 e	1.756 e	1.819 e	1.819 e
S America	33.448	41.587	50.536	59.320	68.036	79.922	69.585	83.164	91.544	91.567
Argentina	0.026 o	0.026 o	0.024 o	0.618 o	0.606 o	0.606 e	0.606 e	2.030 o	2.030 e	2.030 e
Bolivia	4.131 e	5.535 e	5.535 e	5.535 e	5.535 e	5.535 e	4.860 o	5.250 o	5.250 e	5.250 e
Brazil	0.721 e	0.721 e	0.721 e	3.930 e	4.091 e	7.212 e	7.227 e	7.241 o	7.241 o	7.241 o
Colombia	1.322	1.383	1.418	1.463	1.520	1.520	3.577	7.473	14.621	14.621 e
Ecuador	0.080	0.400 o	1.940	1.940	2.010	2.010	3.169 o	3.169 o	3.169 o	3.192 o
Falklands Malv				0.070 o	0.070 o	0.070 o	0.070 o	0.070 e	0.070 e	0.070 e
Fr Guiana	0.161 o	0.161 o	0.161 o	0.161 o	0.161 o	0.161 o	0.161 o	0.161 o	0.161 e	0.161
Guyana	0.975	1.016	1.061	1.476	1.652	1.665	1.684	1.808	1.808 e	1.808 e
Paraguay	0.005 o	0.057 o	0.057 o	0.057 o	0.057 o	0.057 o	0.057 o	0.057 o	0.057 e	0.057 e
Peru	22.566 e	28.525 e	34.484 e	38.914 e	46.147 e	53.379 e	39.675	45.746	45.746 e	45.746 o
Suriname	0.661 e	0.943 e	1.195 e	1.195 e	1.660	2.632	3.226	3.226	3.882	3.882 e
Uruguay	0.500	0.520	0.540	0.561	1.127	1.675	2.273	3.933	4.509 o	4.509 e
Venezuela	2.300	2.300	3.400	3.400	3.400	3.400	3.000 e	3.000 o	3.000 e	3.000 e

