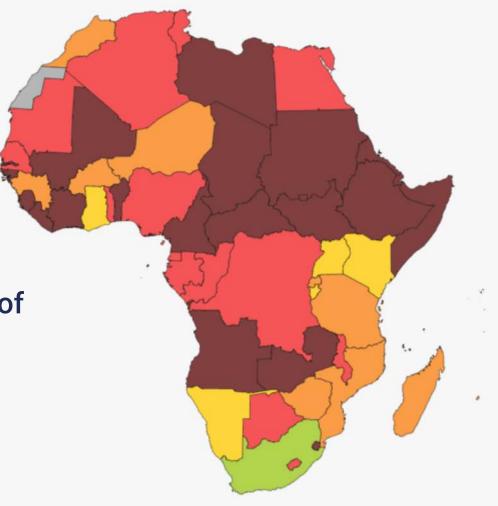
African Electricity Data Transparency

Country-by-country profiles and evaluation of national electricity data sources

January 2022







About this report

What is this report?

 This report identifies and evaluates the availability and quality of national electricity data sources for 54 countries in Africa.

What did we do?

- We examined each country to identify if publicly available electricity production data could be found.
- Where we could find data, we evaluated the source according to publishing lag, level of disaggregation (in terms of fuel-types and geography), granularity, ease of download, and other data metrics.
- We then awarded an overall score out of 5 as follows:

5	Real-time data with full disaggregation and ease-of-access
4	Monthly or better data with good fuel breakdown and other metrics
3	Better-than-annual data available with some fuel breakdown + other data
2	Annual available data with < 1 year lag, mostly high-level or difficult to access
1	Little and / or low quality and / or long lag data available
0	No publicly available data

Why did we research this report?

- African electricity data transparency is essential for guiding, informing and tracking Africa's energy development, both in terms of clean and efficient growth and shifting from fossil-fuels to clean sources in countries with more mature energy infrastructure
- Reliable, up-to-date and publicly available data enables informed, evidence-based policy-making, and allows others, including academia, civil-society and the donor community, to hold governments and policy-makers to account.

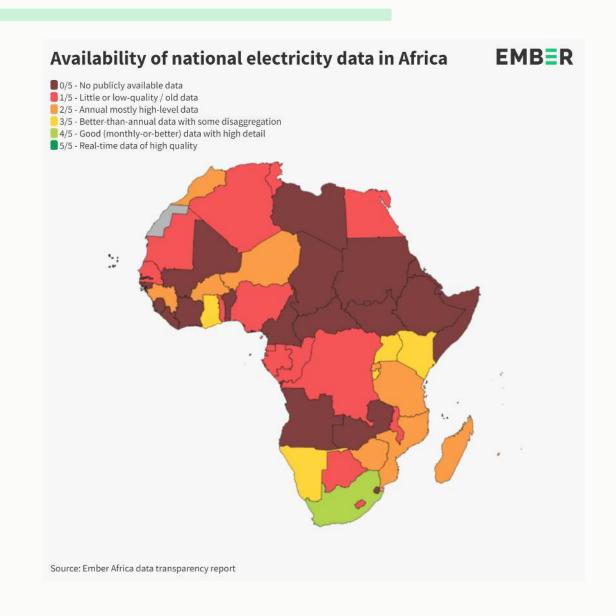
About the authors

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Key findings

- National data is available for many countries in Africa, but the quality is generally low, with long lag times and inconsistent publishing frequency.
- No country achieved the highest overall score.
 South Africa scored the highest with 4/5, whilst 21 countries had no publicly available data at all.
- Data transparency in Africa is improving. Many countries have new/updated national data sources that have been developed in the last few years.
- As infrastructure evolves, including electricity systems, but also ICT and data systems, it is likely that data transparency will continue to improve - but Africa will need substantial support to accelerate these developments



Country Profiles

1. <u>South Africa</u>	12. <u>Angola</u>	23. <u>Mali</u>	34. <u>Benin</u>	45. <u>Liberia</u>
2. <u>Egypt</u>	13. <u>Kenya</u>	24. <u>Botswana</u>	35. <u>Malawi</u>	46. <u>Somalia</u>
3. <u>Algeria</u>	14. <u>Ghana</u>	25. Rep. Congo	36. <u>Equatorial Guinea</u>	47. <u>The Gambia</u>
4. <u>Morocco</u>	15. <u>DRC</u>	26. <u>Mauritius</u>	37. <u>Lesotho</u>	48. <u>Sierra Leone</u>
5. <u>Nigeria</u>	16. <u>Zimbabwe</u>	27. <u>Gabon</u>	38. <u>Rwanda</u>	49. <u>Chad</u>
6. <u>Libya</u>	17. <u>Côte d'Ivoire</u>	28. <u>Madagascar</u>	39. <u>Mauritania</u>	50. <u>Central African Republic</u>
7. <u>Tunisia</u>	18. <u>Cameroon</u>	29. <u>Guinea</u>	40. <u>South Sudan</u>	51. <u>Comoros</u>
8. <u>Sudan</u>	19. <u>Tanzania</u>	30. <u>Niger</u>	41. <u>Eritrea</u>	52. <u>São Tomé & Principe</u>
9. <u>Zambia</u>	20. <u>Senegal</u>	31. <u>Burkina Faso</u>	42. <u>Cabo Verde</u>	53. <u>Djibouti</u>
10. <u>Mozambique</u>	21. <u>Namibia</u>	32. <u>eSwatini</u>	43. <u>Burundi</u>	54. <u>Guinea-Bissau</u>
11. <u>Ethiopia</u>	22. <u>Uganda</u>	33. <u>Togo</u>	44. <u>Seychelles</u>	

Countries listed by region and in descending order of annual electricity demand according to Ember's Global Electricity Review data for the year 2019



South Africa



Overall Score	: 4	/ 5		Monthly or better data available with good fuel breakdown and other data						
Publishing lag Time granularity		Fu	Fuel breakdown Sub-national / unit data		Additional data (capacity + others)		Ease of download			
4 <= 1 month la	5 Ho	urly	3	Some disaggregation of fuels	2	Incomplete regional	4	3 additional cat's or capacity + 1 other	4	Indirect open access in csv / xls format

- South Africa has very good national electricity production data available, with short lag and very high granularity.
- <u>Eskom</u>, the national electricity utility and system operator, is the main source of electricity generation data, which is available from <u>here</u>, and has the following characteristics:
 - Hourly granularity of generation, import and export data going back to 01 April 2017
 - Data broken down into "thermal" (i.e. Eskom's coal fleet) + more detailed breakdown of renewables, nuclear, gas and diesel (including IPPs, but excluding plant, plant-unit or sub-national regional level)
 - o Capacity, demand (in MW), outage and load factor (incl. demand-side management) data also included; no financial data
 - Data is freely available, but requires completion of an online form, after which it is delivered in csv form by email, typically within 48 hours (but sometimes with longer delays of up to 1 month)

