



# TRACKING SDG7: THE ENERGY PROGRESS REPORT

*Executive Summary*

2018

*A joint report of the custodian agencies*



International  
Energy Agency  
Secure  
Sustainable  
Together



IRENA  
International Renewable Energy Agency



United Nations  
Statistics Division



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1818 H Street NW  
Washington DC 20433  
Telephone: 202-473-1000  
Internet: [www.worldbank.org](http://www.worldbank.org)

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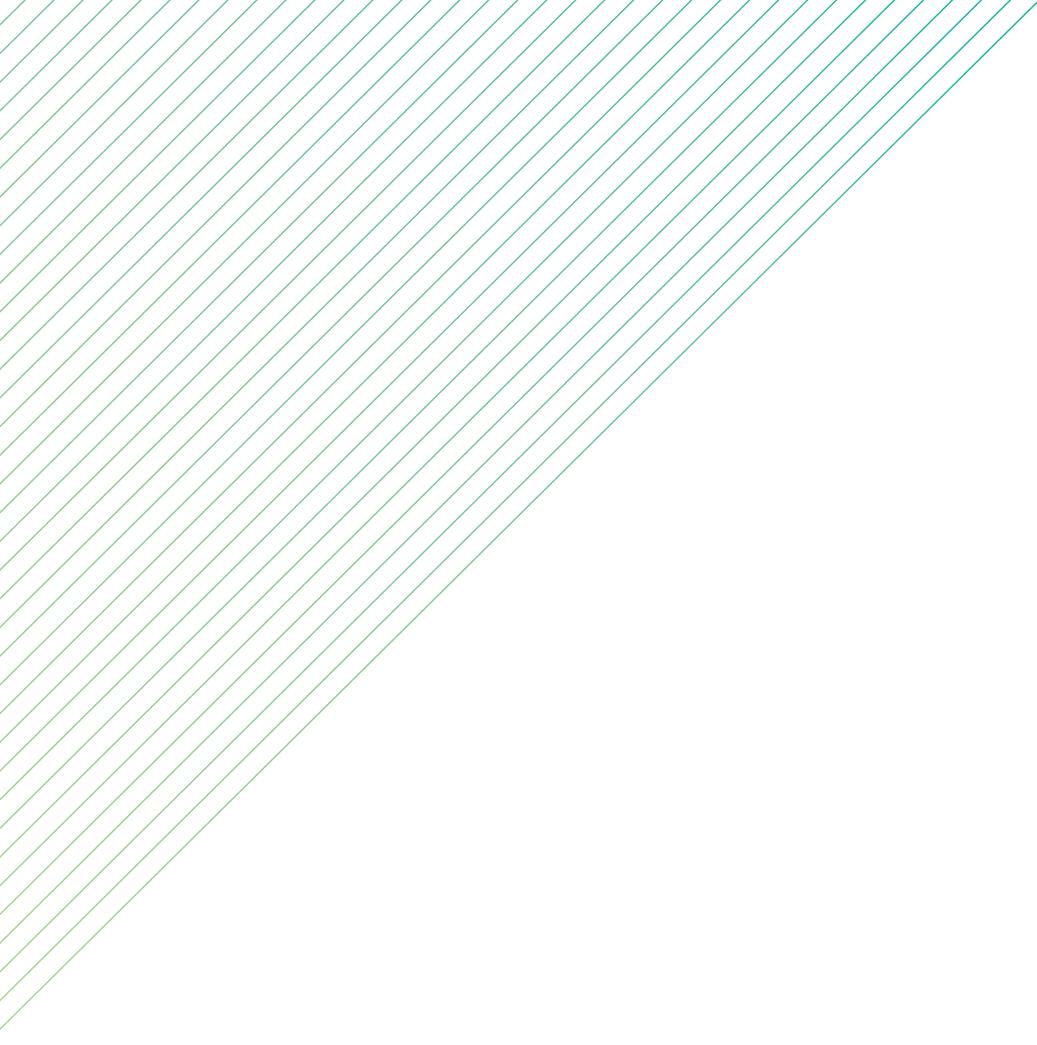
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Cover photo: Supriya Biswas, Irena



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## PARTNERS

The development of the *Energy Progress Report* was made possible by the exceptional collaboration between the five SDG7 custodian agencies, specially constituted in a Steering Group:

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

The Steering Group was supported by an Advisory Group composed as follows.

- Food and Agricultural Organization (FAO)
- Global Alliance for Clean Cookstoves (“the Alliance”)
- Global Water Partnership (GWP)
- International Institute for Applied Systems Analysis (IIASA)
- International Network on Gender and Sustainable Energy (ENERGIA)
- International Partnership for Energy Efficiency Cooperation (IPEEC)
- Practical Action
- Renewable Energy Policy Network for the 21st Century (REN21)
- Stockholm International Water Institute (SIWI)
- Sustainable Energy for All (SEforALL)
- United Nations Department of Economics and Social Affairs (UNDESA)
- United Nations Development Programme (UNDP)
- United Nations Economic Commission for Africa (UNECA)
- United Nations Economic Commission for Europe (UNECE)
- United Nations Economic Commission for Latin America and the Caribbean (ECLAC)
- United Nations Economic and Social Commission for Asia and the Pacific (ESCAP)
- United Nations Economic and Social Commission for Western Asia (ESCWA)
- United Nations Environment Programme (UNEP)
- Copenhagen Centre on Energy Efficiency
- UN Energy
- United Nations Foundation (UNF)
- United Nations Industrial Development Organization (UNIDO)
- World Energy Council (WEC)

The Steering Group's collaboration was made possible by agreement among the senior management of the member agencies. Fatih Birol (IEA), Adnan Z. Amin (IRENA), Stefan Schweinfest (UNSD), Riccardo Puliti (World Bank), and Soumya Swaminathan (WHO) with Rohit Khanna (ESMAP) oversaw the development of the *Energy Progress Report* in collaboration with Minoru Takada (UNDESA). The technical co-leadership of the project by the Custodian Agencies was the responsibility of Laura Cozzi and Hannah Daly (IEA), Rabia Ferroukhi (IRENA), Ralf Becker (UN Statistics), Vivien Foster (World Bank), and Heather Adair-Rohani (World Health Organization).

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# EXECUTIVE SUMMARY

# OVERALL MESSAGES

The world is not currently on track to meet Sustainable Development Goal 7 (SDG7), which calls for ensuring “access to affordable, reliable, sustainable and modern energy for all” by 2030. Current progress falls short on all four of the SDG7 targets, which encompass universal access to electricity as well as clean fuels and technologies for cooking, and call for a doubling of the rate of improvement of energy efficiency, plus a substantial increase in the share of renewables in the global energy mix.

While overall progress falls short on meeting all targets, real gains are being made in certain areas. Expansion of access to electricity in poorer countries has recently begun to accelerate, with progress overtaking population growth for the first time in sub-Saharan Africa. Energy efficiency continues to improve, driven by advances in the industrial sector. Renewable energy is making impressive gains in the electricity sector, although these are not being matched in transportation and heating – which together account for 80 percent of global energy consumption. Lagging furthest behind is access to clean cooking fuels and technologies – an area that has been typically overlooked by policymakers. Use of traditional cooking fuels and technologies among a large proportion of the world’s population has serious and widespread negative health, environmental, climate and social impacts.

More encouraging than global trends, however, are the strong performances evident within specific countries, across both the developed and developing worlds. These national experiences provide valuable lessons for other countries, and evidence is mounting that with holistic approaches, targeted policies and international support, substantial gains can be made in clean energy and energy access that will improve the lives of millions of people.

## BOX E1 • WHAT IS THE ENERGY PROGRESS REPORT?

*The Energy Progress Report* provides a global dashboard on progress towards Sustainable Development Goal 7 (SDG7). The report is a joint effort of the International Energy Agency (IEA), the International Renewable Energy Agency (IRENA), United Nations Statistics Division (UNSD), the World Bank, and the World Health Organization (WHO), which the United Nations (UN) has named as global custodian agencies, responsible for collecting and reporting on country-by-country energy indicators for reporting on SDG7. This report tracks global, regional and country progress on the four targets of SDG7: energy access (electricity, clean fuels and technologies for cooking), renewable energy and energy efficiency, based on statistical indicators endorsed by the UN. The report updates progress with the latest available data up to 2016 for energy access, and 2015 for clean energy, against a baseline year of 2010. A longer historical period back to 1990 is also provided by way of reference. *The Energy Progress Report* is a successor to the earlier Global Tracking Framework (published in 2013, 2015 and 2017), which was co-led by the IEA and World Bank under the auspices of the UN’s Sustainable Energy for All (SE4All) initiative, and builds on the same methodological foundation.

## ELECTRIFICATION: HOPEFUL SIGNS OF ACCELERATION IN LAGGING REGIONS

Roughly 1 billion people – or about 13% of the world’s population – live without electricity. The number of people gaining access to power has been accelerating since 2010 to around 118 million each year, but progress has been uneven, and needs to become more widespread and ramp up further if the SDG7 goal of universal access to electricity is to be met by 2030. Otherwise, if current policies and population trends continue, as many as 674 million people will continue to live without electricity in 2030.<sup>1</sup>

The regions of sub-Saharan Africa and South Asia continue to have the largest access-deficit. The number of people without access in sub-Saharan Africa has recently begun to fall in absolute terms for the first time, driven by strong performers in East Africa. Electrification also outpaced population growth in South Asia.

About 80 percent of those without electricity live in top 20 largest access deficit countries whose progress has a major influence on global outcomes. While this group made progress overall, access gains were uneven. Some of the strongest gains were Bangladesh, Ethiopia, Kenya and Tanzania, which expanded access by at least 3 percent of their population annually between 2010 and 2016. Over the same period, India continued to make major efforts, providing electricity to 30 million people each year, more than any other country.

The urban-rural chasm in access remains wide, with almost 87% of the world’s population without electricity living in rural areas. However, off-grid solar solutions ranging from solar home systems to solar mini-grids are emerging as an important driver of rural energy access, complementing grid electrification in some countries. Emerging evidence suggests that tens of millions of people now have access to electricity through solar home systems. However, these remain concentrated in about a handful of pioneering countries where off-grid solar electricity already reaches as much as 5-15% of the population; even more in some cases. Identifying the barriers to implementation of low-cost, off-grid solar solutions is a crucial priority for policymakers.

SDG7 calls for access to affordable, reliable, sustainable and modern energy for all. Affordability is an added challenge for countries that are still working to reach universal access to electricity, with the burden of households spending on electricity on average twice as high in these countries.

The experience of countries that have already reached universal access, suggests that this takes strong leadership commitment, backed up by sustained public financing for grid extension. The private sector can increasingly play a role in catalyzing uptake of off-grid solar solutions, underscoring the importance of a suitable enabling environment for new technologies, as well as strategic planning that clearly delineates the role for grid and off-grid approaches.<sup>2</sup>

**FIGURE E1 • Percentage of population with access to electricity (%)**



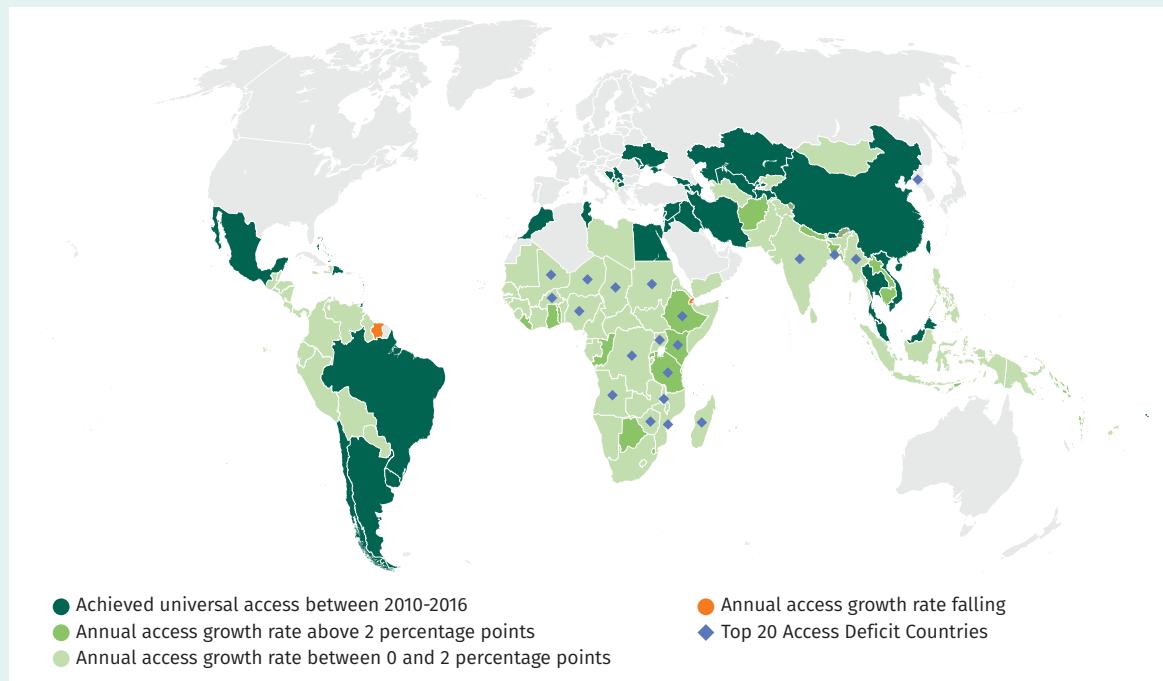
Source: World Bank

<sup>1</sup> IEA 2017 *Energy Access Outlook: from Poverty to Prosper*, A World Energy Outlook-2017 special report. OECD/IEA, Paris.

<sup>2</sup> Draws upon Policy Brief No. 1 on Electrification from “Accelerating SDG7 Achievement: Policy Briefs in Support of the First SDG7 Review at the UN High Level Political Forum 2018, UN Department of Economic and Social Affairs, New York, April 2018.

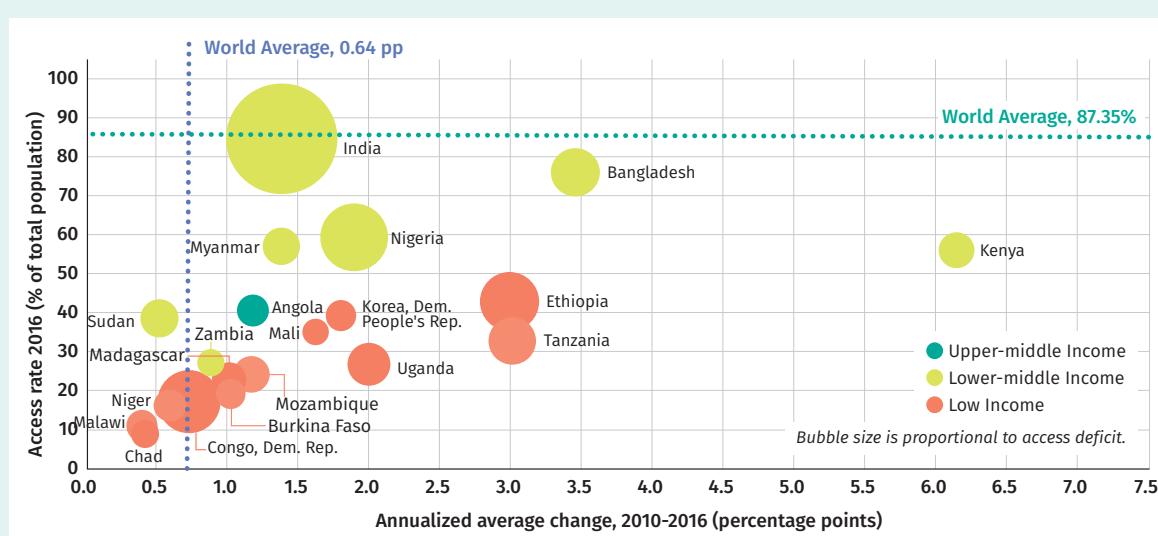
### Some 40 countries achieved universal access to electricity since 2010

**FIGURE E2** • Annual increase in electricity access rate in 2010-2016 (pp) in access deficit countries



**Bangladesh, together with Ethiopia, Kenya and Tanzania, are moving faster on electrification than other countries with large unserved populations**

**FIGURE E3** • The 20 countries with the largest access-deficit over the 2010-2016 period



Source: World Bank

## CLEAN COOKING: SUCCESS STORIES ARE FEW AND FAR BETWEEN

Three billion people – or more than 40 percent of the world’s population – do not have access to clean fuels and technologies for cooking. Household air pollution from the use of inefficient stoves paired biomass, coal and kerosene for cooking is responsible for some 4 million deaths a year, with women and children at most risk. Progress in access to clean cooking fuels and technologies has barely kept pace with population growth.

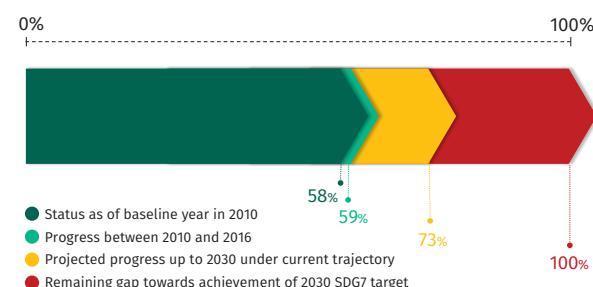
To meet the goal of universal access by 2030, access expansion will need to accelerate dramatically from 0.5 percentage points of population currently each year to an average of 3 percentage points each year between 2017-2030. If the current trajectory continues, 2.3 billion people will continue to use traditional cooking solutions in 2030, perpetuating much of the current negative health, environmental, climate and development impacts.<sup>3</sup>

While parts of Asia have seen access to clean cooking outpace growth in population, in Sub-Saharan Africa, gains have only been marginal, with the region’s overall population growing four times faster than the population that gained access to clean cooking technologies between 2014-2016.