Other renewable energy

Autres énergies renouvelables

Otras energías renovables

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	3 675.911	3 787.832	4 432.269	4 701.757	4 869.624	4 254.216	4 474.530	4 337.649	4 437.013	4 471.272
Africa	85.356	91.476	116.436	118.306	120.667	123.536	124.026	124.131	124.131	144.131
Algeria			10.200	10.200	10.200	10.200 e	10.000 e	10.000 e	10.000 e	10.000 e
Burkina Faso		0.150 u	0.150 u	0.150 u	0.150 e	0.150 e	0.150 e	0.150 e	0.150 e	0.150 e
Burundi	4.000 e	4.000 o	4.000 e	4.000 e	4.000 e	4.000 e	4.000 e	4.000 e	4.000 e	4.000 e
Chad					1.100 u	1.100 e	1.100 e	1.100 e	1.100 o	1.100 e
Congo DR	0.160 e	0.160 e	0.160 e	0.160 e	0.160 e	2.160 e	2.960 e	2.960 e	2.960 e	2.960 e
Djibouti										20.000 u
Egypt	5.000 o	5.000 o	5.000 o	5.000 o	5.000 o	5.000 o	5.000 o	5.000 o	5.000 o	5.000 e
Eritrea	0.825 e	0.825 e	0.825 e	0.825 e	0.825 e	0.825 e	0.825 e	0.825 e	0.825 e	0.825 e
Ethiopia					0.006 u	0.006 e	0.006 e	0.006 e	0.006 e	0.006 e
Gabon				1.200 e	1.200 e	1.200 e	1.200 e	1.200 e	1.200 e	1.200 e
Ghana				1.200 e	1.200 e	1.200 e	1.200 e	1.200 e	1.200 e	1.200 e
Kenya	6.774 e	6.774 e	8.274 e	8.294 e	8.294 e	8.294 e	8.294 e	8.294 e	8.294 e	8.294 e
Madagascar	0.341 o	0.411 o	0.411 o	0.411 o	0.411 o	0.411 e	0.411 e	0.411 e	0.411 e	0.411 e
Mali	32.000 e	32.000 o	40.000 e	40.000 e	40.000 e	40.000 u	40.000 e	40.000 e	40.000 e	40.000 e
Mauritania		4.400 o	4.400 o	4.400 o	4.400 o	4.400 o	4.400 e	4.400 e	4.400 e	4.400 e
Morocco	5.000	5.000	5.000	5.000	5.000	5.000	5.000	5.000 e	5.000 e	5.000 e
Namibia	0.002 u	0.002 u	0.002 u	0.002 u	0.002 u	0.011 u	0.011 e	0.011	0.011 e	0.011 e
Nigeria	6.000 e	7.500 e	9.000 e	9.000 e	10.230 e	10.230 e	10.230 e	10.335 e	10.335 e	10.335 e
Somalia	2.200 u	2.200 u	2.200 u	2.800 u	2.800 u	3.550 u	3.550 u	3.550 e	3.550 e	3.550 e
Tanzania	22.500 o	22.500 o	26.260 u	26.260 e	26.285 e	26.285 e	26.285 e	26.285 e	26.285 e	26.285 e
Asia	3 297.156	3 352.652	3 937.448	4 196.444	4 348.500	3 709.985	3 905.160	3 744.282	3 832.636	3 846.890
Afghanistan	0.100 u	0.100 e	0.100 e	0.100 e	0.100 e	0.100 e	0.100 e	0.100 e	0.100 e	0.100 e
Bangladesh	3.750 o	4.420 o	5.120 o	6.650 o	7.050 o	7.050 o	7.050 e	7.050 o	7.350 o	7.350 e
Cambodia	2.250 e	2.250 e	2.250 e	3.750 e	3.750 e	3.750 e	3.750 e	3.750 e	3.750 e	3.750 e
China	173.530	210.530	249.130	297.730	342.690	370.390	401.150	431.910	462.670 o	493.430 e
India	540.025 o	584.028 o	736.305 o	785.371 o	843.616 o	849.946 e	896.347 e	866.629 e	963.869 e	963.869 e
Indonesia	1 884.000 o	1 615.000 o	1 626.000 o	1 626.000 o	1 633.000 e	1 669.000 e	1 685.260 e	1 687.260 e	1 718.820 e	1 718.820 e
Korea DPR	0.200 u	0.200 u	0.200 u	0.200 u	0.200 u	0.600 o	0.600 e	0.600 e	0.600 e	0.600 e
Lao PDR							0.290 o	0.290 o	0.290 o	0.290 o
Malaysia	504.860 o	732.530 o	1 100.000 o	1 237.800 o	1 243.000 o	531.640 o	531.640 e	531.640 e	531.640 e	531.640 e
Maldives	1.407 u	1.407 u	1.407 e	1.407 e	1.407 e	1.407 e	1.407 e	1.407 e	1.407 e	1.407 e
Mongolia	1.006 e	1.006 e	1.006 e	1.006 e	1.006 e	1.006 e	1.006 e	1.006 e	1.000	0.994 e
