



ENERGY TRANSITION (ET) TRACKER TOOL

(GLOBAL SOUTH)



ENERGY TRANSITION (ET) TRACKER TOOL (GLOBAL NORTH)

The International Energy Agency's (IEA's) landmark report, *Net Zero Roadmap: A Global pathway to keep the 1.5°C Goal in Reach 2023* states unequivocally that no new coal extraction projects and no new oil and natural gas fields beyond those that have already been approved for development are required if the world is to stay within the 1.5°C limit. The report—which provides the first-ever comparison of a large number of climate and energy pathways to outline what is needed to limit global warming to 1.5°C—highlights that developing any new oil and gas fields would either push the world beyond the limit or create stranded assets. The IEA's pathways indicate that global oil and gas production must decrease by at least 65% between 2020 and 2050 and up to 99% when considering scenarios, excluding all carbon sequestration technologies.

Thus, it can be inferred that the more investments and/or energy production/electricity generation activities from fossil fuels, the farther away a country will be from their Renewable Energy (RE) targets and energy transition goals.

Electricity Lawyer (EL) has developed a tracker tool to assess the progress of countries in meeting their respective RE targets and energy transition goals. ***The RE targets can***

be tracked against each country's energy production/electricity generation from renewables and fossil fuels across selected reference years, benchmarked against the IEA projected year-on-year population increase in Africa; as a basis for assessing the corresponding energy generation from renewables, in subsequent years; to ascertain the progress or regress by the respective countries in meeting their energy transition goals. The methodology adopted is a modified version of the IEA pathways deployed as a benchmark, due to the limited availability of credible data for countries in the global south region.

The tool is however not limited to countries in global south and can be used to monitor progress of countries across the global energy landscape, whether on a country-by-country basis or on a region basis, or alternatively, the assessment can be undertaken using the EL Energy Transition Tracker Tool, suited for countries in the Global North, hinged on the IEA's benchmark, where credible data becomes available.

EL is available to support interested stakeholders in tracking and monitoring progress/regress in this regard on an ongoing basis.



Justification for Selected Parameters- "Energy Production/Electricity Generation"

The selected parameters are influenced by the IEA's position that a country or region's energy-related carbon emissions are the most comprehensive clean energy transition indicator. As a result, many countries with renewable energy targets, Nationally Determined Contributions (NDCs), and energy transition plans prioritize energy production, because it accounts for most greenhouse gas emissions.

Also, according to the IEA Africa Energy Outlook 2022, the African population increases yearly by 2.5%. **Therefore, the progression/regression in RE generation targets can be measured by comparing each country's energy production/electricity generation from renewables and fossil fuels across selected reference years, benchmarked against each country's expected 2.5% increase in energy generation from renewables, in subsequent years, based on population growth.**

A higher figure for energy production/electricity generation output from renewable energy across subsequent years as anticipated, indicates that the country can be considered as progressing towards its renewable energy targets, and vice versa.





TRACKING THE ENERGY TRANSITION: ENERGY TRANSITION ASSESSMENT OF COUNTRIES IN THE GLOBAL SOUTH



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S/N	COUNTRIES	2020 RE ELECTRICITY GENERATION CAPACITY (MW)	2020 FOSSIL FUEL(S) ELECTRICITY GENERATION (MW)	EXPECTED INCREASE IN 2020 RE CAPACITY	2021 RE ELECTRICITY GENERATION (MW)	2021 FOSSIL FUEL(S) ELECTRICITY GENERATION (MW)	PROGRESSION / REGRESSION
1	MOZAMBIQUE	1,632.7 MW	414.3 MW	1673.5 MW	1,980.5 MW	382.0 MW	
2	SOUTH AFRICA	1,715.2 MW	28,230.7 MW	1758.1 MW	1,927.4 MW	28,896.4 MW	
3	ETHIOPIA	1689.7 MW	1,689 MW	1731.9 MW	1,819.4 MW	1,819 MW	
4	CONGO (DEMOCRATIC REPUBLIC)	1,400 MW	2.68 MW	1435 MW	1559 MW	0.88 MW	
5	KENYA	1,125.8 MW	246.7 MW	1153.9 MW	1,363.7 MW	94.9 MW	
6	ANGOLA	1,277 MW	320 MW	1308.9 MW	1,332 MW	326 MW	

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7	SUDAN	1,173 MW	823 MW	1202 MW	1,233 MW	853 MW	
8	NIGERIA	654.6 MW	3102.5 MW	670.9 MW	1,001.5 MW	7354.2 MW	
9	GHANA	771 MW	1,069.2 MW	790.3 MW	872 MW	1,642.9 MW	
10	UGANDA	477.5 MW	25.4 MW	489.4 MW	582.9 MW	5.97 MW	
11	ZIMBABWE	434.6 MW	525.7 MW	445.5 MW	517.3 MW	336.2 MW	
12	COTE D'IVOIRE	358 MW	887.9 MW	366.9 MW	432 MW	983.7 MW	
13	TANZANIA	297 MW	647.1 MW	304 MW	383 MW	551.3 MW	
14	NAMIBIA	173.8 MW	8.36 MW	178.1 MW	237.6 MW	8.16 MW	