Other data sources:

- <u>Dept. Mineral Resources & Energy</u> publishes annual (comprehensive fuel-split) energy balance data, but with very long lag (the most recent available energy balance at the time of writing was 2018)
- StatsSA publishes monthly generation and distribution data, but with no fuel-split (very high-level)
- NERSA (National Energy Regulator of South Africa) last published electricity supply statistics in 2012



Egypt



Overall Score:	1 / 5	Little and / or low quality and / or long lag data available					
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download		
1 > 1 year lag	Yearly by financial year	Some disaggregation of fuels	4 Plant Level	3 additional cat's or capacity + 1 other	Challenging to access / pdf format		

- Egypt has some electricity production data available, but it is limited by publishing lag and frequency at which it becomes available, as well as the granularity of reporting.
- The Egyptian Electric Holding Company (<u>EEHC</u>) the Egyptian national electricity utility publishes electricity data in its annual financial reporting, available from the Ministry of Electricity and Renewable Energy <u>website</u>, with the following characteristics:
 - Reported data is highly detailed, broken down by plant level, with additional information on capacity, efficiency, investment and revenue, load factors and transmission losses, among other metrics
 - However, the annual reports are published by financial year (July June), which are difficult to work with, and can thus cause a ≥1 year lag in availability of data (the most recent report available, at the time of writing, covered data up to June 2020)
 - Reports are free to download, but in pdf format over multiple pages, and are thus difficult to aggregate and analyse
- Some data is also available from the Ministry website <u>here</u>, but is old, very high-level and rarely updated



Algeria



Overall Score:	1 / 5	Little and / or low quality and / or long lag data available						
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download			
1 > 1 year lag	Yearly by calendar year	Only high-level fuel split (e.g. "thermal")	4 Plant Level	2 additional cat's or capacity	Challenging to access / pdf format			

- Algeria has some electricity production data available, but it is limited by publishing lag and frequency at which it becomes available, as well as the level of fuel disaggregation.
- Algeria's <u>Ministry of Energy and Mines</u> publishes annual energy balances, available from its website <u>here</u>:
 - Most recent report available at the time of writing was for the year 2019, published in 2020 (unclear when), implying minimum 1 year lag in availability
 - Data is published with plant breakdown, but with only high-level fuel breakdown, and it is unclear whether the data is representative of the entire energy sector, or only state-owned generation
 - o Capacity data is also included, but no other electricity data metrics are published
- Other sources checked for data include <u>CEREFE</u> (Commissariat aux Énergies Renouvelables et à l'Efficacité Énergétique)

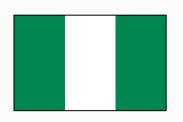


Morocco



Overall Score:	2 / 5	Annual available data with < 1 year lag, mostly high-level or difficult to access					
Publishing lag	Publishing lag Time granularity		Sub-national / unit data	Additional data (capacity + others)	Ease of download		
6 month - 1 year lag	Yearly by calendar year	Ember-level fuel disaggregation	1 Less than regional	1 additional category (not capacity)	Direct open access in csv / xls format		

- Morocco has some electricity production data available, with < 1 year publishing lag and annual granularity.
- The Moroccan Ministry of Energy Transition and Sustainable Development maintains the Moroccan Energy Observatory, an online portal which provides access to annual energy and electricity data:
 - o The data is updated on annual basis within 6 12 months of the end of the preceding year
 - Annual (net) electricity production is covered, with disaggregation by fuel type (incl. net exports)
 - There is little other data, such as plant or fuel capacity, efficiency and/or losses, financial or consumption data, and no disaggregation by plant, plant-unit or region
 - o Data is freely available for download in a convenient, easy-to-use csv format
 - Historic data going back to 1991 is also available
- The <u>National Office of Electricity and Water</u> publishes annual data on transmission and distribution, but with only very high-level generation data (no fuel or unit breakdown)



Nigeria



Overall Score:	1 / 5	Little and / or low quality and / or long lag data available						
Publishing lag Time granularity		Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download			
<= 1 week (i.e. Real-time)	4 Weekly or better	1 No fuel split	1 Less than regional	2 additional cat's or capacity	Difficult to access / poorly formatted			

- Nigeria has limited quality electricity production data available: although grid reports are available on a daily basis, these contain only very high-level data.
- The Nigeria Electricity System Operator publishes <u>daily reports</u> on the Nigerian electricity grid:
 - o Data includes aggregate supply, peak demand and grid frequency and stability, as well as capacity and load factors
 - However, there is no disaggregation of fuels or plant / units or detail on electricity consumption (beyond peak demand)
 - The data is published in daily pdf's, but without aggregation or inclusion of historic data from previous days thus data would be very difficult to aggregate and work with over longer analysis periods
- Other sources checked for data include the <u>Nigeria Electricity Regulatory Commission</u>



Libya



Overall Score:	0 / 5	No publicly available data					
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download		
0 > 1 year lag	Yearly by calendar year	0 No fuel split	0 Less than regional	2 additional cat's or capacity	Difficult to access / poorly formatted		

- Libya has no recent (≥ 2018) electricity data publicly available from national sources.
- The only generation data available from local Libyan sources is from the <u>Bureau of Statistics and Census Libya</u>:
 - Data was published in an annual Statistical yearbook, last published online in 2015, and is very high-level (no disaggregation of generation by fuel, plant or unit)
- Other sources checked for data included:
 - Libya's <u>General Electricity Company</u>
 - The <u>Ministry of Electricity and Renewable Energy</u>



Tunisia



	Ove	erall Score:		2 / 5	Annual available data with < 1 year lag, mostly high-level or difficult to access							to access
Publishing lag		Ti	me granularity	Fu	el breakdown	Sub-n	ational / unit data		lditional data acity + others)	Eas	e of download	
	2	6 month - 1 year lag	3	Monthly	2	Only high-level fuel split (e.g. "thermal")	1	Less than regional	1	No additional data	3	Challenging to access in csv / xls format