Myanmar	44.542 e	48.626 e	52.375 e	47.875 e	49.221 e	51.618 e	56.308 e	58.358 e	58.358 e	58.358 e
Nepal		0.069 u	0.069 u	0.069 u	0.069 u	0.069 e	0.169 o	0.199 o	0.199 e	0.199 e
Pakistan	0.561 e	0.561 e	0.561 e	0.561 e	0.561 e	0.579 e	1.255 e	1.255 e	1.255 e	1.255 e
Philippines	15.925 u	20.925 e	20.925 e	20.925 e	29.830 e	29.830 e	29.830 e	45.830 o	45.830 e	45.830 e
Viet Nam	125.000 e	131.000 e	142.000 e	167.000 e	193.000 e	193.000 e	289.000 e	107.000 e	35.500 e	19.000 e
C America + Carib	43.358	46.551	46.834	43.539	41.541	46.639	48.687	54.987	54.987	54.987
Belize	0.020 u	0.020 u	0.020 u	0.020 u	0.020 u	0.020 u	0.020 u	0.020 u	0.020 u	0.020 e
Costa Rica						4.500	4.500	4.500	4.500 e	4.500 e
Dominica	0.010 o	0.010 o	0.010 o	0.010 o	0.010 o	0.010 o	0.010 o	0.010 e	0.010 e	0.010 e
Dominican Rep	15.828 e	16.121 e	16.390 e	16.895 e	17.211 e	17.309 e	17.431 e	17.431 e	17.431 e	17.431 e
Haiti							0.024 u	0.024 e	0.024 e	0.024 e
Honduras			0.014 e	0.014 e	0.014 e	0.014 e	0.014 e	6.514 e	6.514 e	6.514 e
Nicaragua					0.010 e	0.010 e	1.912 e	1.912 e	1.912 e	1.912 e
Panama	27.500	30.300	30.300	26.500	24.000	24.500 o	24.500 e	24.500 e	24.500 e	24.500 o
St Lucia					0.176 e	0.176 e	0.176 e	0.176 e	0.176 e	0.176 e
US Virgin Is		0.100 o	0.100 o	0.100 o	0.100 o	0.100 o	0.100 e	0.100 e	0.100 e	0.100 e
Middle East	1.100	5.000	6.000	6.000	6.000	6.000	6.000	6.000	6.010	6.015
Jordan									0.010 o	0.010 o
Kuwait		2.400 u	2.400 e	2.400 e	2.400 e	2.400 e	2.400 e	2.400 e	2.400 e	2.400 e
Lebanon	0.500 u	2.000 u	3.000 u	3.000 e	3.000 e	3.000 e	3.000 e	3.000 e	3.000 e	3.000 e
Syrian AR	0.600 e	0.600 e	0.600 e	0.600 e	0.600 e	0.600 e	0.600 e	0.600 e	0.600 e	0.600 e
Yemen										0.005 o
Oceania	73.212	75.124	75.124	75.084	75.084	75.084	75.085	75.085	75.085	75.085
Fiji	0.018 u	0.024 u	0.024 u	0.024 u	0.024 u	0.024 u	0.024 u	0.024 e	0.024 e	0.024 e
Fr Polynesia	0.248 e	0.248 e	0.248 e	0.248 e	0.248 e	0.248 e	0.248 e	0.248 e	0.248 e	0.248 e
Marshall Is							0.001 u	0.001 e	0.001 e	0.001 e
Papua N Guin	72.406 u	74.312 u	74.312 u	74.312 u	74.312 u	74.312 u	74.312 u	74.312 e	74.312 e	74.312 e
Solomon Is	0.500 e	0.500 e	0.500 e	0.500 u	0.500 u	0.500 u	0.500 u	0.500 e	0.500 e	0.500 e
Vanuatu	0.040 e	0.040 e	0.040 e							
S America	175.729	217.029	250.427	262.384	277.832	292.972	315.572	333.164	344.164	344.164
Argentina	0.069 o	0.069 o	0.077 o	0.104 o	0.092 o	0.092 e	0.092 e	7.424 o	7.424 e	7.424 e
Bolivia	60.170	60.170	90.500	99.000	99.000	99.000	117.500 o	122.500 o	133.500	133.500 e
Colombia	0.059 o	0.059 o	0.059 o	0.059 o	0.059 o	0.099 o	0.099 o	0.059 e	0.059 e	0.059 e
Ecuador	2.400	2.400	4.650 o	4.650 o	4.650 o	4.650 o	4.650 e	4.650 o	4.650 o	4.650 o
Falklands Malv	0.340 e	0.340 e	0.340 e	0.340 o	0.340 o	0.340 o	0.340 o	0.340 e	0.340 e	0.340 e
Fr Guiana								3.100 o	3.100 e	3.100 o
Guyana	43.285	43.305	43.315	43.345	33.805	33.805	34.405	34.405	34.405 e	34.405 e
Peru	39.400 o	39.400 o	39.400 o	41.300	66.300 o	76.300 o	74.400 e	74.400 e	74.400 e	74.400 o

