TRACKING SDG 7

THE ENERGY PROGRESS REPORT 2020

A joint report of the custodian agencies

International Energy Agency

IRENA
International Renewable Energy Agency

United Nations
Statistics Division

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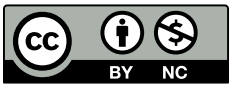

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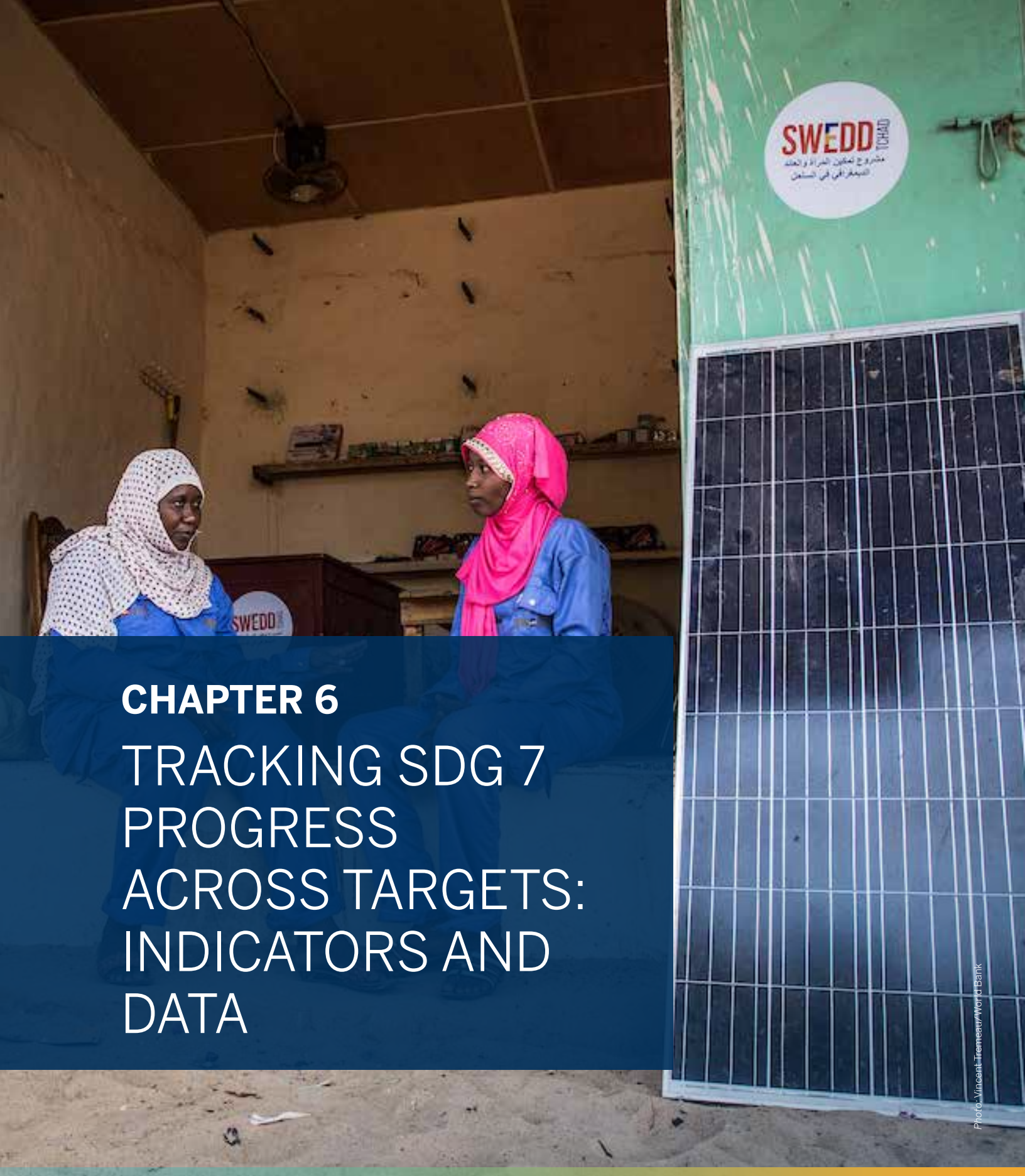

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CHAPTER 6

TRACKING SDG 7 PROGRESS ACROSS TARGETS: INDICATORS AND DATA

Comprehensive and accurate data are a prerequisite for making evidence-based decisions, monitoring trends, and tracking progress toward policy goals. In developed and developing countries alike, well-designed and appropriately resourced statistical systems play a fundamental role in monitoring progress toward Sustainable Development Goal 7 (SDG 7).

Leveraging national data efforts worldwide, the global tracking presented in this report is a joint effort of the custodian agencies responsible for monitoring progress toward the SDG 7 targets—the International Energy Agency (IEA), the International Renewable Energy Agency (IRENA), the United Nations Statistics Division (UNSD), the World Bank, and the World Health Organization (WHO).[45] International organizations typically collect information from across countries, adding value by promoting coherent standards, definitions, and methodologies for both raw data and derived indicators. The ultimate goal is to produce internationally comparable datasets.[46]

The quality of global tracking certainly benefits from continuous improvements in national data systems, as countries (i) establish frameworks and institutional arrangements to collect comprehensive data on energy supply and demand and prepare full energy balances; (ii) prepare and carry out surveys of households, businesses, and other categories of end users; and (iii) apply sound quality-assurance frameworks.[47]

The data tables that follow this introduction cover all of the indicators of progress toward the SDG 7 targets, as summarized in table 6.1. What follows is a brief description of work done at the national and international levels to obtain the underlying data. Short descriptions of the methodologies and indicators used in the report were presented in the final sections of chapters 1–5.

TABLE 6.1 • Targets and indicators for SDG 7

TARGET	INDICATOR
7.1 • By 2030, ensure universal access to affordable, reliable, and modern energy services	7.1.1 • Proportion of population with access to electricity
	7.1.2 • Proportion of population with primary reliance on clean fuels and technology for cooking
7.2 • By 2030, increase substantially the share of renewable energy in the global energy mix	7.2.1 • Renewable energy share in total final energy consumption
7.3 • By 2030, double the global rate of improvement in energy efficiency	7.3.1 • Energy intensity measured as a ratio of primary energy supply to gross domestic product
7.A • By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency, and advanced and cleaner fossil fuel technology, and promote investment in energy infrastructure and clean energy technology	7.A.1 • International financial flows to developing countries in support of clean energy research and development and renewable energy production, including in hybrid systems

45 The World Bank and WHO are responsible for tracking progress toward SDG target 7.1 (access to electricity and clean cooking fuels and technology); IEA, IRENA, and UNSD are responsible for SDG target 7.2 (renewable energy); and IEA and UNSD are responsible for SDG target 7.3 (energy efficiency). Target 7.A on international cooperation is tracked by IRENA and the Organisation for Economic Co-operation and Development (OECD).

46 A consultation on harmonized definitions and concepts for energy statistics, conducted across organizations, fed the country-led drafting of the International Recommendations for Energy Statistics (IRES), which were adopted by the United Nations in 2011 (https://unstats.un.org/unsd/energystats/methodology/ires/). IRES provides the fundamental definitions behind energy statistics, pointing to international classifications of products (SIEC) and sectors (ISIC). Examples of international data compilations used for this report include IEA's World Energy Balances (https://www.iea.org/reports/world-energy-balances-2019) and UNSD's energy statistics (https://unstats.un.org/unsd/energystats/).

47 *Institutional arrangements* optimize data production, exchange, and governance across organizations, chiefly statistical offices and specialized governmental agencies responsible for implementing energy polices (energy ministries). Energy balances are comprehensive accounts of all the energy entering, exiting, and used in a given country or territory, typically covering production, import, and export of primary energy sources; transformation into fuels for final consumption; and final consumption within each major end-use sector. Examples of energy balances are available at: https://www.iea.org/data-and-statistics/data-tables?country=WORLD. Important aspects of data quality are relevance, accuracy, and reliability; timeliness and punctuality; coherence and comparability; and accessibility and clarity. Information on quality assurance frameworks is contained in IRES (https://unstats.un.org/unsd/energystats/methodology/ires/).

ACCESS TO ELECTRICITY

Tracking electrification efforts has been a complex process that has raised many challenges, the first being to devise a universally applicable and transparent approach. Measuring access to electricity requires tracking cumulative progress across interventions by a variety of players—governments, energy utilities, private sector companies, funding agencies, and development organizations at the national and international levels. Particularly challenging are the socioeconomic complexities of low-access countries. Measuring access also implicates a variety of technologies—not only national grids but mini grids and off-grid solutions, such as solar home systems. Finally, it requires assessing the number of people who actually benefit from these interventions, as well as the nature and degree of improvement they provide. But however difficult it may be, measuring access is critical to enable governments and practitioners to understand the current status of access, to identify bottlenecks to further electrification, and to achieve universal access goals in more efficient ways.

The definition and measurement of access to electricity should focus not only on the number of users benefitting from improved energy access, but also on the nature and degree of improvement across various attributes: capacity (adequacy), availability, reliability, affordability, quality, legality, health impact, safety, and convenience, among others. To provide this fuller picture, and to help prioritize investment and track progress, a set of international agencies joined together to produce a multi-tier framework (MTF) for household surveys.[48] The MTF has been rolled out by national statistical offices and the World Bank in about 16 countries since 2016. Given the paucity of data for multi-tier metrics, however, standardized country-level surveys and supply-side data from governments and utilities must still be used to complement the MTF approach.

Additional methods of improving the tracking of access to electricity are: (i) developing the capacity of national statistical offices to collect energy data (for example, through workshops organized by development partners on data collection and analysis for the energy sector); (ii) helping governments apply new technology and data analytics, since survey design can be challenging if the national census is outdated or if a census has never been conducted; (iii) improving and adapting the usability of existing datasets for energy practitioners; (iv) exploring the use of large-scale open databases, such as satellite data. Most microdata (including household surveys, enterprise surveys, and agricultural surveys) contain information useful for energy practitioners and the ministries of energy. However, significant time and effort are usually required to extract from such sources data related to energy access, including socioeconomic status, electrification status, and village-level information. Data harmonization and standardization could help more end users access and use such datasets for project design and policy formulation.

ACCESS TO CLEAN COOKING SOLUTIONS

To monitor SDG 7 on access to clean cooking and SDG 3 on health, country and regional estimates are derived using a nonparametric statistical model. "Clean cooking" is defined as the performance of a particular fuel and technology combination, as measured by its emissions. Currently, the analysis for SDG indicator 7.1.2 relies only on cooking fuel as a practical proxy for the population practicing clean cooking. This is due to a lack of globally representative data on the cooking technologies used by households. Therefore, households considered to have access to clean cooking—for purposes of tracking SDG indicator 7.1.2—are those that rely primarily on electricity, biogas, solar, alcohol fuels, natural gas, and liquefied petroleum gas for cooking.

In future, designing, implementing and monitoring the effectiveness and impacts of policies and programs for clean cooking will depend on better survey coverage of all the types of cooking fuels and technologies used, as well as their duration of use. Presently, country-level estimates of clean cooking access are also used to estimate the incidence of disease caused by household air pollution and ultimately to the "mortality rate from the joint effects of ambient and household air pollution," which is one of the SDG indicators of environmental health (SDG indicator 3.9.1). By enhancing data collection on the parallel use of multiple cooking solutions in the home (a practice known as "stove stacking," common in low- and middle-income countries), more refined estimates of human exposure to pollution and the related disease burden will become possible.

Simple changes to surveys can greatly improve the monitoring of trends and effects related to clean cooking. The clean

48 The agencies contributing to the development of the MTF were the Energizing Development Program (EnDev), the Energy Sector Management Assistance Programme, the Global Alliance for Clean Cookstoves, IEA, Practical Action Consulting, the United Nations Development Programme, the UN Foundation, the UN Industrial Development Organization, the World Bank, and WHO.

cooking estimates presented in this report, for example, drew on more robust data on the specific fuels households use for cooking, which in turn made possible the application of more advanced modeling techniques. The result is the estimation, presented here for the first time, of the percentage of households in each country and region primarily using biomass, charcoal, coal, kerosene, gaseous fuels, and electricity. Armed with such specific fuel-use estimates, decision-makers can better monitor trends and the effects of changes in subsidies, tariffs, and other policies.

As refinements in household surveys and censuses are made, countries should seize the opportunity to gather a more complete picture of household energy use, including fuels and technologies employed for heating and lighting, which can also have a significant effect on air pollution within the household. Steps have already been taken to enable stakeholders to better monitor household energy use and its effects through the use of a set of harmonized questions for national household surveys and censuses. More information on such initiatives by WHO and the World Bank can be found in chapter 2.

RENEWABLE ENERGY

Progress on renewable energy is tracked as the share of renewables in total final energy consumption,[49] which depends on the availability of comprehensive data across all energy sources, renewable and non renewable alike, and across the sectors of supply, transformation, and final consumption. In terms of data, computation of this indicator relies on the availability of a full energy balance, as well as some assumptions regarding electricity and heat.

Two specific challenges in tracking the penetration of renewables are the need to better monitor the rapid expansion of geographically distributed resources (solar photovoltaic, wind, and other resources powering mini-, micro-, and off-grid systems) and to enhance countries' capacity to measure traditional household uses of biomass (solid biofuels), which remains the largest segment of renewable energy in the developing world.

Arriving at better estimates of the latter will require dedicated efforts—either enhancing existing surveys with an energy module or establishing new energy surveys. Survey-based results are very valuable; often they trigger significant revisions of previous estimates—and might well do so in the case of tracking progress toward SDG target 7.2.

A broader question about biomass is the extent to which its use should be considered sustainable. Although forests are technically "renewable," traditional harvesting practices often cause deforestation.

ENERGY EFFICIENCY

For purposes of SDG 7, energy efficiency is tracked as energy intensity, the ratio of total energy supply to economic output. Determining the total energy supply requires robust information on production of and trade in all types of energy. The supply information may be collected from administrative sources or by surveying the key energy suppliers. Reasonably good information on supplies of most energy sources is available in most countries, with the notable exception of supplies of solid biofuels in several countries. Thus, where solid biofuels are a significant part of the overall energy mix, estimates of total energy supply may be less certain.

To assess progress in energy efficiency, overall energy intensity should be complemented by analysis of energy demand drivers across the principal end-use sectors, such as industry, transport, and buildings. Given the diversity of end uses, demand-side data collection is inherently more complex, time consuming, and costly than on the supply side. Direct consumer surveys may be necessary, especially when energy suppliers cannot provide detailed data on how much energy is being delivered to the various types of energy users.

To analyze sectoral progress in energy efficiency, countries are encouraged to monitor intensities at the end-use level, at least for priority sectors. Examples of energy efficiency indicators include, for transport, energy per passenger-kilometer (or tonne-kilometer for freight), by vehicle type; for buildings, energy for space heating and cooling as a function of area; and for industry, energy by quantity of physical production of a given good. IEA's 2014 statistics report, "Energy Efficiency Indicators: Fundamentals on Statistics" (https://www.iea.org/reports/energy-efficiency-indicators-fundamentals-on-statistics), includes a methodological framework for energy efficiency indicators, as well as country experiences.

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49 The methodology used to derive total final energy consumption is part of IRES (https://unstats.un.org/unsd/energystats/methodology/ires/).

Developing such indicators requires not only finer disaggregation of data but also greater coordination across entities responsible for matters beyond the energy sector, such as building registers, vehicle registrations, and so on. Despite the challenges, many countries have started to collect end-use data and compile energy efficiency indicators to better support their policy and planning.[50]

INTERNATIONAL FINANCIAL FLOWS TO DEVELOPING COUNTRIES IN SUPPORT OF CLEAN AND RENEWABLE ENERGY

Data on flows of development finance are susceptible to changes and adjustments that call for careful attention to detail, standardization of cycles of data collection and management, and continuous revision of commitment values.

Based on the nature of SDG indicator 7.A.1, four areas of improvement in the tracking of international investment flows are suggested: (i) improving investment tracking; (ii) standardizing commitment details; (iii) centralizing data collection efforts; and (iv) presenting constant flows.

Improving investment tracking. It is important to know how aid recipients spend the funds they receive. The practices presently in use are not sufficient to track public aid from origin to end. Such tracking requires a system of identification numbers to trace commitments from public investors through to their end uses in organizations and projects. Recipients may include financial instruments (such as energy bonds and funds), multilateral organizations, or projects involving one or more energy technologies. Donors often have trouble specifying how their commitments should be spread across various energy technologies. International flows may go through additional stages of investment after the initial commitment, passing through local governments, ventures, or funds. Successive revisions of historic investment flows may include several years' of investments, since individual commitments may be announced (and counted) before they materialize. Some of these commitments may be cancelled or changed, altering the values of existing data.