- Tunisia has some electricity production data available, with < 1 year publishing lag and monthly granularity, but with limited fuel coverage and sub-national disaggregation and no other electricity data metrics reported.
- The Tunisian Ministry of Industry, Energy and Mines has an open data portal which provides electricity supply data:
 - Production data is monthly and goes back to January 2018 (with annual data available for earlier years)
 - O Data includes only natural gas and gasoil, with no further disaggregation, and no renewable contribution
 - Data is available up to May 2021, at the time of writing (implying 6-12 month lag)
 - No additional data metrics (e.g. capacity, net imports, consumption, etc.)
 - Data is freely available for download in xls format
- Other potential sources of data include:
 - Tunisia's <u>Institute of National Statistics</u> publishes annual fuel-split generation data (including hydro and wind production),
 downloadable in csv format, only up to 2018 (most recently updated 16 Mar 2021)
 - Tunisia's national electricity and gas utility <u>STEG</u> (Société Tunisienne de l'Électricité et du Gaz) publishes annual production data, but the most recent year available is 2016 (and the webpage has not been updated since 2017)



Sudan



Overall Score:	0 / 5	No publicly available data						
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download			
0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	0 No data available			

- Sudan has no recent (≥ 2018) electricity data publicly available from national sources.
- The only generation data available from local Sudanese sources is from the <u>Sudanese Thermal Generation Company</u>
 - o Data was published in an annual operational report, last published online in 2014
 - The report did include a detailed breakdown of generation by fuel, with additional data on capacity, but is very old
- Other sources checked for data include:
 - The Sudanese Electricity Distribution Company Ltd (SEDC)
 - The Sudanese <u>Ministry of Energy & Oil</u>



Zambia



Overall Score:	0 / 5	No publicly available data						
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download			
0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	0 No data available			

- Zambia has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - The national statistics agency <u>ZamStats</u> (where energy statistics were last published in 2007)
 - The Zambian Ministry of Energy
 - The Zambian state-owned electricity utility <u>ZESCO</u> (Zambia Electricity Supply Corporation)



Mozambique



Overall Score:	2/5	Annual available data with < 1 year lag, mostly high-level or difficult to access						
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download			
6 month - 1 year lag	Yearly by calendar year	Some disaggregation of fuels	n Regional	1 No additional data	Challenging to access / pdf format			

- Mozambique has some electricity production data available, from a combination of two national sources:
- Firstly, the national statistics agency (the <u>Instituto Nacional de Estatística</u>) includes a section on electricity in its annual *Statistical Yearbook* (most recently compiled for <u>2020</u>, pp 66-71), which provides:
 - A breakdown of electricity production by region and consumption category, as well as imports and exports from/to neighbouring countries
 - o Data is provided annually, from 2016 to 2020
 - This breakdown does not indicate fuel-type and does not include other data metrics (e.g. capacity)
- Secondly, the national energy utility <u>EdM</u> (Electricidade de Moçambique) publishes annual statistical reports, with:
 - Annual fuel-split data
 - Additional data metrics, including capacity, system efficiency and consumption
 - However the most recent publication available on the website at the time of writing was for 2015



Ethiopia



Overall Score:	0 / 5		No publicly a	available data	
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download
0 No data available	0 No data available	0 No data available			

- Ethiopia has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - The state-owned generation company Ethiopia Electric Power
 - o The state-owned transmission and distribution utility Ethiopian Electric Utility
 - The Ethiopian Ministry of Water and Energy
 - The Ethiopian <u>Central Statistics Agency</u>



Angola



Overall Score:	0 / 5		No publicly a	available data	
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download
0 No data available	0 No data available	0 No data available			

- Angola has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - The national electricity distribution utility **ENDE** (Empresa Nacional de Electricidade de Angola)
 - The Angolan <u>Ministry of Energy and Water</u>
 - The national statistics agency <u>Instituto Nacional de Estatística</u>



Kenya



Ove	erall Score:		3 / 5	Bette	Better-than-annual granular data available with some fuel breakdown + other data							
Publishing lag		T	ime granularity	Fu	uel breakdown	Sub-na	ational / unit data		Iditional data pacity + others)	Eas	e of download	
3	<= 2-6 month lag	3	Monthly	4	Ember-level fuel disaggregation	1	Less than regional	2	1 additional category (not capacity)	3	Challenging to access in csv / xls format	

- Kenya has good national electricity production available, with ≤ 6 month lag and monthly granularity.
- The Kenya National Bureau of Statistics (<u>KNBS</u>) publishes monthly electricity generation and import/export data as part of the monthly <u>Leading Economic Indicators</u> publications:
 - Electricity generation data is reported monthly and disaggregated by fuel group, with fossil fuels grouped under "thermal"
 generation, and renewable generation further broken down into solar, wind, hydro and geothermal
 - Electricity trade data shows monthly imports and exports of electricity from Kenya's neighbouring countries
 - Monthly data is available from Jan-2020 through Oct-2021; the most recent publication, covering October 2021, was released in December 2021.
 - O Generation data is not further disaggregated by region, plant or unit level, and does not include capacity data
 - Although not in csv format, data is presented in neat pdf tables and is freely available for download off the KNBS website
- Other sources checked for data include:
 - The <u>Ministry of Energy</u>
 - The state-owned electricity generation utility <u>KPLC</u> (Kenya Power)
 - The state-owned electricity transmission company <u>KETRACO</u> (Kenya Electricity Transmission Company)



Ghana



Ove	erall Score:		3 / 5	Bette	Better-than-annual granular data available with some fuel breakdown + other da							
Publishing lag		Ti	me granularity	Fu	el breakdown	Sub-na	ational / unit data		Iditional data acity + others)	Eas	e of download	
3	<= 2-6 month lag	2	Yearly by calendar year	3	Some disaggregation of fuels	2	Incomplete regional	5	>3 additional cat's (incl. capacity)	3	Challenging to access in csv / xls format	

- Ghana has good national electricity production available, with ≤ 6 month lag as well as several additional data metrics.
- The <u>Ghana Energy Commission</u> publishes annual energy and electricity statistics for calendar years within the 2nd quarter of the following year, which includes comprehensive data on generation, capacity, transmission and distribution, and demand profiles:
 - Annual generation data is disaggregated by high-level fuel grouping ('hydro', 'thermal' and 'other renewables')
 - Additional detailed disaggregation of renewable capacity is provided, by system (off-grid, on-grid and mini-grid) and technology (solar, incl. distributed and utility-scale; wind, and hydro)
 - Additional data on exports and imports, peak load profile, transmission losses, distribution and sales consumption-by-sectors, and distribution reliability is provided
 - Although not in csv format, data is presented in neat pdf tables and is freely available for download off the GEC website
- Other sources checked for data include the <u>Electricity Company of Ghana</u>