Of the 20 countries with the largest deficit in access to clean cooking, only nine were able to expand access faster than population growth between 2014 and 2016. These positive outcomes were driven largely by widespread dissemination of LPG or piped natural gas cooking solutions in India, Pakistan, Indonesia and Vietnam.

The need for rapid deployment of clean cooking fuels and technologies has not received the attention it deserves from policy-makers, and lags well behind the rate of electrification in almost every country, even in spite of the smaller costs needed to ensure clean cooking solutions for all compared to electrification. High entry costs for many clean cooking solutions, a lack of consumer awareness of their benefits, financing gaps for producers seeking to enter the market, slow progress in the innovation of clean cookstoves, and lack of infrastructure for fuel production and distribution have together kept widespread solutions to this challenge out of reach.<sup>4</sup>

**FIGURE E4 • Percentage of population with access to clean cooking (%)**



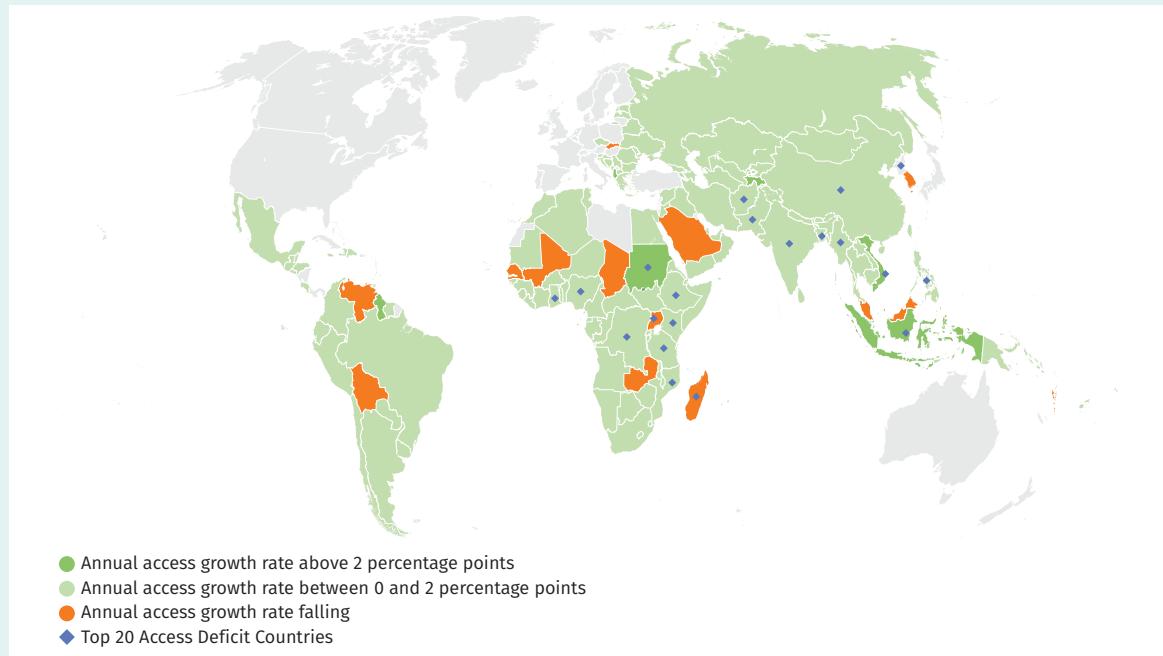
Source: World Health Organization, UN Population data

<sup>3</sup> IEA, 2017. *Energy Access Outlook: from Poverty to Prosperity*, A World Energy Outlook-2017 special report. OECD/IEA, Paris.

<sup>4</sup> Draws upon Policy Brief No. 2 on Clean Cooking from “Accelerating SDG7 Achievement: Policy Briefs in Support of the First SDG7 Review at the UN High Level Political Forum 2018, UN Department of Economic and Social Affairs, New York, April 2018.

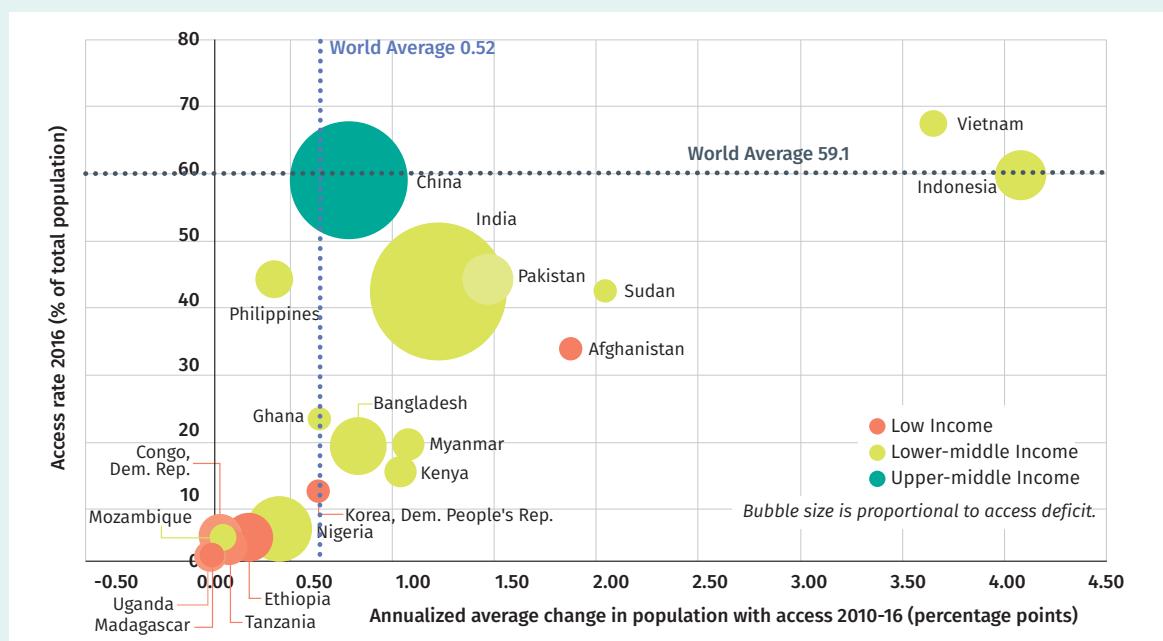
**In contrast to electrification, access to clean cooking is actually falling in some countries**

**FIGURE E5** • Annual increase in clean cooking access rate in 2010-2016 (pp) in access deficit countries



**Among the top 20 countries with largest unserved populations, Indonesia and Vietnam stand as having made the most rapid progress**

**FIGURE E6** • The 20 countries with the largest clean cooking access deficit over the 2010-2016 period



Source: World Health Organization, UN Population data

## RENEWABLE ENERGY: PROGRESS ON ELECTRICITY NOT YET MATCHED BY HEATING AND TRANSPORT

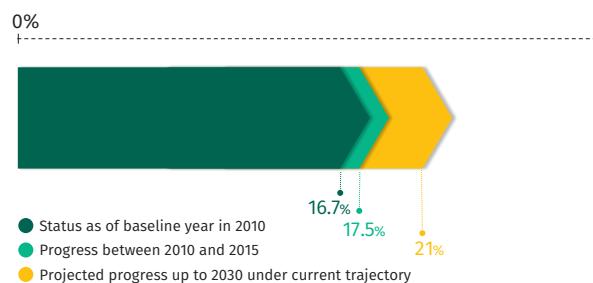
As of 2015, the world obtained 17.5% of its total final energy consumption from renewable sources, of which 9.6% came from modern forms of renewable energy such as bioenergy, geothermal, hydropower, solar and wind. The remaining renewable energy is derived from traditional uses of biomass (such as fuelwood and charcoal), of which a significant proportion is used by around 3 billion people in polluting cookstoves. Based on current policies, the renewable share is expected to reach just 21% by 2030, with modern renewables growing to 15% of total final energy consumption, falling short of the substantial increase demanded by the SDG 7 target.<sup>5</sup> The continued rapid growth of total final energy consumption in the developing world, has made it particularly challenging to increase the renewable energy share; even when substantial investment in renewable energy is taking place.

Rapidly falling costs and enabling policy frameworks have allowed solar and wind to compete with conventional power generation sources in multiple geographies, enabling the share of renewables in electricity to rise relatively rapidly reaching 22.8% in 2015. Nevertheless, electricity accounted for only 20% of total final energy consumption that year, highlighting the need to accelerate progress in use of renewables for transport and heating/cooling, sectors of vital importance to reaching the global target. The share of renewable energy in transport is rising quite rapidly, but from a very low base, amounting to only 2.8% in 2015, while the use of renewable energy for heating purposes has barely increased in recent years and stood at 24.8% in 2015, of which only one third was from modern renewables.

Looking at the overall global picture, several countries stand out for salient performances, with China alone accounting for nearly 30% of absolute growth in renewable energy consumption globally in 2015. Brazil was the only country among the top 20 largest energy consumers to substantially exceed the global average renewable share in all end uses: electricity, transport and heating. The UK's share of renewable energy in total final energy consumption grew by 1 percentage point annually on average since 2010 – more than five times the global average over the same period.

Looking ahead, much greater efforts will be required in end-uses, such as heating/cooling and transport, where renewable penetration remains low yet unexploited potential exists. One avenue would be greater adoption of district energy systems (for heating or cooling) based on biomass, geothermal or solar thermal energy. As the electricity sector decarbonizes, other energy uses can increasingly switch into electricity, such as electric vehicles for instance. A phase out of fossil fuel subsidies would help to encourage such shifts. Sustaining the growth of renewable electricity will further require additional attention to grid integration issues, including the incorporation of battery storage and smart grid technology to support management of variable generation resources. Finally, the more rapid global progress on energy efficiency, the larger will be the impact of renewable energy investments on the overall global energy mix.<sup>6</sup>

**FIGURE E7 • Renewable energy share in total final energy consumption (%)**



Source: International Energy Agency (IEA) and United Nations Statistics Division (UNSD) data

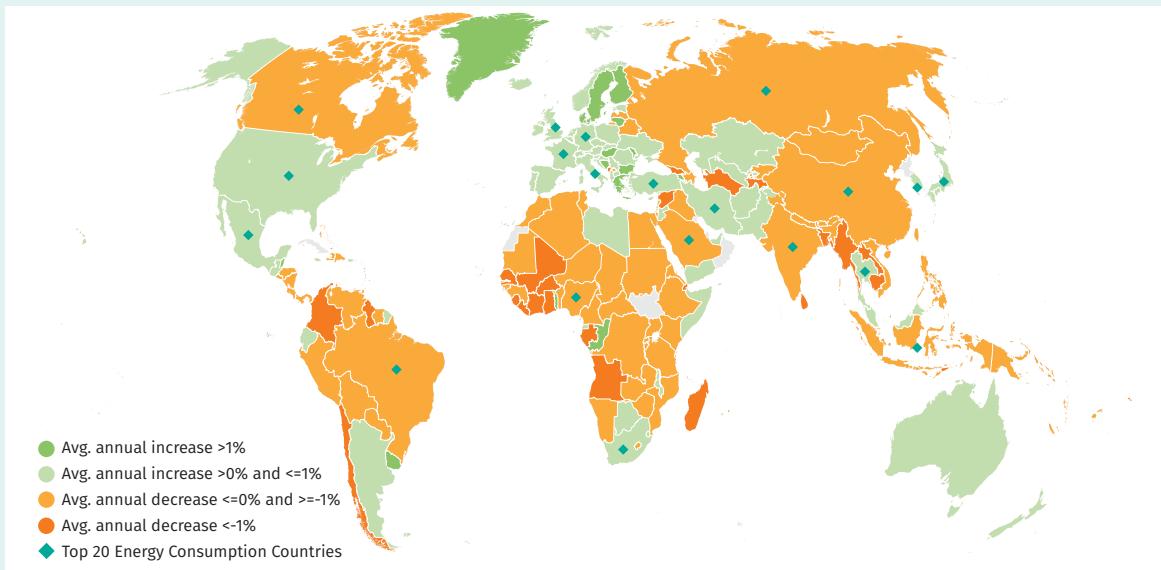
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<sup>5</sup> IEA, 2017. World Energy Outlook-2017. OECD/IEA, Paris.

<sup>6</sup> Draws upon Policy Brief No. 3 on Renewable Energy from "Accelerating SDG7 Achievement: Policy Briefs in Support of the First SDG7 Review at the UN High Level Political Forum 2018, UN Department of Economic and Social Affairs, New York, April 2018.

### A significant number of countries have seen their renewable energy share decline

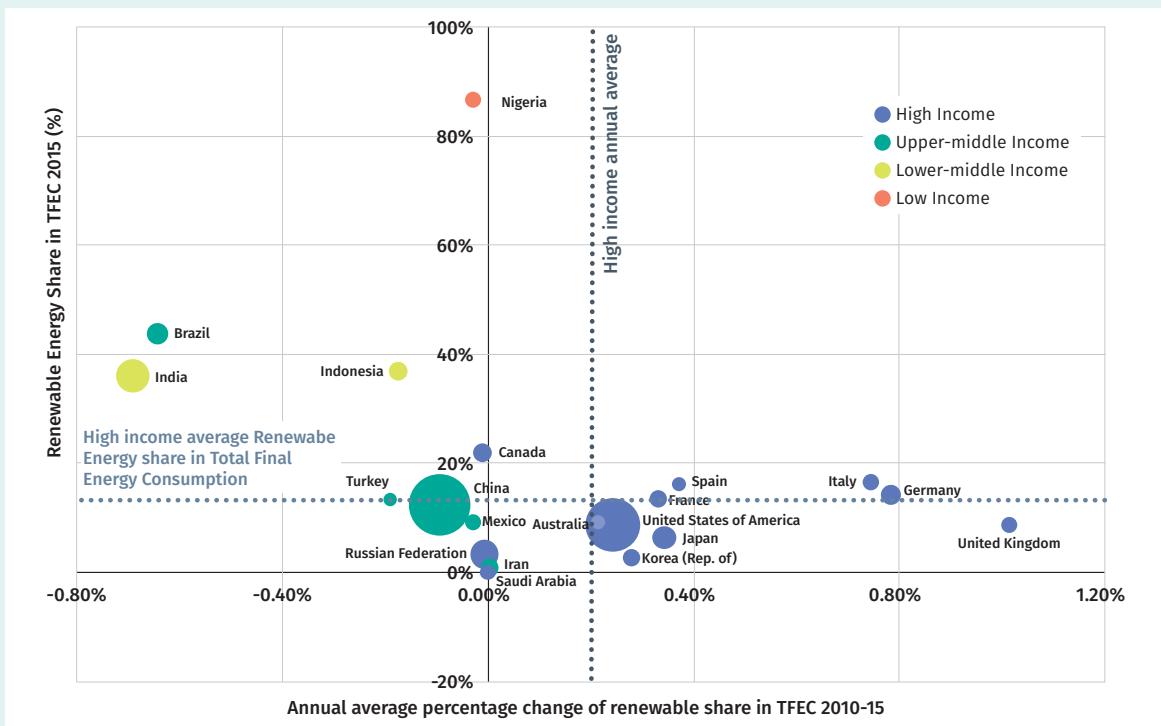
**FIGURE E8** • Annual increase in renewable energy share of total final energy consumption (TFEC) in 2010-2015 (pp)



Source: International Energy Agency (IEA) and United Nations Statistics Division (UNSD) data

Among larger energy consumers, developed countries tend to have lower renewable energy shares than developing countries, but their shares are increasing more rapidly

**FIGURE E9** • Top 20 energy consumption countries plotting renewable energy share in TFEC (2015) against annual average percentage change in renewable energy share in TFEC (2010-2015), with bubbles scaled according to TFEC size



Source: International Energy Agency (IEA) and United Nations Statistics Division (UNSD) data

## ENERGY EFFICIENCY: ECONOMIC GROWTH OUTSTRIPS ENERGY DEMAND

Globally, energy intensity – the ratio of energy used per unit of GDP – continued to fall at an accelerated pace of 2.8 percent in 2015, the fastest decline since 2010. This improved the average annual decline in energy intensity to 2.2 percent for the period 2010-2015. However, progress still falls short of the 2.6 percent yearly decline needed to meet the SDG7 target of doubling the global rate of improvement in energy efficiency by 2030.<sup>7</sup> Without intensifying efforts, the pace of improvement is not expected to exceed 2.4 percent during 2016-2030.<sup>8</sup>

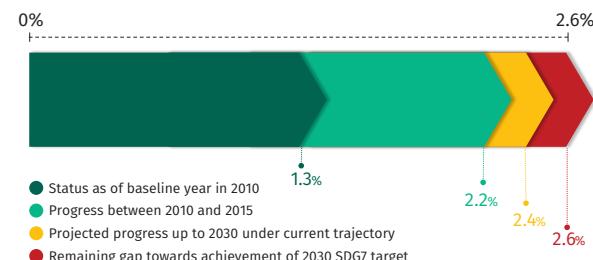
There is mounting evidence of the uncoupling of growth and energy use. Global gross domestic product (GDP) grew nearly twice as fast as primary energy supply in 2010-15. In fact, economic growth outpaced growth in energy use in all regions, except for Western Asia, and in all income groups.

Improvement in industrial energy intensity, which is the largest energy consuming sector, was particularly encouraging, at 2.7 percent per annum since 2010. However, progress was more modest elsewhere. In high income countries, transportation is the largest energy consuming sector, where there is a need to accelerate efficiency gains, especially for road freight services. In low and middle-income countries, residential energy consumption is high and intensity has been increasing since 2010. Improving efficiency of electricity supply also poses a challenge with thermal power generation presenting unmet potential for efficiency gains, as average fuel conversion efficiency lingered below 39 percent worldwide. In addition, transmission and distribution losses remained high at close to 16 percent in low-income and lower-middle income countries.