Other renewable energy
Autres énergies renouvelables
Otras energías renovables

CAP (MW)	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
South Georgia	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006	0.006 e	0.006 e
Suriname				1.500	1.500	1.500	1.500 e	1.500 e	1.500 e	1.500 e
Uruguay			0.800 e	0.800 e	0.800 e	5.900 e	11.300 e	13.500 e	13.500 e	13.500 e
Venezuela	30.000	71.280 u	71.280 u	71.280 u	71.280 u	71.280 u	71.280 u	71.280 u	71.280 e	71.280 e

Other indicators

Autres indicateurs

Otros indicadores

Renewable energy share of electricity capacity

La part d'énergie renouvelable dans la puissance installée

Proporción de energía renovable en la capacidad eléctrica

%	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
World	26.2	27.3	28.3	29.6	30.8	32.1	33.2	34.6	36.6	38.3
Africa	18.8	19.0	19.6	20.1	20.1	21.2	21.7	21.8	22.6	23.1
Algeria	1.9	1.7	1.7	1.8	2.5	3.4	3.2	2.9	2.8	2.6
Angola	51.5	44.5	43.9	42.9	56.0	56.8	59.6	61.8	64.0	64.0
Benin	0.8	0.4	0.7	1.7	1.7	1.7	1.9	1.1	1.1	1.1
Botswana	0.5	0.5	0.2	0.2	0.4	0.4	0.4	0.6	0.6	0.6
Burkina Faso	10.3	15.0	13.3	12.1	12.8	21.6	24.7	22.4	22.4	22.4
Burundi	78.4	73.7	73.7	73.8	74.2	53.2	53.2	53.2	53.2	53.2
Cabo Verde	21.0	23.3	23.3	18.7	18.9	18.9	20.0	20.1	20.1	20.1
Cameroon	66.5	57.7	57.8	55.5	55.6	51.3	51.4	54.0	54.0	53.9
Cent Afr Rep	50.2	50.2	46.5	46.5	46.5	46.5	46.5	46.6	46.6	21.0
Chad	0.7	0.7	0.7	0.8	1.1	1.1	1.2	1.2	1.3	1.3
Comoros	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3	6.3
Congo DR	99.0	98.9	98.9	98.9	98.9	98.9	99.0	99.0	99.0	99.0
Congo Rep	32.7	32.7	32.7	32.7	33.4	34.7	34.7	34.7	27.5	27.5
Cote d'Ivoire	42.3	39.6	37.0	34.1	32.1	40.8	40.9	40.0	40.0	40.0
Djibouti	0.2	0.2	0.2	0.2	0.3	0.3	0.3	0.3	0.3	14.2
Egypt	11.0	10.6	10.6	10.4	9.5	8.4	8.6	9.7	10.1	10.4
Eq Guinea	36.1	36.1	36.1	36.1	33.8	31.7	31.7	31.7	31.7	31.7
Eritrea	0.6	0.6	5.9	5.2	5.4	5.1	8.3	9.2	10.1	11.0
Eswatini	94.9	94.9	94.5	94.5	94.5	94.5	94.5	94.5	94.5	94.8
Ethiopia	91.7	92.1	92.1	94.8	96.4	97.8	98.1	97.7	97.8	97.9
Gabon	38.0	54.8	55.3	55.2	53.0	53.5	54.4	54.4	54.4	54.4
Gambia	3.9	3.3	3.5	3.6	3.6	3.6	3.2	3.2	3.2	2.7
Ghana	49.4	56.6	56.7	57.1	46.2	41.4	40.9	32.3	31.7	31.7
Guinea	59.8	38.5	38.5	61.8	62.8	61.1	60.7	60.0	55.4	73.0
Guinea Bissau				1.1	1.1	1.1	4.0	4.0	4.0	4.0
Kenya	65.3	65.5	65.6	65.8	66.2	67.5	71.8	71.9	74.9	76.0
Lesotho	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8	99.8
Liberia	4.3	4.2	4.2	4.2	21.0	49.1	49.1	49.1	49.1	49.1
Libya	0.1	0.1	0.1	0.1	0.0	0.0	0.0	0.0	0.0	0.1
Madagascar	30.3	30.6	24.9	25.2	25.4	23.6	24.1	24.1	24.1	24.1
Malawi	91.6	91.6	93.0	93.3	93.3	91.2	74.2	76.8	76.9	78.9
Mali	50.8	52.1	51.3	51.0	47.1	44.9	44.9	44.9	48.1	49.8