Democratic Republic of the Congo



Overall Score:	1 / 5	Little a	Little and / or low quality and / or long lag data availal							
Publishing lag Time granularity		Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download					
1 > 1 year lag	Yearly by calendar year	1 No fuel split	1 Less than regional	2 additional cat's or capacity	Challenging to access / pdf format					

- The Democratic Republic of the Congo (Congo-Kinshasa) has very limited electricity production data available from national sources: the one source identified is published with inconsistent frequency and long lag, and has no fuel split or sub-national disaggregation.
- The Congolese national statistics agency (<u>Institut National de la Statistique</u>) includes electricity capacity and production statistics in its Annual Statistic Yearbook publication
 - The data includes gross and net production, as well as imports, exports and transmission and distribution statistics, but generation data is not specified by fuel
 - The most recent edition available, <u>2020</u>, was published in December 2021, and previous editions have been published inconsistently (only 2014, 2015 and 2017 are available on the <u>website</u>)
 - Data is compiled with comprehensive national statistics in a pdf report
- Other sources checked for data include the national electricity utility <u>SNEL</u> (Société Nationale d'Électricité)



Zimbabwe



Overall Score:	2 / 5	Annual available	Annual available data with < 1 year lag, mostly high-level or difficult to access							
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download					
1 > 1 year lag	3 Monthly	Only high-level fuel split (e.g. "thermal")	4 Plant Level	1 additional category (not capacity)	Challenging to access / pdf format					

- Zimbabwe has has some electricity production data available, in monthly granularity, but it is limited by publishing lag and frequency at which it becomes available.
- <u>ZimStat</u> (the Zimbabwe National Statistics Agency) includes electricity production, net imports and consumption-by-sector data in its <u>Quarterly Digest of Statistics</u> publications:
 - The data includes production by power station, including Hwange (coal), Kariba (hydro), 'Other Power Station' and 'Independent Power Producers' (with fuel unspecified)
 - The most recent quarterly digests available are from 2019, with 2020 reports (and data) unavailable at the time of writing thus creating a > 1 year lag
 - Data is compiled with comprehensive national statistics in a pdf report
- Other sources checked for data include:
 - The national utility **ZPC** (Zimbabwe Power Corporation)
 - The Zimbabwean <u>Ministry of Energy & Power Development</u>



Côte d'Ivoire



Overall Score:	0 / 5		No publicly a	available data	
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download
0 No data available	0 No data available	0 No data available			

- Côte d'Ivoire has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - o The Ministry of Petroleum, Energy and Renewable Energy
 - The national statistics agency <u>Institut National de la Statistique</u>



Cameroon



Overall Score:	0 / 5		No publicly a	available data	
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download
0 No data available	0 No data available	0 No data available			

- Cameroon has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - The Ministry of Water and Energy
 - The national electricity regulator (<u>Agence de Régulation du Secteur de l'Electricité</u>)
 - The national statistics agency (<u>INS Cameroun</u>)



Tanzania



Ove	rall Score:	1 / 5		Little and / or low quality and / or long lag data available							
Pul	Publishing lag Time granularity		Fu	uel breakdown	Sub-n	ational / unit data		dditional data pacity + others)	Eas	se of download	
1	> 1 year lag	Yearly by financial year	3	Some disaggregation of fuels	3	Regional	4	3 additional cat's or capacity + 1 other	2	Challenging to access / pdf format	

- Tanzania has some electricity production data available, but it is limited by publishing lag and frequency at which it becomes available, as well as the granularity of reporting.
- The Tanzanian Energy and Water Utilities Regulatory Authority (<u>EWURA</u>) includes electricity data in its *Electricity Sub-Sector* Regulatory Performance Report for the preceding Financial Year
 - The most recent report (at the time of writing) was published in March 2021 for FY 2019/20 (1 Jul 30 Jun)
 - The report provides production statistics with some disaggregation of fuels, also disaggregated by on-grid and off-grid supply (in addition to net imports)
 - Additional data includes capacity by plant, plant availability and utilisation (denoted by fuel), and transmission infrastructure
 - Data is compiled in a pdf report
- Other sources checked for data include the Tanzanian Ministry of Energy



Senegal



Overall Score:	1 / 5	Little and / or low quality and / or long lag data available							
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download				
1 > 1 year lag	Yearly by calendar year	Some disaggregatio of fuels	n 2 Incomplete regiona	2 additional cat's or capacity	Challenging to access / pdf format				

- Senegal has limited electricity production data available from national sources: the one source identified is published with inconsistent frequency and long lag, and may not be comprehensive for the country's electricity sector.
- The national electricity utility <u>Senelec</u> includes some electricity statistics in its annual reporting
 - The most recent report available at the time of writing was for the year 2018 and was published in April 2020
 - The report includes operational data on the company's electricity production, but does not appear to cover all of Senegal's electricity generation
 - o Production data is specified with some fuel and plant disaggregation, and capacity data is also included
 - O Data is compiled in a pdf report, and is difficult to convert to more user-friendly formats
- Other sources checked for data include:
 - The <u>Ministry of Petroleum and Energy</u>
 - o The National Agency for Renewable Energies
 - The national statistics agency (<u>Agence Nationale de Statistique et de la Démographie</u>)



Namibia



Ove	erall Score:		3 / 5	Bette	er-than-annual	granul	ar data availab	le with	some fuel brea	akdown	+ other data
Publishing lag Time granular		ime granularity	Fı	uel breakdown	Sub-r	national / unit data		dditional data pacity + others)	Eas	se of download	
3	<= 2-6 month lag	3	Monthly	2	Only high-level fuel split (e.g. "thermal")	4	Plant Level	3	2 additional cat's or capacity	2	Challenging to access / pdf format

- Namibia has good electricity production data available, from a combination of two national sources.
- Firstly, the national electricity utility <u>NamPower</u> provides high-level generation data in its <u>annual reports</u>:
 - The reports cover NamPower's financial year (Jul Jun), and the most recent report (at the time of writing) covers 2019/20
 - o The report provides generation data at plant-level, as well as net imports, and also includes capacity data
 - The data is provided in a pdf report and is difficult to convert to more user-friendly formats
- Secondly, the <u>Namibia Statistics Agency</u> publishes monthly *Electricity Sectoral Reports*, with the most recent available at the time of writing for <u>October 2021</u>
 - Reports are published with a 2-3 month lag and include a monthly breakdown of electricity production and imports (going back to January 2018), in pdf data tables
 - The reports include no fuel-breakdown, and no other electricity data
- Other sources checked for data include the <u>Ministry of Mines and Energy</u>