The performance of the world's top twenty countries in terms of primary energy supply is critical to achieving the SDG7 target. In 2015, these countries accounted for nearly 80 percent of total primary energy supply. Encouragingly, six of them, including two of the world's top five (Japan and the US), seem to have reached a peak in energy use, reducing their annual primary energy supply in 2010-15 while continuing to grow GDP. Among the large energy-intensive developing economies, China and Indonesia stood out with annual improvement exceeding 3 percent; even as others, notably Brazil and Iran, saw their energy intensity increase.

While progress is encouraging, a host of proven energy efficiency policies remain to be systematically adopted in many countries. Building codes for residential and commercial facilities should include energy performance standards for new construction and major renovation. Increasingly, it would be desirable to adopt ambitious cross-sectoral integrated policy approaches that promote stretch improvements through targets or fiscal incentives, as have been applied with some success in China and Europe.<sup>9</sup>

**FIGURE E10 • Compared annual growth rate of improvement in energy intensity (percentage points per year)**



Source: International Energy Agency (IEA), United Nations Statistics Division (UNSD), and World Development Indicators (WDI) data

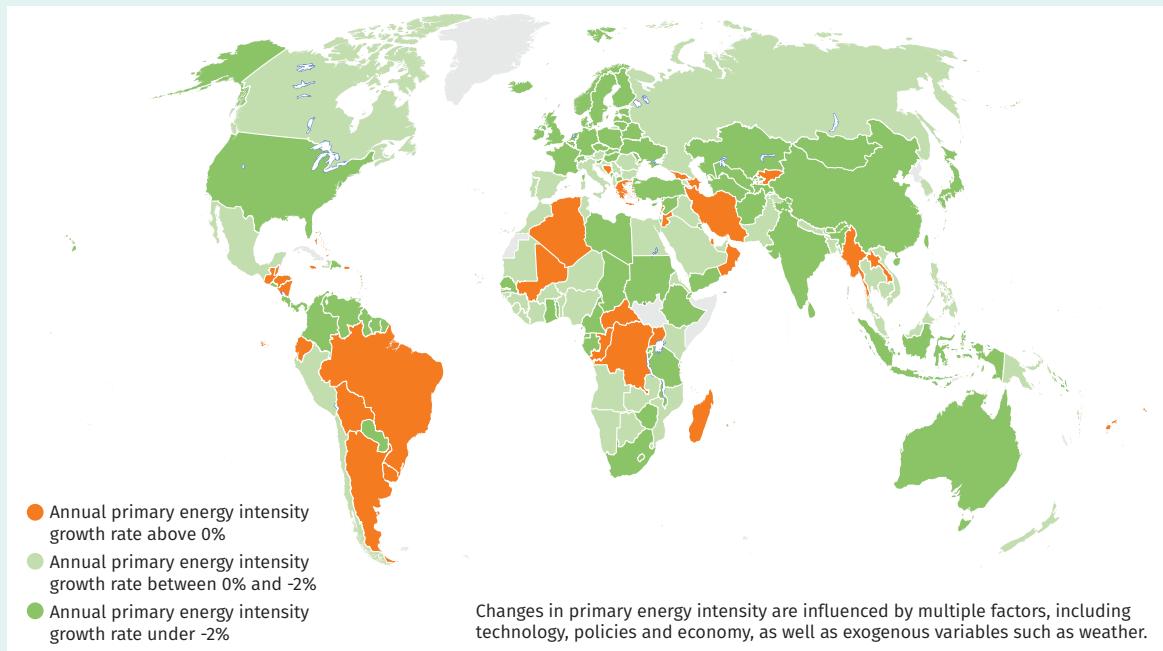
<sup>7</sup> Improvements in global energy efficiency slowed down dramatically in 2016 and 2017, with the rate of improvement in 2017 at 1.7% (IEA, 2018 *Global Energy & CO<sub>2</sub> Status Report*, IEA/OECD, 2018; [www.iea.org/geco](http://www.iea.org/geco)).

<sup>8</sup> IEA, 2017b. *World Energy Outlook-2017*. OECD/IEA, Paris.

<sup>9</sup> Draws upon Policy Brief No. 4 on Energy Efficiency from "Accelerating SDG7 Achievement: Policy Briefs in Support of the First SDG7 Review at the UN High Level Political Forum 2018", UN Department of Economic and Social Affairs, New York, April 2018.

**Many countries are showing relatively rapid improvement in energy intensity, but others are moving in the opposite direction**

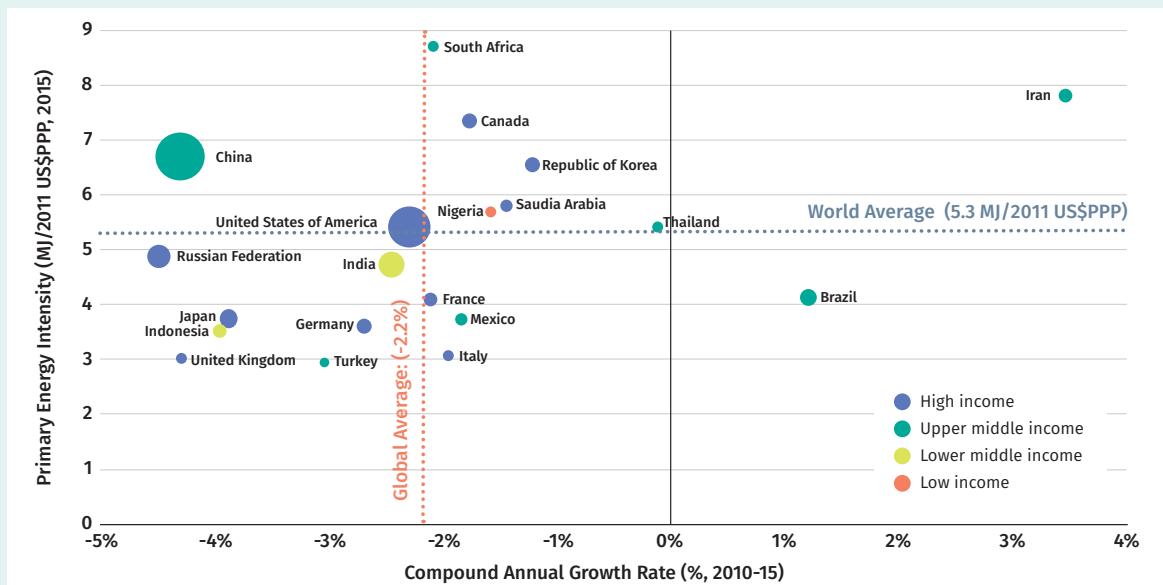
**FIGURE E11** • Annualized change in energy intensity in 2010-2015 (pp)



Source: International Energy Agency (IEA), United Nations Statistics Division (UNSD), and World Development Indicators (WDI) data

**Strong improvements in energy intensity are evident both among large emerging economies, like China and Indonesia, as well as among developed economies like Japan and the United Kingdom**

**FIGURE E12** • Top 20 countries' compound annual growth rate of energy intensity, 2010-2015, and energy intensity, 2015



Source: International Energy Agency (IEA), United Nations Statistics Division (UNSD), and World Development Indicators (WDI) data

## CONCLUSIONS

Looking at each of the dimensions of sustainable energy more closely helps us understand why the world still falls short of its goal and what kinds of targeted efforts are needed – across different countries and sectors – to accelerate global progress towards the goal in the coming years. Further improvements on the steady levels of progress so far will require greater policy commitment and increased funding, as well as a willingness to embrace new technologies on a much wider scale. This report helps identify where good policies have been adopted and points to approaches that may deserve greater attention from policy-makers going forward.

### BOX E2 • HOW CAN DATA FOR SDG7 TRACKING BE FURTHER IMPROVED?

Many challenges remain in providing a comprehensive picture of the global energy situation, and sustained efforts are needed to improve data quality and availability.

One key area of focus is to improve the coverage and precision of household survey questionnaires to more accurately reflect the nature and quality of service for electricity and clean cooking. Current indicators do not make it possible to capture the affordability and reliability dimensions emphasized by SDG7. While the off-grid solar revolution is making it increasingly challenging to accurately reflect trends in rural electrification.

Equally important is to strengthen statistical capacity to produce accurate energy balances, particularly in the developing countries, where many challenges remain in capturing, for instance, the traditional uses of biomass. Furthermore, there is still relatively little information on the energy efficiency of major consuming sectors outside of the major economies that is critical to inform policy interventions.



## DATA ANNEX

## DATA ANNEX

### ENERGY ACCESS

Country	Access to electricity (% of population <sup>a)</sup>						Access to clean cooking (% of population)					
	1990		2000		Total		2014		2016		Urban	
	1990	2000	2010	2014	2016	2016	2016	2016	2016	2016	2016	2016
Afghanistan			43	d	90	g	84	98	79	79	9	21
Albania	100	R	100	R	100	R	100	R	100	R	40	65
Algeria			99	99	99	99	99	100	99	99	86	92
American Samoa											93	93
Andorra	100	R	100	R	100	R	100	R	100	R	100	100
Angola			34	32	e	41	71	16			37	44
Anguilla	96	100	100	100	100	100	100	100	100	100	47	48
Antigua and Barbuda			94	96	97	100	97	97	97	97	98	99
Argentina			99	e	100	100	100	100	100	100	95	98
Armenia	99	d	100	d	100	100	100	100	100	100	82	94
Aruba	92	e	93	e	95	96	100	100	100	100	100	96
Australia	100	R	100	R	100	R	100	R	100	R	100	100
Austria	100	R	100	R	100	R	100	R	100	R	100	100
Azerbaijan			99	c	100	100	100	100	100	100	73	91
Bahamas			100	100	100	100	100	100	100	100	100	100
Bahrain			100	R	100	R	100	R	100	R	100	100
Bangladesh	32	d	55	g	62	d	76	g	94	g	69	7
Barbados			100	R	100	R	100	R	100	R	100	99
Belarus	100	R	100	R	100	R	100	R	100	R	94	96
Belgium	100	R	100	R	100	R	100	R	100	R	100	100
Belize			90	e	92	92	97	88	78	83	85	85
Benin	21	34	g	34	c	41	71	18	2	5	6	6
Bermuda	100	R	100	R	100	R	100	R	100	R	100	100
Bhutan			73	c	97	100	100	100	100	100	32	46
Bolivia (Plurinational State of)	70	h	84	90	93	99	79	79	65	77	80	51
Bosnia and Herzegovina			100	100	100	100	100	100	100	100	38	54
Botswana	27	48	56	61	78	78	37	45	58	62	60	63
Brazil	87	h	94	99	100	h	100	100	100	100	87	94
British Virgin Islands											95	96
Brunei Darussalam	100	R	100	R	100	R	100	R	100	R	100	100
Bulgaria	100	R	100	R	100	R	100	R	100	R	65	86
Burkina Faso	9	13	d	19	d	19	61	1	3	6	8	9
Burundi	3	5	d	7	g	8	50	2	1	1	1	1
Cambodia	17	d	31	d	56	d	50	100	36	5	11	15
Cameroon	41	c	53	57	c	60	92	21	10	18	21	23

Country	Access to electricity (% of population <sup>a</sup> )						Access to clean cooking (% of population)					
	Total			2014		2016	Urban			Rural <sup>b</sup>		
	1990	2000	2010	2014	2016	2016	2000	2010	2014	2016	2016	2016
Canada	100	k	100	k	100	k	100	k	100	k	100	k
Cabo Verde			81	e	88	93	93	92	92	57	67	70
Cayman Islands	100	k	100	k	100	k	100	k	100	k	0	0
Central African Republic	6	c	10	c	13	14	34	0	1	1	1	1
Chad	3		6	c	8	9	31	2	3	3	3	3
Channel Islands	100	k	100	k	100	k	100	k	100	k	100	k
Chile	92	h	98	h	99	100	100	100	100	86	91	92
China			100	g	100	g	100	100	100	47	55	58
Colombia	90	d	95	d	97	h	98	99	100	96	80	88
Comoros	40		63		73	78	92	72	72	1	4	7
Democratic Republic of the Congo	7	c	13		14	d	17	47	0	4	4	4
Congo			43		52	57	74	23	10	18	22	24
Cook Islands			99		100	100	100	100	83	85	85	84
Costa Rica			99	h	99	h	100	100	100	88	92	93
Cote d'Ivoire	49		59		62	e	64	c	92	38	c	18
Croatia	100	k	100	k	100	k	100	k	100	k	80	90
Cuba	97	g	100		100	100	100	100	100	68	77	79
Curacao	100	k	100	k	100	k	100	k	100	k	100	k
Cyprus	100	k	100	k	100	k	100	k	100	k	100	k
Czech Republic	100	k	100	k	100	k	100	k	100	k	93	93
Denmark	100	k	100	k	100	k	100	k	100	k	100	100
Djibouti	57		53		52	52	67	0	5	8	10	12
Dominica	81	95	100		100	100	100	100	100	78	87	90
Dominican Republic	89	h	98	h	98	h	100	100	100	80	87	90
Ecuador	93	97	h	99	h	100	100	100	100	87	94	95
Egypt	98	d	100		100	d	100	100	100	83	96	96
El Salvador	85	h	92	h	95	h	99	99	99	57	78	84
Equatorial Guinea			67		68	91	53	23	31	34	34	34
Eritrea	29	40	44		47	75	39	6	12	15	16	16
Estonia	100	k	100	k	100	k	100	k	100	k	90	93
Ethiopia	13	d	25		27	f	43	f	85	27	f	1
Faeroe Islands	100	k	100	k	100	k	100	k	100	k	100	100
Fiji	75		90		96	99	99	98	98	31	37	39
Finland	100	k	100	k	100	k	100	k	100	k	100	100
France incl. Monaco	100	k	100	k	100	k	100	k	100	k	100	100
French Polynesia	100	k	100	k	100	k	100	k	100	k	100	100
Gabon	74	d	85		89	91	97	55	59	74	77	79
Gambia	34	c	40		45	48	69	16	3	3	3	3
Georgia			99		100	f	100	100	100	41	66	74
Germany	100	k	100	k	100	k	100	k	100	k	100	100
Ghana	45		65		78	d	79	d	90	d	6	22
Gibraltar	100	k	100	k	100	k	100	k	100	k	100	100
Greece	100	k	100	k	100	k	100	k	100	k	88	94

Country	Access to electricity (% of population)										Access to Clean Cooking (% of population)																
	1990			2000			Total		2014		2016		Urban		Rural <sup>b</sup>		2000		2010		2014		2016				
	1990	2000	2010	%	1990	2000	%	1990	2000	%	1990	2000	%	1990	2000	%	1990	2000	%	1990	2000	%	1990	2000	%		
Greenland	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100
Grenada		86	90		91	91		92	92		92	92		92	92		92	93	93	96	96	96	96	97	97	97	
Guam		100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	
Guatemala	73	h	84		85	85		92	92		97	97		86	86		93	39	43	45	45	45	45	45	45	45	
Guinea	17		26		30		34	c	82		7	c	7	c	7	c	1	1	1	1	1	1	1	1	1	1	
Guinea-Bissau		6	g	17	c	15		30		30		0		0		0	1	1	1	1	1	1	1	1	1	1	
Guyana	75		80		87	c	84		90		82		82		82		36	62	62	71	71	74	74	74	74	74	
Haiti	34	d	36		38		39		65		0		0		0		3	4	4	4	4	4	4	4	4	4	
Honduras	68		81	h	89	h	88		100		72		72		72		30	46	46	51	51	53	53	53	53	53	
Hong Kong (SAR, China)	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100
Hungary	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100
Iceland	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100
India	59		76	g	81		85		98		78		78		78		22	34	34	39	39	41	41	41	41	41	
Indonesia	86	g	94	g	97	g	98		100	g	95	g	95	g	95	g	5	5	40	40	40	40	40	40	40	40	
Iran (Islamic Republic of)	98	d	99		100	g	100		100		100		100		100		86	97	97	98	98	98	98	98	98	98	
Iraq																	75	95	95	97	97	98	98	98	98	98	
Ireland	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100
Isle of Man	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100
Israel	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100
Italy and San Marino	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100
Jamaica	70	h	85		93		96		98		100		100		100		96	73	86	89	89	91	91	91	91	91	
Japan	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100
Jordan	97	d	99		100		100		100		100		100		100		100	100	100	100	100	100	100	100	100	100	
Kazakhstan	99		100		100		100		100		100		100		100		100	100	100	100	100	100	100	100	100	100	
Kenya	16		19	d	36	d	56	f	78	f	39	f	39	f	39	f	2	8	12	12	13	13	13	13	13		
Kiribati	63	e	81		85		88		88		82		82		82		2	3	3	4	4	6	6	6	6	6	
Democratic People's Republic of Korea	29		36		39		39		100		100		100		100		100	100	100	100	100	100	100	100	100	100	
Republic of Korea	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100
Kosovo		99	100		100		100		100		100		100		100		100	100	100	100	100	100	100	100	100	100	
Kuwait																											
Kyrgyzstan	100		99	i	100	c	100		100		100		100		100		100	100	100	100	100	100	100	100	100	100	
Lao People's Democratic Republic	43		70		81		87		97		80		80		80		4	5	5	5	5	6	6	6	6	6	
Latvia	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100
Lebanon		100		100		100		100		100		100		100		100		100		100		100		100		100	
Lesotho	4	c	19		28	d	30		66		16		16		16		18	30	34	34	36	36	36	36	36	36	
Liberia		5			9	g	20	d	34	d	1	d	1	d	1	d	1	1	1	1	1	1	1	1	1	1	
Libya	100		99		99		99		99		96		96		96		100	100	100	100	100	100	100	100	100	100	
Liechtenstein	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100
Lithuania	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100
Luxembourg	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100	k	100
China, Macao Special Administrative Region	100		100		100		100		100		100		100		100		100	100	100	100	100	100	100	100	100	100	
The former Yugoslav Republic of Macedonia		100		100		100		100		100		100		100		100		100	100	100	100	100	100	100	100	100	
Madagascar	14		17		19		23		23		23		23		23		17	d	17	d	1	1	1	1	1	1	
Malawi	5	d	9	d	12	d	21	q	21	q	21	q	21	q	21	q	2	2	2	2	2	3	3	3	3	3	