Standardizing commitment details. To increase the accuracy of tracking SDG indicator 7.A.1 it would be desirable to standardize commitment details by sharing best practices among public investors, refining reporting directives, and encouraging public investors to provide energy details that meet international standards. Data collection related to investments tends to follow the norms and practices of the financial world and often is short on energy-related details. Thus, committed flows are often linked to projects that involve multiple renewable energy technologies or that mix energy efficiency and other end uses, compromising their comparability with other data being considered. Information may be lost owing to nonstandard reporting of public flows across investors. For these reasons, only a limited amount of commitment information may match across investors.

Centralizing data collection. Data collection can be centralized by encouraging preformatted questionnaires and online data entry to increase comparability across public investors. The OECD's Creditor Reporting System database is exemplary in this regard. However, collection of most data on international public investments in clean energy and renewables remains decentralized, reducing the consistency of commitment data.

Presenting constant flows. International commitments must be corrected for currency exchange rates and inflation if they are to be comparable across countries and over time. SDG indicator 7.A.1 uses the OECD methodology to deflate international flows by first adjusting for inflation from the year the flows occurred to a baseline year (2017), and then converting local currency values to U.S. dollars using the exchange rates in the baseline year (2017).

50 Examples include IEA's energy efficiency indicators: https://www.iea.org/reports/energy-efficiency-indicators-2019; and the Odyssée database for Europe: https://www.indicators.odyssee-mure.eu/energy-efficiency-database.html.

CONCLUSION

The work performed for this report has highlighted the need for good quality data to inform policy at the national, regional, and international levels, as well as opportunities to further develop national statistical capacity and to enhance data quality through national and international cooperation.

At the national level, cooperation between national statistical offices and institutions in various policy domains will be key to optimizing the use of data-collection resources. For example, household surveys could and should be designed to support tracking of several SDG 7 targets at once, such as clean cooking and energy efficiency, as well as of targets beyond SDG 7, such as those on quality of life, air pollution, and health.[51]

International cooperation strengthens the world's ability to track SDG 7 by raising awareness of the importance of good quality data to inform policy; by proposing standardized methodologies for indicators as well as common frameworks for data-collection surveys; by compiling international databases; and by supporting the development of statistical capacity in countries and regions. Tracking SDG 7 has given the custodian agencies an opportunity to further improve their collaboration on data, both with countries and between one another.

The custodian agencies would like to acknowledge the work and dedication of all their colleagues working to collect energy data across national administrations worldwide. It is they who make possible the international tracking work reflected in this report.

51 For example, clean cooking and space heating are significantly linked for rural households in colder climates. More broadly, all end uses of energy within a household (lighting, appliances, cooking, heating, cooling) can be addressed in a single survey.

DATA

SDG 7.1.1 - ACCESS TO ELECTRICITY

Data provided by the World Bank

Country	Total electricity access rate (%)										Urban electricity access rate (%)		Rural electricity access rate (%) b	
	1990		2000		2010		2015		2018		2018		2018	
Afghanistan					43	d	72	d	99		100		98	
Albania	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Algeria	96		98		99		100		100		100		100	
American Samoa														
Andorra	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Angola	12		23		33		42	d	43		74			
Anguilla	90		95		98		100		100					
Antigua and Barbuda	96		97		98		100	m	100	m	100	m	100	m
Argentina	92		96		99	e	100		100	m	100	m	100	m
Armenia	98		99	d	100	d	100	d	100		100		100	
Aruba	100	m	92	e	93	e	100	m	100	m	100	m	100	m
Australia	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Austria	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Azerbaijan	96		99	c	100		100		100		100		100	
Bahamas	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Bahrain	100		100		100	m	100	m	100	m	100	m	100	m
Bangladesh	7		32	d	55	g	73		85		97		78	
Barbados	100		100	m	100	m	100	m	100	m	100	m	100	m
Belarus	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Belgium	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Belize	68		79	e	90	e	92	c	100		98		100	
Benin	10		21		34	g	38		42		67		18	
Bermuda	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Bhutan			31	g	73	c	95		100		100		100	
Bolivia (Plurinational State of)	57		70	h	88		92	h	96		100		86	
Bosnia and Herzegovina	100	m	100	m	100	m	100	g	100	m	100	m	100	m
Botswana	6		27		53		58		65		81		28	
Brazil	87	h	94		99		100	h	100		100		100	

Country	Total electricity access rate (%)										Urban electricity access rate (%)		Rural electricity access rate (%) b	
	1990		2000		2010		2015		2018		2018		2018	
British Virgin Islands	92		95		99		100	m	100	m	100	m	100	m
Brunei Darussalam	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Bulgaria	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Burkina Faso	4		9		13	d	16		14	d	62	d	3	d
Burundi			3		5	d	9		11		62		3	
Cabo Verde	37		57		81	e	87		94		92		97	
Cambodia			17	d	31	d	69		92		100		89	
Cameroon	30		41	c	53		59		63		93		23	
Canada	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Cayman Islands	100		100	m	100	m	100	m	100	m	100	m	100	m
Central African Republic			6	c	10	c	24		32		55		16	
Chad			3		6	c	8	d	12		42		3	
Channel Islands														
Chile	92	h	98	h	99		100	h	100	m	100	m	100	m
China	94		97		100	k	100		100		100		100	
China, Hong Kong Special Administrative Region	100	m	100	m	100	m	100	m	100	m	100	m	100	m
China, Macao Special Administrative Region	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Colombia	90	d	95	d	97	h	98	h	100		100		100	
Comoros	16		40		70		74		82		94		77	
Congo			21		42		60	c	69		92		20	
Cook Islands	95		97		99		100		100		100			
Costa Rica	98		99		99	h	99	h	100		100		100	
Côte d'Ivoire	38		48		58		63	g	67		100		33	
Croatia	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Cuba	93		97	k	98		99		100		100		100	
Curaçao	100		100		100	m	100	m	100	m	100	m	100	m
Cyprus	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Czechia	100	m	100	m	100	m	100	m	100	m	100	m	100	m

Country	Total electricity access rate (%)										Urban electricity access rate (%)		Rural electricity access rate (%) b	
	1990		2000		2010		2015		2018		2018		2018	
Democratic People's Republic of Korea			7		29		41		49		56		40	
Democratic Republic of the Congo			7	c	13		16		19		51			
Denmark	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Djibouti	56		56		56		58		60		71		24	
Dominica	67		81		94		100		100		100		100	
Dominican Republic	80		89	h	98	h	99	h	100		100		100	
Ecuador	90		94		97	h	99	h	100		100		100	
Egypt	95		98	d	99		99	g	100		100		100	
El Salvador	73		85	h	92	h	95	h	100		99		100	
Equatorial Guinea	64		65		66		66		67		90		7	
Eritrea	18		29		40		46		50		77		35	
Estonia	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Eswatini			20		46	c	66		77		97		70	
Ethiopia			13	d	33		29	d	45		92		33	
Faroe Islands	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Fiji	63		76		89		95		100		100		99	
Finland	100	m	100	m	100	m	100	m	100	m	100	m	100	m
France	100	m	100	m	100	m	100	m	100	m	100	m	100	m
French Polynesia	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Gabon	66		74	d	92		90		93		97		63	
Gambia	12		34	c	47		54		60	c	76	c	35	
Georgia	97		99		99		100		100		100		100	
Germany	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Ghana	24		44	e	64	e	76		82		94		67	
Gibraltar	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Greece	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Greenland	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Grenada	82		86		90		92		95				100	

Country	Total electricity access rate (%)										Urban electricity access rate (%)		Rural electricity access rate (%) b	
	1990		2000		2010		2015		2018		2018		2018	
Guam	100		100	m	100	m	100	m	100	m	100	m	100	m
Guatemala	60		73	h	84		91		95		96		94	
Guinea	3		16		27		34		44	d	87	d	20	
Guinea-Bissau					6	g	20		29		53		10	
Guyana	68		75		82		88		92		97		90	
Haiti	26		34	d	37		41		45		79		4	
Honduras	55		67		81	h	90	h	92		100		81	
Hungary	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Iceland	100	m	100	m	100	m	100	m	100	m	100	m	100	m
India	42		59		76	g	88	d	95		100		93	
Indonesia	63		86	g	94	g	98	g	99	g	100	g	97	g
Iran (Islamic Republic of)	96		98	d	99		100		100		100		100	
Iraq	95		97		98		99		100	c	100	c	100	c
Ireland	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Isle of Man	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Israel	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Italy	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Jamaica	70	h	84		92	g	95	g	99		100		98	
Japan	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Jordan	97	d	99		99		100		100	g	100		99	
Kazakhstan	98		99		100		100	c	100		100		100	
Kenya			15		19	d	42	d	75	l	84		72	
Kiribati	26		51		63	e	91	e	100	k	94	k	100	k
Kosovo	100	m	100	m	99		100	m	100	m	100	m		m
Kuwait	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Kyrgyzstan	100		100		99	i	100		100	c	100	c	100	c
Lao People's Democratic Republic	15		43		71		90	e	98		99		97	
Latvia	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Lebanon	98		99		100		100		100		100		100	

Country	Total electricity access rate (%)										Urban electricity access rate (%)		Rural electricity access rate (%) b	
	1990		2000		2010		2015		2018		2018		2018	
Lesotho			4	c	17		32	g	47	c	71	c	38	
Liberia					5		16		26		44		7	
Libya	100		100	k	81		73		67	k	100			
Liechtenstein	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Lithuania	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Luxembourg	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Madagascar	9		14	k	18		20		26		70			
Malawi			5	d	9	d	11	d	18	g	55		10	
Malaysia	94		97		99		100		100		100		100	
Maldives	77		84	e	99		100		100		100		100	
Mali			9		28		38	d	51	d	86	d	25	
Malta	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Marshall Islands	53		69		89		93		96		96		98	
Mauritania	5		19	k	34		40	c	45		82		1	
Mauritius	100		99	e	100		97		97		88		100	
Mexico	95		98	h	99	d	99	d	100		100		100	
Micronesia (Federated States of)	28		46	e	65	e	76		82		94		79	
Monaco	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Mongolia	60		67	e	79	c	88		98	c	100	c	95	
Montenegro	100	m	100	m	100	m	100	m	100	c	100	c	100	c
Morocco	49		70		92		100		100		100		100	
Mozambique			6		18		24	d	31	d	72	d	8	
Myanmar	30		42		49	g	61	g	66		92		55	
Namibia	25		37	d	44		52		54		72		36	
Nauru	100		100		99		99	g	100		100			
Nepal			28		69	g	85		94	l	96	l	93	
Netherlands	100	m	100	m	100	m	100	m	100	m	100	m	100	m
New Caledonia	100		100	m	100	m	100	m	100	m	100	m	100	m
New Zealand	100	m	100	m	100	m	100	m	100	m	100	m	100	m

Country	Total electricity access rate (%)										Urban electricity access rate (%)		Rural electricity access rate (%) b	
	1990		2000		2010		2015		2018		2018		2018	
Nicaragua	66		73	*k*	79		84		88		100		71	
Niger	2		6	*c*	13		17	*g*	18	*l*	48	*l*	12	
Nigeria	27	*d*	43		48	*d*	53	*d*	57	*d*	82	*d*	31	
Niue	93		96		99		100		100		100			
North Macedonia	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*
Northern Mariana Islands	100		100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*
Norway	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*
Oman	100		100		100	*m*	100	*m*	100	*m*	100	*m*	100	*m*
Pakistan	70		70		70		71		71		100		54	
Palau	97		98		98		99		100	*m*	100	*m*	100	*m*
Panama	70	*e*	81	*e*	87	*e*	95		100	*m*	100	*m*	100	*m*
Papua New Guinea			9		20	*g*	44		59		82		55	
Paraguay	81		89		97	*h*	99	*h*	100		100		100	
Peru	61		72	*h*	88	*h*	94	*h*	95	*g*	99	*g*	82	*g*
Philippines	64		75		85		89	*f*	95		98		93	
Poland	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*
Portugal	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*
Puerto Rico	100		100		100	*m*	100	*m*	100	*m*	100	*m*	100	*m*
Qatar	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*
Republic of Korea	100		100		100	*m*	100	*m*	100	*m*	100	*m*	100	*m*
Republic of Moldova	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*
Romania	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*	100	*m*
Russian Federation	100	*m*	100	*m*	100	*m*	96	*m*	100	*m*	100	*m*	100	*m*
Rwanda			6	*d*	10	*d*	23	*d*	35		89		23	
Saint Kitts and Nevis	91		95	*d*	100		100	*m*	100	*m*	100	*m*	100	*m*
Saint Lucia	84		89		94	*e*	97		100		98		100	
Saint Martin (French Part)	47		68	*e*	64		100		100	*m*	100	*m*	100	*m*
Saint Vincent and the Grenadines	66		80		93		100		100		98		100	
Samoa	79		88		97		100		100		100		100	

Country	Total electricity access rate (%)										Urban electricity access rate (%)		Rural electricity access rate (%) b	
	1990		2000		2010		2015		2018		2018		2018	
San Marino	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Sao Tome and Principe	41		53	c	60		66		71	l	77	l	56	
Saudi Arabia	100		100		100	m	100	m	100	m	100	m	100	m
Senegal	21		38	c	57	g	61	d	67		92		44	
Serbia	100	m	100	m	100	m	100	k	100	m	100	m	100	m
Seychelles	90		94		97	e	100	m	100	m	100	m	100	m
Sierra Leone			8		11	c	20		26	g	53	g	6	
Singapore	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Sint Maarten (Dutch part)	100		100		100	m	100	m	100	m	100	m	100	m
Slovakia	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Slovenia	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Solomon Islands			5		34		55	d	67		77		64	
Somalia			5		21		30		35		60		15	
South Africa	61		72		83	g	86	g	91		92		90	
South Sudan					2	e	18		28		47		24	
Spain	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Sri Lanka	53		69		85	g	94		100		100		99	
State of Palestine	98		100	g	100	g	100	g	100		100		100	
Sudan	33	d	23	c	41		49		60		84		47	
Suriname	96		96		91	c	95		97	c	99	c	94	
Sweden	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Switzerland	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Syrian Arab Republic	96		93		93	g	90		86	k	100		69	
Tajikistan	98		98	c	98		98	g	99	d	99	d	99	d
Thailand	80		82	d	100	f	100	c	100		100		100	
Timor-Leste			18		38	d	67	e	86		100		79	
Togo			17	c	31	c	45		51		92		22	
Tonga	78		85		92		96		99		99		99	
Trinidad and Tobago	93		91	e	100	m	100	m	100	m	100	m	100	m

Country	Total electricity access rate (%)										Urban electricity access rate (%)		Rural electricity access rate (%) b	
	1990		2000		2010		2015		2018		2018		2018	
Tunisia	89		95	g	100	j	100	g	100	c	100	c	100	c
Turkey	93		97		100	i	100		100		100		100	
Turkmenistan	99		100	d	100	i	100	c	100		100		100	
Turks and Caicos Islands	89	e	96	e	100	m	100	m	100	m	100	m	100	m
Tuvalu	91		94		97		99		100		100		100	
Uganda			8		12	g	19	d	43	l	58	l	38	
Ukraine	100	m	100	m	100	m	100	m	100	m	100	m	100	m
United Arab Emirates	100	m	100	m	100	m	100	m	100	m	100	m	100	m
United Kingdom of Great Britain and Northern Ireland	100	m	100	m	100	m	100	m	100	m	100	m	100	m
United Republic of Tanzania	2		10		15	d	27		36		68		19	
United States of America	100	m	100	m	100	m	100	m	100	m	100	m	100	m
United States Virgin Islands	100	m	100	m	100	m	100	m	100	m	100	m	100	m
Uruguay	97		98		99		100	h	100	m	100	m	100	m
Uzbekistan	99		100		100		100		100		100		100	
Vanuatu	4		22		44	g	52		62		94		51	
Venezuela (Bolivarian Republic of)	98		99	h	99		100		100		100		100	
Viet Nam	78		87		98		100		100		100		100	
Yemen	37		50		74		71		62	k	85	k	49	
Zambia	14	e	17	e	22	e	31	g	40		77		11	
Zimbabwe	30		34		40		34	d	41		85		20	

World	72	78	83	87	90	97	80
Northern America and Europe	100	100	100	99	100	100	100
Latin America and the Caribbean	86	92	96	97	98	100	93
Central Asia and Southern Asia	45	60	75	86	92	100	88

Country	Total electricity access rate (%)					Urban electricity access rate (%)	Rural electricity access rate (%) b
	1990	2000	2010	2015	2018	2018	2018
Eastern Asia and South-eastern Asia	86	91	96	97	98	99	97
Western Asia and Northern Africa	85	87	92	93	94	99	86
Sub-Saharan Africa	17	25	34	39	47	78	27
Oceania	80	80	82	87	91	99	73

Note: Unless otherwise noted, data are World Bank estimates based on the statistical model described in chapter 1.

a. Most surveys report data on the percentage of households with access to electricity rather than on the percentage of the population with access.

b. Rural data are calculated based on the urban and total population with access and are not based on a statistical model.

c. Based on Multi-Indicator Cluster Survey (MICS)

d. Based on Demographic and Health Survey (DHS)

e. Based on Census

f. Based on Living Standards Measurement Survey (LSMS)

g. Based on other National Surveys conducted by national statistical agencies

h. Based on Socio-Economic Database for Latin America and the Caribbean (SEDLAC)

i. Based on Europe and Central Asia Poverty Database (ECAPOV)

j. Based on Middle East and North Africa Poverty Database (MNAPOV)

k. Based on other official sources

l. Based on Multi-Tier Framework (MTF)

m. Data from assumption: Countries considered "developed" by the UN are assumed to have an electrification rate of 100%. Countries that are classified as High Income Countries (HIC) are also assumed to have an electrification rate of 100% from the time the country first became a HIC, unless survey data was collected.