Uganda



Overall Score:	3 / 5	Better-than-annual	granular data availab	le with some fuel brea	akdown + other data
Publishing lag Time granularity		Fuel breakdown Sub-national / unit data		Additional data (capacity + others)	Ease of download
3 <= 2-6 month lag	Yearly by calendar year	Some disaggregation of fuels	5 Unit	2 additional cat's or capacity	Direct open access in csv / xls format

- Uganda has good national electricity production available, with ≤ 6 month lag and disaggregation by generating unit.
- The Ugandan <u>Electricity Regulation Authority</u> (ERA) provides detailed electricity production data in xls format on a quarterly basis:
 - <u>Data</u> is published in quarterly granularity, with one-quarter lag the most recent dataset (at the time of writing) was published in September 2021, and covered generation up to June 2021
 - Generation data is disaggregated by plant, and the dataset also includes plant-unit capacity and fuel type (albeit with fossil fuel plants listed as 'thermal')
 - The data is easy to access and freely downloadable off the <u>ERA website</u>, and is presented in user-friendly xls format
- Other sources checked for data include the Uganda Electricity Transmission Company (<u>UETCL</u>)



Mali



Overall Score:	0 / 5	No publicly available data									
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download						
0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	0 No data available						

- Mali has no recent (≥ 2018) electricity data publicly available from national sources.
- Mali's <u>CREE</u> (<u>Commission de Régulation de l'Electricité et de l'Eau) last published a compilation of national electricity statistics in 2015:
 </u>
 - The report provided annual generation data, with comprehensive fuel disaggregation, for years 2009 2015
 - However more recent data could not be found from national sources
- Other sources checked for data include:
 - The Ministry of Mines, Energy and Water of Mali
 - The national statistics agency <u>INSTAT-Mali</u>



Botswana



Overall Score:	1 / 5	Little and / or low quality and / or long lag data available							
Publishing lag	Time granularity	Fuel breakdown	Additional data Fuel breakdown Sub-national / unit data (capacity + others)		Ease of download				
1 > 1 year lag	Yearly by financial year	Ember-level fuel disaggregation	4 Plant Level	2 additional cat's or capacity	Challenging to access / pdf format				

- Botswana has limited electricity data available, from a combination of two national sources that provide detail on fuel-use at plant level, but have > 1 year lag, inconsistent publishing frequency and limited reporting granularity.
- Firstly the national electricity utility <u>BPC</u> (Botswana Power Corporation) provides high-level electricity production data in its annual reporting
 - Reports are published for BPC financial year (Apr Mar) which are published up to a year after the reporting period, and include electricity generation by plant unit and by fuel type, as well as capacity
- Secondly, <u>Statistics Botswana</u> publishes annual Selected Environmental Indicators Digest reports
 - The <u>most recent publication</u> (at the time of writing) covers annual production by fuel-type from 2010 to 2018, and was published in 2021
 - The report also includes final electricity consumption by sector for the same period
- Both reports are available in pdf format only



Republic of the Congo



Overall Score:	1 / 5	Little and / or low quality and / or long lag data available							
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download				
1 > 1 year lag	Yearly by calendar year	Some disaggregation of fuels	3 Regional	1 additional category (not capacity)	Challenging to access / pdf format				

- The Republic of the Congo (Congo-Brazzaville) has very limited electricity production data available from national sources: the one source identified is published with > 1 year lag and inconsistent frequency
- The national statistics agency (<u>INS-Congo</u>) publishes annual statistical yearbooks, which include annual production of electricity by region:
 - The most recent publication (at the time of writing) was for the year 2018, with uncertain publishing frequency, and covered the years 2014 - 2018
 - Electricity production statistics were disaggregated by region within Congo, but only with high-level fuel disaggregation
 - More recent data (beyond 2018) was not available
- Other sources checked for data include the national electricity utility <u>E2C Congo</u>



Mauritius



Overall Score:	2 / 5	Annual available data with < 1 year lag, mostly high-level or difficult to access							
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download				
6 month - 1 year lag	Yearly by calendar year	Ember-level fuel disaggregation	4 Plant Level	3 additional cat's or capacity + 1 other	Direct open access in csv / xls format				

- Mauritius has good electricity data availability, from two national sources, with ≤ 1 year publication lag, annual granularity and disaggregation by fuel type and generating plant (but not unit)
- Firstly <u>Statistics Mauritius</u> publishes comprehensive and detailed energy and water statistics in xls format, with 2020 being the most recent year available at the time of writing
 - The statistics include energy generation disaggregated by fuel type and by region, annually for years 2010 2020
 - o Data also includes plant capacity, transmission and distribution, and consumption-by-sector
 - o Data easily accessible and free to download in comprehensive xls format from the Statistics Mauritius <u>website</u>
 - o 2020 statistics were published in November 2021
- The <u>Energy Efficiency Management Office</u> of Mauritius also publishes electricity production data, but in pdf format and with a longer publication lag the most recent report was published in 2020 and covers annual data up to 2019

Gabon



	Overall Score:	1 / 5	Little and / or low quality and / or long lag data available								
Publishing lag		Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download					
	1 > 1 year lag	Yearly by calendar year	Some disaggregation of fuels	2 Incomplete regiona	2 additional cat's or capacity	Challenging to access / pdf format					

- Gabon has very limited electricity production data available from national sources: the one source identified is published with inconsistent frequency and long lag
- The national electricity utility <u>SEEG-Gabon</u> (La Société d'Energie et d'Eau du Gabon) includes annual electricity production in its annual operational report, but the latest report published (at the time of writing) was for the year <u>2018</u>
 - The report includes annual electricity production data with some disaggregation of fuels
 - High-level electricity production by intranational region is also included, along with fuel-capacity data
 - Data is compiled in a pdf format and is not easily converted to more user-friendly formats
- The other sources checked for data include the national statistics agency <u>Stat-Gabon</u>



Madagascar



Ove	erall Score:		2/5	Ar	Annual available data with < 1 year lag, mostly high-level or difficult to access								
Publishing lag Time granularity		Fı	Fuel breakdown Sub-national / unit data				Iditional data acity + others)	Eas	se of download				
3	<= 2-6 month lag	3	Monthly	2	Only high-level fuel split (e.g. "thermal")	4	Plant Level	1	No additional data	4	Indirect open access in csv / xls format		

- Madagascar has some electricity production data available, with ≤ 6 month publication lag and monthly granularity, but with limited fuel and technology coverage.
- The state-owned national electricity utility <u>JIRAMA</u> publishes monthly electricity production data in xls format
 - Data is published with a 3 6 month lag, and is disaggregated at by production plant and by fuel
 - However, the data only covers gasoil and diesel fuel generation, with no other fuel-types included
 - The data does not include capacity or any other additional categories
 - Data is published with inconsistent frequency, in xls format
- Other sources checked for data include the Madagascar <u>Ministry of Energy</u>, <u>Water and Petroleum</u>