Mauritania		9.1	8.8	11.3	14.3	14.3	21.2	20.8	20.8	19.5
Mauritius	18.4	18.8	20.8	22.0	23.7	23.8	27.3	28.7	28.7	28.7
Mayotte	14.3	14.4	14.5	14.2	11.9	13.3	13.3	13.3	15.4	15.4
Morocco	23.8	24.9	26.7	28.2	29.1	28.7	29.8	30.5	32.6	33.0
Mozambique	97.3	97.3	97.2	90.1	78.4	81.8	79.0	79.0	79.0	79.0
Namibia	65.6	65.9	62.4	62.7	67.7	70.0	70.8	73.1	73.2	73.2
Niger	1.5	1.9	2.3	2.7	3.0	2.6	7.4	7.1	7.1	7.1
Nigeria	23.4	21.3	20.2	20.2	17.1	17.0	16.4	16.4	16.3	16.4
Reunion	42.6	40.2	43.9	45.3	45.5	45.5	45.7	48.3	49.1	49.8
Rwanda	51.8	53.5	59.0	52.5	54.5	52.7	54.6	56.6	58.2	58.2
Sao Tome Prn	7.9	8.1	6.9	6.4	6.5	5.5	5.6	5.6	5.6	5.6
Senegal	5.4	5.4	5.6	5.5	8.7	15.8	15.0	20.6	26.8	30.3
Seychelles		6.5	7.2	7.6	6.7	6.9	7.7	7.7	7.8	11.2
Sierra Leone	59.9	59.9	66.7	55.4	55.5	57.5	49.1	41.7	41.7	41.7
Somalia	2.7	2.7	2.8	3.6	8.5	11.5	9.6	9.6	16.0	20.4
South Africa	2.3	3.3	5.8	7.2	9.3	12.3	14.3	14.4	16.6	17.6
South Sudan	0.2	0.2	0.2	0.2	0.5	0.3	0.5	0.5	0.5	0.8
Sudan	46.3	46.4	46.5	46.5	46.1	46.2	47.4	47.7	48.2	48.4
Tanzania	39.9	38.4	40.0	41.6	38.4	38.5	34.0	34.1	34.2	34.2
Togo	28.0	28.0	28.1	28.4	28.5	28.6	28.9	29.5	29.7	35.9
Tunisia	5.6	6.0	6.2	6.6	6.5	6.5	7.3	7.2	7.0	6.7
Uganda	83.7	88.2	84.9	85.2	85.2	85.8	89.8	92.0	92.1	92.1
Zambia	95.7	97.0	94.2	93.1	83.8	82.2	82.3	82.9	82.9	83.7
Zimbabwe	41.6	41.8	41.8	42.2	42.4	42.5	49.8	49.9	50.0	50.2
Asia	22.6	24.4	25.9	27.3	28.7	30.5	31.8	33.1	35.8	37.7
Afghanistan	55.1	55.4	55.8	56.1	59.6	60.0	60.0	56.8	56.8	57.3
Bangladesh	2.8	2.9	2.8	2.7	2.6	2.7	2.2	2.2	2.2	2.4
Bhutan	99.4	99.3	99.3	99.3	99.5	99.5	99.5	99.7	99.6	99.6
Brunei Darism	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.4
Cambodia	44.1	61.0	63.5	57.9	57.2	55.2	63.3	60.6	55.8	57.4
China	26.3	28.5	30.3	31.7	33.1	35.2	36.6	37.7	40.8	42.9
Chinese Taipei	6.8	7.2	7.7	8.3	8.9	10.0	11.3	13.3	16.0	18.6
India	23.3	22.5	22.9	22.7	24.8	27.1	28.1	29.0	29.9	31.5
Indonesia	15.9	15.7	15.4	15.7	15.5	15.2	15.1	14.8	14.4	15.1
Japan	13.1	15.1	17.7	20.8	22.7	24.8	26.5	28.8	30.1	31.1
Kazakhstan	12.6	12.7	13.4	13.5	13.3	13.6	13.3	16.1	18.6	24.4
Korea DPR	59.0	59.2	59.3	60.3	61.5	61.8	59.0	59.0	59.4	59.4
Korea Rep	4.2	4.7	5.7	7.0	8.3	9.2	10.8	13.5	14.9	17.1
Kyrgyzstan	79.4	81.8	82.3	85.3	85.3	85.4	85.3	85.3	85.3	85.3
Lao PDR	100.0	100.0	100.0	77.7	72.4	73.4	74.6	77.2	80.4	81.9
Malaysia	14.7	18.7	21.6	24.2	25.7	22.2	22.6	21.9	23.2	23.0
Maldives	1.9	2.2	3.6	4.2	4.0	5.4	3.3	4.0	5.1	5.8
Mongolia	3.7	7.4	7.4	7.4	8.3	13.8	18.3	18.7	18.7	18.1
Myanmar	75.5	72.6	68.9	65.7	65.6	59.1	54.9	53.6	45.3	45.2
Nepal	93.1	93.4	93.6	94.0	94.1	94.9	95.4	95.9	96.3	97.5
Pakistan	29.8	31.0	31.6	31.6	33.5	29.1	32.8	31.4	31.7	31.4