Source: World Bank

SDG 7.1.2 – ACCESS TO CLEAN FUELS AND TECHNOLOGIES FOR COOKING

Data provided by WHO

Country	2000			2010			2015			2018		
	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)
Afghanistan	11	48	<5	20	72	6	29	82	14	37	86	21
Albania	39	67	17	67	86	46	76	90	58	80	92	62
Algeria	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
American Samoa												
Andorra	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Angola	44	84	8	47	81	7	48	77	7	48	75	8
Anguilla												
Antigua and Barbuda	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Argentina	95	>95	68	>95	>95	88	>95	>95	93	>95	>95	94
Armenia	79	>95	53	>95	>95	92	>95	>95	95	>95	>95	95
Aruba												
Australia	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Austria	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Azerbaijan	70	>95	44	93	>95	87	>95	>95	92	>95	>95	94
Bahamas	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Bahrain	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Bangladesh	8	35	<5	12	41	<5	18	52	6	24	60	9
Barbados	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Belarus	95	>95	88	>95	>95	>95	>95	>95	>95	>95	>95	>95
Belgium	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Belize	80	94	67	83	>95	73	83	>95	74	83	95	74
Benin	<5	<5	<5	5	9	<5	5	9	<5	5	8	<5
Bermuda												
Bhutan	28	89	10	64	>95	47	74	>95	60	77	>95	64
Bolivia (Plurinational State of)	63	92	18	77	>95	41	82	>95	51	84	>95	53
Bosnia and Herzegovina	52	81	30	44	69	22	45	65	19	45	64	19

Country	2000			2010			2015			2018		
	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)
Botswana	45	71	20	56	78	29	55	75	26	53	72	24
Brazil	88	>95	51	94	>95	69	>95	>95	77	>95	>95	80
British Virgin Islands												
Brunei Darussalam	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Bulgaria												
Burkina Faso	<5	12	<5	6	21	<5	8	28	<5	10	32	<5
Burundi	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Cabo Verde	63	90	31	70	91	33	75	93	39	78	94	42
Cambodia	<5	15	<5	12	46	<5	17	59	7	22	65	10
Cameroon	10	20	<5	20	37	<5	23	42	<5	24	43	<5
Canada	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Cayman Islands												
Central African Republic	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Chad	<5	7	<5	<5	9	<5	<5	12	<5	<5	13	<5
Channel Islands												
Chile	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
China	43	69	24	53	77	27	60	81	33	64	82	36
China, Hong Kong Special Administrative Region												
China, Macao Special Administrative Region												
Colombia	78	93	34	85	>95	40	90	>95	56	93	>95	69
Comoros	<5	<5	<5	<5	7	<5	6	14	<5	8	17	<5
Congo	9	15	<5	17	26	<5	26	38	<5	32	46	<5
Cook Islands	81	>95	43	80	>95	33	78	>95	26	77	>95	23
Costa Rica	89	>95	78	92	>95	80	94	>95	84	95	>95	87
Côte d'Ivoire	18	38	<5	17	36	<5	23	47	<5	29	57	<5
Croatia	85	93	76	88	89	88	87	86	92	86	85	93
Cuba												

Country	2000			2010			2015			2018		
	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)
Curaçao												
Cyprus	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Czechia	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Democratic People's Republic of Korea	<5	<5	<5	6	9	<5	9	13	<5	10	16	<5
Democratic Republic of the Congo	5	11	<5	<5	10	<5	<5	9	<5	<5	8	<5
Denmark	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Djibouti	5	5	<5	6	7	<5	6	7	<5	6	8	<5
Dominica	77	>95	28	82	>95	38	82	>95	38	82	>95	36
Dominican Republic	84	95	67	87	95	69	88	94	69	89	94	70
Ecuador	88	>95	70	94	>95	83	94	>95	85	94	>95	85
Egypt	84	>95	75	>95	>95	>95	>95	>95	>95	>95	>95	>95
El Salvador	56	81	24	77	92	50	86	94	70	91	95	81
Equatorial Guinea	19	31	5	23	34	5	24	34	5	24	33	<5
Eritrea	<5	11	<5	8	21	<5	9	21	<5	9	20	<5
Estonia	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Eswatini	24	60	10	39	79	24	48	86	32	54	88	39
Ethiopia	<5	<5	<5	<5	9	<5	<5	17	<5	5	24	<5
Faroe Islands												
Fiji	30	51	12	30	47	11	29	45	9	28	44	8
Finland	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
France	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
French Polynesia												
Gabon	65	80	15	81	90	29	86	93	38	87	94	42
Gambia	<5	6	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Georgia	49	86	11	65	93	34	75	94	53	81	94	63
Germany	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Ghana	6	14	<5	16	29	<5	23	38	7	28	43	9

Country	2000			2010			2015			2018		
	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)
Gibraltar												
Greece	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Greenland												
Grenada	92	94	91	93	92	94	91	90	94	89	88	94
Guam												
Guatemala	41	69	18	42	68	13	45	69	14	46	70	14
Guinea	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Guinea-Bissau	<5	5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Guyana	36	56	27	61	75	55	71	81	68	76	83	73
Haiti	<5	5	<5	<5	7	<5	<5	7	<5	<5	7	<5
Honduras	30	56	7	44	71	18	51	74	31	57	76	41
Hungary	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Iceland	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
India	23	50	7	35	69	14	43	77	21	49	81	28
Indonesia	6	12	<5	41	62	23	67	85	51	80	91	68
Iran (Islamic Republic of)	94	>95	90	>95	>95	93	>95	>95	94	>95	>95	94
Iraq	78	89	57	>95	>95	91	>95	>95	>95	>95	>95	>95
Ireland	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Isle of Man												
Israel	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Italy	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Jamaica	76	>95	54	86	>95	75	85	93	78	84	91	78
Japan	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Jordan	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Kazakhstan	84	>95	68	93	>95	86	>95	>95	92	>95	>95	95
Kenya	<5	<5	<5	7	20	<5	9	23	<5	10	24	<5
Kiribati	<5	6	<5	<5	6	<5	<5	6	<5	<5	6	<5
Kosovo												

Country	2000			2010			2015			2018		
	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)
Kuwait	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Kyrgyzstan	53	86	33	72	93	60	76	95	65	77	95	66
Lao People's Democratic Republic	<5	11	<5	<5	10	<5	5	14	<5	7	17	<5
Latvia	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Lebanon												
Lesotho	17	47	9	31	73	15	36	78	18	39	79	19
Liberia	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Libya												
Liechtenstein												
Lithuania	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Luxembourg	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Madagascar	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Malawi	<5	12	<5	<5	11	<5	<5	10	<5	<5	9	<5
Malaysia	>95	>95	>95	>95	>95	95	>95	>95	93	>95	>95	93
Maldives	56	>95	41	93	>95	90	>95	>95	>95	>95	>95	>95
Mali	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Malta	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Marshall Islands	15	22	<5	53	71	<5	63	83	<5	65	86	<5
Mauritania	30	53	14	42	68	19	43	68	18	43	66	19
Mauritius	94	>95	91	>95	>95	>95	>95	>95	>95	>95	>95	>95
Mexico	83	>95	45	85	95	52	85	93	53	84	92	54
Micronesia (Federated States of)	30	10	34	10	23	5	9	26	<5	8	27	<5
Monaco	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Mongolia	23	41	<5	35	50	7	44	62	11	50	68	13
Montenegro	67	82	47	63	75	40	58	69	37	56	66	35
Morocco	91	>95	81	>95	>95	91	>95	>95	94	>95	>95	95
Mozambique	<5	7	<5	<5	9	<5	<5	11	<5	<5	12	<5

Country	2000			2010			2015			2018		
	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)
Myanmar	<5	6	<5	10	26	<5	20	54	5	28	70	7
Namibia	34	81	9	41	75	12	44	74	12	46	72	12
Nauru	86	87	26	90	91	24	90	91	25	90	91	23
Nepal	7	22	<5	21	66	11	27	65	15	29	60	18
Netherlands	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
New Caledonia												
New Zealand	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Nicaragua	34	55	7	44	69	8	47	72	9	48	74	9
Niger	<5	<5	<5	<5	6	<5	<5	10	<5	<5	13	<5
Nigeria	<5	<5	<5	<5	<5	<5	5	11	<5	10	21	<5
Niue	93	92	94	90	95	89	86	>95	86	84	>95	84
North Macedonia	58	68	45	65	87	39	66	91	33	65	93	29
Northern Mariana Islands												
Norway	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Oman	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Pakistan	24	66	5	35	83	11	40	86	16	44	87	20
Palau	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Panama	80	>95	54	86	>95	67	88	>95	69	88	>95	69
Papua New Guinea	6	33	<5	7	39	<5	7	39	<5	8	38	<5
Paraguay	48	72	16	58	77	29	65	84	35	68	86	38
Peru	43	61	5	66	84	13	74	90	25	80	93	36
Philippines	38	57	19	40	60	20	43	63	23	46	67	27
Poland	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Portugal	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Puerto Rico												
Qatar	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Republic of Korea	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Republic of Moldova	64	>95	40	91	>95	86	95	>95	92	>95	>95	94

Country	2000			2010			2015			2018		
	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)
Romania	77	>95	55	88	>95	78	80	>95	61	75	>95	50
Russian Federation	>95	>95	>95	>95	>95	>95	94	95	95	90	92	93
Rwanda	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Saint Kitts and Nevis	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Saint Lucia	86	78	91	>95	95	>95	>95	>95	>95	>95	>95	>95
Saint Vincent and the Grenadines	95	>95	>95	95	>95	>95	95	>95	>95	95	>95	>95
Samoa	21	46	12	26	57	18	31	62	24	35	65	27
San Marino	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Sao Tome and Principe	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Saudi Arabia	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Senegal	35	70	7	35	65	7	27	49	5	23	41	<5
Serbia	63	85	39	67	85	44	67	85	44	66	84	43
Seychelles	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Sierra Leone	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Singapore	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Sint Maarten (Dutch part)												
Slovakia	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Slovenia	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Solomon Islands	9	40	<5	8	38	<5	8	36	<5	9	36	<5
Somalia	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
South Africa	55	76	29	77	89	56	83	93	61	85	94	63
South Sudan	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Spain	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Sri Lanka	21	58	14	20	55	13	26	63	18	31	69	23
State of Palestine												
Sudan	12	20	8	32	51	22	44	62	35	50	66	43
Suriname	78	89	59	87	94	76	92	>95	84	94	>95	89

Country	2000			2010			2015			2018		
	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)
Sweden	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Switzerland	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Syrian Arab Republic	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Tajikistan	39	85	24	69	95	60	77	>95	70	81	>95	75
Thailand	63	87	50	74	87	64	78	87	70	79	87	73
Timor-Leste	<5	5	<5	5	12	<5	9	20	<5	12	26	5
Togo	<5	<5	<5	<5	8	<5	7	15	<5	9	20	<5
Tonga	58	87	49	55	85	45	52	81	43	50	79	41
Trinidad and Tobago	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Tunisia	>95	>95	93	>95	>95	>95	>95	>95	>95	>95	>95	>95
Turkey	94	>95	88	95	>95	86	95	>95	84	95	>95	82
Turkmenistan	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Turks and Caicos Islands												
Tuvalu	31	23	13	41	44	17	42	45	15	43	42	14
Uganda	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5	<5
Ukraine	92	95	86	95	>95	87	95	>95	87	95	>95	87
United Arab Emirates	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
United Kingdom of Great Britain and Northern Ireland	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
United Republic of Tanzania	<5	<5	<5	<5	<5	<5	<5	5	<5	<5	7	<5
United States of America	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
United States Virgin Islands												
Uruguay	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95	>95
Uzbekistan	84	>95	71	86	>95	74	86	>95	74	85	>95	73
Vanuatu	17	57	5	12	39	<5	9	29	<5	8	24	<5

Country	2000			2010			2015			2018		
	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)	Total clean cooking access rate (%)	Urban clean cooking access rate (%)	Rural clean cooking access rate (%)
Venezuela (Bolivarian Republic of)	>95	>95	87	>95	>95	87	>95	>95	85	>95	>95	84
Viet Nam	13	38	5	49	79	35	59	82	48	64	82	54
Yemen	56	93	42	60	95	43	60	94	43	60	94	42
Zambia	14	38	<5	16	37	<5	15	32	<5	13	28	<5
Zimbabwe	34	88	5	30	81	5	29	78	5	29	75	5
World	50	76	25	56	81	29	60	82	33	63	83	37
Central Asia and Southern Asia	26	58	10	37	72	15	44	78	22	49	82	28
Eastern Asia and South-eastern Asia	42	65	24	54	77	29	62	82	37	67	84	42
Latin America & the Caribbean	80	93	42	85	95	52	87	95	57	88	94	60
Northern America and Europe	>95	>95	94	>95	>95	>95	>95	>95	95	>95	>95	94
Sub-Saharan Africa	10	25	<5	12	26	<5	13	28	<5	15	31	<5
Western Asia and Northern Africa	82	93	68	89	>95	79	91	>95	81	91	>95	82
Oceania	78	>95	40	77	96	36	76	96	35	76	96	34

Note:
Data source: Household Energy Database, WHO, January 2020.

Source: World Health Organization

SDG 7.2 – RENEWABLE ENERGY

Data provided by the IEA and UNSD

UN country name	Share in total final energy consumption (%)													Final consumption of renewable energy (PJ)			Total final energy consumption (PJ)	
	Renewable energy				Solid biofuels	Liquid biofuels	Biogases	Hydro	Tide	Wind	Solar	Geothermal	Municipal waste (renew)	Electricity consumption (1)	Heat raising (2)	Transport (3)		
	2000	2010	2015	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	
Afghanistan	54.2	14.9	20	24.7	12.2	0	0	12.4	0	0	0	0	0	13.8	13.5	0	110.6	a
Albania	41.4	37.1	38.6	37.2	7.9	3.8	0	24.9	0	0	0.6	0	0	21.4	7.4	3.2	86.2	b
Algeria	0.4	0.3	0.1	0.1	0	0	0	0	0	0	0.1	0	0	1.7	0.4	0	1472.5	b
American Samoa	0	0	1.5	1.8	0	0	0	0	0	0	1.8	0	0	0	0	0	0.5	a
Andorra	14.5	18.7	19.3	19.1	0.3	0	0	17.2	0	0	0	0	1.7	1.6	0	0	8.6	a
Angola	73.4	50.8	47.8	56.2	50.2	0	0	6	0	0	0	0	0	23.8	199.3	0	397.3	b
Anguilla	0.2	0.1	0.2	0.2	0.1	0	0	0	0	0	0.1	0	0	0	0	0	1.4	a
Antigua and Barbuda	0	0	0.5	0.6	0	0	0	0	0	0	0.6	0	0	0	0	0	3.9	a
Argentina	11.1	9	10.1	11.2	3.1	2.6	0	5.5	0	0.1	0	0	0	135.4	66.1	61.1	2335.7	b
Armenia	7.2	9.4	11.6	12.5	6	0	0	6.4	0	0	0	0	0	5.8	5.6	0.1	92.2	b
Aruba	0.2	5.5	6.7	6.5	0.3	0	0	0	0	6.1	0	0	0	0.4	0	0	6.8	a
Australia	8.4	8.1	9.2	9.5	5.4	0.1	0.1	1.5	0	1.1	1.2	0	0	115	185.1	7.5	3224.4	b
Austria	26.2	30	34.3	33.2	15.7	1.9	0.4	11.8	0	2	1.1	0.1	0.3	161.7	173.5	28.3	1093.4	b
Azerbaijan	2.1	4.4	2.3	1.9	0.5	0	0	1.3	0	0	0	0	0.1	4.7	1.5	0.1	329.2	b
Bahamas	0	1.7	1.4	1.4	1.4	0	0	0	0	0	0	0	0	0	0.3	0	19.6	a
Bahrain	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	191.4	b
Bangladesh	59	41.1	34.6	32	31.7	0	0	0.2	0	0	0	0	0	3.6	391.9	0	1236.5	b
Barbados	14.3	9.1	3.2	3.6	2.8	0	0	0	0	0	0.8	0	0	0.1	0.3	0	11.9	a
Belarus	5.6	7.3	6.8	7.3	6.8	0.1	0	0.2	0	0	0	0	0	2.3	47.4	0.2	686.9	b
Belgium	1.4	5.8	9.3	9.6	4.8	1.5	0.5	0.1	0	1.6	0.9	0	0.3	53.5	59.5	21.1	1393	b
Belize	34.6	32.9	33.1	38.7	30.9	0	0	7.8	0	0	0	0	0	2	3.4	0	14.2	a
Benin	70.3	48.1	50.9	45.6	45.6	0	0	0	0	0	0	0	0	0.1	79.6	0	174.6	b
Bermuda	0	3.8	0.5	0.5	0.1	0	0	0	0	0	0	0	0.4	0	0	0	4.7	a
Bhutan	91.4	90.6	86.5	83.4	71.6	0	0	11.9	0	0	0	0	0	7.9	47.4	0	66.3	a
Bolivia (Plurinational State of)	28.1	19.8	17.5	13.4	11.2	0	0	2.2	0	0.1	0	0	0	7.8	33.8	0	309.4	b