Guinea



Ove	erall Score:		2/5	Annual available data with < 1 year lag, mostly high-level or difficult to access							
Publishing lag		Time granularity		Fuel breakdown		Sub-national / unit data		Additional data (capacity + others)		Ease of download	
2	6 month - 1 year lag	2	Yearly by calendar year	2	Only high-level fuel split (e.g. "thermal")	4	Plant Level	1	No additional data	3	Challenging to access in csv / xls format

- Guinea has good electricity production data availability, from two national sources, with ≤ 1 year publication lag, annual granularity and disaggregation by generating plant (but not unit)
- The state-owned electricity utility <u>EDG</u> (Electricité de Guinée) published production data on its website
 - o Data (at the time of writing) was available for 2019 and 2020 and included a breakdown of electricity production by plant
 - Fuel disaggregation is only high-level, i.e. 'thermal' and 'hydro'
 - Other data, including plant capacity, is not included
- The national statistics agency INS-Guinée (<u>Institut National de la Statistique</u>) publishes annual environmental and energy statistics reports; the most recent reports available at the time of writing were from 2020 (<u>environmental</u>) and 2018 (<u>energy</u>)
 - The more recent environmental report has high-level electricity production data by high-level fuel breakdown (up to 2019)
 - The report also includes capacity and consumption-by-sector data



Niger



O	verall Score:	2 / 5	A	Annual available data with < 1 year lag, mostly high-level or difficult to access							
	Publishing lag	Time granularity	F	uel breakdown	Sub-n	ational / unit data		dditional data pacity + others)	Eas	se of download	
2	6 month - 1 year lag	Yearly by calendar year	3	Some disaggregation of fuels	2	Incomplete regional	2	1 additional category (not capacity)	2	Challenging to access / pdf format	

- Niger has has some electricity production data available, from one national source, with ≤ 1 year publication lag, annual granularity, and partial disaggregation by fuel type
- The national electricity utility <u>NIGELEC</u> (Société Nigérienne d'Électricité) publishes annual operational reports
 - o Data includes annual production data for 2019 and 2020, with some disaggregation by fuel and region
 - o The report also includes high-level consumption data, but no capacity data
 - O Data published in a pdf report, and is not readily converted to more user-friendly formats
 - The most recent report available at the time of writing was for 2020, and was published in May 2021
- Other sources checked for data include:
 - The national statistical agency <u>Stat-Niger</u> (which has only very high-level electricity production data in its <u>2020 report</u>)
 - The <u>Ministry of Energy</u>



Burkina Faso



Overa	II Score:		2 / 5	Annual available data with < 1 year lag, mostly high-level or difficult to access								
Publishing lag		Ti	Time granularity		Fuel breakdown		Sub-national / unit data		Additional data (capacity + others)		Ease of download	
6 r 2 lag	month - 1 year J	2	Yearly by calendar year	2	Only high-level fuel split (e.g. "thermal")	1	Less than regional	2	1 additional category (not capacity)	2	Challenging to access / pdf format	

- Burkina Faso has very limited electricity data available, with only one potential national source identified
- The national statistics agency <u>INSD</u> (Institut National de la Statistique et de la Démographie) includes some electricity production data in its annual statistical yearbooks:
 - \circ The most recent report available at the time of writing was for <u>2020</u>, published in late 2021
 - The reports includes high-level electricity generation data for the years 2009 2020, with only high-level fuel breakdown ('thermal', 'hydro' and net imports)
 - The report also includes high-level capacity data, and electricity distributions sales disaggregated by region
 - Data is compiled with comprehensive national statistics in a pdf report
- Other sources checked for data include:
 - The Ministry of Energy
 - The national electricity utility <u>SONABEL</u>



eSwatini



Overall Score:	0 / 5	No publicly available data									
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download						
0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	0 No data available						

- eSwatini has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - The Swazi <u>Department of Energy</u>
 - The <u>eSwatini Electricity Company</u>
 - The <u>eSwatini Central Statistics Office</u>



Togo



Overall Score:	1 / 5	Little a	Little and / or low quality and / or long lag data available							
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download					
1 > 1 year lag	Yearly by calendar year	1 No fuel split	1 Less than regional	1 additional category (not capacity)	Challenging to access / pdf format					

- Togo has very limited electricity production data available from national sources: the one source identified is published with inconsistent frequency and long lag, and has no fuel split or sub-national disaggregation.
- The national statistics agency (<u>Institut National de la Statistique et des Études</u>) published a 6-year compilation of annual statistics from <u>2014-2019</u>, which has very high-level annual data on production and net imports of electricity
 - o Production data is disaggregated by month (from Jan 2015 Dec 2019), but not by fuel or plant
 - It is not clear how regularly annual data will be published
- Other sources checked for data include:
 - o The Ministry of Mines and Energy
 - The national electricity utility <u>Compagnie Energie Electrique du Togo</u>



Benin



Overall Score:	0 / 5		No publicly a		
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download
0 No data available	0 No data available	0 No data available			

- Benin has no recent (≥ 2018) electricity data publicly available from national sources.
- The national electricity regulator (<u>Autorité de Régulation de l'Électricité</u>) has very high-level data for the years 2010 2015 on its <u>website</u>, but nothing more recent or detailed could be found.
- Other sources checked for data include:
 - The Ministry of Energy
 - The national electricity utility <u>SBEE</u> (Société Béninoise d'Energie Electrique)
 - The national statistics agency (<u>Institut National de la Statistique</u>)



Malawi



Overall Score:	1 / 5	Little a	Little and / or low quality and / or long lag data available						
Publishing lag Time granularity		Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download				
1 > 1 year lag	3 Monthly	1 No fuel split	1 Less than regional	1 No additional data	Challenging to access / pdf format				

- Malawi has limited electricity production data available from national sources: the one source identified is published with long lag
 and, although it has monthly granularity, it does not provide any fuel or sub-national disaggregation.
- The Malawi National Statistical Office includes very high-level electricity production and sales data in its monthly and quarterly statistical bulletins
 - Monthly reports (with an up-to-6 months publishing lag) provide only aggregate and sales data from one year prior to the report release date (e.g. the Aug 2021 bulletin published production data from Sep 2020)
 - Quarterly reports provide a historic monthly breakdown going back to January 2017, but have a similar year-long lag to the monthly data
 - Neither data source provides any fuel breakdown, capacity or other data
 - In both cases, the data is compiled with comprehensive national statistics and published in a pdf report
- Other sources checked for data include:
 - The national electricity utility <u>ESCOM</u> (Electricity Supply Company of Malawi)
 - The <u>Malawi Energy Generation Agency</u>
 - The Malawian <u>Department of Energy</u>