Country	Access to electricity (% of population <sup>a</sup> )						Access to Clean Cooking (% of population)							
	1990		2000		Total		2014		2016		Urban		Rural <sup>b</sup>	
	2000	2010	2010	2014	2016	2016	2016	2016	2016	2016	2016	2016	2016	2016
Malaysia	99	100	100	100	100	100	100	100	100	100	95	96	96	96
Maldives	84	e	97	100	e	100	100	100	100	100	32	84	92	94
Mali	10	25	32	35	84	2	1	1	1	1	1	1	1	1
Malta	100	k	100	k	100	k	100	k	100	k	100	100	100	100
Marshall Islands	68	83	90	93	95	89	89	89	89	89	13	55	64	65
Mauritania	33	39	g	42	81	0	29	40	44	47	47	47	47	47
Mauritius	99	e	99	99	99	92	100	87	92	93	93	93	93	93
Mexico	98	h	99	h	99	h	100	100	100	100	81	84	85	85
Micronesia, Federated States of	46	e	65	e	72	75	92	71	11	12	12	12	12	12
Republic of Moldova	100	k	100	k	100	k	100	k	100	k	100	68	87	91
Monaco	67	e	79	c	81	82	96	44	22	34	40	40	43	43
Mongolia	100	100	100	100	100	100	100	100	100	100	55	65	68	69
Montenegro	70	g	92	e	100	100	100	100	100	100	90	96	96	97
Morocco	7	17	22	24	64	5	3	3	4	4	4	4	4	4
Mozambique	49	g	52	e	57	89	40	5	11	15	15	18	18	18
Myanmar	37	d	45	50	52	77	29	33	39	41	41	42	42	42
Namibia	99	99	99	99	99	99	99	99	99	99	74	89	91	91
Nauru	99	99	99	99	99	99	99	99	99	99	15	22	26	28
Nepal	28	67	85	c	91	d	95	d	85	d	15	22	26	28
Netherlands	100	k	100	k	100	k	100	k	100	k	100	100	100	100
New Caledonia	100	k	100	k	100	k	100	k	100	k	100	100	100	100
New Zealand	100	k	100	k	100	k	100	k	100	k	100	100	100	100
Nicaragua	73	78	82	h	82	99	57	34	46	50	52	52	52	52
Niger	6	c	13	15	16	65	5	1	2	2	2	2	2	2
Nigeria	27	d	43	48	d	56	59	g	86	g	41	g	1	5
Niue						100	100	100	100	100	100	100	100	100
Northern Mariana Islands	100	k	100	k	100	k	100	k	100	k	100	100	100	100
Norway including Svalbard and Jan Mayen Islands	100	k	100	k	100	k	100	k	100	k	100	100	100	100
Oman	100	k	100	k	100	k	100	k	100	k	100	100	100	100
Pakistan	75	90	96	99	100	99	99	99	99	99	23	36	41	43
Palau	99	100	g	99	100	g	99	100	g	97	64	83	86	87
Panama	70	e	87	e	92	93	99	81	79	86	88	88	89	89
Papua New Guinea	12	20	g	21	23	73	15	7	11	12	13	13	13	13
Paraguay	89	97	h	99	h	98	c	100	c	96	44	58	64	66
Peru	72	h	88	h	93	h	95	100	h	100	76	35	66	75
Philippines	73	84	89	91	97	86	86	36	42	43	43	43	43	43
Poland	100	k	100	k	100	k	100	k	100	k	100	100	100	100
Portugal	100	k	100	k	100	k	100	k	100	k	100	100	100	100
Puerto Rico														
Qatar	100	k	100	k	100	k	100	k	100	k	92	98	98	98
Romania	100	k	100	k	100	k	100	k	100	k	65	81	85	86
Russian Federation	100	k	100	k	100	k	100	k	100	k	93	97	98	98
Rwanda	6	d	10	d	20	g	29	j	80	j	0	0	1	1
Samoa	88	97	98	d	100	100	100	100	100	100	20	29	32	32

Country	Access to electricity (% of population <sup>a</sup> )						Access to Clean Cooking (% of population)					
	1990	2000	Total	2010	2014	2016	Urban	Rural <sup>b</sup>	2016	2000	2010	Total
San Marino	100	k	100	k	100	k	100	k	100	k	100	100
Sao Tome and Principe	53	c	60	69	c	65	73	51	18	22	19	17
Saudi Arabia	100	k	100	k	100	k	100	k	95	96	96	96
Senegal	38	c	54	61	d	65	d	38	32	32	32	32
Serbia	100	k	100	c	100	k	100	k	100	52	69	74
Seychelles	94	g	97	e	99	100	99	100	77	88	90	90
Sierra Leone	11	c	16	20	d	47	d	3	0	1	1	1
Singapore	100	k	100	k	100	k	100	k	100	k	100	100
Sint Maarten (Dutch part)	100	k	100	k	100	k	100	k	100	k	100	100
Slovak Republic	100	k	100	k	100	k	100	k	100	k	94	97
Slovenia	100	k	100	k	100	k	100	k	100	k	89	95
Solomon Islands	7	32	43	48	70	42	42	6	8	8	8	8
Somalia	20	27	30	57	12	1	1	1	2	2	2	2
South Africa	71	83	g	86	g	84	g	93	g	68	g	56
South Sudan	2	e	7	9	22	6	6	1	1	1	1	1
Spain	85	g	92	96	100	k	100	k	100	95	16	22
Sri Lanka	98	100	k	100	100	100	100	100	100	100	100	100
Saint Kitts and Nevis	94	e	97	98	95	98	95	98	86	95	97	97
Saint Lucia	64	e	70	72	90	100	100	100	100	100	100	100
Sint Maarten (French part)	80	93	99	100	97	100	95	96	95	96	96	96
Saint Vincent and the Grenadines	33	d	23	c	35	45	c	39	70	22	14	29
Sudan	97	91	c	88	87	96	69	69	80	87	89	90
Suriname	46	c	65	c	66	83	61	61	27	42	47	50
Swaziland	100	k	100	k	100	k	100	k	100	100	100	100
Sweden	100	k	100	k	100	k	100	k	100	100	100	100
Switzerland-Liechtenstein	100	k	100	k	100	k	100	k	100	100	100	100
Syrian Arab Republic	98	c	99	100	100	100	100	100	100	97	99	99
Tajikistan	10	15	d	19	33	g	65	g	17	g	1	2
Tanzania	82	d	100	f	100	100	100	100	100	68	72	74
Thailand	38	d	58	63	92	49	49	2	5	6	7	7
Timor-Leste	17	c	31	c	46	d	47	87	19	0	4	6
Togo	85	92	95	97	e	99	e	97	e	48	56	58
Tonga	91	e	99	100	100	100	100	100	100	99	99	99
Trinidad and Tobago	95	g	100	g	100	e	100	100	100	93	98	99
Tunisia	100	d	100	i	100	100	100	100	100	100	100	100
Turkey	100	k	100	k	100	k	100	k	100	k	100	100
Turkmenistan	100	k	100	k	100	k	100	k	100	96	99	99
Turks and Caicos Islands	89	e	96	e	94	95	96	100	43	43	43	43
Tuvalu	97	99	99	99	100	99	99	19	38	47	50	50
Uganda	8	15	20	e	27	d	58	d	18	1	1	1
Ukraine	100	k	100	k	100	k	100	k	100	88	94	95
United Arab Emirates	100	k	100	k	100	k	100	k	100	97	98	99
United Kingdom	100	k	100	k	100	k	100	k	100	100	100	100
United States	100	k	100	k	100	k	100	k	100	100	100	100

Country	Access to electricity (% of population <sup>a</sup> )						Access to Clean Cooking (% of population)					
	1990		2000		Total		2014		2016		Urban	
	2000	2010	2010	2014	2016	2016	2016	2016	2016	2016	2016	2016
Uruguay	99	100	h	100	100	100	100	100	100	100	96	98
Uzbekistan	100	100	100	100	100	100	100	100	100	100	80	89
Vanuatu	22	37	43	58	e	91	e	46	e	12	13	13
Venezuela (Bolivarian Republic of)	98	99	99	100	100	100	100	96	96	97	97	96
Viet Nam	86	98	99	c	100	100	100	100	100	14	47	61
United States Virgin Islands	100	k	100	k	100	k	100	k	100	k	100	k
Palestine (State of)	100	g	100	g	100	c	100	100	100	100	100	100
Yemen	50	63	66	g	72	97	58	52	61	64	65	65
Zambia	14	e	22	e	28	d	27	62	3	14	15	16
Zimbabwe	34	36	32	c	38	86	16	32	30	30	30	29
<b>World</b>	70	77	80	84	87	97	76	50	56	58	58	59
<b>High income</b>	93	97	100	100	100	100	100	97	98	99	99	99
<b>Low income</b>	4	13	16	23	35	65	22	4	5	6	7	7
<b>Lower middle income</b>	48	63	69	76	84	96	76	33	38	42	47	47
<b>Upper middle income</b>	91	95	96	98	99	100	97	67	73	78	81	81
<b>Central Asia and Southern Asia</b>	45	60	68	77	87	98	80	26	37	41	43	43
<b>Eastern Asia and South-eastern Asia</b>	82	91	93	96	97	99	95	45	55	59	60	60
<b>Latin America and the Caribbean</b>	85	91	94	96	98	99	91	78	85	87	87	87
<b>Northern America and Europe</b>	100	100	100	100	100	100	100	96	98	98	99	99
<b>Oceania</b>	80	81	82	82	83	99	46	78	78	78	78	78
<b>Sub-Saharan Africa</b>	15	26	29	33	43	76	23	9	11	13	13	13
<b>Western Asia and Northern Africa</b>	76	80	89	92	93	99	85	77	87	88	89	89

Note: Unless otherwise noted, data are World Bank estimates based on the statistical model described in chapter 2 in the main report.

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. 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 Multi-Tier Framework (MTF)

k. Based on assumption for countries considered "developed" by the UN or which are classified as High Income Countries (HIC)

l. Based on the World Health Organization Global Health Observatory

## ENERGY EFFICIENCY

Country	Energy Intensity (MJ/USD 2011 PPP)					Compound annual growth rate of Energy Intensity (%)					
	1990	2000	2010	2014	2015	1990-2000	2000-2010	2010-2014	2014-2015		
Afghanistan	1.9	1.7	2.9	2.3	2.5	-1.1%	5.7%	-5.8%	6.1%	a	
Albania	7.5	4.4	3.1	3.2	2.9	-5.1%	-3.6%	0.7%	-8.6%	b	
Algeria	3.5	3.5	3.6	4.1	4.1	0.1%	0.2%	3.2%	0.7%	b	
Andorra	4.6	5.2	3.7	3.6	3.6	1.3%	-3.4%	-0.4%	-1.1%	b	
Angola	Anguilla	3.8	3.2	4.1	4.0	3.9	-1.8%	2.6%	-1.2%	-1.6%	a
Antigua and Barbuda	Argentina	5.4	4.7	4.3	4.3	4.3	-1.5%	-0.9%	0.4%	-0.1%	b
Armenia	Aruba	24.4	9.4	5.4	5.3	5.4	-9.1%	-5.4%	-0.2%	0.7%	b
Australia	Austria	2.4	7.6	7.6	3.3	3.3	-12.4%	0.0%	-19.1%	14%	a
Azerbaijan	Bahamas	7.4	6.4	5.9	5.2	5.0	-1.5%	-0.9%	-3.2%	-2.3%	b
Bahrain	Bangladesh	4.3	3.9	3.9	3.6	3.6	-1.2%	0.2%	-2.4%	1.5%	b
Barbados	Barbados	15.6	13.2	3.4	3.8	3.7	-1.7%	-12.8%	2.9%	-0.9%	b
Belarus	Bahamas	4.1	3.5	4.2	4.0	4.0	-1.5%	1.8%	-1.2%	1.3%	a
Belgium	Bahrain	12.4	11.0	10.4	9.9	9.8	-1.2%	-0.6%	-1.3%	-1.4%	b
Belize	Bangladesh	3.9	3.5	3.4	3.1	3.1	-1.0%	-0.3%	-2.3%	0.3%	b
Benin	Barbados	4.6	4.2	4.7	3.8	3.8	-1.0%	1.1%	-5.0%	-0.6%	a
Bermuda	Belarus	22.4	13.6	7.5	6.8	6.5	-4.8%	-5.8%	-2.2%	-5.3%	b
Bhutan	Belgium	6.6	6.4	5.6	4.8	4.7	-0.3%	-1.2%	-4.0%	-0.9%	b
Bolivia	Belize	8.5	6.4	5.1	4.6	5.1	-2.9%	-2.3%	-2.5%	11.5%	a
Bosnia and Herzegovina	Benin	9.6	7.3	9.3	8.6	9.1	-2.7%	-2.5%	-1.8%	5.3%	b
Botswana	Bermuda	2.9	2.3	2.4	2.4	2.0	-2.5%	0.5%	-0.3%	-14.9%	a
Brazil	Bhutan	30.0	21.8	12.6	11.2	10.4	-3.1%	-5.4%	-2.7%	-7.4%	a
Brunei Darussalam	Bolivia	4.3	5.6	4.9	5.2	4.9	2.6%	-1.3%	1.2%	-4.2%	b
Bulgaria	Bosnia and Herzegovina	39.1	7.6	7.5	8.8	8.7	-15.1%	-0.2%	3.9%	-0.3%	b
Botswana	Bulgaria	4.6	4.2	3.4	3.3	3.4	-0.9%	-2.2%	-0.5%	1.7%	b
Brazil	Burkina Faso	3.8	3.9	3.9	4.0	4.1	0.4%	-0.1%	1.0%	2.1%	b
Burundi	Burundi	3.3	3.7	4.3	4.7	3.7	1.0%	1.7%	2.3%	-23.1%	b
Cambodia	Burundi	3.3	3.7	4.3	4.7	3.7	1.0%	-4.6%	-1.0%	0.4%	b
Cameroon	Burkina Faso	14.6	10.6	6.6	6.4	6.4	-3.1%	-6.2%	-0.4%	-1.7%	a
Canada	Burundi	12.9	6.8	6.5	6.1	6.0	-1.5%	1.6%	-13.4%	3.0%	a
Cabo Verde	Cambodia	9.8	11.3	13.3	7.5	7.7	1.5%	-3.2%	-2.5%	3.3%	b
Cayman Islands	Cameroon	8.5	6.2	5.6	5.6	5.8	1.0%	-2.2%	-3.1%	-1.7%	b
Central African Republic	Canada	6.2	6.9	5.5	4.9	4.8	-1.0%	-1.4%	-1.2%	-4.0%	b
Chad	Cabo Verde	10.2	9.2	8.0	7.6	7.3	-1.0%	-4.0%	1.7%	-3.3%	a
Channel Islands	Cayman Islands	4.0	2.7	3.2	2.8	2.8	-4.0%	-1.7%	-3.3%	0.4%	a
Chile	Central African Republic	11.3	7.3	5.7	8.5	8.1	-4.3%	-2.4%	10.4%	-4.4%	a
China	Chad	6.8	6.9	3.2	2.8	2.8	0.2%	-7.5%	-3.2%	-0.2%	a
Colombia	Channel Islands	4.9	4.8	3.9	3.8	3.8	-0.2%	-2.1%	-0.9%	0.2%	b
Comoros	Chile	21.0	10.1	8.3	7.1	6.7	-7.1%	-1.9%	-3.9%	-5.8%	b
Comoros	China	3.9	3.2	2.6	2.3	2.3	-2.0%	-2.1%	-2.7%	-3.6%	b