UN country name	Share in total final energy consumption (%)													Final consumption of renewable energy (PJ)			Total final energy consumption (PJ)	
	Renewable energy				Solid biofuels	Liquid biofuels	Biogases	Hydro	Tide	Wind	Solar	Geothermal	Municipal waste (renew)	Electricity consumption (1)	Heat raising (2)	Transport (3)		
	2000	2010	2015	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	
Bonaire, Sint Eustatius and Saba	0	0	3	2.8	0.1	0	0	0	0	2.3	0.3	0	0	0.1	0	0	4	a
Bosnia and Herzegovina	19.4	19.6	25.3	18.8	11.9	0	0	6.8	0	0	0	0	0	10	17.4	0.1	146.2	b
Botswana	36.6	29.9	28.4	28.6	28.5	0	0	0	0	0	0	0	0	0	23.6	0	82.6	b
Brazil	42.8	46.9	43.7	45.3	22.8	7.9	0	12.7	0	1.4	0.4	0	0	1412.6	1912.2	713.4	8915.6	b
British Virgin Islands	1	0.7	1	1.3	1	0	0	0	0	0.2	0.1	0	0	0	0	0	1.3	a
Brunei Darussalam	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	38.4	b
Bulgaria	8	14.4	17.7	17	10.8	1.7	0.2	1.7	0	0.9	1.1	0.4	0.3	14.5	47.5	7	404.8	b
Burkina Faso	85.4	81.5	72.7	70	69.6	0	0	0.4	0	0	0	0	0	0.7	110.6	0	158.9	a
Burundi	93.2	92.6	91.2	88.2	87.4	0	0	0.8	0	0	0	0	0	0.5	48.5	0	55.5	a
Cabo Verde	38.5	21.2	26.3	22.9	19.9	0	0	0	0	2.7	0.2	0	0	0.2	1.4	0	7	a
Cambodia	81.1	68.5	64.9	61.5	58	0	0	3.4	0	0	0	0	0	9.7	160.4	0	276.8	b
Cameroon	84.5	78.6	78	78.6	74.9	0	0	3.8	0	0	0	0	0	11.6	230.3	0	307.6	b
Canada	21.5	22.5	21.4	23.1	5.6	1.2	0.1	14.9	0	1.1	0.2	0	0	1183.7	402.3	109.3	7323.5	b
Cayman Islands	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	a
Central African Republic	85.1	79.8	76.4	75.8	73	0	0	2.6	0	0	0.1	0	0	0.5	12.8	0	17.5	a
Chad	88.7	81.6	85.4	85.4	85.4	0	0	0	0	0	0	0	0	0	60.7	0	71.1	a
Chile	31.4	27	25.1	23.5	14.9	0	0.1	6.2	0	1	1.3	0	0	108.8	147	1.5	1095.1	b
China	29.6	12.3	12.2	12.8	4.2	0.1	0.4	4.6	0	1.2	1.8	0.6	0	4906.8	4686.8	204.1	76741.2	b
China, Hong Kong Special Administrative Region	0.6	0.8	0.8	0.8	0.6	0	0.1	0	0	0	0	0	0	0.5	2.4	0.2	388.5	b
China, Macao Special Administrative Region	0.2	5.4	7.4	5.9	0.1	0	0	0	0	0	0	0	5.8	2	0	0	34.6	a
Colombia	28	27.9	28.8	29.2	14.9	0.1	0	14.2	0	0	0	0	0	176.2	177.9	1.6	1216.9	b
Comoros	48.3	46.4	44.9	38.8	38.8	0	0	0	0	0	0	0	0	0	1.7	0	4.3	a
Congo	64.9	54.8	64.8	70	67	0	0	2.1	0	0	1	0	0	2.5	53.7	0	80.2	b
Cook Islands	0	0	1.2	1.7	0	0	0	0	0	0	1.7	0	0	0	0	0	0.7	a
Costa Rica	32.9	40.4	38.3	36.2	14.7	0	0	16.8	0	2.5	0	2.2	0	35.5	23.4	0	162.5	b
Côte d'Ivoire	63.7	75.4	64.9	62.7	61.6	0	0	1.2	0	0	0	0	0	4	183.9	0	299.4	b

UN country name	Share in total final energy consumption (%)													Final consumption of renewable energy (PJ)			Total final energy consumption (PJ)	
	Renewable energy				Solid biofuels	Liquid biofuels	Biogases	Hydro	Tide	Wind	Solar	Geothermal	Municipal waste (renew)	Electricity consumption (1)	Heat raising (2)	Transport (3)		
	2000	2010	2015	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	
Croatia	26.8	29.8	33.1	29.8	17.5	0	0.6	9.1	0	2.1	0.3	0.1	0	34.2	49.7	0.6	283.3	b
Cuba	34.4	14.6	20.1	17.7	14.7	2.9	0	0.1	0	0	0.1	0	0	2.1	54.6	0	320.3	b
Curaçao	0.1	0.5	2.4	3.7	0	0	0	0	0	3.4	0.3	0	0	0.9	0	0	24.8	b
Cyprus	3.1	6.4	9.9	10.4	1.3	0.6	0.6	0	0	1.1	5.5	0.1	1.2	1.4	4.9	0.4	64	b
Czechia	5.9	11	14.8	14.5	10.4	1.3	1.3	0.4	0	0.1	0.6	0	0.2	22.4	110.6	13.8	1014.9	b
Democratic People's Republic of Korea	8.7	13.5	23.1	27.4	14.7	0	0	12.7	0	0	0	0	0	32	37.1	0	252.2	b
Democratic Republic of the Congo	97.9	96.8	95.8	97.1	94.7	0	0	2.5	0	0	0	0	0	25.9	999.8	0	1056.1	b
Denmark	10.7	21.3	33.5	36.5	20.2	1.6	1.6	0	0	9.4	0.8	0	2.9	78.5	120	10.1	571.3	b
Djibouti	31.4	32.5	13.3	14.5	14.5	0	0	0	0	0	0	0	0	0	0.9	0	6.5	a
Dominica	11	10.1	8.6	9.8	4	0	0	5.8	0	0	0	0	0	0.1	0.1	0	1.6	a
Dominican Republic	19.1	17	15	17	13.6	0	0	2.7	0	0.5	0.3	0	0	8.6	33.6	0	248.5	b
Ecuador	20	11.4	13	16.7	4.3	0.1	0	12.2	0	0	0	0	0	62.7	20.1	0.6	498.6	b
Egypt	8.1	5.7	5.7	5.5	3.4	0	0	1.8	0	0.3	0	0	0	49.1	76.3	0.2	2266.8	b
El Salvador	33.5	29.1	21.3	25.3	11.5	0	0.2	6.6	0	0	0.7	6.4	0	16.5	8.7	0	99.2	b
Equatorial Guinea	50.4	5.9	9.8	12	10.3	0	0	1.6	0	0	0	0	0	0.6	3.8	0	37	a
Eritrea	76.8	81.2	79	78.4	78.4	0	0	0	0	0	0	0	0	0	17.6	0	22.5	b
Estonia	19.8	25.1	27.5	27	25.3	0	0.4	0	0	1.2	0	0	0	3.6	28.1	0.1	117.7	b
Eswatini	62.1	63.1	66.4	60.6	56.5	0	0	4.1	0	0	0	0	0	4.8	15.9	0	34.2	a
Ethiopia	95.6	94.1	91.5	89.8	87.7	0	0	1.9	0	0.1	0	0	0	34.1	1460.7	0.1	1665	b
Falkland Islands (Malvinas)	1.4	3.4	4.7	4.9	1.3	0	0	0	0	3.6	0	0	0	0	0	0	0.5	a
Faroe Islands	2.8	3.4	7.5	6	0	0	0	3.9	0	2.1	0	0	0	0.6	0	0	9.5	a
Fiji	52.2	28	29.9	27	20.3	0	0	6.7	0	0	0	0	0	1.6	4.8	0	23.7	a
Finland	31.7	33.6	43.2	44.4	32.9	1.7	0.4	6.3	0	2	0	0	1	134.7	296.6	17.7	1011.9	b
France	9.3	12	13.7	14.5	7	2.4	0.3	2.4	0	1.2	0.6	0.1	0.5	255	450.8	146.2	5867.2	b
French Guiana	23.8	29.4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
French Polynesia	9.9	12.5	10.2	10.9	0.4	0	0	9.8	0	0	0.7	0	0	0.8	0	0	7.6	a
Gabon	72.8	85.8	82	81.2	79.7	0	0	1.5	0	0	0	0	0	2.9	155.6	0	195.3	b

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	Renewable energy				Solid biofuels	Liquid biofuels	Biogases	Hydro	Tide	Wind	Solar	Geothermal	Municipal waste (renew)	Electricity consumption (1)	Heat raising (2)	Transport (3)		
	2000	2010	2015	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	
Gambia	63.1	54.7	51.3	50.8	50.8	0	0	0	0	0	0	0	0	0	5.2	0	10.3	a
Georgia	47.3	39.1	28.7	28.7	9	0	0	19	0	0.2	0.1	0.4	0	31.6	16	1	169.3	b
Germany	3.7	10.3	14.2	15.3	5.2	1.4	2	0.7	0	3.6	1.7	0.1	0.7	609.6	570	123.2	8541.3	b
Ghana	71.6	48.3	40	40	33.9	0	0	6.1	0	0	0	0	0	17.5	96.1	0	283.7	b
Gibraltar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.8	b
Greece	7.5	11.1	17.2	16.1	5.7	1.1	0.3	2.1	0	3	3.8	0.1	0	48.4	50.3	7.3	660.3	b
Greenland	12.8	10.1	13.1	11.3	0	0	0	11	0	0	0	0	0.3	0.9	0	0	8	a
Grenada	10.5	10.5	12.3	12.6	12.6	0	0	0	0	0	0	0	0	0	0.4	0	3	a
Guadeloupe	2.6	3	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Guam	0	0	1.3	3	0	0	0	0	0	0	2.9	0	0	0.2	0	0	5.8	a
Guatemala	62.7	67.3	63	64.2	60.5	0	0	3.3	0	0.1	0.1	0.2	0	24.2	281.3	0	475.8	b
Guernsey	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.3	a
Guinea	85.6	75.7	78	77	76	0	0	1	0	0	0	0	0	1.4	102.8	0	135.2	a
Guinea-Bissau	91.2	87.8	86.9	86.5	86.5	0	0	0	0	0	0	0	0	0	24.2	0	28	a
Guyana	30	30.5	25.6	22.5	22.5	0	0	0	0	0	0	0	0	0.2	6.2	0	28.4	a
Haiti	76	79	76.1	76.1	76	0	0	0.1	0	0	0	0	0	0.2	106.6	0	140.3	b
Honduras	55.2	50.2	52.6	53.3	46.4	0	0	4.5	0	0.9	1.4	0.1	0	17.3	97.7	0	215.9	b
Hungary	5.2	13.5	15.5	14.3	11.6	0.8	0.3	0.1	0	0.4	0.3	0.6	0.2	14.2	87	6.7	752.3	b
Iceland	60.7	75.4	77	76.7	0	0.6	0.1	38.1	0	0	0	37.9	0	64.2	29.6	1	123.5	b
India	51.8	40.6	34.5	32.2	29.3	0.1	0	1.7	0	0.6	0.5	0	0	711.7	6614.5	25.6	22830.2	b
Indonesia	45.6	39.5	35.5	35	32.4	1.1	0	0.8	0	0	0	0.6	0	100.8	2272.9	77.5	7004.4	b
Iran (Islamic Republic of)	0.4	0.9	0.9	1	0.3	0	0	0.6	0	0	0	0	0	45.5	21.3	0.1	6848.5	b
Iraq	0.4	1.7	0.8	0.4	0.1	0	0	0.3	0	0	0	0	0	2.4	1.1	0	827.4	b
Ireland	2	5.2	9.1	10.2	2.1	1.6	0.2	0.5	0	5.1	0.1	0	0.6	26.9	11.3	7.4	445.6	b
Isle of Man	0	1.9	2.2	1.9	0	0	0	0.5	0	0	0	0	1.4	0	0	0	2.4	a
Israel	6	8.6	3.7	3.8	0.2	0	c	c	0	0.1	3.6	0	0	5.1	17	0	573.9	b
Italy	5.1	12.8	16.6	16.4	7.2	1.3	0.8	2.8	0	1.4	2.1	0.6	0.3	357	347.9	58.9	4648.2	b
Jamaica	5.3	9.7	13.4	12.4	9	1.8	0	0.5	0	1	0.1	0	0	2	6.4	1.4	79.4	b

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	Renewable energy				Solid biofuels	Liquid biofuels	Biogases	Hydro	Tide	Wind	Solar	Geothermal	Municipal waste (renew)	Electricity consumption (1)	Heat raising (2)	Transport (3)		
	2000	2010	2015	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	
Japan	3.8	4.8	6.3	6.9	2.1	0.2	0	2.5	0	0.2	1.8	0.1	0.1	540.3	177.9	27.6	10809.6	b
Jersey	0	4.8	15.9	16.9	0	0	0	0	0	0	0	0	16.9	1	0	0	6.1	a
Jordan	2.1	3	3.2	5.1	0.9	0	0	0	0	0.5	3.6	0	0	4.2	9.6	0	273.3	b
Kazakhstan	2.5	1.4	1.5	1.6	0.1	0	0	1.4	0	0	0	0	0	23.4	2.1	1.8	1683.3	b
Kenya	79	76.5	72.2	71.8	68.4	0	0	1.3	0	0	0	2	0	24.3	480.8	0	703.8	b
Kiribati	56.5	48.3	47.6	45.8	44.6	0	0	0	0	0	1.2	0	0	0	0.5	0	1.2	a
Kuwait	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	692.4	b
Kyrgyzstan	35.2	25.6	23.3	24.5	0	0	0	24.5	0	0	0	0	0	36.1	0.1	0.2	148.1	b
Lao People's Democratic Republic	81.6	64.9	53.9	45.9	37.6	0	0	8.2	0	0	0	0	0	11.3	51.5	0	137	a
Latvia	35.8	33.1	38.1	42.6	31.6	0.3	1.5	8.4	0	0.3	0	0	0.5	16.7	51.8	0.7	162.4	b
Lebanon	4.9	5.7	3.7	3.3	2.4	0	0	0.5	0	0	0.5	0	0	1.1	6.4	0	225.3	b
Lesotho	56.7	53	44.1	38.7	33.5	0	0	5.2	0	0	0	0	0	2.4	15.6	0	46.4	a
Liberia	90.8	88.6	84	85	84.9	0	0	0.1	0	0	0	0	0	0.1	73.5	0	86.5	a
Libya	2	1.5	1.9	1.8	1.8	0	0	0	0	0	0	0	0	0	6	0	340.5	b
Liechtenstein	53.9	52.3	55.5	55.3	6.2	0	0.8	35.6	0	0	12.7	0	0	1.4	0.2	0	3	a
Lithuania	17.2	21.5	29	33.6	21.7	1.2	0.8	2.8	0	6.2	0.3	0	0.6	25.3	45.5	2.7	219.1	b
Luxembourg	6.8	3.7	9.1	15.4	2.8	3.1	1.4	1.4	0	4	1.9	0	0.8	15.1	3.3	5.1	151.6	b
Madagascar	83.4	86.3	78.3	82.6	81.5	0	0	1.1	0	0	0	0	0	2.7	186.7	0	229.3	a
Malawi	82.6	81.2	80.8	75.9	69.2	0	0	6.7	0	0	0	0	0	4.5	44.7	0	64.8	a
Malaysia	4.5	2	3.4	5.2	0.1	0.8	0	4.2	0	0	0.1	0	0	88.7	0	16.2	2012.7	b
Maldives	2.3	1.4	1.4	1.2	0.9	0	0	0	0	0	0.3	0	0	0.1	0.1	0	16	a
Mali	85.4	67.1	58.4	58.6	55.2	0	0	3.4	0	0	0	0	0	2.9	43.8	0	79.6	a
Malta	0	1.2	5.6	7.4	0.3	1.7	0.4	0	0	0	4.9	0	0	0.8	0.3	0.3	20.3	b
Marshall Islands	19.6	13.3	11.3	11.8	11.4	0	0	0	0	0	0.4	0	0	0	0.2	0	1.7	a
Martinique	1.7	2.5	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Mauritania	44.4	34	28.9	23.3	22.3	0	0	0	0	0.6	0.5	0	0	0.7	13.8	0	62.1	a
Mauritius	20.4	13.6	11.5	9.7	7.8	0	0.2	0.9	0	0.1	0.7	0	0	2.2	1.2	0	34.6	b
Mayotte	16.2	10	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	