Renewable energy share of electricity capacity

La part d'énergie renouvelable dans la puissance installée

Proporción de energía renovable en la capacidad eléctrica

%	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Philippines	29.0	27.2	28.5	29.1	28.2	28.0	27.6	26.4	26.5	27.6
Singapore	1.3	1.4	1.6	1.9	2.3	2.4	2.8	3.9	4.6	5.4
Sri Lanka	49.9	52.3	45.4	47.4	48.6	49.8	51.5	51.1	52.6	53.9
Tajikistan	93.8	93.8	92.3	92.3	87.5	87.5	87.8	88.0	88.0	88.0
Thailand	17.1	19.8	20.6	21.2	21.8	20.7	21.8	22.3	22.1	21.7
Timor Leste	0.6	0.3	0.3	0.3	0.4	0.4	0.4	0.4	0.4	0.4
Turkmenistan	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Uzbekistan	13.9	14.0	14.2	13.3	13.1	12.6	13.5	12.0	12.5	12.9
Viet Nam	43.7	45.7	45.5	42.7	42.8	41.7	41.2	47.7	55.8	56.1
C America + Carib	25.7	25.9	26.8	29.5	32.1	33.7	34.2	36.1	37.1	37.7
Anguilla	0.2	0.2	4.0	4.0	7.3	7.3	4.6	6.0	6.0	6.0
Antigua Barb	0.4	0.3	0.3	2.8	4.2	5.1	9.7	9.7	16.9	16.9
Aruba	11.0	11.2	12.9	13.2	13.2	13.2	13.3	12.9	12.9	12.9
Bahamas	0.1	0.1	0.2	0.2	0.3	0.2	0.2	0.3	0.3	0.3
Barbados	0.6	0.7	2.5	3.5	7.4	7.8	7.6	11.6	15.8	15.8
Belize	52.8	53.7	53.9	54.3	58.5	60.3	60.4	52.3	52.8	52.8
BES Islands	36.9	36.9	36.9	37.5	41.2	39.3	38.2	39.6	39.6	39.6
Br Virgin Is	1.4	1.4	1.4	1.8	1.8	1.2	1.2	1.2	1.2	1.2
Cayman Is					1.7	5.2	5.8	6.4	7.3	7.8
Costa Rica	77.6	77.8	78.3	79.6	83.5	86.0	86.2	86.9	86.8	87.1
Cuba	10.4	9.1	9.6	10.0	9.4	10.4	11.4	16.6	18.8	19.1
Curacao	11.4	12.3	13.8	22.4	22.8	29.3	23.1	23.1	25.7	25.7
Dominica	25.9	25.9	25.9	25.9	27.0	27.0	26.1	26.1	24.8	24.8
Dominican Rep	13.4	13.5	13.5	14.3	16.7	17.6	19.9	24.9	26.0	26.7
El Salvador	58.7	56.3	57.2	55.0	56.5	60.7	62.9	66.3	67.4	67.4
Grenada	0.7	1.1	1.5	2.1	4.2	4.3	4.8	5.8	6.6	6.2
Guadeloupe	28.9	29.8	25.2	27.5	26.4	27.0	27.6	30.9	31.3	32.5
Guatemala	54.3	55.4	57.5	58.3	63.2	67.4	69.6	69.7	69.7	69.7
Haiti	13.4	12.9	13.0	13.0	13.0	13.1	17.1	17.1	17.1	17.1
Honduras	43.4	46.2	46.6	59.9	60.1	62.1	63.0	63.0	64.7	64.8
Jamaica	9.9	10.6	10.8	10.8	17.5	19.5	19.5	18.8	17.5	17.5
Martinique	13.8	11.8	13.3	14.0	14.3	14.6	20.7	23.7	24.0	24.2
Montserrat								3.5	3.5	12.6
Nicaragua	42.8	43.1	44.9	45.6	47.3	45.4	45.5	45.2	45.2	38.2
Panama	61.2	59.8	59.9	63.1	63.7	64.5	54.5	56.0	61.8	69.1
Puerto Rico	4.0	4.8	4.9	6.9	7.4	7.9	7.9	8.4	9.1	10.8
St Barth					0.1	0.1	0.1	0.1	0.1	0.1