Data Annex

Country	Energy intensity (M/USD 2011 PPP)					Compound annual growth rate of Energy intensity (%)			
	1990	2000	2010	2014	2015	1990-2000	2000-2010	2010-2014	2014-2015
<b>Democratic Republic of the Congo</b>	11.1	23.4	21.1	22.6	20.9	7.7%	-1.0%	1.7%	-7.3% <sup>b</sup>
<b>Congo</b>	2.6	2.1	3.1	4.1	4.0	2.4%	4.1%	7.2%	-1.5% <sup>b</sup>
<b>Cook Islands</b>									
<b>Costa Rica</b>	2.9	3.1	3.3	3.0	2.9	0.6%	0.6%	-2.2%	-4.4% <sup>b</sup>
<b>Côte d'Ivoire</b>	4.6	5.8	7.8	8.4	7.2	2.2%	3.0%	21%	-14.3% <sup>b</sup>
<b>Croatia</b>	6.8	5.0	4.4	3.9	4.1	-2.9%	-1.3%	-2.8%	2.7% <sup>b</sup>
<b>Cuba</b>	5.0	4.2	2.5	2.1	2.1	-1.7%	-5.2%	-3.7%	-1.2% <sup>b</sup>
<b>Curaçao</b>									
<b>Cyprus</b>	4.2	4.3	3.6	3.3	3.3	0.1%	-1.6%	-2.7%	0.5% <sup>b</sup>
<b>Czechia</b>	10.1	8.0	6.4	5.7	5.5	-2.4%	-2.2%	-2.6%	-3.9% <sup>b</sup>
<b>Denmark</b>	4.2	3.5	3.3	4.1	2.6	-1.9%	-0.3%	-5.6%	-1.7% <sup>b</sup>
<b>Djibouti</b>	3.5	5.2	4.8	4.1	3.4	4.0%	-0.9%	-3.5%	-17.1% <sup>a</sup>
<b>Dominica</b>	2.0	2.9	3.4	3.3	3.6	3.6%	1.5%	-0.5%	9.3% <sup>a</sup>
<b>Dominican Republic</b>	4.4	4.4	2.8	2.4	2.5	0.0%	-4.5%	-3.7%	1.3% <sup>b</sup>
<b>Ecuador</b>	3.5	4.0	3.5	3.4	3.6	1.3%	-11%	-0.8%	6.0% <sup>b</sup>
<b>Egypt</b>	4.0	3.3	3.7	3.7	3.5	-1.9%	1.2%	0.1%	-5.5% <sup>b</sup>
<b>El Salvador</b>	4.3	4.4	4.1	3.5	3.6	0.2%	-0.9%	-3.5%	3.8% <sup>b</sup>
<b>Equatorial Guinea</b>	11.8	1.4	2.1	2.1	2.2	-19.3%	4.4%	-0.8%	7.2% <sup>a</sup>
<b>Eritrea</b>		5.2	5.0	4.7	4.8		-0.4%	-1.3%	1.8% <sup>b</sup>
<b>Estonia</b>	31.3	9.0	7.8	7.1	6.3	-11.7%	-1.5%	-2.3%	-10.7% <sup>b</sup>
<b>Ethiopia</b>	30.6	32.3	19.0	14.7	13.7	0.5%	-5.2%	-6.2%	-6.8% <sup>b</sup>
<b>Faroe Islands</b>									
<b>Fiji</b>	4.8	4.0	3.5	4.0	4.9	-1.8%	-1.5%	3.9%	20.3% <sup>a</sup>
<b>Finland</b>	8.2	7.5	7.2	6.7	6.4	-0.9%	-0.5%	-1.7%	-5.0% <sup>b</sup>
<b>France</b>	5.4	5.0	4.6	4.1	4.1	-0.9%	-0.8%	-2.7%	0.5% <sup>b</sup>
<b>French Polynesia</b>									
<b>Gabon</b>	2.7	2.8	8.4	6.7	6.5	0.5%	11.6%	-5.6%	-2.4% <sup>b</sup>
<b>Gambia</b>	5.0	4.9	4.4	4.6	4.5	-0.2%	-1.0%	1.2%	-2.6% <sup>a</sup>
<b>Georgia</b>	13.5	8.3	4.9	5.6	5.8	-4.7%	-5.1%	3.3%	2.5% <sup>b</sup>
<b>Germany</b>	5.9	4.7	4.1	3.6	3.6	-2.4%	-1.2%	-3.1%	-1.0% <sup>b</sup>
<b>Ghana</b>	7.9	6.1	4.2	3.6	3.7	-2.5%	-3.7%	-4.2%	5.0% <sup>b</sup>
<b>Gibraltar</b>									
<b>Greece</b>	4.3	4.2	3.6	3.7	3.7	-0.1%	-1.5%	0.6%	0.5% <sup>b</sup>
<b>Greenland</b>									
<b>Grenada</b>	2.3	3.0	3.4	2.9	3.0	2.5%	1.4%	-3.8%	0.9% <sup>a</sup>
<b>Guam</b>									
<b>Guatemala</b>	3.9	4.2	4.3	4.9	4.5	0.6%	0.4%	2.9%	-7.8% <sup>b</sup>
<b>Guinea</b>	15.5	12.8	11.4	10.2	10.6	-1.9%	-1.2%	-2.8%	4.4% <sup>a</sup>
<b>Guinea-Bissau</b>	12.6	13.7	12.9	12.4	12.0	0.8%	-0.6%	-1.0%	-2.9% <sup>a</sup>
<b>Guyana</b>	11.6	9.3	7.4	6.6	6.4	-2.2%	-2.3%	-2.6%	-3.8% <sup>a</sup>
<b>Haiti</b>	5.2	5.7	10.6	9.9	10.1	0.8%	6.5%	-1.5%	1.6% <sup>b</sup>
<b>Honduras</b>	6.3	5.8	5.9	6.0	6.2	-0.9%	0.2%	0.6%	2.3% <sup>b</sup>
<b>Hong Kong (SAR, China)</b>	2.3	2.5	1.7	1.6	1.5	0.7%	-3.9%	-2.1%	-4.2% <sup>b</sup>
<b>Hungary</b>	8.4	5.7	5.0	4.2	4.3	-3.8%	-1.4%	-4.1%	2.5% <sup>b</sup>
<b>Iceland</b>	12.8	13.6	18.4	18.1	16.6	0.6%	3.0%	-0.4%	-8.6% <sup>b</sup>
<b>India</b>	8.4	7.0	5.4	5.0	4.7	-1.8%	-2.7%	-1.9%	-4.6% <sup>b</sup>
<b>Indonesia</b>	4.9	5.3	4.3	3.7	3.5	0.8%	2.1%	-3.0%	-4.3% <sup>b</sup>
<b>Iran (Islamic Republic of)</b>	5.1	6.6	6.6	7.7	7.8	2.6%	0.0%	4.0%	1.3% <sup>b</sup>
<b>Iraq</b>	4.2	3.8	4.0	4.0	3.7	-1.0%	0.6%	0.1%	-7.7% <sup>b</sup>

Country	Energy Intensity (MJ/USD 2011 PPP)					Compound annual growth rate of Energy Intensity (%)				
	1990	2000	2010	2014	2015	1990-2000	2000-2010	2010-2014	2014-2015	2015
Ireland	5.3	3.7	2.9	2.4	1.9	-3.5%	-2.5%	-4.9%	-17.6%	b
Isle of Man										
Israel	5.2	4.7	4.3	3.4	3.6	-1.1%	-0.8%	-5.5%	4.4%	b
Italy	3.5	3.5	3.4	3.0	3.1	-0.1%	-0.2%	-3.2%	3.2%	b
Jamaica	6.6	7.6	5.0	5.1	5.2	14%	-4.1%	0.7%	2.0%	b
Japan	4.9	5.0	4.6	3.9	3.7	0.3%	-1.0%	-4.0%	-3.3%	b
Jordan	6.1	5.5	4.4	4.5	4.6	-1.0%	-2.3%	0.8%	3.0%	b
Kazakhstan	14.4	10.1	8.8	7.9	7.9	-3.5%	-1.3%	-2.8%	0.7%	b
Kenya	8.1	8.7	8.0	7.8	7.8	0.8%	-0.9%	-0.5%	0.3%	b
Kiribati	3.3	2.8	4.8	4.0	4.1	-1.7%	5.7%	-4.6%	2.6%	a
Democratic People's Republic of Korea										
Republic of Korea	7.8	8.1	7.0	6.6	6.5	0.3%	-1.5%	-1.2%	-1.2%	b
Kosovo	4.9	5.5	6.0	5.0	5.3	1.1%	0.9%	-4.4%	7.0%	b
Kuwait										
Kyrgyzstan	20.5	9.6	7.6	9.2	8.6	-7.4%	-2.3%	5.0%	-6.2%	b
Lao People's Democratic Republic	8.7	5.6	4.8	3.9	5.2	-4.3%	-1.6%	-4.7%	31.3%	a
Latvia	21.4	6.1	4.9	4.1	3.9	-11.8%	-2.1%	-4.5%	-4.4%	b
Lebanon	3.9	5.1	3.8	4.2	4.2	2.8%	-2.9%	2.4%	0.6%	b
Lesotho	16.4	14.4	10.8	10.3	9.7	-1.3%	-2.8%	-1.2%	-5.7%	a
Liberia	20.7	20.2	27.0	25.4	26.0	-0.2%	3.0%	-1.6%	2.4%	a
Libya	5.2	5.6	4.8	4.4	4.2	0.9%	-1.7%	-1.7%	-5.3%	b
Liechtenstein										
Lithuania	28.9	7.0	4.5	3.8	3.9	-13.2%	-4.3%	-4.2%	14.1%	b
Luxembourg	6.4	3.9	3.8	3.1	2.9	-4.8%	-0.3%	-5.2%	-6.3%	b
Macao (SAR, China)	1.0	1.3	0.6	0.4	0.7	2.2%	-7.8%	-6.9%	50.5%	a
Macedonia, FYR	5.4	6.4	5.1	4.4	4.2	1.7%	-2.2%	-3.6%	-4.1%	b
Madagascar	4.4	5.2	5.1	5.3	5.4	1.6%	-0.1%	0.7%	1.8%	a
Malawi	9.1	6.6	4.9	4.3	4.1	-3.2%	-2.9%	-3.2%	-5.6%	a
Malaysia	4.8	5.4	5.2	5.1	4.7	1.2%	-0.4%	-0.2%	-8.8%	b
Maldives	17.2	3.6	3.5	4.0	3.8	-14.5%	-0.3%	3.3%	-2.9%	a
Mali	4.0	3.5	2.8	2.9	2.8	-1.3%	-2.4%	0.9%	-1.6%	a
Malta	5.1	2.9	3.0	2.3	1.8	-5.3%	0.1%	-5.9%	-22.9%	b
Marshall Islands										
Mauritania	4.0	3.9	3.7	3.6	3.6	-0.4%	-0.3%	-0.6%	-1.6%	a
Mauritius	3.6	3.2	2.8	2.5	2.6	-1.0%	-1.5%	-2.0%	0.1%	b
Mexico	4.8	4.1	4.1	3.9	3.7	-1.5%	-0.1%	-1.5%	-3.0%	b
Micronesia (Federated States of)										
Moldova	81.2	14.3	10.5	8.2	8.4	-16.0%	-3.0%	-6.2%	2.8%	b
Monaco										
Mongolia	12.8	9.0	7.9	6.7	6.1	-3.4%	-1.3%	-4.1%	-8.5%	b
Montenegro										
Morocco	3.2	3.5	3.4	3.2	3.2	0.8%	-0.4%	-1.1%	-2.6%	b
Mozambique	49.4	29.6	18.8	16.6	17.3	-5.0%	-4.5%	-3.0%	4.4%	b
Myanmar	14.8	8.9	3.0	3.1	3.1	-4.9%	-10.2%	0.8%	-0.2%	b
Namibia										
Nauru										
Nepal	10.8	9.3	8.0	7.6	7.4	-1.5%	-1.5%	-1.2%	-2.4%	b
Netherlands	5.9	4.8	4.6	4.0	3.9	-2.1%	-0.3%	-3.8%	-0.7%	b

Data Annex

Country	Energy Intensity (MJ/USD 2011 PPP)					Compound annual growth rate of Energy Intensity (%)				
	1990	2000	2010	2014	2015	1990-2000	2000-2010	2010-2014	2014-2015	
<b>New Caledonia</b>										
<b>New Zealand</b>	6.7	6.6	5.5	5.5	5.4	-0.2%	-1.8%	0.2%	-1.7%	b
<b>Nicaragua</b>	6.8	6.1	5.4	5.2	5.4	-1.1%	-1.2%	-0.5%	3.5%	b
<b>Niger</b>		7.2	7.0	7.1	6.9		-0.3%	0.3%	-1.8%	b
<b>Nigeria</b>	9.6	10.3	6.1	5.6	5.7	0.7%	-5.1%	-2.2%	0.9%	b
<b>Nine</b>										
<b>Northern Mariana Islands</b>										
<b>Norway</b>	4.9	4.2	4.7	3.6	3.8	-1.4%	1.0%	-6.4%	4.8%	b
<b>Oman</b>	2.8	3.2	5.7	6.4	6.3	1.3%	6.0%	2.9%	-1.3%	b
<b>Pakistan</b>	5.5	5.5	4.8	4.5	4.4	0.1%	-1.3%	-1.6%	-2.5%	b
<b>Palau</b>		111	11.4	11.7	10.2		0.2%	0.6%	-12.2%	a
<b>Panama</b>	3.2	3.4	2.7	2.3	2.2	0.4%	-2.2%	-4.1%	-4.4%	b
<b>Papua New Guinea</b>	13.2	9.9	9.5	7.7	9.3	-2.9%	-0.4%	-5.0%	20.1%	a
<b>Paraguay</b>	5.1	5.0	4.4	3.9	4.0	-0.1%	-1.2%	-3.3%	18.8%	b
<b>Peru</b>	3.5	3.0	2.8	2.8	2.8	-1.5%	-0.7%	-0.1%	0.3%	b
<b>Philippines</b>	4.8	5.1	3.2	3.0	3.1	0.5%	-4.4%	-1.5%	2.9%	b
<b>Poland</b>	11.0	6.6	5.1	4.3	4.1	-5.0%	-2.6%	-4.3%	-2.8%	b
<b>Portugal</b>	3.5	3.8	3.4	3.3	3.3	1.0%	-1.2%	-11.1%	2.1%	b
<b>Puerto Rico</b>	0.0	0.1	0.2	0.4	0.4	24.5%	7.8%	15.9%	5.2%	a
<b>Qatar</b>	9.3	7.1	5.2	6.5	6.4	-2.7%	-3.1%	5.7%	-1.1%	b
<b>Romania</b>	47093.5	6.4	4.1	3.4	3.3	-58.9%	-4.5%	-4.5%	-2.5%	b
<b>Russian Federation</b>	12.0	5.0	8.7	8.3	8.4	-8.5%	5.8%	-11.1%	0.8%	b
<b>Rwanda</b>	5.6	8.5	6.1	5.2	4.9	4.2%	-3.3%	-3.6%	-6.6%	a
<b>Samoa</b>	4.3	4.4	4.5	4.3	5.2	0.2%	0.2%	-14.4%	21.6%	a
<b>San Marino</b>										
<b>Sao Tome and Principe</b>	32.4	5.9	5.2	4.7	4.7	-15.6%	-1.3%	-2.5%	-1.1%	a
<b>Saudi Arabia</b>	3.5	4.6	6.2	5.8	5.8	2.7%	3.1%	-1.7%	-0.2%	b
<b>Senegal</b>	5.1	5.3	5.7	5.1	5.0	0.5%	0.7%	-2.9%	-1.6%	b
<b>Serbia</b>	18.9	9.6	7.1	5.9	6.6	-6.6%	-3.0%	-4.3%	10.5%	b
<b>Seychelles</b>	2.2	5.4	3.3	2.6	2.6	-9.2%	-4.6%	-6.4%	2.9%	a
<b>Sierra Leone</b>	9.3	13.1	7.6	5.8	7.0	3.5%	-5.3%	-6.7%	20.8%	a
<b>Singapore</b>	4.6	3.8	2.9	2.5	2.4	-2.0%	-2.5%	-3.8%	-3.6%	b
<b>Sint Maarten (Dutch part)</b>										
<b>Slovak Republic</b>										
<b>Slovenia</b>	7.1	5.9	5.2	4.7	4.6	-1.8%	-1.3%	-2.4%	-3.4%	b
<b>Solomon Islands</b>	9.4	7.7	6.3	5.2	5.0	-2.0%	-2.0%	-4.5%	-3.7%	a
<b>Somalia</b>										
<b>South Africa</b>	10.5	10.5	9.7	9.0	8.7	0.0%	-0.8%	-1.7%	-3.7%	b
<b>South Sudan</b>										
<b>Spain</b>	4.1	4.2	3.5	3.3	3.3	0.3%	-1.7%	-1.6%	-16.3%	b
<b>Sri Lanka</b>	3.7	3.3	2.4	2.0	2.1	-1.0%	-3.4%	-3.7%	1.5%	b
<b>Saint Kitts and Nevis</b>	3.7		3.1	3.2	3.2	-100.0%	4.7%	0.1%	0.6%	-1.3%
<b>Saint Lucia</b>	2.0	3.1								
<b>Sint Maarten (Dutch part)</b>										
<b>Saint Vincent and the Grenadines</b>										
<b>Sudan</b>	9.8	7.2	4.7	4.0	4.0	-3.1%	-4.2%	-4.0%	-0.3%	b
<b>Suriname</b>	5.7	4.0	3.4	3.4	4.5	4.5%	-3.5%	-3.8%	-1.4%	b
<b>Swaziland</b>	4.3	6.6	5.0	4.6	4.6	-2.8%	-2.5%	-2.5%	2.3%	a