Equatorial Guinea



Overall Score:	1 / 5	Little a	Little and / or low quality and / or long lag data available							
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download					
1 > 1 year lag	3 Monthly	1 No fuel split	1 Less than regional	1 additional category (not capacity)	Difficult to access / poorly formatted					

- Equatorial Guinea has limited electricity production data available from national sources: the one source identified is published with long lag and, although it has monthly granularity, it does not provide any fuel or sub-national disaggregation.
- The national statistics agency <u>INEGE</u> (Instituto Nacional de Estadística de Guinea Ecuatorial) includes some electricity production data in its annual statistical yearbooks:
 - The most recent report available at the time of writing was for <u>2020</u>
 - The report has only monthly electricity consumption data for 2018 and 2019 and has no production, capacity or other relevant data
- Other sources checked for data include:
 - The national electricity utility <u>SEGESA</u> (Sociedad de Electricidad de Guinea Ecuatorial)
 - The <u>Ministry of Industry and Energy</u>
 - The <u>Ministry of Mines and Hydrocarbons</u>



Lesotho



Overall Sc	ore:	1 / 5		Little a	nd / or	low quality and	d / or lo	ng lag data av	ailable	
Publishing	ag Time	Time granularity		Fuel breakdown		Sub-national / unit data		lditional data acity + others)	Eas	se of download
1 > 1 year I	4	Yearly by financial	3	Some disaggregation of fuels	4	Plant Level	3	2 additional cat's or capacity	2	Challenging to access / pdf format

- Lesotho has some electricity production data available, but it is limited by publishing lag and the granularity of reporting.
- The Lesotho <u>Bureau of Statistics</u> publishes annual energy reports, the most recent of which (at the time of writing) was available for the financial year <u>2019/2020</u>:
 - The report provides monthly fuel-split data for the financial year from Apr-2019 to Mar-2020, and was published in mid 2021; thus while the data is reported in monthly granularity, it is still aggregated on a financial (not calendar) year basis
 - There is some fuel-disaggregation, with electricity production split by diesel and hydro, along with net imports (mainly from South Africa)
 - Electricity consumption data by sector is also included, however capacity data is not available
- Other sources checked for data include:
 - The <u>Ministry of Energy and Meteorology</u>
 - The national electricity utility <u>Lesotho Electricity Company</u>



Rwanda



Overall Sco	re: 2	/ 5	An	Annual available data with < 1 year lag, mostly high-level or difficult to a						to access
Publishing la	Time g	Time granularity		Fuel breakdown		ational / unit data		lditional data acity + others)	Eas	e of download
3 <= 2-6 mon	⊿	arly by financial ar	5	Better-than-Ember (e.g. "rooftop solar")	2	Incomplete regional	5	>3 additional cat's (incl. capacity)	2	Challenging to access / pdf format

- Rwanda has good electricity production data available, with detailed fuel disaggregation and ≤ 6 month publication lag, but is aggregated over financial year, rather than calendar year or higher granularity
- The national electricity utility Rwanda Energy Group publishes comprehensive electricity data in its annual reporting, with the most recent report available (at the time of writing) for the 2020/21 financial year:
 - Electricity generation data includes detailed breakdown of fuel-types (incl. peat-to-power generation)
 - Other electricity data metrics include capacity, demand, electricity access, plant efficiencies and load factors, tariffs and transmission data
 - The 2020/21 report was published on the website in September 2021, one quarter after FYE on 30 Jun; historic reports available on the <u>website</u> suggest consistent, annual publication
- Other sources checked for data include the <u>National Institute of Statistics of Rwanda</u>



Mauritania



Overall Score:	1 / 5	Little a	Little and / or low quality and / or long lag data available						
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download				
1 > 1 year lag	Yearly by calendar year	1 No fuel split	3 Regional	1 No additional data	Challenging to access / pdf format				

- Mauritania has very limited electricity production data available from national sources: the one source identified is published with inconsistent frequency and long lag, and has no fuel disaggregation.
- The national statistics agency (<u>Agence Nationale de la Statistique et de l'Analyse Démographique et Économique</u>) includes some high-level electricity production data in its annual statistics yearbooks:
 - The most recent report available at the time of writing was for 2019, and was published in November 2020
 - The report included monthly electricity production data between Jan-2017 and Dec-2019, but did not include any fuel breakdown; generation data was also reported in gross, not net, terms
 - No other electricity data metrics, such as capacity or net imports, were included
- Other sources checked for data include:
 - The national electricity utility <u>SOMELEC</u> (Société Mauritanienne d'Électricité)
 - The <u>Ministry of Petroleum, Mines and Energy</u>



South Sudan



Overall Score:	0 / 5		No publicly available data					
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download			
0 No data available	0 No data available	0 No data available						

- South Sudan has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - The South Sudanese Ministry of Electricity, Dams, Irrigation and Water Resources (no website)
 - The South Sudan Electricity Corporation (no website)
 - o National statistics agency, the <u>National Bureau of Statistics for South Sudan</u>



Eritrea



Overall Score:	0 / 5		No publicly a	available data	
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download
0 No data available	0 No data available	0 No data available			

- Eritrea has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - The Eritrean Ministry of Mines and Energy
 - The Eritrea Electricity Corporation
 - The Eritrea National Statistics Office
 - o (none of these had a website available at the time of writing)



Cabo Verde



Overall Score:	0 / 5		No publicly available data								
Publishing lag	Publishing lag Time granularity		Sub-national / unit data	Additional data (capacity + others) Ease of download							
O No data available O No data available		0 No data available	0 No data available	0 No data available	0 No data available						

- Cabo Verde has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - o The Ministry of Industry, Commerce and Energy
 - The national electricity utility <u>Electra</u>
 - The national statistics agency (<u>Instituto Nacional de Estatistica</u>)



Burundi



Ove	erall Score:		3 / 5	Bette	er-than-annual	granula	ar data availab	le with	some fuel brea	kdown	+ other data
Publishing lag		Time granularity		Fuel breakdown		Sub-national / unit data		Additional data (capacity + others)		Ease of download	
3	<= 2-6 month lag	3	Monthly	2	Only high-level fuel split (e.g. "thermal")	3	Regional	2	1 additional category (not capacity)	3	Challenging to access in csv / xls format