St Kitts Nevis	3.7	4.3	6.1	5.8	6.2	5.8	5.8	5.8	5.8	5.8
St Lucia	0.1	0.1	0.1	0.9	1.1	1.1	4.3	4.3	4.3	4.3
St Martin		4.4	5.0	7.9	3.1	0.2	0.2	0.9	0.9	0.9
St Vincent Gren	10.6	11.8	11.8	12.2	12.8	13.0	13.0	13.9	13.9	13.9
Trinidad Tobago	0.1	0.1	0.1	0.2	0.2	0.2	0.2	0.2	0.2	0.2
Turks Caicos				0.0	0.0	0.2	0.5	1.0	1.0	1.0
US Virgin Is	0.2	0.3	1.6	2.8	2.9	2.1	3.0	3.0	3.0	3.0
Eurasia	25.2	25.4	24.6	26.0	25.5	26.2	27.0	27.5	28.5	29.5
Armenia	30.9	31.6	31.7	36.5	36.9	37.2	37.8	38.3	39.1	40.5
Azerbaijan	16.0	15.0	15.2	14.8	15.0	15.0	16.3	16.9	17.0	17.1
Georgia	79.6	79.8	80.6	76.0	76.1	77.5	77.4	78.9	73.8	74.4
Russian Fed	21.3	21.0	19.8	20.5	19.5	19.5	19.5	19.7	20.0	20.4
Turkey	38.9	39.9	40.2	43.1	43.9	45.5	47.7	48.6	51.3	53.3
Europe	36.3	38.1	39.3	41.2	42.8	44.4	45.4	47.8	49.8	52.1
Albania	94.4	94.8	94.6	94.8	95.1	95.4	95.5	95.6	95.9	95.9
Andorra	100.0	100.0	100.0	100.0	96.2	96.8	96.8	96.9	96.9	97.0
Austria	72.0	72.1	73.4	74.7	76.7	78.6	79.5	80.2	80.3	80.9
Belarus	0.6	0.8	0.8	1.0	2.2	2.9	3.8	4.1	4.8	5.2
Belgium	24.6	27.5	28.6	30.1	31.4	33.6	36.4	39.8	43.9	46.8
Bosnia Herzg	43.7	42.8	43.0	43.1	40.8	41.3	42.3	42.9	43.8	36.3
Bulgaria	34.4	35.2	36.2	37.9	38.6	39.5	38.1	38.5	39.7	40.2
Croatia	55.5	57.6	58.5	56.9	57.6	58.7	59.5	65.1	69.8	71.1
Cyprus	10.0	11.3	12.8	13.9	14.3	15.5	16.1	17.7	21.1	24.5
Czechia	19.5	19.4	19.0	19.3	19.2	19.2	19.1	19.8	20.6	21.1
Denmark	42.3	47.7	49.5	50.8	52.1	57.2	59.4	59.3	60.4	63.9
Estonia	15.1	17.8	18.5	20.7	23.6	24.2	21.6	26.1	30.3	35.2
Faroe Islands	41.4	43.7	48.0	46.4	46.3	46.3	44.8	40.4	36.0	36.0
Finland	32.9	32.8	35.1	36.7	41.0	43.4	43.7	44.8	49.9	52.2
France	28.4	29.8	31.2	32.4	33.7	35.9	37.4	39.2	40.7	42.7
Germany	43.8	45.2	45.7	48.1	50.2	52.3	52.0	54.0	56.4	60.5
Greece	37.0	40.7	42.4	43.0	44.0	44.7	46.1	48.5	52.5	54.5
Hungary	7.7	8.9	11.8	12.5	12.0	13.8	17.5	22.9	28.2	28.2
Iceland	95.7	95.9	95.9	95.8	97.0	97.1	97.2	97.3	97.3	97.3
Ireland	23.1	25.1	28.0	28.5	31.1	34.6	36.8	40.7	42.2	42.5
Italy	37.5	39.2	40.7	43.1	44.8	45.6	46.1	46.7	47.7	48.7
Kosovo*	4.6	4.6	4.6	4.6	8.2	8.6	8.6	9.7	9.6	15.8
Latvia	64.0	60.6	60.8	60.8	60.7	61.1	61.0	62.1	62.0	59.6
Lithuania	10.5	12.1	13.4	19.1	20.7	23.4	24.5	25.5	28.0	35.4
Luxembourg	10.4	11.6	11.1	11.8	17.6	18.6	18.9	21.7	23.8	24.9
Malta	2.9	4.8	8.5	11.7	17.1	16.5	18.8	21.3	24.6	25.4
Moldova Rep	2.1	2.2	2.3	2.3	2.3	2.7	3.5	3.6	3.7	4.2