Country	Energy Intensity (MJ/USD 2011 PPP)					Compound annual growth rate of Energy Intensity (%)				
	1990	2000	2010	2014	2015	1990-2000	2000-2010	2010-2014	2014-2015	
<b>Sweden</b>	7.5	6.1	5.3	4.7	4.3	-2.0%	-1.4%	-2.9%	-9.4%	b
<b>Switzerland</b>	3.2	2.9	2.5	2.3	2.2	-0.9%	-1.4%	-2.1%	-2.9%	b
<b>Syrian Arab Republic</b>	11.6	10.4	10.0	4.4	4.0	-1.1%	-0.5%	-18.3%	-9.5%	b
<b>Tajikistan</b>	11.5	12.3	5.7	5.1	5.0	0.6%	7.4%	-2.7%	-1.1%	b
<b>Tanzania</b>	11.2	11.5	9.2	8.5	8.3	0.2%	-2.1%	-2.0%	-2.2%	b
<b>Thailand</b>	4.7	5.2	5.4	5.6	5.4	1.1%	0.4%	0.5%	-2.6%	b
<b>Timor-Leste</b>										
<b>Togo</b>	10.3	13.9	16.6	14.6	14.3	3.0%	1.8%	-3.1%	-1.9%	b
<b>Tonga</b>	3.3	3.2	3.2	3.0	3.0	-0.1%	-0.1%	-1.8%	1.5%	a
<b>Trinidad and Tobago</b>	16.7	17.7	20.2	19.1	19.1	0.6%	1.3%	-1.4%	-0.3%	b
<b>Tunisia</b>	4.5	4.2	3.9	3.7	3.8	-0.7%	-0.7%	-1.2%	2.0%	b
<b>Turkey</b>	3.6	3.6	3.4	2.9	2.9	0.1%	-0.5%	-3.8%	0.0%	b
<b>Turkmenistan</b>	23.9	25.9	18.8	14.3	13.9	0.8%	-3.2%	-6.6%	-3.0%	b
<b>Turks and Caicos Islands</b>										
<b>Tuvalu</b>	3.5	3.3	3.9	3.7	3.9	-0.3%	1.5%	-1.3%	6.0%	a
<b>Uganda</b>	20.6	12.4	10.0	9.7	9.6	-4.9%	-2.1%	-0.9%	-0.2%	a
<b>Ukraine</b>	19.4	23.7	15.4	12.5	11.8	2.0%	-4.2%	-5.2%	-5.5%	b
<b>United Arab Emirates</b>	4.1	4.1	5.5	5.3	5.1	-0.2%	3.1%	-1.2%	-3.6%	b
<b>United Kingdom</b>	5.6	4.8	3.8	3.1	3.0	-1.6%	-2.4%	-4.9%	-1.7%	b
<b>United States</b>	8.7	7.3	6.1	5.6	5.4	-1.7%	-1.9%	-1.9%	-3.8%	b
<b>Uruguay</b>	3.1	3.0	3.0	2.9	3.1	-0.2%	-0.2%	-0.6%	6.9%	b
<b>Uzbekistan</b>	30.8	34.5	14.9	11.1	10.0	1.1%	-8.0%	-7.2%	-9.7%	b
<b>Vanuatu</b>	3.1	4.0	3.9	4.3	3.9	2.4%	-0.3%	2.4%	-9.3%	a
<b>Venezuela</b>	5.8	6.1	6.3	5.5	4.7	0.5%	0.4%	-3.5%	-13.7%	b
<b>Vietnam</b>	7.5	5.8	6.3	5.7	5.9	-2.5%	0.8%	-2.4%	3.5%	b
<b>United States Virgin Islands</b>										
<b>Palestine (State of)</b>										
<b>Yemen</b>	2.6	2.9	3.1	3.2	2.1	0.9%	0.8%	1.0%	-36.2%	b
<b>Zambia</b>	12.1	12.0	7.8	7.4	7.3	-0.1%	-6.2%	-1.2%	-0.7%	b
<b>Zimbabwe</b>	14.7	13.3	19.5	15.7	15.8	-1.0%	3.9%	-5.3%	0.3%	b
<b>World</b>	7.8	6.6	5.9	5.4	5.3	-1.6%	-1.2%	-2.1%	-2.9%	c
<b>High income</b>	7.1	6.2	5.4	5.0	4.8	-1.3%	-1.4%	-2.1%	-2.3%	c
<b>Low income</b>	12.9	13.1	10.9	10.0	9.8	0.2%	-1.8%	-2.2%	-2.3%	c
<b>Lower middle income</b>	8.5	7.0	5.3	4.8	4.6	-2.0%	-2.7%	-2.6%	-3.8%	c
<b>Upper middle income</b>	9.0	6.9	6.5	6.0	5.8	-2.7%	-0.5%	-2.2%	-3.8%	c
<b>Central Asia and Southern Asia</b>	8.2	7.1	5.7	5.4	5.2	-1.4%	-2.2%	-1.4%	-3.6%	c
<b>Eastern Asia and South-eastern Asia</b>	8.7	7.1	6.7	5.9	5.6	-2.0%	-0.7%	-3.0%	-4.4%	c
<b>Latin America and the Caribbean</b>	4.5	4.3	4.1	3.9	3.9	-0.5%	-0.5%	-0.8%	-1.4%	c
<b>Northern America and Europe</b>	8.1	6.7	5.6	5.2	5.0	-1.9%	-1.7%	-2.1%	-2.6%	c
<b>Oceania</b>	7.4	6.4	5.9	5.2	5.1	-1.3%	-1.0%	-2.7%	-1.8%	c
<b>Sub-Saharan Africa</b>	9.2	9.8	7.8	7.3	7.2	0.6%	-2.2%	-1.6%	-1.5%	c
<b>Western Asia and Northern Africa</b>	4.5	4.4	5.0	4.4	4.8	-0.3%	1.2%	-3.2%	8.6%	c

Tracking SDG7: The Energy Progress Report 2018

a. Source: Energy Balances, UN Statistics Division (2017)

b. Source: World Energy Balances, IEA (2017)

c. Sources: World Bank analysis based on World Energy Statistics and Balances, IEA (2017); Energy Balances, UN Statistics Division (2017)

## RENEWABLE ENERGY

Data Annex

Country	Share in total final energy consumption (%)										Final use of renewable energy (petajoules)					Total final energy consumption (petajoules)	
	Solid biofuels					Share in total final energy consumption (%)					Electricity		Heat		Transport		
	Renewable Energy	2019	2010	2014	2015	2015	Hydro	Liquid Biofuels	Wind	Solar	Geothermal	Other (Biogas, renewable waste, marine)	2015	2015	2015	2015	
Afghanistan	a	15.92%	14.84%	19.31%	18.42%	9.60%	0.00%	8.83%	0.00%	0.00%	0.63%	0.00%	0.00%	12.04	13.09	-	136
Albania	b	25.55%	37.12%	38.69%	38.62%	8.20%	2.27%	25.98%	1.53%	0.00%	0.01%	0.00%	0.00%	21.23	9.07	1	82
Algeria	b	0.18%	0.26%	0.07%	0.06%	0.01%	0.03%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.58	0.25	-	1414
American Samoa	a	0.00%	0.00%	0.70%	0.89%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	-	-	1
Andorra	a	14.27%	19.09%	19.89%	19.75%	0.27%	0.00%	18.02%	0.00%	0.00%	0.00%	0.00%	1.45%	1.50	0.14	-	8
Angola	b	72.26%	54.19%	50.80%	49.57%	45.19%	1.10%	3.28%	0.00%	0.00%	0.00%	0.00%	0.00%	16.13	227.64	-	492
Anguilla	a	0.30%	0.12%	0.13%	0.11%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	-	-	2
Antigua and Barbuda	a	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	5
Argentina	b	8.92%	8.96%	10.90%	10.04%	0.50%	2.28%	5.14%	2.04%	0.08%	0.00%	0.00%	0.00%	131.36	59.50	49	2385
Armenia	b	2.12%	9.36%	7.72%	15.79%	9.35%	0.00%	6.43%	0.00%	0.01%	0.00%	0.00%	0.00%	5.48	7.96	-	85
Aruba	a	0.27%	5.46%	6.93%	6.73%	0.33%	0.00%	0.00%	6.40%	0.00%	0.00%	0.00%	0.00%	0.42	0.02	-	7
Australia	b	8.01%	8.11%	9.28%	9.18%	0.00%	5.31%	1.25%	0.32%	1.07%	1.02%	0.00%	0.22%	103.77	182.77	10	3233
Austria	b	25.14%	30.66%	35.39%	34.39%	0.00%	15.74%	12.47%	2.72%	1.63%	1.05%	0.08%	0.71%	167.49	167.80	27	1,054
Azerbaijan	b	0.72%	4.45%	2.12%	2.31%	0.66%	0.31%	1.27%	0.00%	0.00%	0.00%	0.00%	0.07%	4.47	3.21	0	332
Bahamas	a	0.00%	1.66%	1.09%	1.21%	0.00%	1.21%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	0.31	-	26
Bahrain	b	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	192
Bangladesh	b	71.66%	41.05%	37.63%	34.75%	34.55%	0.00%	0.15%	0.00%	0.04%	0.00%	0.00%	0.00%	215	383.91	-	1,111
Barbados	a	18.94%	9.03%	3.16%	2.79%	0.09%	2.70%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	-	0.32	-	11
Belarus	b	0.82%	7.02%	6.63%	6.77%	21.1%	4.44%	0.05%	0.12%	0.01%	0.00%	0.00%	0.03%	0.86	43.58	0	658
Belgium	b	12.7%	5.84%	9.07%	9.20%	0.00%	4.66%	0.10%	0.84%	1.69%	1.00%	0.00%	0.91%	61.20	56.21	11	1,395
Belize	a	38.01%	33.71%	36.91%	35.02%	0.18%	26.99%	7.85%	0.00%	0.00%	0.00%	0.00%	0.00%	0.96	3.32	-	12
Benin	b	93.70%	48.12%	52.54%	50.86%	42.08%	8.64%	0.11%	0.00%	0.04%	0.00%	0.00%	0.00%	0.22	76.25	-	150
Bermuda	a	0.00%	2.39%	1.99%	2.36%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	0.12	-	5
BES Islands	a	0.00%	0.00%	3.03%	2.97%	0.10%	0.00%	0.00%	0.00%	2.87%	0.00%	0.00%	0.00%	0.11	0.00	-	4
Bhutan	a	95.90%	90.89%	87.03%	86.90%	74.98%	0.15%	11.78%	0.00%	0.00%	0.00%	0.00%	0.00%	7.41	47.21	-	63
Bolivia	b	37.36%	20.07%	16.82%	17.54%	6.96%	7.61%	2.94%	0.00%	0.01%	0.00%	0.00%	0.00%	8.90	39.93	-	278
Bosnia and Herzegovina	b	19.57%	41.75%	40.75%	31.88%	1.29%	7.58%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	13.65	59.70	-	180
Botswana	b	47.55%	30.19%	28.80%	28.88%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00	23.15	-	80
British Virgin Islands	a	14.5%	0.85%	1.22%	0.88%	0.00%	0.00%	0.24%	0.13%	0.00%	0.00%	0.00%	0.00%	0.01	47.21	-	2
Brazil	b	49.86%	47.01%	41.84%	43.79%	3.21%	18.60%	12.33%	8.55%	0.74%	0.33%	0.00%	0.02%	1,309.41	1,819.04	759	8,877
Brunei Darussalam	b	0.67%	0.00%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01%	0.00%	0.00%	0.00%	0.01	0.00	-	39
Bulgaria	b	19.22%	14.37%	16.97%	17.65%	7.66%	3.13%	3.03%	1.53%	0.78%	0.97%	0.36%	0.19%	18.35	44.71	6	391
Burkina Faso	a	93.16%	81.45%	75.24%	74.17%	73.46%	0.43%	0.28%	0.00%	0.00%	0.00%	0.00%	0.00%	0.40	108.52	-	147
Burundi	a	95.20%	96.76%	94.60%	95.63%	93.07%	1.12%	14.9%	0.00%	0.00%	0.00%	0.00%	0.00%	0.77	48.69	-	52
Cambodia	b	0.00%	68.32%	68.01%	46.47%	15.13%	3.32%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	8.33	151.48	-	246
Cameroon	b	81.59%	78.60%	76.98%	76.5%	64.49%	6.55%	5.49%	0.00%	0.00%	0.00%	0.00%	0.00%	15.85	201.72	-	284
Canada	b	22.02%	22.08%	22.02%	22.03%	0.00%	5.46%	14.26%	1.03%	0.99%	0.13%	0.00%	0.14%	1,141.36	371.38	74	7206
Cape Verde	a	36.63%	21.74%	26.20%	26.58%	22.91%	0.26%	0.00%	3.16%	0.25%	0.00%	0.00%	0.00%	0.22	1.51	-	6

Country	Share in total final energy consumption (%)										Final use of renewable energy (petajoules)					Total final energy consumption (petajoules)		
	Renewable Energy				Solid biofuels			Hydro			Liquid Biofuels	Solar	Geothermal	Other (Biogas, renewable waste, marine)	Electricity	Heat	Transport	
	1990	2010	2014	2015	Traditional use	Modern use	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015		
Cayman Islands	a	93.49%	79.81%	76.90%	76.57%	38.13%	35.17%	3.26%	0.00%	0.00%	0.00%	0.00%	0.00%	0.58	12.94	-	18	
Central African Republic	a	98.16%	90.79%	89.24%	89.36%	88.02%	1.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	59.32	-	66	
Chad	a	34.03%	27.04%	26.72%	24.88%	0.00%	16.35%	7.31%	0.00%	0.65%	0.50%	0.00%	0.07%	104.94	154.67	-	1043	
Channel Islands	b	34.08%	12.88%	12.22%	12.41%	4.61%	0.23%	4.58%	0.12%	0.76%	1.40%	0.28%	0.43%	4,201.42	4,797.34	86	73183	
Chile	b	1.94%	1.55%	2.04%	2.12%	0.00%	0.31%	0.74%	0.15%	0.25%	0.37%	0.08%	0.30%	29.34	12.20	0	1967	
China	b	19.08%	12.88%	12.22%	12.41%	4.61%	0.00%	3.50%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	
Chinese Taipei	b	1.94%	1.55%	2.04%	2.12%	0.00%	0.31%	0.74%	0.15%	0.25%	0.37%	0.08%	0.30%	29.34	12.20	0	1967	
Christmas Island																	5	
Cocos Islands																		
Colombia	b	38.25%	27.93%	24.44%	23.56%	5.73%	6.37%	11.35%	0.10%	0.01%	0.00%	0.00%	0.00%	127.39	123.48	1	1,069	
Comoros	a	49.84%	46.41%	46.62%	45.33%	45.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	1.61	-	4	
Congo, Dem. Rep.	b	92.05%	96.83%	92.83%	95.82%	78.66%	14.24%	2.90%	0.00%	0.00%	0.00%	0.00%	0.00%	26.12	836.40	-	900	
Congo, Rep.	b	65.41%	55.15%	62.40%	62.40%	59.81%	0.80%	1.80%	0.00%	0.00%	0.00%	0.00%	0.00%	1.53	51.62	-	85	
Cook Islands	a	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01	(0.01)	-	1	
Costa Rica	b	45.38%	42.31%	37.84%	38.73%	34.33%	13.52%	16.69%	0.00%	2.23%	0.01%	2.85%	0.00%	33.60	25.16	-	152	
Côte d'Ivoire	b	73.58%	75.37%	72.22%	64.53%	56.93%	6.41%	1.19%	0.00%	0.00%	0.00%	0.00%	0.00%	3.62	178.65	-	282	
Croatia	b	21.92%	29.78%	33.65%	33.13%	17.98%	0.90%	11.62%	0.37%	1.45%	0.26%	0.17%	0.39%	36.92	51.68	1	270	
Cuba	b	42.89%	13.16%	18.80%	19.28%	0.13%	15.93%	0.05%	3.13%	0.02%	0.03%	0.00%	0.00%	2.30	55.44	-	299	
Curatão	b	0.00%	0.24%	0.33%	0.35%	0.00%	0.00%	0.00%	0.35%	0.00%	0.00%	0.00%	0.00%	0.09	0.00	-	25	
Cyprus	b	0.50%	6.35%	9.36%	9.94%	0.56%	0.65%	0.00%	0.69%	0.12%	0.52%	0.11%	0.12%	1.29	4.16	0	59	
Czech Republic	b	3.57%	10.92%	14.83%	14.83%	0.00%	10.38%	0.44%	1.29%	0.14%	0.64%	0.00%	1.54%	22.37	107.99	12	963	
Denmark	b	7.04%	21.35%	30.27%	33.17%	0.00%	16.33%	0.01%	1.85%	9.87%	0.65%	0.01%	3.85%	72.41	99.29	10	547	
Djibouti	a	26.59%	34.43%	34.15%	15.38%	15.38%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	0.76	-	5	
Dominica	a	14.60%	8.91%	8.61%	7.83%	4.13%	0.00%	3.70%	0.00%	0.00%	0.00%	0.00%	0.00%	0.06	0.06	-	1	
Dominican Republic	b	28.01%	16.98%	18.02%	16.48%	9.13%	4.35%	1.57%	0.00%	0.97%	0.46%	0.00%	0.00%	6.51	30.84	-	227	
Ecuador	b	24.20%	12.11%	12.22%	13.83%	1.80%	3.36%	8.44%	0.11%	0.06%	0.02%	0.02%	0.00%	43.48	24.31	1	495	
Egypt	b	8.50%	5.72%	5.87%	5.71%	1.72%	1.79%	1.96%	0.00%	0.20%	0.04%	0.04%	0.00%	45.86	73.24	-	2,086	
El Salvador	b	67.14%	30.77%	28.27%	24.40%	10.57%	4.00%	4.52%	0.00%	0.00%	0.00%	0.00%	5.15%	0.16%	11.94	13.23	-	103
Equatorial Guinea	a	84.71%	5.95%	7.61%	7.62%	5.65%	0.00%	2.17%	0.00%	0.00%	0.00%	0.00%	0.00%	1.46	3.81	-	67	
Eritrea	b	0.00%	81.25%	79.93%	79.77%	75.84%	3.90%	0.00%	0.00%	0.03%	0.00%	0.00%	0.00%	0.01	18.74	-	23	
Estonia	b	3.36%	25.13%	25.33%	27.18%	0.00%	25.49%	0.06%	0.12%	1.47%	0.00%	0.00%	0.34%	3.56	27.88	0	115	
Ethiopia	b	96.64%	94.52%	92.07%	92.16%	89.53%	0.87%	1.62%	0.01%	0.13%	0.00%	0.00%	0.00%	29.92	1544.11	0	1,708	
Falkland Islands (Malvinas)	a	11.3%	3.71%	3.87%	3.89%	0.86%	0.00%	0.00%	0.00%	3.03%	0.00%	0.00%	0.00%	0.02	0.01	-	1	
Faroe Islands	a	2.54%	3.38%	6.54%	7.51%	0.00%	5.29%	0.00%	2.22%	0.00%	0.00%	0.00%	0.00%	0.62	0.00	-	8	
Fiji	a	53.09%	29.61%	34.57%	31.26%	11.5%	24.53%	5.51%	0.00%	0.08%	0.00%	0.09%	0.00%	1.34	6.15	-	24	
Finland	b	24.51%	33.58%	41.24%	43.24%	0.00%	31.67%	7.14%	2.18%	0.99%	0.01%	0.00%	1.25%	125.72	271.83	21	968	
France	b	10.41%	11.85%	13.35%	13.50%	0.00%	6.60%	2.62%	2.19%	1.02%	0.42%	0.07%	0.57%	242.62	394.21	123	5,632	
French Guiana	a	5.73%	29.55%	30.03%	32.44%	10.02%	3.71%	16.89%	0.00%	1.83%	0.00%	0.00%	0.00%	1.69	1.24	-	9	
French Polynesia	a	4.73%	11.57%	10.16%	9.63%	0.41%	0.00%	8.97%	0.00%	0.45%	0.00%	0.00%	0.00%	0.73	0.03	-	8	
Gabon	b	78.28%	85.88%	81.35%	82.01%	21.98%	58.57%	1.46%	0.00%	0.00%	0.00%	0.00%	0.00%	2.92	159.26	-	198	
Gambia	a	61.44%	54.71%	51.51%	51.51%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	5.26	-	10	
Georgia	b	12.77%	39.15%	31.89%	28.66%	10.37%	0.20%	17.65%	0.00%	0.06%	0.00%	0.38%	0.00%	27.84	17.36	-	158	
Germany	b	21.09%	10.29%	13.38%	14.21%	0.00%	5.00%	0.66%	1.38%	2.75%	1.68%	0.05%	2.69%	541.77	533.79	107	8,328	
Ghana	b	80.63%	49.78%	45.05%	41.41%	27.85%	7.94%	5.59%	0.00%	0.00%	0.00%	0.00%	0.00%	15.85	101.41	-	283	