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	Renewable energy				Solid biofuels	Liquid biofuels	Biogases	Hydro	Tide	Wind	Solar	Geothermal	Municipal waste (renew)	Electricity consumption (1)	Heat raising (2)	Transport (3)		
	2000	2010	2015	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	
Mexico	12.2	9.4	9.2	9.5	6.2	0	0	2	0	0.6	0.3	0.4	0	155.9	311.1	0.6	4903	b
Micronesia (Federated States of)	2	1.8	1.4	1.6	1.2	0	0	0	0	0	0.3	0	0	0	0	0	1.4	a
Mongolia	5.7	4.5	3.6	3.5	2.6	0	0	0.1	0	0.7	0.1	0	0	1.4	3.8	0	147.8	b
Montenegro	..	49.1	43	38.1	22.7	0	0	14.1	0	1.3	0	0	0	4.6	6.9	0	30.2	b
Montserrat	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.3	a
Morocco	15.3	13.9	11.2	10.4	7.9	0	0	0.6	0	1.7	0.2	0	0	16.3	51.6	0.2	653.4	b
Mozambique	93.6	84.3	79.1	59.5	41.5	0	0	18	0	0	0	0	0	43	99.4	0	239.6	b
Myanmar	80.2	84.9	70.6	60.6	56.3	0	0	4.3	0	0	0	0	0	34.5	455.8	0	809.4	b
Namibia	36.1	28.9	28	28.1	9.6	0	0	18.4	0	0	0.2	0	0	14	7.4	0	76.3	b
Nauru	0	0.1	0.1	0.8	0	0	0	0	0	0	0.8	0	0	0	0	0	0.5	a
Nepal	88.3	87.3	85	76.6	70.8	0	2.1	3.7	0	0	0	0	0	20.5	408.8	0	560.8	b
Netherlands	1.8	3.9	5.8	6.5	2.1	0.7	0.4	0	0	1.8	0.4	0.2	0.9	55.5	53.8	13.9	1895.2	b
New Caledonia	7.5	4.8	5.1	5.1	0.3	0	0	3.6	0	0.5	0.7	0	0	1.5	0.2	0	34.9	a
New Zealand	29	31.6	31.1	30.4	8.4	0	0.2	14.5	0	1.2	0.1	6	0	113.5	54	0.3	551.5	b
Nicaragua	58.4	52.5	48.6	47.2	42.3	0	0	1.2	0	1.6	0	1.9	0	7	43.3	0	106.5	b
Niger	87.6	80.7	78.9	79.5	79.5	0	0	0	0	0	0	0	0	0	96.4	0	121.4	b
Nigeria	86.2	86.9	82.3	82.5	82.3	0	0	0.3	0	0	0	0	0	16	4512.9	0	5486.4	b
Niue	0.6	26.7	22.4	22.4	0.5	0	0	0	0	0	21.9	0	0	0	0	0	0.1	a
North Macedonia	19.4	22.4	24	19.1	12.3	0	0.3	5.6	0	0.6	0.1	0.3	0	5.1	9.8	0	77.9	b
Northern Mariana Islands	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1.1	a
Norway	60.2	56.6	58.5	61.2	4.7	2.8	0.2	51.7	0	1	..	0	0.8	397.1	42.1	24.4	757.9	b
Oman	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	770.6	b
Pakistan	51	46.8	45.2	41.4	38.9	0	0	2.3	0	0.2	0.1	0	0	93.2	1401	0	3609.2	b
Palau	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.3	a
Panama	27.7	19.9	21.2	22.8	7.5	0	0	14	0	1	0.3	0	0	23	11.1	0	149.6	b
Papua New Guinea	66.4	55.3	50.9	49.7	46.3	0	0	2.3	0	0	0	1.1	0	4.1	56.2	0	121.3	a
Paraguay	70.4	63.6	61	60.1	42	2.4	0	15.8	0	0	0	0	0	41.6	110.8	6.3	264	b
Peru	32.2	30.5	25	27.7	13.4	2	0	11.6	0	0.4	0.3	0	0	99.3	105.6	14.1	790.8	b

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	Renewable energy				Solid biofuels	Liquid biofuels	Biogases	Hydro	Tide	Wind	Solar	Geothermal	Municipal waste (renew)	Electricity consumption (1)	Heat raising (2)	Transport (3)		
	2000	2010	2015	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	
Philippines	34.8	28.8	25.9	23.4	16.9	1.6	0	2.1	0	0.2	0.3	2.3	0	68.7	226.2	19.4	1343.5	b
Poland	6.9	9.5	11.9	11.1	8	0.9	0.3	0.3	0	1.5	0.1	0	0.1	67.7	226.7	27	2890	b
Portugal	20.1	27.8	27.2	24.4	13	1.7	0.2	2.7	0	5.6	1	0.1	0.2	65	79.9	10.8	637.1	b
Puerto Rico	0.7	0.6	1.8	2.2	0	0	0	0.3	0	1.2	0.8	0	0	1.1	0	0	48.8	a
Qatar	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	567.9	b
Republic of Korea	0.7	1.3	2.7	2.8	1.1	0.5	0.1	0.2	0	0.1	0.5	0.1	0.3	62	71.1	22.5	5469.6	b
Republic of Moldova	5.7	19.8	24.7	26.1	25.1	0	0.1	0.8	0	0	0	0	0	1.1	31.4	0	125	b
Réunion	11.7	16.4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Romania	16.4	24.1	23.7	23.4	15.6	1.3	0.1	3.8	0	2	0.5	0.1	0	59.6	148	13.9	947.8	b
Russian Federation	3.5	3.3	3.2	3.2	0.6	0	0	2.6	0	0	0	0	0	419.4	102.1	47.6	17525.4	b
Rwanda	86.7	90.7	86.7	86.7	85.4	0	0	1.3	0	0	0.1	0	0	1.1	68.5	0	80.2	a
Saint Helena	7.1	9.2	12.6	13.1	5.2	0	0	0	0	5.3	2.5	0	0	0	0	0	0.1	a
Saint Kitts and Nevis	26.6	1	1.7	1.8	0	0	0	0	0	1.3	0.5	0	0	0	0	0	1.9	a
Saint Lucia	2.6	2.6	2.6	2.7	2.7	0	0	0	0	0	0	0	0	0	0.1	0	2.9	a
Saint Pierre and Miquelon	0.6	1.3	0.7	0.7	0.7	0	0	0	0	0	0	0	0	0	0	0	0.7	a
Saint Vincent and the Grenadines	8.5	5.1	4.5	3.4	2	0	0	1.4	0	0	0	0	0	0	0.1	0	2.8	a
Samoa	42.5	36	26.9	26.8	22.8	0	0	2.7	0	0.1	1.3	0	0	0.2	0.9	0	4	a
Sao Tome and Principe	54.7	43.8	40.2	38.4	37.4	0	0	1	0	0	0	0	0	0	0.8	0	2.1	a
Saudi Arabia	0	0	0	0	0	0	0	0	0	0	0	0	0	0.4	0.3	0	4671	b
Senegal	47.5	50.3	40	37.6	36.5	0	0	0.8	0	0	0.3	0	0	1.6	47.1	0	129.5	b
Serbia	22.1	20.6	21.2	19.9	12.4	0	0.2	7.2	0	0	0	0.1	0	25.5	44.2	0.3	351.6	b
Seychelles	0.6	0.7	1.4	0.6	0	0	0	0	0	0.4	0.2	0	0	0	0	0	5	a
Sierra Leone	90.4	84.2	77.9	77.5	76.6	0	0	1	0	0	0	0	0	0.6	42.5	0	55.5	a
Singapore	0.3	0.5	0.6	0.7	0.2	0	0	0	0	0	0.1	0	0.4	3.3	0	0.2	498.6	b
Sint Maarten (Dutch part)	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7.9	a
Slovakia	3.7	10.3	13.4	12.4	5.9	1.5	0.9	3.5	0	0	0.5	0	0.1	21.6	23.5	6.8	417	b
Slovenia	15.9	19.5	20.8	20.4	11.7	0.9	0.3	5.8	0	0	0.7	1	0	13.3	26	2	202.5	b
Solomon Islands	55.2	45	48.5	48.7	48.6	0	0	0	0	0	0.1	0	0	0	3.2	0	6.6	a

UN country name	Share in total final energy consumption (%)													Final consumption of renewable energy (PJ)			Total final energy consumption (PJ)	
	Renewable energy				Solid biofuels	Liquid biofuels	Biogases	Hydro	Tide	Wind	Solar	Geothermal	Municipal waste (renew)	Electricity consumption (1)	Heat raising (2)	Transport (3)		
	2000	2010	2015	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	
Somalia	93.3	93.6	94.5	94.9	94.9	0	0	0	0	0	0	0	0	0	107.3	0	113.1	a
South Africa	16	10.1	9.7	10	8.8	0	0	0.1	0	0.5	0.6	0	0	26.2	240.6	0.5	2684	b
South Sudan	..	..	26.2	27.9	27.9	0	0	0	0	0	0.1	0	0	0	5.5	0	19.8	b
Spain	7.9	14.4	16.3	15.6	5.6	1.6	0.2	1.8	0	4.6	1.7	0	0.1	266.8	188.5	58.8	3292.7	b
Sri Lanka	64.2	61.8	52.9	48.4	45.1	0	0	2.9	0	0.3	0.1	0	0	14	190.3	0	422.2	b
State of Palestine	17.5	14.1	11	12.4	5.9	0	0	0	0	0	6.5	0	0	1.6	6.8	0	68	a
Sudan	80.4	61.3	63	60.5	54.7	0	0	5.8	0	0	0	0	0	30.4	287.6	0	526	b
Suriname	23.6	22.4	22.7	21.6	5	0	0	16.5	0	0	0.1	0	0	3.8	1.1	0	23	b
Sweden	40	46	53.1	52.3	26.9	5	0.5	13.9	0	3.8	0.1	0	2.2	260	350.1	73.5	1307.1	b
Switzerland	18.2	20.4	23.9	24.7	5.2	0.7	0.4	15.7	0	0.1	1.1	0	1.5	125	50.6	12.6	760.9	b
Syrian Arab Republic	2	1.4	0.6	1.1	0.1	0	0	1	0	0	0	0	0	2	0.2	0	197.3	b
Tajikistan	62.4	61.8	48.1	41.7	0	0	0	41.7	0	0	0	0	0	46.8	0	0.1	112.5	b
Thailand	22	22.7	22.7	22.7	17.6	2.3	0.9	1.1	0	0.1	0.5	0	0.1	109.4	539.3	74.6	3187.1	b
Timor-Leste	0	34.7	18.2	19	19	0	0	0	0	0	0	0	0	0	0.8	0	4.3	a
Togo	77.1	65.8	70.9	71	66.8	0	0	4.2	0	0	0	0	0	4.3	66.4	0	99.5	b
Tonga	2.5	1	1.9	1.5	0.7	0	0	0	0	0	0.7	0	0	0	0	0	1.8	a
Trinidad and Tobago	0.8	0.3	0.3	0.4	0.4	0	0	0	0	0	0	0	0	0	0.5	0	128.9	b
Tunisia	14.2	12.7	12.6	11.9	10.8	0	0	0	0	0.4	0.8	0	0	1.7	38.5	0	337.5	b
Turkey	17.3	14.2	13.3	11.4	2.4	0.1	0.2	4.1	0	1.3	1	2.3	0	258.4	214	6.1	4195.5	b
Turkmenistan	0.1	0.1	0.1	0.1	0.1	0	0	0	0	0	0	0	0	0	0.4	0	752.6	b
Turks and Caicos Islands	0.7	0.5	0.6	1	0.5	0	0	0	0	0	0.5	0	0	0	0	0	1.3	a
Tuvalu	0	0	8.2	13.5	0	0	0	0	0	0.8	12.7	0	0	0	0	0	0.1	a
Uganda	93.9	91.6	89	88.5	86.8	0	0	1.7	0	0	0	0	0	9.9	484.9	0	559	a
Ukraine	1.3	2.9	4.1	6.5	4.9	0.1	0	1.2	0	0.1	0.1	0	0	28	96.7	3.7	1984.4	b
United Arab Emirates	0.1	0.1	0.1	0.2	0.1	0	0	0	0	0	0.1	0	0	2.4	1.9	0	2062.7	b
United Kingdom of Great Britain and Northern Ireland	1	3.7	8.5	10	3.8	0.8	0.7	0.4	0	3.2	0.8	0	0.3	315.4	141.2	44.2	5017.7	b
United Republic of Tanzania	93.7	88.3	83.6	83.8	82.9	0	0	0.9	0	0	0	0	0	6.4	612.3	0	738.4	b
United States of America	5.4	7.4	9.1	9.9	3.1	2.9	0.1	1.7	0	1.4	0.5	0.1	0.1	2260	1847.2	1599.1	57574.1	b

UN country name	Share in total final energy consumption (%)													Final consumption of renewable energy (PJ)			Total final energy consumption (PJ)	
	Renewable energy				Solid biofuels	Liquid biofuels	Biogases	Hydro	Tide	Wind	Solar	Geothermal	Municipal waste (renew)	Electricity consumption (1)	Heat raising (2)	Transport (3)		
	2000	2010	2015	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	
United States Virgin Islands	0	0	3.9	3.5	0	0	0	0	0	0	3.5	0	0	0.1	0	0	1.8	a
Uruguay	38.8	52.8	58.9	60.2	41.5	1.7	0	11.1	0	5.6	0.4	0	0	38.5	75.8	2.9	194.7	b
Uzbekistan	0.8	1.7	1.8	2.4	0	0	0	2.4	0	0	0	0	0	21.5	0.2	0.6	915.9	b
Vanuatu	48.7	38.4	36.4	36.1	33.2	0.8	0	1	0	0.8	0.3	0	0	0.1	0.8	0	2.4	a
Venezuela (Bolivarian Republic of)	14.4	11.5	13.7	14.8	2.1	0	0	12.7	0	0	0	0	0	155	25.3	0	1219.6	b
Viet Nam	58	34.6	30.7	32	21.4	0	0	10.5	0	0	0	0	0	279.9	569.4	0	2656	b
Wallis and Futuna Islands	0	0.4	0.6	0.7	0	0	0	0.5	0	0	0.2	0	0	0	0	0	0.2	a
Yemen	1.2	1	2.4	4.9	2.7	0	0	0	0	0	2.1	0	0	2	2.6	0	94.2	b
Zambia	89.9	92.4	88	84.5	75	0	0	9.5	0	0	0	0	0	37.6	297.3	0.1	396.4	b
Zimbabwe	69.3	82.2	81.6	83.3	79.5	0.3	0	3.5	0	0	0	0	0	15.2	329.5	1	415.1	b
World	17.2	16.3	17	17.3	10.8	1	0.2	3.3	0	0.9	0.7	0.2	0.1	18470.7	41312.6	3821.7	367161.2	c
Northern America (M49) and Europe (M49)	7.4	10	12	12.5	4.7	1.9	0.3	3.2	0	1.5	0.6	0.1	0.2	7533.4	6456.9	2514.8	131571.3	c
Northern America (M49)	7.3	9.1	10.7	11.6	3.4	2.7	0.1	3.3	0	1.4	0.5	0.1	0.1	3558.4	2248.7	1699	64911	c
Europe (M49)	7.4	10.8	13.2	13.5	6	1	0.5	3.1	0	1.6	0.7	0.1	0.3	3939.3	4206.6	829.3	66660.3	c
Latin America and the Caribbean (MDG=M49)	28	28.5	28.1	29.4	15.8	3.3	0	9	0	0.8	0.3	0.1	0	2611.7	3665	804.3	24087.2	c
Central Asia (M49) and Southern Asia (MDG=M49)	37.8	30.6	27.2	25.8	23.3	0	0	1.8	0	0.4	0.3	0	0	1036.1	9091.5	29.2	39312.5	c
Central Asia (M49)	3.7	3.1	3.1	3.4	0.1	0	0	3.3	0	0	0	0	0	115.7	2.7	4.9	3612.4	c
Southern Asia (MDG=M49)	43	34.1	29.9	28.1	25.7	0	0	1.6	0	0.4	0.3	0	0	912.9	9088.8	25.2	35700.1	c
Eastern Asia (M49) and South-eastern Asia (MDG=M49)	23.2	13.6	13.9	14.4	7	0.3	0.3	4	0	0.8	1.4	0.5	0	6366.8	9255.8	438.9	111811.7	c
Eastern Asia (M49)	19.9	10.5	11	11.6	3.8	0.1	0.3	4.1	0	1	1.7	0.5	0	5619.2	4979.4	248.3	93843.6	c
South-eastern Asia (MDG=M49)	38.4	31.7	29.3	29	23.9	1.1	0.2	3.3	0	0	0.1	0.4	0	748.7	4276.4	190.1	17968.1	c
Western Asia (M49) and Northern Africa (M49)	8.4	6.2	5.5	5.3	2.8	0	0	1.3	0	0.3	0.4	0.4	0	397.7	749.4	6.4	21662.2	c
Western Asia (M49)	6.1	4.5	3.9	3.8	0.9	0	0	1.3	0	0.3	0.5	0.6	0	309.1	289.2	5.8	16065.5	c