Renewable energy share of electricity capacity

La part d'énergie renouvelable dans la puissance installée

Proporción de energía renovable en la capacidad eléctrica

%	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Montenegro	74.2	74.2	74.9	75.2	75.4	76.9	77.0	78.0	78.5	78.5
Netherlands	11.6	13.7	14.7	16.9	21.0	23.4	28.1	33.9	43.7	49.1
North Macedonia	35.1	36.0	38.8	40.0	39.5	39.8	40.1	40.5	42.8	46.6
Norway	95.4	95.5	95.7	95.7	97.0	97.0	97.1	97.2	97.4	97.5
Poland	11.6	14.3	15.7	18.5	20.7	18.6	19.3	21.5	24.9	29.9
Portugal	55.5	59.0	60.5	61.9	64.1	64.7	64.9	65.4	65.6	70.6
Romania	38.6	44.2	46.9	47.3	47.6	47.5	47.6	53.7	54.3	56.5
Serbia	33.3	32.8	33.4	33.4	33.7	33.4	35.2	36.9	37.0	34.8
Slovakia	27.8	27.9	29.4	30.6	31.0	31.1	30.6	31.5	30.8	30.8
Slovenia	38.1	39.8	40.7	42.3	39.9	40.9	38.8	39.5	41.0	39.9
Spain	44.2	44.2	44.1	44.7	45.1	46.2	46.5	49.8	53.0	55.7
Sweden	64.2	65.0	65.9	67.7	69.0	70.8	70.8	72.8	74.9	76.4
Switzerland	75.7	76.1	76.4	76.7	78.0	78.9	79.2	79.5	81.4	81.8
UK	16.6	21.4	25.8	32.0	35.9	38.2	40.7	44.6	45.1	46.5
Ukraine	9.5	10.3	10.7	10.8	10.7	12.2	14.2	21.7	23.9	25.2
European Union (27)	69.3	70.4	71.2	72.4	73.2	74.2	75.1	76.3	78.0	79.6
Middle East	5.8	5.7	5.9	5.6	5.7	5.7	6.2	6.9	7.1	7.4
Bahrain	0.0	0.0	0.1	0.1	0.1	0.1	0.1	0.1	0.1	0.1
Iran IR	14.3	14.8	15.0	14.0	14.1	14.4	14.3	14.3	14.0	13.8
Iraq	13.4	8.5	9.0	7.4	7.2	6.1	5.9	5.9	5.5	5.3
Israel	2.1	2.8	3.9	4.7	5.3	5.9	7.5	11.0	12.7	13.1
Jordan	0.5	0.5	0.4	3.5	12.0	14.5	19.2	27.2	33.3	33.9
Kuwait	0.0	0.0	0.0	0.0	0.2	0.2	0.3	0.5	0.5	0.5
Lebanon	8.7	8.1	8.1	8.1	8.6	8.8	9.4	9.9	9.9	10.9
Oman		0.0	0.0	0.0	0.0	0.1	0.1	0.5	1.3	1.6
Palestine	0.4	0.4	2.1	7.0	13.5	18.1	20.1	33.9	42.3	42.3
Qatar	0.4	0.5	0.5	0.5	0.5	0.4	0.4	0.4	0.4	0.4
Saudi Arabia	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.1	0.1	0.6
Syrian AR	10.4	10.4	15.6	17.3	15.5	15.4	14.9	14.9	14.8	14.8
United Arab Em	0.0	0.4	0.5	0.5	0.5	1.1	1.9	5.8	6.6	7.4
Yemen	0.1	0.2	0.3	3.8	5.0	6.2	14.1	13.4	13.4	12.7
N America	20.8	21.6	22.4	24.0	25.4	26.3	27.2	28.6	30.2	32.1
Canada	63.3	64.6	65.5	66.3	66.4	66.8	67.1	67.1	66.8	68.3
Greenland	48.7	48.7	48.7	48.7	48.7	48.7	48.8	48.8	48.8	48.8
Mexico	23.1	23.7	25.1	25.7	26.2	26.2	27.6	31.4	31.4	32.6
St Pierre Mq	2.3	2.3								
USA	15.4	16.0	16.8	18.2	19.8	20.9	21.9	23.3	25.3	27.5
Oceania	28.6	30.1	31.1	32.5	34.3	36.0	37.6	41.7	45.1	45.6
Amer Samoa	6.6	6.6	6.6	6.6	10.6	9.7	11.5	11.5	11.5	11.5
Australia	22.5	24.3	25.5	26.9	28.8	30.8	32.9	37.8	42.2	42.8
Cook Is	0.8	5.6	11.8	17.8	14.3	14.3	20.6	20.6	20.6	20.6
Fiji	62.6	61.3	61.3	55.8	56.1	57.8	58.1	55.2	55.2	56.1
Fr Polynesia	22.5	23.5	25.6	26.4	27.4	28.3	28.8	29.7	29.7	29.7
Guam	0.1	0.2	0.3	6.1	7.4	6.7	6.7	7.7	7.7	7.7
Kiribati	7.1	7.1	10.3	26.1	30.4	30.4	30.4	30.4	30.4	30.4
Marshall Is	1.6	2.2	3.4	3.4	5.3	5.3	5.3	5.3	5.3	5.3
Micronesia	1.8	2.2	4.4	4.4	6.2	6.2	12.2	12.3	12.3	12.3
Nauru	0.7	2.1	1.8	1.8	5.7	4.1	4.7	11.1	11.1	11.1
New Caledon	21.2	18.2	12.9	13.1	13.3	14.9	15.1	17.9	19.6	19.6
New Zealand	70.2	72.3	72.9	75.9	77.4	77.4	77.5	77.6	76.7	77.0
Niue	2.6	2.6	14.1	14.1	14.1	14.1	14.1	31.1	31.1	31.1
Palau	1.7	1.9	2.8	2.8	3.8	3.8	5.0	5.2	5.2	5.2
Papua N Guin	36.0	36.0	34.9	35.2	35.1	34.1	34.1	32.3	30.9	30.9
Samoa	26.7	22.2	28.4	31.0	34.5	45.7	45.8	47.3	47.9	47.9
Solomon Is	2.7	2.5	3.5	4.1	5.4	5.5	5.4	5.4	5.4	5.4
Tokelau	86.8	86.8	86.8	86.8	87.8	87.8	87.8	88.0	88.0	88.0
Tonga	8.3	11.7	8.6	14.0	16.4	26.7	26.8	30.5	30.5	30.0
Tuvalu	3.9	3.9	5.0	28.1	41.5	41.5	41.7	41.7	42.4	42.4
Vanuatu	22.6	22.7	25.7	25.9	28.8	30.0	35.5	34.1	34.2	34.2
S America	64.3	63.6	64.2	64.5	65.4	66.1	67.0	67.4	67.7	68.5
Argentina	32.8	33.0	32.4	31.2	30.9	29.3	29.4	31.5	33.1	34.6
Bolivia	30.2	29.5	27.9	26.3	27.3	31.6	35.7	30.1	30.3	31.3
Brazil	79.5	78.8	79.5	80.0	80.8	81.4	83.2	83.3	83.0	83.2
Chile	39.9	42.5	42.9	42.6	41.2	45.7	46.8	47.8	50.7	54.1
Colombia	68.1	68.1	70.5	70.0	70.0	70.2	68.7	68.6	68.9	67.9
Ecuador	43.4	43.4	42.6	43.3	56.4	58.6	60.8	60.8	60.8	60.3
Falklands Malv	26.0	26.0	26.0	23.9	23.9	23.9	23.9	23.9	23.9	23.9
Fr Guiana	58.1	58.2	54.2	53.2	50.6	47.7	47.8	48.2	47.6	47.6
Guyana	15.5	14.7	15.5	16.7	15.1	14.5	14.9	14.8	14.8	14.8
Paraguay	99.9	99.8	99.8	99.8	100.0	100.0	100.0	99.7	99.7	99.7
Peru	39.7	35.6	37.3	39.3	40.3	40.7	41.5	42.5	42.7	43.0
South Georgia	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4	57.4
Suriname	43.4	37.7	35.9	36.1	36.1	35.9	36.1	36.1	35.7	33.2
Uruguay	63.0	61.2	65.7	71.9	83.0	81.7	75.8	75.8	75.9	75.9
Venezuela	52.9	49.3	48.9	48.8	50.8	50.7	50.4	49.6	49.6	49.6



IRENA Headquarters
Masdar City
P.O. Box 236 Abu Dhabi
United Arab Emirates
www.irena.org