Country	Share in total final energy consumption (%)										Final use of renewable energy (petajoules)					Total final energy consumption (petajoules)	
	Renewable Energy					Solid biofuels					Electricity			Heat		Transport	
	1990	2010	2014	2015	2015	Traditional use	Modern use	Hydro	Liquid Biofuels	Solar	Geothermal	Other (Biogas, renewable waste, marine)	2015	2015	2015	2015	2015
Gibraltar	a 0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	6
Greece	b 7.81%	11.09%	14.90%	17.17%	0.00%	6.73%	3.28%	1.04%	2.48%	3.35%	0.06%	0.22%	52.40	56.23	6	657	
Greenland	a 0.00%	9.83%	14.90%	15.53%	0.00%	0.00%	15.41%	0.00%	0.00%	0.00%	0.00%	0.12%	1.23	0.01	-	8	
Grenada	a 8.34%	10.50%	11.08%	10.92%	10.23%	0.69%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	0.31	-	3	
Guadeloupe	a 6.75%	1.97%	4.99%	4.68%	0.47%	0.00%	0.35%	0.00%	0.85%	1.65%	1.36%	0.00%	0.78	0.09	-	19	
Guam	a 0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	6	
Guatemala	b 74.97%	66.59%	59.90%	63.65%	57.12%	3.49%	2.70%	0.00%	0.07%	0.10%	0.18%	0.00%	19.97	253.70	-	430	
Guinea	a 89.30%	75.71%	78.52%	76.27%	73.85%	0.44%	1.98%	0.00%	0.00%	0.00%	0.00%	0.00%	2.74	102.50	-	138	
Guinea-Bissau	a 88.58%	87.81%	87.06%	86.85%	79.0%	7.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	23.67	-	27	
Guyana	a 42.23%	33.84%	24.02%	25.26%	4.42%	20.83%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	6.72	-	27	
Haiti	b 81.12%	79.02%	78.39%	76.07%	72.06%	3.93%	0.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.12	103.87	-	137	
Honduras	b 70.13%	53.16%	51.54%	40.49%	6.30%	3.70%	0.00%	1.05%	0.00%	0.00%	0.00%	0.00%	11.89	90.38	-	198	
Hong Kong (SAR, China)	b 1.07%	0.83%	0.85%	0.61%	0.04%	0.00%	0.08%	0.00%	0.00%	0.00%	0.00%	0.12%	0.44	2.44	0	372	
Hungary	b 3.86%	13.46%	15.67%	15.56%	0.00%	12.85%	0.14%	1.04%	0.42%	0.14%	0.51%	0.47%	13.79	88.95	7	707	
Iceland	b 54.67%	75.42%	76.34%	77.03%	0.00%	0.00%	38.87%	0.44%	0.03%	0.00%	37.60%	0.06%	62.89	27.87	1	119	
India	b 58.65%	39.48%	36.65%	36.02%	26.09%	7.47%	1.66%	0.07%	0.5%	0.19%	0.00%	0.02%	567.34	7,428.26	16	22,241	
Indonesia	b 58.60%	37.75%	37.45%	36.88%	30.7%	4.36%	0.66%	0.67%	0.00%	0.00%	0.48%	0.00%	77.79	2,282.80	42	6,514	
Iran (Islamic Republic of)	b 1.24%	0.90%	0.94%	0.91%	0.16%	0.168%	0.58%	0.00%	0.01%	0.00%	0.00%	0.00%	38.80	21.14	-	6,565	
Iraq	b 1.60%	1.71%	0.91%	0.80%	0.09%	0.15%	0.65%	0.00%	0.00%	0.00%	0.00%	0.00%	4.78	1.09	-	734	
Ireland	b 2.28%	5.27%	8.52%	9.08%	0.00%	2.03%	0.60%	0.88%	4.91%	0.13%	0.00%	0.55%	25.24	1012	4	430	
Isle of Man	a 0.00%	4.05%	3.81%	4.21%	0.00%	0.00%	0.48%	0.00%	0.00%	0.00%	0.00%	3.72%	0.01	0.08	-	2	
Israel	b 5.80%	8.50%	3.68%	3.71%	0.00%	0.07%	0.01%	0.00%	0.00%	0.00%	0.35%	0.00%	0.04%	3.70	15.29	-	512
Italy	b 3.78%	12.79%	17.09%	16.52%	0.00%	6.74%	3.55%	1.45%	1.16%	1.96%	1.60%	1.07%	400.28	329.48	49	4,715	
Jamaica	b 7.63%	13.72%	16.12%	16.77%	9.34%	5.01%	0.42%	1.60%	0.40%	0.00%	0.00%	0.00%	0.00%	112	11.34	1	82
Japan	b 4.95%	4.59%	5.63%	6.30%	0.00%	2.00%	2.66%	0.00%	0.16%	1.25%	0.15%	0.07%	546.34	118.65	-	10,560	
Jordan	b 2.77%	2.97%	3.13%	3.23%	0.07%	0.00%	0.07%	0.00%	0.16%	2.92%	0.00%	0.01%	0.56	6.84	-	229	
Kazakhstan	b 1.41%	1.38%	1.31%	1.56%	0.18%	0.00%	1.35%	0.00%	0.02%	0.01%	0.09%	0.00%	21.79	2.93	-	1,587	
Kenya	b 77.50%	76.27%	75.52%	72.66%	68.85%	0.66%	1.71%	0.00%	0.03%	0.00%	2.02%	0.00%	24.98	45.097	-	655	
Kiribati	a 5.22%	3.46%	3.47%	4.25%	3.41%	0.00%	0.00%	0.00%	0.00%	0.85%	0.00%	0.00%	0.01	0.02	-	1	
Democratic People's Republic of Korea	b 7.19%	13.47%	21.03%	23.12%	1.82%	11.54%	9.76%	0.00%	0.00%	0.00%	0.00%	0.00%	26.90	36.83	-	276	
Republic of Korea	b 1.63%	1.31%	2.84%	2.71%	0.00%	1.38%	0.13%	0.40%	0.07%	0.26%	0.11%	0.36%	33.79	92.54	18	5,312	
Kosovo	b 0.00%	20.92%	21.46%	18.11%	16.4%	0.68%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.38	11.04	-	56	
Kuwait	b 0.17%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	617	
Kyrgyzstan	b 7.93%	25.59%	26.61%	23.31%	0.07%	0.01%	23.22%	0.00%	0.00%	0.00%	0.00%	0.00%	32.47	0.12	-	140	
Lao People's Democratic Republic	a 88.45%	71.51%	60.47%	59.32%	35.89%	12.64%	10.79%	0.00%	0.00%	0.00%	0.00%	0.00%	13.18	59.30	-	122	
Latvia	b 17.57%	33.06%	40.24%	38.10%	0.00%	30.18%	5.07%	0.67%	0.40%	0.00%	1.78%	11.67	46.06	1	154		
Lebanon	b 11.34%	5.20%	3.23%	3.65%	2.02%	0.37%	0.77%	0.00%	0.00%	0.49%	0.00%	0.00%	1.56	5.82	-	202	
Lesotho	a 52.03%	53.45%	51.39%	52.14%	47.65%	0.00%	4.49%	0.00%	0.00%	0.00%	0.00%	0.00%	2.50	26.54	-	56	
Liberia	a 88.82%	89.21%	83.94%	83.85%	10.10%	73.75%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	68.92	-	82	
Libya	b 31.3%	1.57%	1.75%	1.97%	1.97%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	6.35	-	323	
Liechtenstein	a 0.00%	58.69%	62.59%	63.13%	7.29%	0.00%	34.52%	0.00%	0.00%	14.72%	0.00%	6.61%	1.38	0.44	-	3	
Lithuania	b 31.0%	21.46%	27.71%	28.96%	10.28%	11.52%	1.38%	1.43%	3.20%	0.29%	0.01%	0.85%	13.26	41.76	3	200	
Luxembourg	b 1.72%	3.66%	6.88%	9.03%	0.00%	1.88%	1.12%	2.33%	1.16%	1.23%	0.00%	1.30%	7.25	2.68	3	148	

Country	Share in total final energy consumption (%)										Final use of renewable energy (petajoules)				Total final energy consumption (petajoules)				
	Renewable Energy		Solid biofuels		Liquid Biofuels		Hydro		Modern use		2015	2015	2015	2015					
	1990	2010	2014	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015	2015					
Macao (SAR, China)	a 0.66%	5.81%	10.02%	7.05%	0.00%	0.09%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	34				
Macedonia, FYR	b 2.41%	22.33%	21.20%	24.22%	0.58%	10.11%	0.00%	0.66%	0.12%	0.40%	0.11%	6.96%	-	2.41	-				
Madagascar	a 85.65%	81.93%	72.03%	70.17%	31.59%	36.79%	1.79%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.35	89.60			
Malawi	a 84.03%	79.47%	79.95%	83.63%	36.36%	38.94%	8.36%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	5.07	45.66			
Malaysia	b 11.98%	3.82%	4.77%	5.19%	1.86%	0.11%	2.32%	0.85%	0.00%	0.05%	0.00%	0.01%	47.52	35.51	16	61			
Maldives	a 4.46%	1.16%	0.90%	1.01%	0.91%	0.00%	0.00%	0.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.02	0.14	-	1,912		
Mali	a 88.64%	69.13%	64.59%	61.53%	57.20%	1.62%	2.71%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	211	45.71	-	78	
Malta	b 0.00%	1.39%	3.93%	5.36%	0.25%	0.00%	0.00%	0.96%	0.00%	3.77%	0.00%	0.04%	0.00%	0.00%	0.58	0.26	0	19	
Marshall Islands	a 0.00%	13.31%	12.02%	11.16%	11.13%	0.00%	0.00%	0.00%	0.00%	0.04%	0.00%	0.00%	0.00%	0.00	0.19	-	2		
Martinique	a 2.13%	2.63%	2.43%	2.45%	0.31%	0.97%	0.00%	0.00%	0.03%	0.75%	0.00%	0.38%	0.14	0.30	-	18			
Mauritania	a 47.00%	34.00%	32.02%	32.16%	31.08%	0.00%	0.00%	0.00%	0.83%	0.24%	0.00%	0.00%	0.00%	0.45	12.97	-	42		
Mauritius	b 47.07%	13.66%	10.63%	11.54%	0.65%	9.19%	1.21%	0.00%	0.03%	0.26%	0.00%	0.20%	0.00%	0.20%	2.27	1.59	-	33	
Mayotte	a 33.41%	9.96%	10.55%	10.24%	8.45%	0.00%	0.00%	0.00%	0.00%	1.79%	0.00%	0.00%	0.00%	0.05	0.28	-	3		
Mexico	b 14.41%	9.36%	9.76%	9.22%	0.00%	6.15%	1.92%	0.00%	0.54%	0.20%	0.39%	0.01%	0.00%	142.70	299.02	-	4,793		
Micronesia (Federated States of)	a 0.00%	1.50%	1.16%	1.20%	0.36%	0.66%	0.02%	0.00%	0.00%	0.16%	0.00%	0.00%	0.00%	0.00	0.02	-	2		
Moldova	b 11.4%	8.44%	13.05%	14.27%	12.21%	1.14%	0.86%	0.00%	0.01%	0.01%	0.00%	0.05%	0.05%	0.88	12.84	-	96		
Monaco																			
Mongolia	b 1.89%	4.35%	3.27%	3.43%	2.08%	0.89%	0.00%	0.00%	0.45%	0.00%	0.00%	0.00%	0.00%	0.59	3.88	-	130		
Montenegro	b 0.00%	49.09%	45.99%	43.00%	23.35%	23.33%	17.29%	0.00%	0.00%	0.03%	0.00%	0.00%	0.00%	4.79	7.12	-	28		
Montserrat	a 0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	1		
Morocco	b 19.48%	14.41%	11.72%	11.32%	4.04%	4.73%	1.09%	0.00%	1.46%	0.00%	0.00%	0.00%	0.00%	15.42	52.94	-	604		
Mozambique	b 93.10%	91.30%	88.86%	86.40%	67.84%	8.96%	9.60%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	41.84	334.86	-	4,36		
Nyammar	b 90.91%	84.40%	66.13%	61.53%	55.84%	1.80%	3.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	28.39	421.60	-	731		
Namibia	b 0.00%	26.37%	27.62%	26.47%	6.00%	1.65%	18.68%	0.00%	0.00%	0.15%	0.00%	0.00%	0.00%	13.32	5.55	-	71		
Nauru	a 0.00%	0.08%	0.08%	0.08%	0.00%	0.00%	0.00%	0.00%	0.00%	0.08%	0.00%	0.00%	0.00%	0.00	-	-	0		
Nepal	b 95.12%	87.29%	84.37%	85.26%	78.91%	1.04%	2.90%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	2.42%	14.03	398.30	-	484	
Netherlands	b 12.0%	3.87%	5.66%	5.89%	0.00%	1.92%	0.20%	0.74%	1.40%	0.27%	0.13%	1.42%	0.00%	46.19	48.73	12	1,823		
New Caledonia	a 10.16%	4.48%	3.98%	4.76%	0.01%	0.00%	3.60%	0.00%	0.65%	0.50%	0.00%	0.00%	0.00%	14.44	0.14	-	33		
New Zealand	b 30.03%	30.32%	30.39%	30.79%	0.00%	8.21%	14.75%	0.02%	1.42%	0.09%	6.11%	0.20%	0.00%	112.84	50.31	0	530		
Nicaragua	b 68.77%	52.64%	51.84%	48.20%	36.46%	7.02%	0.76%	0.00%	2.23%	0.00%	1.74%	0.00%	0.00%	6.12	43.92	-	104		
Niger	b 0.00%	80.71%	78.14%	78.94%	78.92%	0.00%	0.00%	0.00%	0.02%	0.00%	0.00%	0.00%	0.00%	0.03	89.80	-	114		
Nigeria	b 87.78%	86.78%	87.30%	86.64%	80.49%	5.81%	0.33%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	16.44	4,304.33	-	4,987		
Nine	o 0.57%	26.70%	23.14%	22.37%	0.56%	0.00%	0.00%	0.00%	0.00%	0.00%	21.80%	0.00%	0.00%	0.00	0.02	-	0		
Northern Mariana Islands	a 0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	1		
Norway	b 59.17%	56.42%	57.20%	57.77%	0.00%	4.64%	5.05%	0.79%	0.92%	0.00%	0.00%	0.88%	0.00%	389.70	40.89	6	756		
Oman	b 0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	754		
Pakistan	b 57.50%	46.72%	46.60%	46.48%	38.44%	4.80%	3.15%	0.00%	0.08%	0.00%	0.00%	0.00%	0.00%	100.57	1,345.67	-	3,112		
Palau	a 0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	2		
Palestine (State of)	a 22.08%	14.06%	10.53%	10.47%	6.01%	0.25%	0.00%	0.00%	0.00%	4.21%	0.00%	0.00%	-	6.70	-	-	64		
Panama	b 43.59%	19.94%	19.77%	21.23%	4.87%	2.55%	12.91%	0.00%	0.86%	0.03%	0.00%	0.00%	0.00%	20.08	10.64	-	145		
Papua New Guinea	a 71.70%	55.25%	52.55%	43.53%	5.03%	2.78%	0.00%	0.00%	0.00%	1.15%	0.00%	0.00%	0.00%	4.55	56.19	-	116		
Paraguay	b 78.51%	64.25%	63.12%	61.68%	17.94%	22.60%	18.59%	2.55%	0.00%	0.00%	0.00%	0.00%	0.00%	38.08	8310	5	205		
Peru	b 39.43%	30.80%	26.00%	25.50%	11.45%	10.83%	10.14%	2.25%	0.25%	0.24%	0.00%	0.04%	0.00%	80.34	93.53	15	739		
Philippines	b 50.95%	28.81%	28.58%	27.45%	13.42%	7.44%	14.9%	0.19%	0.03%	2.74%	0.00%	0.00%	0.00%	62.05	249.51	17	1,195		