UN country name	Share in total final energy consumption (%)													Final consumption of renewable energy (PJ)			Total final energy consumption (PJ)	
	Renewable energy				Solid biofuels	Liquid biofuels	Biogases	Hydro	Tide	Wind	Solar	Geothermal	Municipal waste (renew)	Electricity consumption (1)	Heat raising (2)	Transport (3)		
	2000	2010	2015	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	
Northern Africa (M49)	14.9	11.2	10.2	9.8	8.2	0	0	1.2	0	0.3	0.1	0	0	88.7	460.4	0.7	5596.7	c
Sub-Saharan Africa (M49)	72.3	70.7	68.5	68.5	66.6	0	0	1.6	0	0.1	0.1	0.1	0	329.1	11767	4.7	17658.1	c
Oceania (M49)	13.1	12.7	13.5	13.7	7.2	0.1	0.1	3.2	0	1.1	1	0.8	0	229.8	306.1	9.6	3993.7	c
Oceania (M49) excluding Australia and New Zealand (M49)	48	38.6	35.8	34.7	30.7	0	0	3	0	0.1	0.3	0.6	0	8.6	67	0	217.9	c
Australia and New Zealand (M49)	11.4	11.3	12.2	12.4	5.9	0.1	0.2	3.2	0	1.2	1.1	0.8	0	221	239.1	9.7	3775.9	c
Least Developed Countries (LDCs)	83.8	75.6	72.7	70.8	67.5	0	0.1	3.2	0	0	0	0	0	353.9	7362.2	0.2	10898.2	c
Small island developing States (SIDS)	23.9	17.5	17.9	18	15.8	0.6	0	1	0	0.2	0.2	0.1	0.1	36	310.9	2.3	1945	c
Landlocked developing countries (LLDCs)	43.4	42.5	43.5	44	39.5	0.1	0.1	4.3	0	0	0	0	0	410.5	3837.4	17.7	9699.7	c
Africa (M49)	60.5	56.1	54.6	54.4	52.6	0	0	1.5	0	0.2	0.1	0.1	0	416.3	12225.2	5	23254.8	c
Asia (M49)	25.2	16.8	15.9	16	10.3	0.2	0.2	3.2	0	0.7	1.1	0.4	0	7660.7	18637.4	464.6	167189.7	c
Americas (m49)	11.7	14.2	15.5	16.5	6.8	2.9	0.1	4.9	0	1.2	0.4	0.1	0	6242.4	5913.5	2503.7	88998.2	c
Caribbean (M49)	23.4	17.7	20.1	20.7	18.4	1	0	0.7	0	0.4	0.2	0	0	16.3	203	1.5	1068.3	c
Central America (M49)	18.1	16.2	16.5	17.3	12.9	0	0	2.9	0	0.7	0.3	0.5	0	279.9	780	0.9	6126.7	c
Eastern Africa (M49)	87.8	87.2	84.2	82.8	79.4	0	0	3.1	0	0.1	0	0.3	0	185.7	4247.6	1.3	5352.8	c
Eastern Europe (M49)	4.3	5.7	6.3	6.4	3.4	0.3	0.1	2.2	0	0.3	0.1	0	0	659.4	923.2	126.2	26748.5	c
Melanesia (M49)	54.5	43.3	39.8	38.5	34.5	0	0	3	0	0.1	0.1	0.7	0	7.4	65.3	0	188.9	c
Micronesia (M49)	5.1	5.5	5.9	6.7	5.3	0	0	0	0	0	1.4	0	0	0.2	0.7	0	14	c
Middle Africa (M49)	88	78.4	77.9	82.4	79.3	0	0	3	0	0	0.1	0	0	66.9	1716.8	0	2164.2	c
Northern Europe (M49)	15.4	19.1	25.7	27.1	11.8	1.7	0.6	8	0	3.2	0.5	0.5	0.8	1347.2	1111	183.3	9753.3	c
Polynesia (M49)	16.6	15.7	12.9	13.1	6.3	0	0	5.6	0	0	1.1	0	0	1	1	0	15	c
South America (M49)	32.3	33.5	32.6	34.2	16.7	4.7	0	11.6	0	0.9	0.3	0	0	2293.7	2682	802.2	16892.2	c
Southern Africa (M49)	18.3	12.2	11.5	11.5	10.2	0	0	0.3	0	0.5	0.6	0	0	33.9	303.1	0.6	2923.5	c
Southern Europe (M49)	8.7	15.4	18.1	17.3	7.6	1.3	0.5	3	0	2.7	1.8	0.3	0.2	842	828.1	142	10452.8	c
Western Africa (M49)	83.3	82	77.2	76.9	76.2	0	0	0.6	0	0	0	0	0	47.9	5500	0	7217.6	c

UN country name	Share in total final energy consumption (%)													Final consumption of renewable energy (PJ)			Total final energy consumption (PJ)	
	Renewable energy				Solid biofuels	Liquid biofuels	Biogases	Hydro	Tide	Wind	Solar	Geothermal	Municipal waste (renew)	Electricity consumption (1)	Heat raising (2)	Transport (3)		
	2000	2010	2015	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	2017	
Western Europe (M49)	6.7	11.2	14.2	15	6	1.6	1.1	2.2	0	2.3	1.1	0.1	0.6	1252.5	1358.9	344.5	19705.7	c
Developing regions (MDG)	32.8	23.5	22.4	22.5	16.3	0.6	0.2	3.7	0	0.7	0.8	0.3	0	10145.9	34396.4	1262.1	203302.1	c
Developed regions (MDG)	7.2	9.6	11.5	12.1	4.6	1.7	0.3	3.2	0	1.4	0.7	0.1	0.2	8326.3	6896.2	2550.9	146794.6	c
Northern Africa (MDG)	7.2	5.4	4.8	4.6	3.4	0	0	0.8	0	0.3	0.1	0	0	61.9	172.9	0.5	5070.7	c
Sub-Saharan Africa (MDG)	72.5	70.4	68.3	68.3	66.3	0	0	1.7	0	0.1	0.1	0.1	0	357.5	12054.6	4.9	18184.1	c
Eastern Asia (MDG)	25.4	11.5	11.6	12.1	4	0.1	0.4	4.3	0	1.1	1.7	0.5	0	5063.4	4801.5	221	83033.9	c
Western Asia (MDG)	5.7	3.9	3.7	3.5	0.8	0	0	1.2	0	0.4	0.4	0.6	0	264.1	244.2	5.1	14837	c
Oceania (MDG)	48	38.6	35.8	34.7	30.7	0	0	3	0	0.1	0.3	0.6	0	8.6	67	0	217.9	c
Caucasus and Central Asia (MDG)	4.8	4.2	4	4.3	0.6	0	0	3.7	0	0	0	0	0	151.1	25.8	5.9	4203.1	c

REFERENCE
a. Source: Energy Balances, UN Statistics Division (2019)
b. Source: IEA (2019), World Energy Balances
c. Sources: IEA (2019), World Energy Balances; Energy Balances, UN Statistics Division (2019)

DEFINITIONS
Final consumption of renewable energy
(1) Electricity consumption: Covers final consumption of renewable electricity in all sectors excluding transport
(2) Heat raising: Covers final consumption of renewable energy for heat raising purposes (excluding electricity) in manufacturing, construction and non fuel mining industries, household, commerce and public services, agriculture, forestry, fishing and not elsewhere specified.
(3) Transport: Covers final consumption of renewable energy (including electricity) in the transport sector.

NOTES
Allocation of renewable electricity and heat to final energy consumption.
To establish the contribution of each technology to the final consumption, the aggregated figures for electricity and commercial heat have to be allocated to the relevant technology. This can be done based on the proportions exhibited in production data, attributing the losses proportionally (GTF 2013). For instance, if total final consumption table reports 150 TJ for biogases, while total final consumption of electricity is 400 TJ and heat 100 TJ, and the share of biogases in total electricity output is 10 percent and 5 percent in heat, the total reported number for biogases consumption will be 195 TJ (150 TJ+400TJ*10%+100TJ*5%).

SDG 7.3 – ENERGY EFFICIENCY

Data provided by the IEA and UNSD

UN country name	Energy intensity (MJ/USD 2011 PPP)				Compound annual growth rate of Energy intensity (%)			Source
	2000	2010	2015	2017	2000-2010	2010-2015	2015-2017	
Afghanistan	1.7	2.8	2.2	1.9	5.0%	-4.4%	-7.0%	*a*
Albania	4.5	3.1	2.9	2.9	-3.7%	-1.2%	0.2%	*b*
Algeria	3.6	3.6	4.2	4.1	0.2%	2.8%	-1.2%	*b*
American Samoa	..	..	..	..	..	..	..	
Andorra	..	..	..	..	..	..	..	
Angola	4.5	3.2	3.5	3.4	-3.4%	1.8%	-0.6%	*b*
Anguilla	..	..	..	..	..	..	..	
Antigua and Barbuda	2.8	3.6	3.5	3.2	2.6%	-0.7%	-3.1%	*a*
Argentina	4.7	4.3	4.3	4.3	-0.9%	0.2%	-0.5%	*b*
Armenia	9.4	5.4	5.2	5.2	-5.4%	-0.7%	-0.3%	*b*
Aruba	6.8	7.9	3.4	3.4	1.6%	-15.5%	0.4%	*a*
Australia	6.7	5.8	5.1	4.8	-1.4%	-2.8%	-2.3%	*b*
Austria	3.9	3.9	3.6	3.5	0.1%	-1.7%	-1.0%	*b*
Azerbaijan	12.8	3.3	3.7	3.8	-12.6%	2.3%	1.6%	*b*
Bahamas	2.8	3.3	2.7	2.6	1.8%	-4.0%	-1.3%	*a*
Bahrain	11.2	10.5	9.9	9.1	-0.6%	-1.3%	-4.1%	*b*
Bangladesh	3.6	3.4	3.1	2.9	-0.6%	-1.6%	-3.4%	*b*
Barbados	3.8	4.4	3.6	3.3	1.5%	-3.8%	-5.0%	*a*
Belarus	13.7	7.5	6.5	6.5	-5.9%	-2.8%	0.6%	*b*
Belgium	6.4	5.6	4.7	4.8	-1.3%	-3.6%	1.0%	*b*
Belize	6.4	5.1	5.5	5.5	-2.3%	1.5%	0.6%	*a*
Benin	7.3	9.3	8.8	9.2	2.5%	-1.1%	2.5%	*b*
Bermuda	2.3	2.4	..	..	0.5%	..	..	
Bhutan	21.8	12.2	10.5	9.7	-5.7%	-2.9%	-3.7%	*a*
Bolivia (Plurinational State of)	5.6	4.9	5.0	4.9	-1.3%	0.2%	-0.5%	*b*
Bonaire, Sint Eustatius and Saba	..	..	..	..	..	..	..	
Bosnia and Herzegovina	7.6	7.5	6.7	6.9	-0.2%	-2.3%	1.4%	*b*

UN country name	Energy intensity (MJ/USD 2011 PPP)				Compound annual growth rate of Energy intensity (%)			Source
	2000	2010	2015	2017	2000-2010	2010-2015	2015-2017	
Botswana	4.3	3.4	3.4	3.3	-2.2%	-0.1%	-2.2%	*b*
Brazil	3.9	3.9	4.1	4.1	-0.1%	1.0%	0.1%	*b*
British Virgin Islands	..	..	..	..	..	..	..	
Brunei Darussalam	3.7	4.3	3.7	4.9	1.7%	-3.4%	16.0%	*b*
Bulgaria	10.8	6.6	6.4	6.0	-4.8%	-0.7%	-3.3%	*b*
Burkina Faso	6.6	6.5	6.0	5.7	-0.1%	-1.8%	-2.3%	*a*
Burundi	12.0	9.1	8.5	8.7	-2.7%	-1.4%	1.4%	*a*
Cabo Verde	2.7	3.2	2.8	2.9	1.5%	-2.7%	1.6%	*a*
Cambodia	8.5	6.2	5.8	5.8	-3.1%	-1.4%	0.2%	*b*
Cameroon	6.6	5.0	5.1	4.8	-2.8%	0.4%	-3.1%	*b*
Canada	9.2	7.9	7.7	7.6	-1.6%	-0.6%	-0.7%	*b*
Cayman Islands	2.0	2.2	2.0	2.0	1.0%	-1.9%	-1.0%	*a*
Central African Republic	7.2	5.2	7.3	6.7	-3.2%	6.8%	-4.3%	*a*
Chad	7.4	3.5	2.7	3.3	-7.3%	-4.7%	8.9%	*a*
Chile	4.8	3.9	3.7	3.9	-2.1%	-1.0%	2.4%	*b*
China	10.2	8.4	6.8	6.1	-1.9%	-4.2%	-5.2%	*b*
China, Hong Kong Special Administrative Region	2.5	1.7	1.6	1.4	-3.9%	-1.0%	-6.1%	*b*
China, Macao Special Administrative Region	1.3	0.6	0.7	0.7	-7.3%	3.9%	0.0%	*a*
Colombia	3.2	2.6	2.6	2.5	-2.0%	-0.3%	-2.1%	*b*
Comoros	2.5	2.8	2.7	3.1	1.0%	-0.9%	7.4%	*a*
Congo	2.1	3.1	4.3	4.8	4.1%	6.9%	5.2%	*b*
Cook Islands	..	..	..	..	..	..	..	
Costa Rica	3.1	3.2	2.9	2.8	0.4%	-1.9%	-3.0%	*b*
Côte d'Ivoire	5.8	6.3	5.4	5.0	0.9%	-3.1%	-3.8%	*b*
Croatia	5.0	4.4	4.0	3.9	-1.3%	-2.0%	-1.1%	*b*
Cuba	4.3	2.3	1.9	1.8	-6.1%	-3.2%	-2.9%	*b*
Curaçao	22.5	20.4	20.5	17.5	-1.0%	0.1%	-7.5%	*b*
Cyprus	4.4	3.6	3.2	3.3	-1.9%	-2.3%	0.3%	*b*
Czechia	7.9	6.4	5.5	5.3	-2.2%	-3.0%	-1.8%	*b*