- Burundi has good national electricity production available with ≤ 6 month lag and monthly granularity.
- The national statistics agency <u>Institut de Statistiques et d'etudes economiques du Burundi</u> publishes quarterly statistical bulletins, with monthly electricity production and consumption data disaggregated by high-level fuel type, and by region:
 - The most recent report available at the time of writing was for <u>Q3-2021</u>, published in November 2021, and included monthly electricity production data from Jan-2018 to Sep-2021
 - o Production data is split into hydro and thermal categories, without more detailed fuel-breakdown
 - Electricity consumption data is reported according to Bujumbura and Gitega (major cities) and "others"
 - Other electricity data metrics, such as capacity, are not included
- Other sources checked for data include:
 - o The Ministry of Water, Energy and Mines
 - The national electricity utility <u>Sobelec</u> (Société Burundaise d'Electricité et de Climatisation)
 - The <u>Burundi Water and Electricity Production and Distribution Authority</u>



Seychelles



Overall Score: 2 /			2/5	An	nual available	data w	ith < 1 year lag	g, mostl	y high-level or	difficult	to access
Publishing lag		Time granularity		Fuel breakdown		Sub-national / unit data		Additional data (capacity + others)		Ease of download	
6 month - 1 year lag		2	Yearly by calendar year	5	Better-than-Ember (e.g. "rooftop solar")	3	Regional	4	3 additional cat's or capacity + 1 other	3	Challenging to access in csv / xls format

- Seychelles has some electricity production data available, from two national sources, with ≤ 1 year publishing lag, and detailed fuel disaggregation.
- Firstly, the national electricity utility, the <u>Public Utilities Corporation</u>, includes annual electricity production data in its annual reporting
 - The most recent report available at the time of writing is for <u>2020</u>, with previous reports for <u>2017</u> and <u>2018</u> but not 2019 also available
 - The report includes electricity production data by fuel group, including wind, solar PV, LFO and HFO generation
- Secondly, the <u>National Bureau of Statistics Seychelles</u> includes monthly electricity production data with its quarterly <u>Production</u>
 <u>Indicators</u> publications
 - O Data can be downloaded as a time series in xls format, and is also aggregated quarterly in pdf reports
 - o However, only production data is included, with no fuel split, and no other electricity metrics
- Other sources checked for data include the <u>Ministry of Environment and Energy</u>



Liberia



Overall Score:	0 / 5	No publicly available data				
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download	
0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	

- Liberia has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - The Liberian Ministry of Mines and Energy
 - The national electricity utility <u>Liberia Electricity Corporation</u>
 - The national statistics agency the <u>Liberia Institute of Statistics & Geo-Information Services</u>



Somalia



Overall Score:	0 / 5	No publicly available data				
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download	
0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	

- Somalia has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - o The Somali Ministry of Energy and Water Resources
 - The national electricity utility the <u>Badhan Electricity Company</u>
 - The Somali <u>National Bureau of Statistics</u>



The Gambia



Overall Score:	0 / 5	No publicly available data				
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download	
0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	

- The Gambia has no recent (≥ 2018) electricity data publicly available from national sources.
- The only generation data available from local Gambian sources is from the <u>National Water & Electricity Company</u>, published in an annual report for 2016
 - The electricity production data is very high-level, with partial fuel-split, and no other electricity data metrics (incl. capacity)
- Other sources checked for data include:
 - The <u>Ministry of Petroleum and Energy</u>
 - The national statistics agency the <u>Gambia Bureau of Statistics</u>





Overall Score:	0 / 5	No publicly available data				
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download	
0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	

- Sierra Leone has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - The Sierra Leone <u>Ministry of Energy</u>
 - o The Electricity & Water Regulatory Commission
 - The Electricity Distribution and Supply Authority
 - The national statistics agency <u>Stats SL</u>



Chad



Overall Score:	0 / 5	No publicly available data				
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download	
0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	

- Chad has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - The <u>Minister of Petroleum and Energy</u>
 - The national electricity utility La Société Nationale d'Électricité (no website)
 - The national statistics agency <u>Institut National de la Statistique, des Études Économiques et Démographiques</u>



Central African Republic



Overa	II Score:	0 / 5	No publicly available data				
Publi	shing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download	
0 No	o data available	0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	

- The Central African Republic has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - The Ministry of Energy Development and Hydro Resources
 - The national electricity utility <u>ENERCA</u>
 - The national statistics agency <u>Institut Centrafricain des Statistiques</u>



Comoros



Overall Score:	0 / 5	No publicly available data				
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download	
0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	

- Comoros has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - The national statistics agency <u>INSEED</u> (National Institute of Statistics and Demographic Studies)
 - The Ministry of Production, Environment, Energy, Industry and Artisans (no website)
 - The national electricity utility MAMWE (Gestion de l'Eau et de l'Electricité aux Comores, no website)
 - The electricity regulator EDA (Électricité d'Anjouan, no website)



São Tomé & Príncipe



Overall Score:	0 / 5	No publicly available data				
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download	
0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	

- São Tomé & Príncipe has no recent (≥ 2018) electricity data publicly available from national sources.
- The only statistics found were from 2016, published by the Director General of Natural Resources and Energy (<u>DGNRE</u>) in a 2020
 Renewable Energy and Energy Efficiency Status Report (<u>Relatório Nacional Do Ponto De Situação de Situação de Energia</u>
 Renováveis e Eficiência Energética em São Tomé e Príncipe)
 - Electricity production data is reported annually, with high-level fuel split ('thermal' and 'hydro')
 - Electricity consumption is also reported by sector
- Other sources checked for data include:
 - The national electricity utility <u>EMAE</u> (Empresa de Água e Electricidade)
 - The national statistics agency <u>Instituto Nacional de Estatística</u>



Djibouti



Overall Score:	0 / 5	No publicly available data				
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download	
0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	

- Djibouti has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - The national electricity utility <u>EDD</u> (Electricité de Djibouti)
 - The National Institute of Statistics of Djibouti (no website)



Guinea-Bissau



Overall Score:	0 / 5	No publicly available data				
Publishing lag	Time granularity	Fuel breakdown	Sub-national / unit data	Additional data (capacity + others)	Ease of download	
0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	0 No data available	

- Guinea-Bissau has no electricity data that could be found from publicly available national sources.
- Sources checked for data include:
 - The national electricity utility <u>EAGB</u> (Eletricidade e Águas da Guiné-Bissau),
 - The Ministry of Natural Resources and Energy (no website)
 - The national statistics agency <u>Stat-Guine-Bissau</u>