Country	Share in total final energy consumption (%)												Final use of renewable energy (petajoules)						Total final energy consumption (petajoules)	
	Renewable Energy				Solid biofuels				2015				2015		2015		2015		2015	
	1990	2010	2014	2015	Traditional use	Modern use	Hydro	Biofuels	Liquid	Solar	Geothermal	Other (Biogas, renewable waste, marine)	Electricity	Heat	Transport	Electricity	Heat	Transport	Electricity	Heat
<b>Poland</b>	b	2.50%	9.49%	11.57%	11.91%	0.00%	8.80%	0.20%	1.29%	0.08%	0.04%	0.31%	63.52	206.10	33	2.538				
<b>Portugal</b>	b	26.94%	27.83%	30.46%	27.16%	0.00%	13.01%	4.45%	2.31%	5.97%	0.95%	0.12%	0.36%	78.40	77.73	14	625			
<b>Puerto Rico</b>	a	1.75%	0.57%	1.63%	1.84%	0.00%	0.00%	0.00%	0.26%	0.00%	1.13%	0.44%	0.00%	0.00%	1.16	(0.00)	-	-	63	
<b>Qatar</b>	b	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	578	
<b>Reunion</b>	a	37.52%	16.45%	16.79%	17.49%	14.2%	7.32%	4.12%	0.00%	0.13%	4.16%	0.00%	0.33%	2.50	4.47	-	-	40		
<b>Romania</b>	b	3.36%	24.10%	24.33%	23.70%	13.82%	2.01%	4.37%	0.95%	1.86%	0.52%	0.11%	0.05%	61.58	141.72	8	894			
<b>Russian Federation</b>	b	3.75%	3.34%	3.42%	3.30%	0.28%	0.40%	2.61%	0.00%	0.00%	0.01%	0.01%	0.00%	414.66	107.71	-	15,809			
<b>Rwanda</b>	a	80.05%	90.66%	88.18%	86.66%	78.45%	7.13%	1.03%	0.00%	0.00%	0.05%	0.00%	0.00%	0.86	68.07	-	-	80		
<b>Saint Helena</b>	a	15.07%	9.17%	8.70%	12.60%	51.9%	0.00%	0.00%	7.05%	0.36%	0.00%	0.00%	0.00%	0.01	0.01	-	-	0		
<b>Samoa</b>	a	46.20%	46.75%	42.34%	34.32%	29.53%	1.73%	2.44%	0.00%	0.02%	0.61%	0.09%	0.00%	0.13	1.30	-	-	4		
<b>San Marino</b>																				
<b>São Tomé and Príncipe</b>	a	50.93%	43.76%	41.81%	41.06%	40.03%	0.00%	1.02%	0.00%	0.00%	0.00%	0.00%	0.00%	0.02	0.78	-	-	2		
<b>Saudi Arabia</b>	b	0.94%	0.01%	0.01%	0.01%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00	0.28	-	-	4,774		
<b>Senegal</b>	b	55.55%	50.26%	43.36%	42.71%	40.07%	1.71%	0.92%	0.00%	0.00%	0.01%	0.00%	0.00%	1.26	47.51	-	-	114		
<b>Serbia</b>	b	15.49%	20.60%	23.43%	21.17%	10.74%	2.39%	7.91%	0.00%	0.00%	0.01%	0.08%	0.05%	26.23	43.71	-	-	330		
<b>Seychelles</b>	a	4.25%	0.63%	1.30%	1.35%	0.70%	0.00%	0.00%	0.51%	0.14%	0.00%	0.00%	0.00%	0.03	0.03	-	-	4		
<b>Sierra Leone</b>	a	91.28%	84.18%	73.05%	77.66%	53.45%	23.77%	0.44%	0.00%	0.00%	0.00%	0.00%	0.00%	0.24	42.31	-	-	55		
<b>Singapore</b>	b	0.19%	0.48%	0.62%	0.71%	0.00%	0.17%	0.00%	0.00%	0.00%	0.05%	0.00%	0.49%	3.12	0.00	-	-	440		
<b>Slovak Republic</b>	a	2.23%	10.28%	12.24%	13.41%	0.00%	6.86%	3.38%	1.60%	0.01%	0.50%	0.04%	1.02%	19.90	24.59	6	377			
<b>Slovenia</b>	b	12.35%	19.50%	22.30%	20.88%	0.00%	12.21%	6.06%	0.64%	0.01%	0.67%	0.90%	0.38%	13.53	26.00	1	195			
<b>Solomon Islands</b>	a	59.01%	63.49%	62.99%	63.31%	63.17%	0.00%	0.00%	0.00%	0.00%	0.13%	0.00%	0.00%	0.01	3.21	-	-	5		
<b>Somalia</b>	a	87.20%	93.57%	94.43%	94.29%	60.51%	33.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	98.91	-	-	105		
<b>South Africa</b>	b	16.63%	17.08%	16.59%	17.15%	13.56%	2.88%	0.08%	0.00%	0.22%	0.38%	0.00%	0.00%	16.11	488.60	-	-	2,943		
<b>South Sudan</b>	b	0.00%	0.00%	29.83%	39.07%	36.56%	2.48%	0.00%	0.00%	0.00%	0.04%	0.00%	0.00%	0.01	6.89	-	-	18		
<b>Spain</b>	b	10.54%	14.40%	17.35%	16.25%	0.00%	5.62%	2.68%	1.30%	4.70%	1.69%	0.02%	0.25%	292.00	181.21	40	3,159			
<b>Sri Lanka</b>	b	78.09%	61.84%	57.59%	52.88%	28.90%	19.08%	4.61%	0.00%	0.27%	0.02%	0.00%	0.00%	20.49	198.86	-	-	415		
<b>Saint Barthelemy</b>	a	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-		
<b>St. Kitts and Nevis</b>	a	40.03%	0.99%	1.70%	1.64%	0.01%	0.00%	0.00%	0.00%	0.00%	1.27%	0.36%	0.00%	0.03	0.00	-	-	2		
<b>St. Lucia</b>	a	5.47%	2.20%	2.15%	2.13%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	0.08	-	-	4		
<b>Sint Maarten (Dutch part)</b>	a	0.00%	0.00%	0.05%	0.05%	0.05%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	0.00	-	-	8		
<b>St. Martin (French part)</b>	a	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-	-		
<b>Saint Pierre and Miquelon</b>	a	1.34%	11.4%	11.2%	0.74%	0.00%	0.00%	0.00%	0.00%	0.38%	0.00%	0.00%	0.00%	0.00	0.01	-	-	1		
<b>St. Vincent and the Grenadines</b>	a	15.44%	5.49%	5.80%	5.80%	5.81%	2.32%	0.00%	3.48%	0.00%	0.00%	0.00%	0.00%	0.08	0.06	-	-	2		
<b>Sudan</b>	b	73.27%	61.44%	62.44%	61.60%	36.88%	19.08%	5.64%	0.00%	0.00%	0.00%	0.00%	0.00%	24.58	244.03	-	-	436		
<b>Suriname</b>	b	0.00%	24.54%	25.38%	24.91%	61.59%	1.76%	17.00%	0.00%	0.00%	0.00%	0.00%	0.00%	4.28	199	-	-	249		
<b>Swaziland</b>	a	85.25%	62.68%	67.69%	66.10%	15.32%	4.572%	5.06%	0.00%	0.00%	0.00%	0.00%	0.00%	1.80	21.72	-	-	36		
<b>Sweden</b>	b	34.06%	45.98%	49.69%	53.25%	0.00%	26.83%	16.38%	3.59%	3.54%	0.06%	0.00%	2.85%	284.41	347.32	48	1,277			
<b>Switzerland</b>	b	17.12%	21.46%	23.42%	25.29%	0.00%	4.90%	15.71%	0.24%	0.05%	0.76%	1.86%	1.76%	130.43	63.05	2	772			
<b>Syrian Arab Republic</b>	b	2.36%	1.41%	2.35%	0.52%	0.00%	0.09%	0.43%	0.00%	0.00%	0.00%	0.00%	0.00%	1.08	0.22	-	-	249		
<b>Tajikistan</b>	b	29.64%	61.83%	45.76%	44.66%	0.00%	44.66%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	44.13	(0.00)	-	-	99		
<b>Tanzania</b>	a	94.78%	90.32%	86.67%	85.71%	65.95%	19.08%	0.67%	0.00%	0.00%	0.01%	0.00%	0.00%	6.46	798.08	-	-	939		
<b>Thailand</b>	b	33.64%	22.65%	24.10%	22.85%	8.50%	10.50%	0.53%	2.03%	0.04%	0.27%	0.00%	0.99%	53.76	604.11	64	3,158			
<b>Timor-Leste</b>	a	0.00%	34.69%	18.42%	18.22%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	0.89	-	-	5		

Country	Share in total final energy consumption (%)										Final use of renewable energy (petajoules)				Total final energy consumption (petajoules)		
	Renewable Energy			Solid biofuels			Other (Biogas, renewable waste, marine)				Electricity	Heat	Transport				
	1990	2010	2014	2015	Traditional use	Modern	Hydro	Liquid Biofuels	Solar	Geothermal	2015	2015	2015	2015			
Togo	b	78.70%	65.83%	72.16%	71.26%	58.55%	9.45%	3.26%	0.00%	0.00%	0.00%	3.28	62.68	-	93		
<b>Tokelau</b>																	
Tonga	a	1.49%	1.01%	1.70%	1.88%	1.05%	0.00%	0.00%	0.82%	0.00%	0.00%	0.01	0.01	-	1		
<b>Trinidad and Tobago</b>	b	1.19%	0.33%	0.28%	0.28%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	0.49	-	172		
Tunisia	b	14.48%	12.69%	12.93%	12.56%	11.29%	0.16%	0.06%	0.40%	0.65%	0.00%	1.58	38.41	-	318		
<b>Turkey</b>	b	24.51%	14.33%	11.61%	13.37%	0.00%	3.26%	5.47%	0.12%	0.95%	0.97%	2.46%	0.15%	247.17	233.73	5,363	
<b>Turkmenistan</b>	b	0.28%	0.07%	0.04%	0.04%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	0.31	-	753	
<b>Turks and Caicos Islands</b>	a	1.79%	0.52%	0.56%	0.57%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	0.01	-	1	
Tuvalu	a	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.01	(0.01)	-	0	
<b>Uganda</b>	a	96.02%	91.61%	90.22%	89.06%	70.33%	16.97%	1.77%	0.00%	0.00%	0.00%	0.00%	9.34	461.67	-	529	
<b>United Kingdom</b>	b	0.55%	3.64%	7.40%	8.71%	0.00%	3.48%	0.41%	0.79%	2.65%	0.54%	0.00%	0.83%	270.87	119.23	39	4,926
<b>Ukraine</b>	b	0.65%	2.88%	3.50%	4.14%	2.31%	0.82%	0.72%	0.07%	0.14%	0.06%	0.00%	0.02%	18.77	62.25	1	1,989
<b>United Arab Emirates</b>	b	0.00%	0.11%	0.15%	0.14%	0.00%	0.09%	0.00%	0.00%	0.00%	0.04%	0.00%	0.00%	0.93	1.94	-	2,093
<b>Uruguay</b>	b	44.81%	52.82%	55.39%	58.02%	6.64%	34.09%	12.38%	1.75%	3.09%	0.07%	0.00%	0.00%	33.61	70.54	3	184
<b>United States Virgin Islands</b>	a	0.00%	0.00%	2.76%	3.88%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.09	-	-	2
<b>United States</b>	a	4.08%	7.51%	8.75%	8.72%	0.00%	3.24%	1.36%	2.41%	1.05%	0.36%	0.12%	0.18%	1,800.87	1,910.77	1,386	58,483
<b>Uzbekistan</b>	b	1.33%	2.64%	2.90%	2.97%	0.00%	0.01%	0.95%	0.73%	0.75%	0.14%	0.00%	0.00%	34.56	0.17	-	1,169
<b>Vanuatu</b>	a	24.16%	38.38%	32.14%	36.11%	33.54%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.04	0.83	-	2
<b>Venezuela</b>	b	11.98%	11.44%	12.32%	12.84%	0.61%	1.42%	10.81%	0.00%	0.00%	0.00%	0.00%	0.00%	164.58	30.89	-	1,522
<b>Vietnam</b>	b	76.08%	34.80%	37.04%	35.00%	21.70%	5.01%	8.27%	0.00%	0.02%	0.00%	0.00%	0.00%	189.78	610.41	-	2,286
<b>Wallis and Futuna Islands</b>	a	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	0
<b>Western Sahara</b>	a	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	-	-	-
<b>Yemen</b>	b	2.15%	0.96%	0.97%	2.28%	0.00%	2.28%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	-	2.43	-	107
<b>Zambia</b>	b	82.98%	92.10%	88.03%	87.99%	56.73%	19.60%	11.66%	0.00%	0.00%	0.00%	0.00%	0.00%	39.99	261.69	-	343
<b>Zimbabwe</b>	b	63.95%	82.88%	81.05%	81.80%	72.77%	5.53%	3.21%	0.29%	0.00%	0.00%	0.00%	0.00%	13.05	310.22	1	397
<b>World</b>	c	16.65%	16.67%	17.30%	17.46%	7.88%	3.67%	3.26%	0.91%	0.70%	0.56%	0.18%	0.29%	16,595.98	42,690.54	3,182	357,871
<b>High Income</b>	c	6%	10%	11%	0.06%	4.41%	2.75%	1.51%	1.19%	0.60%	0.16%	0.49%	7.36	6,439	2,081	162,272	
<b>Low Income</b>	c	69%	81%	82%	82%	69.44%	9.85%	2.62%	0.02%	0.03%	0.00%	0.16%	200	5,961	1	7,505	
<b>Lower Middle Income</b>	c	4.95%	14%	13%	13%	3.84%	5.77%	21.4%	0.15%	0.27%	0.03%	0.16%	0.01%	1,490	19,814	76	53,983
<b>Upper Middle Income</b>	c	19%	40%	40%	31.02%	5.77%	4.42%	0.75%	0.53%	0.83%	0.24%	0.26%	7,380	9,799	1,016	137,623	
<b>Central Asia and Southern Asia</b>	c	39.06%	30.03%	28.57%	28.38%	21.01%	5.03%	1.83%	0.04%	0.31%	0.11%	0.00%	0.04%	883.99	9,849.93	16,05	37,890.91
<b>Eastern Asia and South-eastern Asia</b>	c	27.49%	14.02%	13.98%	14.09%	6.49%	1.29%	3.79%	0.23%	0.55%	1.11%	0.28%	0.35%	5,378.17	9,384.93	242.21	106,515.63
<b>Latin America and Caribbean</b>	c	32.64%	28.48%	27.20%	27.73%	4.41%	10.6%	8.14%	3.56%	0.51%	0.20%	0.13%	0.02%	2,381.48	3,372.55	832.75	23,757.27
<b>Northern America and Europe</b>	c	5.79%	10.08%	11.68%	11.87%	0.35%	4.40%	3.06%	1.64%	1.26%	0.50%	0.14%	0.50%	7,006.59	6,253.05	2,066.72	129,134.81
<b>Oceania</b>	c	13.37%	12.83%	13.57%	14.1%	5.72%	3.15%	0.26%	1.07%	0.85%	0.85%	0.20%	0.20%	220.91	305.16	10.42	3,972.40
<b>Sub-Saharan Africa</b>	c	71.04%	71.26%	70.14%	69.98%	60.05%	7.97%	1.76%	0.01%	0.05%	0.07%	0.07%	0.00%	321.30	12,184.62	1.39	17,907.79
<b>Western Asia and Northern Africa</b>	c	9.30%	6.20%	5.05%	5.42%	1.45%	1.35%	1.54%	0.02%	0.24%	0.35%	0.44%	0.03%	377.82	731.32	4.93	20,550.68

a. Source: Energy Balances, UN Statistics Division (2017)

b. Source: World Energy Balances, IEA (2017)

c. Sources: World Bank analysis based on World Energy Statistics and Balances, IEA (2017); Energy Balances, UN Statistics Division (2017)

# ABBREVIATIONS AND ACRONYMS

<b>CAGR</b>	Compound annual growth rate	<b>MTF</b>	Multi-Tier Framework
<b>COP21</b>	2015 United Nations Climate Change Conference (Paris Agreement)	<b>MW</b>	Megawatt
<b>DHS</b>	Demographic and Health Survey	<b>NOAA</b>	The National Oceanic and Atmospheric Administration
<b>DISCO</b>	Distribution Utility	<b>NSS</b>	National Sample Survey
<b>ECAPOV</b>	Europe and Central Asia Poverty Database	<b>OECD</b>	Organization of Economic Co-operation and Development
<b>EJ</b>	Exajoules	<b>PAYGO</b>	Pay-as-you-go
<b>ESMAP</b>	Energy Sector Management Assistance Program	<b>PPA</b>	Power purchase agreement
<b>EU</b>	European Union	<b>PPP</b>	Purchasing power parity
<b>EVs</b>	Electric Vehicles	<b>PV</b>	Photovoltaic
<b>FiT</b>	Feed-in tariff	<b>RE</b>	Renewable Energy
<b>HIES</b>	Household Income Expenditure Survey	<b>REN21</b>	Renewable Energy Policy Network for the 21st Century
<b>GDP</b>	Gross domestic product	<b>RISE</b>	Regulatory Indicators for Sustainable Energy
<b>GED</b>	Global Electrification Database	<b>SAIDI</b>	System Average Interruption Duration Index
<b>GHACCO</b>	Ghana Alliance for Clean Cookstoves and Fuels	<b>SAIFI</b>	System Average Interruption Frequency Index
<b>GNI</b>	Gross national income	<b>SDG</b>	Sustainable Development Goal
<b>GOGLA</b>	Global Off-Grid Lighting Association	<b>SEDLAC</b>	Socio-Economic Database for Latin America and the Caribbean
<b>GPWG-DB</b>	Global Poverty Working Group Database	<b>T&amp;D</b>	Transmission and distribution
<b>GW</b>	Gigawatt	<b>TFEC</b>	Total final energy consumption
<b>ICT</b>	Information and communications technology	<b>TPES</b>	Total primary energy supply
<b>IEA</b>	International Energy Agency	<b>TJ</b>	Terajoules
<b>IFC</b>	International Finance Corporation	<b>TWh</b>	Terawatt-hours
<b>IRENA</b>	International Renewable Energy Agency	<b>UN</b>	United Nations
<b>IRES</b>	International Recommendations for Energy Statistics	<b>UNSD</b>	United Nations Statistics Division
<b>LDC</b>	Least developed country	<b>USAID</b>	United States Agency for International Development
<b>LSMS</b>	Living Standards Measurement Survey	<b>WB</b>	World Bank
<b>LPG</b>	Liquified Petroleum Gas	<b>WDI</b>	World Development Indicators
<b>MEPS</b>	Minimum Energy Performance Standards	<b>WEO</b>	World Energy Outlook
<b>MICS</b>	Multi-Indicator Cluster Survey	<b>WHO</b>	World Health Organization
<b>MIS</b>	Malaria Indicator Survey		
<b>MJ</b>	Megajoules		



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