UN country name	Energy intensity (MJ/USD 2011 PPP)				Compound annual growth rate of Energy intensity (%)			Source
	2000	2010	2015	2017	2000-2010	2010-2015	2015-2017	
Democratic People's Republic of Korea	6.9	5.7	3.0	5.8	-1.8%	-12.0%	38.0%	*b*
Democratic Republic of the Congo	21.6	19.5	19.5	19.0	-1.0%	0.0%	-1.5%	*b*
Denmark	3.5	3.3	2.6	2.6	-0.3%	-4.7%	-0.2%	*b*
Djibouti	5.6	4.8	2.8	2.6	-1.5%	-9.9%	-5.2%	*a*
Dominica	2.9	3.5	3.6	3.6	1.9%	0.8%	0.0%	*a*
Dominican Republic	4.4	2.9	2.5	2.3	-4.1%	-3.0%	-2.9%	*b*
Ecuador	4.0	3.5	3.6	3.5	-1.1%	0.3%	-2.0%	*b*
Egypt	3.3	3.7	3.5	3.8	1.3%	-1.0%	3.6%	*b*
El Salvador	4.0	4.6	3.9	3.7	1.4%	-3.3%	-2.3%	*b*
Equatorial Guinea	1.4	2.6	2.0	1.8	5.9%	-5.0%	-5.7%	*a*
Eritrea	5.2	5.0	4.4	4.3	-0.4%	-2.7%	-0.8%	*b*
Estonia	9.0	7.8	6.3	6.1	-1.4%	-4.2%	-1.8%	*b*
Eswatini	6.6	5.0	4.7	4.1	-2.8%	-1.2%	-7.0%	*a*
Ethiopia	25.1	14.8	10.8	9.7	-5.1%	-6.1%	-5.4%	*b*
Falkland Islands (Malvinas)	..	..	..	..	..	..	..	
Faroe Islands	..	..	..	..	..	..	..	
Fiji	4.0	3.4	4.8	4.2	-1.6%	7.1%	-6.7%	*a*
Finland	7.5	7.2	6.3	6.1	-0.5%	-2.4%	-1.6%	*b*
France	5.0	4.6	4.2	4.0	-0.8%	-1.9%	-2.5%	*b*
French Guiana	..	..	..	..	..	..	..	
French Polynesia	..	..	..	..	..	..	..	
Gabon	2.8	8.5	6.7	6.3	11.6%	-4.4%	-3.2%	*b*
Gambia	4.9	4.4	4.6	4.4	-1.0%	0.6%	-1.7%	*a*
Georgia	8.4	5.0	5.8	5.6	-5.1%	3.1%	-1.8%	*b*
Germany	4.7	4.1	3.6	3.5	-1.2%	-2.8%	-1.7%	*b*
Ghana	6.2	4.2	3.7	3.3	-3.8%	-2.5%	-6.1%	*b*
Gibraltar	..	..	..	..	..	..	..	
Greece	4.2	3.6	3.7	3.7	-1.5%	0.5%	-0.5%	*b*
Greenland	..	..	..	..	..	..	..	
Grenada	3.0	3.4	3.0	2.9	1.4%	-2.6%	-1.5%	*a*

UN country name	Energy intensity (MJ/USD 2011 PPP)				Compound annual growth rate of Energy intensity (%)			Source
	2000	2010	2015	2017	2000-2010	2010-2015	2015-2017	
Guadeloupe	..	..	..	..	..	..	..	
Guam	..	..	..	..	..	..	..	
Guatemala	4.2	4.7	4.5	4.6	1.2%	-1.0%	1.2%	*b*
Guernsey	..	..	..	..	..	..	..	
Guinea	10.2	8.7	7.1	5.9	-1.7%	-4.0%	-9.0%	*a*
Guinea-Bissau	13.7	12.8	11.8	10.8	-0.6%	-1.5%	-4.4%	*a*
Guyana	9.7	7.9	6.4	6.4	-2.1%	-4.2%	0.4%	*a*
Haiti	5.7	10.6	10.3	10.4	6.5%	-0.5%	0.0%	*b*
Honduras	5.8	5.9	6.4	6.0	0.2%	1.5%	-3.2%	*b*
Hungary	5.7	5.0	4.3	4.2	-1.4%	-2.9%	-0.4%	*b*
Iceland	13.3	17.8	16.0	13.9	2.9%	-2.1%	-6.6%	*b*
India	6.5	5.3	4.7	4.2	-1.9%	-2.7%	-4.6%	*b*
Indonesia	5.3	4.2	3.5	3.5	-2.3%	-3.6%	-0.9%	*b*
Iran (Islamic Republic of)	5.9	6.4	7.6	7.1	0.7%	3.5%	-3.2%	*b*
Iraq	3.8	3.9	3.7	4.3	0.4%	-1.4%	8.5%	*b*
Ireland	3.7	3.0	2.0	1.8	-2.3%	-7.9%	-4.2%	*b*
Isle of Man	..	..	..	..	..	..	..	
Israel	4.5	4.3	3.5	3.3	-0.5%	-3.9%	-2.9%	*b*
Italy	3.5	3.4	3.1	3.0	-0.2%	-2.0%	-1.1%	*b*
Jamaica	6.9	4.6	4.8	4.8	-4.0%	0.6%	0.1%	*b*
Japan	5.1	4.6	3.8	3.7	-1.0%	-3.9%	-1.2%	*b*
Jersey	..	..	..	..	..	..	..	
Jordan	5.5	4.4	4.6	4.8	-2.3%	1.3%	1.5%	*b*
Kazakhstan	10.1	8.8	7.9	8.2	-1.3%	-2.1%	1.7%	*b*
Kenya	8.7	8.1	7.9	7.6	-0.8%	-0.3%	-2.1%	*b*
Kiribati	5.5	7.4	6.3	6.3	3.0%	-3.3%	0.2%	*a*
Kuwait	5.5	6.0	5.4	5.3	0.9%	-2.1%	-0.4%	*b*
Kyrgyzstan	9.6	7.6	8.7	7.7	-2.3%	2.7%	-6.0%	*b*
Lao People's Democratic Republic	4.4	3.8	4.4	5.4	-1.3%	3.0%	10.9%	*a*
Latvia	6.1	4.9	3.9	3.8	-2.0%	-4.5%	-1.7%	*b*
Lebanon	5.1	3.8	4.5	4.8	-2.9%	3.6%	3.2%	*b*

UN country name	Energy intensity (MJ/USD 2011 PPP)				Compound annual growth rate of Energy intensity (%)			Source
	2000	2010	2015	2017	2000-2010	2010-2015	2015-2017	
Lesotho	14.4	10.7	8.0	8.0	-2.9%	-5.8%	0.3%	*a*
Liberia	13.0	17.5	16.8	17.6	3.0%	-0.8%	2.5%	*a*
Libya	5.6	4.6	6.9	4.9	-2.1%	8.4%	-15.4%	*b*
Liechtenstein	..	..	..	..	..	..	..	
Lithuania	7.0	4.5	3.8	3.8	-4.3%	-3.6%	0.1%	*b*
Luxembourg	3.9	3.8	2.9	2.9	-0.3%	-5.1%	-1.4%	*b*
Madagascar	6.7	6.9	7.6	8.9	0.2%	2.1%	8.0%	*a*
Malawi	6.6	4.8	4.2	4.1	-3.1%	-2.8%	-0.8%	*a*
Malaysia	5.4	5.1	4.6	4.2	-0.5%	-2.0%	-4.8%	*b*
Maldives	2.4	3.1	3.2	3.3	2.6%	1.1%	0.2%	*a*
Mali	3.5	2.8	2.8	2.6	-2.3%	0.2%	-4.7%	*a*
Malta	3.0	3.0	1.8	1.6	0.1%	-10.1%	-3.2%	*b*
Marshall Islands	10.5	11.7	11.4	11.0	1.1%	-0.5%	-1.6%	*a*
Martinique	..	..	..	..	..	..	..	
Mauritania	3.9	3.7	4.0	4.6	-0.3%	1.4%	7.6%	*a*
Mauritius	3.2	2.8	2.5	2.3	-1.3%	-1.8%	-4.3%	*b*
Mayotte	..	..	..	..	..	..	..	
Mexico	4.0	4.1	3.6	3.4	0.2%	-2.2%	-3.6%	*b*
Micronesia (Federated States of)	5.8	4.5	6.2	6.1	-2.4%	6.6%	-1.0%	*a*
Mongolia	9.0	7.9	5.7	5.9	-1.3%	-6.2%	1.7%	*b*
Montenegro	..	5.4	4.5	4.2	..	-3.9%	-3.3%	*b*
Montserrat	..	..	..	..	..	..	..	
Morocco	3.5	3.4	3.2	3.2	-0.5%	-1.2%	0.0%	*b*
Mozambique	29.4	13.3	14.2	13.2	-7.6%	1.4%	-3.8%	*b*
Myanmar	8.9	3.1	2.9	3.2	-10.0%	-1.4%	4.7%	*b*
Namibia	3.8	3.6	3.3	3.5	-0.4%	-1.5%	2.2%	*b*
Nauru	17.1	8.8	4.7	3.5	-6.4%	-12.0%	-13.0%	*a*
Nepal	9.3	8.0	7.4	7.8	-1.5%	-1.5%	2.9%	*b*
Netherlands	4.7	4.5	3.8	3.7	-0.3%	-3.4%	-1.1%	*b*
New Caledonia	..	..	..	..	..	..	..	
New Zealand	6.6	5.5	5.4	5.0	-1.9%	-0.5%	-3.1%	*b*
Nicaragua	6.1	5.4	5.4	5.0	-1.3%	0.0%	-3.2%	*b*

UN country name	Energy intensity (MJ/USD 2011 PPP)				Compound annual growth rate of Energy intensity (%)			Source
	2000	2010	2015	2017	2000-2010	2010-2015	2015-2017	
Niger	7.2	7.0	6.9	6.6	-0.3%	-0.3%	-1.7%	*b*
Nigeria	9.7	6.6	5.9	6.4	-3.8%	-2.3%	4.5%	*b*
Niue	..	..	..	..	..	..	..	
North Macedonia	6.4	5.1	4.2	4.2	-2.2%	-4.0%	0.0%	*b*
Northern Mariana Islands	..	..	..	..	..	..	..	
Norway	4.2	4.0	3.6	3.7	-0.4%	-2.4%	1.1%	*b*
Oman	3.2	5.7	6.3	6.4	6.0%	2.1%	0.6%	*b*
Pakistan	5.5	4.9	4.5	4.4	-1.2%	-1.6%	-0.7%	*b*
Palau	12.3	11.8	10.2	11.0	-0.4%	-3.0%	4.2%	*a*
Panama	3.1	2.6	2.2	2.1	-1.7%	-3.8%	-0.9%	*b*
Papua New Guinea	6.5	6.2	5.4	5.1	-0.4%	-2.9%	-2.3%	*a*
Paraguay	3.8	3.3	3.1	3.7	-1.3%	-1.5%	8.5%	*b*
Peru	3.0	2.8	2.7	2.6	-0.7%	-0.7%	-1.5%	*b*
Philippines	5.1	3.2	3.1	3.1	-4.5%	-0.9%	-0.5%	*b*
Poland	6.6	5.1	4.1	4.2	-2.6%	-4.1%	0.7%	*b*
Portugal	3.9	3.4	3.3	3.3	-1.2%	-0.5%	-0.6%	*b*
Puerto Rico	0.1	0.2	0.4	0.4	7.2%	14.3%	0.0%	*a*
Qatar	7.1	5.2	6.2	5.9	-3.1%	3.5%	-2.7%	*b*
Republic of Korea	8.1	7.0	6.6	6.4	-1.5%	-1.2%	-1.2%	*b*
Republic of Moldova	11.8	9.3	7.7	7.3	-2.4%	-3.7%	-2.5%	*b*
Réunion	..	..	..	..	..	..	..	
Romania	6.5	4.2	3.3	3.0	-4.4%	-4.7%	-3.4%	*b*
Russian Federation	12.5	8.7	8.0	8.3	-3.6%	-1.5%	1.9%	*b*
Rwanda	8.4	6.0	4.8	4.4	-3.4%	-4.2%	-4.9%	*a*
Saint Helena	..	..	..	..	..	..	..	
Saint Kitts and Nevis	3.0	2.6	2.4	2.4	-1.4%	-1.7%	0.0%	*a*
Saint Lucia	3.1	2.7	2.6	2.3	-1.5%	-0.7%	-4.6%	*a*
Saint Pierre and Miquelon	..	..	..	..	..	..	..	
Saint Vincent and the Grenadines	2.8	3.1	2.8	3.3	1.1%	-2.0%	7.9%	*a*
Samoa	4.2	3.9	4.2	4.1	-0.9%	1.8%	-1.4%	*a*
Sao Tome and Principe	5.9	5.2	4.7	4.5	-1.3%	-2.2%	-1.2%	*a*

UN country name	Energy intensity (MJ/USD 2011 PPP)				Compound annual growth rate of Energy intensity (%)			Source
	2000	2010	2015	2017	2000-2010	2010-2015	2015-2017	
Saudi Arabia	4.6	6.2	5.8	5.5	3.1%	-1.4%	-2.8%	*b*
Senegal	4.2	4.7	4.1	3.6	1.1%	-2.5%	-6.5%	*b*
Serbia	9.5	6.7	6.1	6.1	-3.4%	-2.0%	0.2%	*b*
Seychelles	5.4	3.3	2.9	3.2	-4.6%	-2.9%	5.6%	*a*
Sierra Leone	13.1	7.7	7.0	6.5	-5.2%	-1.9%	-4.0%	*a*
Singapore	3.7	2.6	2.8	3.1	-3.4%	1.3%	5.6%	*b*
Sint Maarten (Dutch part)	..	..	9.3	..	..	..	..	
Slovakia	8.8	5.5	4.5	4.4	-4.6%	-4.1%	-0.2%	*b*
Slovenia	5.9	5.2	4.6	4.5	-1.3%	-2.6%	-1.3%	*b*
Solomon Islands	8.7	8.0	6.0	5.5	-0.7%	-5.8%	-4.3%	*a*
Somalia	..	..	..	..	..	..	..	
South Africa	10.5	9.0	7.8	8.0	-1.5%	-2.9%	1.1%	*b*
South Sudan	..	..	1.7	1.5	..	..	-6.5%	*b*
Spain	4.2	3.5	3.3	3.3	-1.7%	-1.3%	-0.2%	*b*
Sri Lanka	3.4	2.4	2.1	2.0	-3.4%	-2.5%	-1.9%	*b*
State of Palestine	3.5	3.5	3.8	3.8	0.1%	1.4%	-0.4%	*a*
Sudan	7.2	4.4	4.7	4.3	-4.8%	1.3%	-3.6%	*b*
Suriname	5.5	3.9	3.3	1.9	-3.4%	-3.3%	-24.4%	*b*
Sweden	6.1	5.3	4.2	4.4	-1.4%	-4.6%	2.4%	*b*
Switzerland	2.9	2.5	2.1	2.0	-1.4%	-3.0%	-2.6%	*b*
Syrian Arab Republic	7.3	6.6	4.1	4.5	-1.0%	-9.0%	4.3%	*b*
Tajikistan	12.2	5.7	5.1	5.2	-7.4%	-2.0%	1.2%	*b*
Thailand	5.2	5.4	5.4	5.1	0.4%	-0.1%	-2.6%	*b*
Timor-Leste	..	0.5	0.9	0.9	..	14.1%	3.9%	*a*
Togo	14.5	16.4	13.3	12.9	1.2%	-4.0%	-1.7%	*b*
Tonga	3.2	3.2	3.0	3.7	-0.1%	-1.1%	10.1%	*a*
Trinidad and Tobago	18.0	20.0	18.4	17.7	1.0%	-1.6%	-1.9%	*b*
Tunisia	4.2	3.9	3.8	3.8	-0.7%	-0.7%	0.4%	*b*
Turkey	3.6	3.4	3.0	3.0	-0.7%	-2.9%	1.3%	*b*
Turkmenistan	25.9	18.8	13.9	12.3	-3.2%	-5.9%	-6.0%	*b*
Turks and Caicos Islands	..	..	3.9	4.0	..	..	1.5%	*a*

UN country name	Energy intensity (MJ/USD 2011 PPP)				Compound annual growth rate of Energy intensity (%)			Source
	2000	2010	2015	2017	2000-2010	2010-2015	2015-2017	
Tuvalu	3.4	3.9	3.8	3.7	1.5%	-0.5%	-1.6%	*a*
Uganda	12.6	10.2	9.8	9.5	-2.1%	-0.8%	-1.4%	*a*
Ukraine	23.8	15.5	12.2	11.2	-4.2%	-4.7%	-4.2%	*b*
United Arab Emirates	4.1	5.4	5.4	4.5	2.8%	-0.2%	-8.5%	*b*
United Kingdom of Great Britain and Northern Ireland	4.8	3.7	3.0	2.8	-2.5%	-4.3%	-3.2%	*b*
United Republic of Tanzania	11.1	7.5	6.3	5.7	-3.8%	-3.4%	-4.8%	*b*
United States of America	7.4	6.1	5.4	5.1	-2.0%	-2.4%	-2.6%	*b*
United States Virgin Islands	..	..	..	..	..	..	..	
Uruguay	3.0	3.0	3.1	3.0	-0.2%	0.7%	-1.0%	*b*
Uzbekistan	34.1	14.7	9.2	7.2	-8.1%	-9.0%	-11.0%	*b*
Vanuatu	4.0	3.9	3.9	3.7	-0.3%	0.0%	-2.9%	*a*
Venezuela (Bolivarian Republic of)	6.1	6.3	5.2	6.0	0.4%	-3.8%	7.6%	*b*
Viet Nam	5.9	6.3	5.9	5.6	0.8%	-1.4%	-3.0%	*b*
Wallis and Futuna Islands	..	..	..	..	..	..	..	
Yemen	2.9	3.1	1.9	2.0	0.8%	-9.6%	4.4%	*b*
Zambia	11.9	8.0	7.8	8.1	-3.8%	-0.6%	1.7%	*b*
Zimbabwe	12.0	16.6	13.7	13.0	3.3%	-3.8%	-2.6%	*b*
World	6.6	5.9	5.2	5.0	-1.2%	-2.2%	-2.2%	*c*
Northern America (M49) and Europe (M49)	6.7	5.6	4.9	4.8	-1.8%	-2.4%	-1.5%	*c*
Northern America (M49)	7.5	6.2	5.6	5.3	-1.9%	-2.2%	-2.4%	*c*
Europe (M49)	6.0	5.1	4.5	4.4	-1.6%	-2.5%	-0.8%	*c*
Latin America and the Caribbean (MDG=M49)	4.1	4.0	3.8	3.7	-0.3%	-0.9%	-1.1%	*c*
Central Asia (M49) and Southern Asia (MDG=M49)	6.7	5.7	5.1	4.7	-1.6%	-2.0%	-3.9%	*c*
Central Asia (M49)	17.6	11.0	8.9	8.3	-4.6%	-4.2%	-3.0%	*c*
Southern Asia (MDG=M49)	6.1	5.3	4.9	4.5	-1.3%	-1.8%	-3.8%	*c*
Eastern Asia (M49) and South-eastern Asia (MDG=M49)	7.1	6.6	5.7	5.3	-0.7%	-3.1%	-3.6%	*c*
Eastern Asia (M49)	7.6	7.2	6.1	5.6	-0.6%	-3.4%	-4.0%	*c*
South-eastern Asia (MDG=M49)	5.3	4.5	4.0	3.9	-1.7%	-2.0%	-1.2%	*c*

UN country name	Energy intensity (MJ/USD 2011 PPP)				Compound annual growth rate of Energy intensity (%)			Source
	2000	2010	2015	2017	2000-2010	2010-2015	2015-2017	
Western Asia (M49) and Northern Africa (M49)	4.3	4.6	4.4	4.2	0.5%	-0.9%	-1.3%	c
Western Asia (M49)	4.5	4.9	4.5	4.4	0.8%	-1.5%	-1.6%	c
Northern Africa (M49)	3.9	3.8	3.9	3.9	-0.3%	0.5%	-0.1%	c
Sub-Saharan Africa (M49)	9.6	7.5	6.7	6.8	-2.4%	-2.1%	0.6%	c
Oceania (M49)	6.7	5.8	5.1	4.9	-1.4%	-2.5%	-2.5%	c
Oceania (M49) excluding Australia and New Zealand (M49)	5.9	5.6	5.3	5.0	-0.4%	-1.3%	-2.9%	c
Australia and New Zealand (M49)	6.7	5.8	5.1	4.8	-1.4%	-2.5%	-2.5%	c
Least Developed Countries (LDCs)	7.8	5.8	5.4	5.3	-3.0%	-1.2%	-1.1%	c
Small island developing States (SIDS)	4.1	3.4	3.3	3.2	-1.9%	-0.9%	-0.3%	c
Landlocked developing countries (LLDCs)	12.5	8.3	7.2	7.0	-4.0%	-3.0%	-1.4%	c
Africa (M49)	7.1	5.9	5.6	5.7	-1.7%	-1.0%	0.2%	c
Asia (M49)	6.6	6.2	5.4	5.0	-0.6%	-2.7%	-3.4%	c
Americas (m49)	6.5	5.5	5.0	4.8	-1.7%	-1.9%	-1.9%	c
Caribbean (M49)	..	..	..	..	..	..	..	
Central America (M49)	4.0	4.1	3.7	3.4	0.2%	-2.1%	-3.3%	c
Eastern Africa (M49)	12.2	9.5	8.3	7.9	-2.5%	-2.6%	-2.5%	c
Eastern Europe (M49)	11.2	7.9	6.9	6.9	-3.5%	-2.6%	0.3%	c
Melanesia (M49)	5.9	5.6	5.3	4.9	-0.4%	-1.4%	-3.1%	c
Micronesia (M49)	8.9	8.4	7.9	7.9	-0.6%	-1.1%	-0.2%	c
Middle Africa (M49)	7.1	5.8	6.1	6.2	-2.1%	1.2%	0.3%	c
Northern Europe (M49)	5.0	4.2	3.3	3.2	-1.8%	-4.2%	-1.8%	c
Polynesia (M49)	..	..	..	..	..	..	..	
South America (M49)	4.2	4.0	3.9	3.9	-0.5%	-0.3%	0.0%	c
Southern Africa (M49)	10.1	8.6	7.4	7.5	-1.6%	-2.9%	0.9%	c
Southern Europe (M49)	3.9	3.6	3.3	3.3	-0.8%	-1.5%	-0.5%	c
Western Africa (M49)	8.6	6.4	5.7	6.0	-2.8%	-2.3%	2.2%	c
Western Europe (M49)	4.7	4.3	3.8	3.6	-1.0%	-2.6%	-1.7%	c
Developing regions (MDG)	6.3	5.9	5.3	5.0	-0.7%	-2.2%	-2.9%	c

UN country name	Energy intensity (MJ/USD 2011 PPP)				Compound annual growth rate of Energy intensity (%)			Source
	2000	2010	2015	2017	2000-2010	2010-2015	2015-2017	
Developed regions (MDG)	6.5	5.5	4.8	4.7	-1.7%	-2.5%	-1.6%	*c*
Northern Africa (MDG)	3.7	3.7	3.8	3.8	0.2%	0.5%	0.1%	*c*
Sub-Saharan Africa (MDG)	9.5	7.3	6.6	6.7	-2.5%	-2.0%	0.4%	*c*
Eastern Asia (MDG)	9.4	8.0	6.6	6.0	-1.6%	-3.8%	-4.7%	*c*
Western Asia (MDG)	4.3	4.9	4.6	4.4	1.3%	-1.5%	-1.5%	*c*
Oceania (MDG)	5.9	5.6	5.3	5.0	-0.4%	-1.3%	-2.9%	*c*
Caucasus and Central Asia (MDG)	16.3	9.1	7.8	7.4	-5.7%	-3.1%	-2.1%	*c*

REFERENCE

a. Source: Energy Balances, UN Statistics Division (2019)

b. Source: IEA (2019), World Energy Balances

c. Source: IEA (2019), World Energy Balances; Energy Balances, UN Statistics Division (2019)

DEFINITIONS

Final consumption of renewable energy

(1) Electricity consumption: Covers final consumption of renewable electricity in all sectors excluding transport

(2) Heat raising: Covers final consumption of renewable energy for heat raising purposes (excluding electricity) in manufacturing, construction and non fuel mining industries, household, commerce and public services, agriculture, forestry, fishing and not elsewhere specified.

(3) Transport: Covers final consumption of renewable energy (including electricity) in the transport sector.

NOTES

Allocation of renewable electricity and heat to final energy consumption.

To establish the contribution of each technology to the final consumption, the aggregated figures for electricity and commercial heat have to be allocated to the relevant technology. This can be done based on the proportions exhibited in production data, attributing the losses proportionally (GTF 2013). For instance, if total final consumption table reports 150 TJ for biogases, while total final consumption of electricity is 400 TJ and heat 100 TJ, and the share of biogases in total electricity output is 10 percent and 5 percent in heat, the total reported number for biogases consumption will be 195 TJ (150 TJ+400TJ*10%+100TJ*5%).

SDG 7.A – INTERNATIONAL FINANCIAL FLOWS

Data provided by IRENA and OECD

Country	International Commitments (2017 USD Millions)			
	2000	2010	2015	2017
Afghanistan	0.02	35.43	4.75	49.35
Algeria		0.39	0.87	0.01
Angola		0.02	0.02	
Anguilla		0.05		
Antigua and Barbuda			6.88	19.09
Argentina		1.02	600.8	490.09
Armenia		89.85	22.75	1.5
Azerbaijan	4.69	182.97	75.96	0.02
Bahamas				0.02
Bangladesh	2.92	0.18	7.48	210.49
Barbados			0.08	
Belize			0.02	0.01
Benin		0.17	548.94	316.46
Bhutan	4.78	22.35	123.38	0.02
Bolivia (Plurinational State of)	0.09	5.13	1.91	623.16
Botswana	0.03	9.92		0.02
Brazil	123.58	139.83	2.21	560.05
Burkina Faso	0.12	1.32	25.75	20.33
Burundi		12.99	2.43	16.42
Côte d'Ivoire	13.43	0.87	0.78	486.23
Cabo Verde		67.44	3.08	0.1
Cambodia		658.16	7.95	3.64
Cameroon		52.19	2.02	166.94
Central African Republic			3.9	0.03
Chad			0.02	0.01
Chile	0.44	3.13	106.3	204.31
China	238	75.39	90.01	354.05
Colombia		3.38	22.21	179.81
Comoros			1.02	10.92
Congo	0.15			

Country	International Commitments (2017 USD Millions)			
	2000	2010	2015	2017
Cook Islands			17.73	
Costa Rica	0.09	7.39	421.83	243.76
Cuba	0.78	4.05	74.53	108.39
Democratic People's Republic of Korea				2.35
Democratic Republic of the Congo		0.4	0.6	42.7
Djibouti		12.19	3.75	1.68
Dominica				12.95
Dominican Republic	10.77	76.69	0.07	33.61
Ecuador	2.15	2720.13	30.44	26.46
Egypt	10.37	996.34	280.01	1828.16
El Salvador		55.08	75.14	479.05
Equatorial Guinea			0.02	
Eritrea		0.05	14.11	
Eswatini			1.02	
Ethiopia	1.46	90.35	315.98	392.5
Fiji			1.67	0.05
Gabon		6.04	12.8	0.11
Gambia				24.8
Georgia		8.1	6.59	29.19
Ghana	4.07	24.12	59.2	7.69
Grenada			1.69	0.71
Guatemala		9.3	0.02	0.83
Guinea	0.21		1.17	0.12
Guinea-Bissau		0.02		3.29
Guyana		1.16	1.44	
Haiti	0.81	2.28	47.54	25.51
Honduras	32.16	126.24	361.38	240.59
India	474.55	302.37	882.31	800.33
Indonesia	2.25	45.13	369.38	414.12
Iran (Islamic Republic of)	60.21		0.2	0.28
Iraq		153.28		111.79

Country	International Commitments (2017 USD Millions)			
	2000	2010	2015	2017
Jamaica	5.03	0.17	59.75	0.86
Jordan		6.65	162.11	393.1
Kazakhstan		1.34	41.72	146.59
Kenya	0.09	709.68	526.36	288.75
Kiribati		0.96		
Kyrgyzstan	8.27	1.52	0.02	1.22
Lao People's Democratic Republic		10.35	84.69	632.65
Lebanon		1.63	35.99	0.03
Lesotho		0.04	0.04	
Liberia			244.25	45.35
Madagascar			5.24	26.28
Malawi	6.67	14.64	61.37	3.71
Malaysia	136.56	0.14	0.17	0.05
Maldives	4.79	9.4	6.08	0.02
Mali	3.44	0.02	9.24	25.75
Marshall Islands			4.05	40.58
Mauritania			0.12	18
Mauritius		1.99	9.2	0.34
Mexico	2.36	46.12	200.68	487.27
Micronesia (Federated States of)			3.98	1.23
Mongolia	5.03	11.7	0.87	77.43
Montserrat			1.94	0.13
Morocco	0.26	8.2	228.84	116.81
Mozambique	0.04	93	62.05	51.35
Myanmar		0.09	56.75	125.85
Namibia	0.11	45.88		36.59
Nauru			8.79	2.76
Nepal	11.42	22.72	14.9	10.36
New Caledonia				58.06
Nicaragua	0.03	129.28	65.97	137.04
Niger	0.18			81.01

Country	International Commitments (2017 USD Millions)			
	2000	2010	2015	2017
Nigeria		0.56	44.87	5075.65
Niue			0.01	3.66
Pakistan	0.04	258.46	3945.01	1729.61
Palau			5.07	
Panama		8.95	46.49	24
Papua New Guinea			8.59	260.87
Paraguay		0.09		
Peru	1.05	7.64	82.02	535.64
Philippines	11.61	7.16	22.27	1.98
Réunion			1.55	
Rwanda	0.15	2.05		79.25
Saint Helena			1.37	
Saint Lucia			0.01	9.54
Saint Vincent and the Grenadines				3.03
Samoa		0.21	0.01	2
Sao Tome and Principe		0.12	0.35	0.01
Senegal	0.15	1.07	31.39	41.58
Seychelles			0.04	0.93
Sierra Leone		9.09		0.36
Solomon Islands			6.86	156.73
Somalia			0.31	0.02
South Africa	0.38	254.99	701.6	25.51
South Sudan			0.07	0.29
Sri Lanka	1.57	43.13	0.44	206.68
State of Palestine	0.03	1.35	22.42	27.23
Sudan		83.48	0.03	0.01
Suriname				0.01
Syrian Arab Republic		5.05		
Tajikistan		6.34	0.18	288.59
Thailand	0.16	4.03	54.31	1.94
Timor-Leste		4.9		

Country	International Commitments (2017 USD Millions)			
	2000	2010	2015	2017
Togo			4.64	
Tonga		5.48	13.86	19.86
Tunisia	4.32	128.36	8.63	4.88
Turkey	127.88	276.49	393.25	382.66
Turkmenistan			0.13	0.06
Tuvalu		0.55	8.38	
Uganda	26.19	28.6	546.49	87.36
United Republic of Tanzania	0.2	8.68	35.81	25.62
Uruguay		1.09	202.24	55.96
Uzbekistan			0.27	240.16
Vanuatu		0.87	7.1	17.58
Venezuela (Bolivarian Republic of)	0.82	1243.43		
Viet Nam	0.01	92.01	6.17	24.04
Yemen	1.44	0.3		0.01
Zambia	0.01	384.42	1720.64	135.01
Zimbabwe	0.04			5.86
World	1363.86	10051.18	14804.87	21398.39
Northern America and Europe				
Latin America and the Caribbean	182.38	4601.49	2522.28	4562.54
Central Asia and Southern Asia	571.89	719.3	5077.87	3812.66
Eastern Asia and South-eastern Asia	393.62	915.8	693.11	1643.13
Western Asia and Northern Africa	148.99	1949.56	1273.75	2915.67
Sub-Saharan Africa	66.98	1856.15	5149.82	7893.08
Oceania		8.88	88.04	571.32

Source: International Renewable Energy Agency, Organisation for Economic Co-operation and Development

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- International Energy Agency (IEA)
- International Renewable Energy Agency (IRENA)
- United Nations Statistics Division (UNSD)
- World Bank (WB)
- World Health Organization (WHO)

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- Clean Cooking Alliance
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The report draws on two metadatabases of global household surveys—the Global Electrification Database managed by the World Bank, and the Global Household Energy Database managed by WHO. Energy balance statistics and indicators for renewable energy and energy efficiency were prepared by IEA (Roberta Quadrelli, Francesco Mattion, Faidon Papadimoulis) and UNSD (Leonardo Souza, Agnieszka Koscielniak and Costanza Giovannelli). The indicator on international financial flows to developing countries was prepared by IRENA (Adrian Whiteman, Gerardo Escamilla) based on the IRENA Public Investments Database and OECD/DAC Creditor Reporting System. Data on gross domestic product and value-added were mainly drawn from the World Development Indicators of the World Bank. Population data are from the United Nations Population Division.

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ABBREVIATIONS AND ACRONYMS

CO_2	carbon dioxide
DRC	Democratic Republic of Congo
EJ	exajoule
ESMAP	Energy Sector Management Assistance Program
GDP	gross domestic product
GHEM	Global Household Energy Model
GOGLA	Global Off-Grid Lighting Association
IEA	International Energy Agency
IRENA	International Renewable Energy Agency
LED	light-emitting diode
LPG	liquefied petroleum gas
MEPS	Minimum Energy Performance Standards
MJ	megajoule
MTF	Multi-Tier Framework
MWh	megawatt-hour
OECD	Organisation for Economic Co-operation and Development
pp	percentage point
PPP	purchasing power parity
PV	photovoltaic
REN21	Renewable Energy Policy Network for the 21st Century
RISE	Regulatory Indicators for Sustainable Energy
SDG	Sustainable Development Goal
SDS	Sustainable Development Scenario
SEforAll	Sustainable Energy for All
SHS	standalone home system
STEPS	Stated Policies Scenario
TFEC	total final energy consumption
TPES	total primary energy supply
TWh	terawatt-hour
UNHCR	United Nations High Commissioner for Refugees
UNSD	United Nations Statistical Division
W	watt
WEM	World Energy Model
WEO	World Energy Outlook
WHO	World Health Organization

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SDG 7 Technical Advisory Group

Visit the SDG 7 Tracking website to download data and reports, as well as customized maps, comparative graphics, timelines, and country reports.

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