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15	MALI	124.4 MW	234.2 MW	127.5 MW	195.6 MW	727.1 MW	
16	GUINEA	153 MW	91.9 MW	156.8 MW	163.7 MW	96.6 MW	
17	SENEGAL	79.2 MW	510 MW	81.1 MW	129.2 MW	633.6 MW	
18	RWANDA	26 MW	38.2 MW	26.7 MW	64 MW	37.8 MW	
19	CAMEROON	53.7 MW	469.3 MW	55.0 MW	55.7 MW	477.5 MW	
20	ESWATINI	58.3 MW	4.2 MW	59.7 MW	60.5 MW	4.6 MW	
21	SIERRA LEONE	27.9 MW	26.4 MW	28.5 MW	35.9 MW	11.5 MW	
22	LIBERIA	0.2 MW	15.57 MW	0.2 MW	16.96 MW	18.8 MW	

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23	CABO VERDE	10MW	50.3 MW	10.3 MW	16.6 MW	51.7 MW	
24	NIGER	1.5 MW	64.87 MW	1.5 MW	2.7MW	79.73 MW	
25	GUINEA-BISSAU	0.35 MW	23.5 MW	0.36 MW	2.1MW	28.3 MW	
26	BENIN	0.7 MW	25.9 MW	0.8 MW	1.8 MW	104.6 MW	
27	SAO TOME AND PRINCIPE	1.7 MW	10.1MW	1.8 MW	1.8 MW	10.3 MW	
28	ERITREA	0.25 MW	54.2 MW	0.26	1.76 MW	42.4 MW	
29	THE GAMBIA	0.76 MW	39.2 MW	0.8 MW	0.83 MW	40.1 MW	
30	CHAD	0 MW	35.8 MW	0 MW	0.8 MW	41.9 MW	

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31	COMOROS	0.75 MW	8.5 MW	0.8 MW	0.79 MW	8.9 MW	
32	ZAMBIA	1,597.2 MW	84.1 MW	1637.1 MW	1,625.3 MW	278.3 MW	
33	MALAWI	387 MW	0.98 MW	396.7 MW	233 MW	24,8 MW	
34	GABON	150 MW	182 MW	153.8 MW	140 MW	166 MW	
35	CONGO (BRAZZAVILLE)	140.8 MW	188.9 MW	144.3 MW	101.9 MW	270.9 MW	
36	MADAGASCAR	114.9 MW	211.6 MW	117.7 MW	83.6 MW	114.1 MW	
37	MAURITIUS	96 MW	340.6 MW	98.4 MW	80.1 MW	258.0 MW	
38	LESOTHO	64.3 MW	0,09 MW	65.9 MW	60.6 MW	0.1 MW	

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39	EQUITORIAL GUINEA	51.9 MW	3.74 MW	53.1MW	56.9 MW	105 MW	
40	MAURITANIA	31MW	69.9 MW	31.8 MW	32 MW	73.1MW	
41	BURUNDI	22.2 MW	8.6 MW	22.7 MW	22.5 MW	8.7 MW	
42	BURKINA FASO	22.24 MW	115.6 MW	22.7 MW	21.30 MW	162.20 MW	
43	CENTRAL AFRICAN REPUBLIC	18.04 MW	0.2 MW	18.4 MW	16.5 MW	0.2 MW	
44	TOGO	16.2 MW	45.1 MW	16.6 MW	11.7 MW	68.2 MW	
45	SEYCHELLES	2.0 MW	56.0 MW	2.1 MW	2.0 MW	66.7 MW	
46	SOUTH SUDAN	1.14 MW	63.7 MW	1.2 MW	1.28 MW	63.6 MW	

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47	BOTSWANA	0.00	359 MW	0 MW	0.7 MW	417 MW	
48	DJIBOUTI	0.01 MW	3.59 MW	0.01 MW	0.01 MW	.67 MW	
49	SOMALIA	0 MW	50.9 MW	0 MW	0 MW	52.5 MW	

REFERENCES

1. GUIDELINES FOR USING THE EL-ET TRACKER TOOL
 - Data for each parameter per country should ideally be populated from a uniform data source, to prevent data bias.
 - A uniform reference year should be used for all parameters to get a true picture of the resultant progression/regression analysis.
 - Data can be analysed on a per-country basis, to factor in specific factors peculiar to each country (which may distort the outcome of the analysis) or on a regional basis.
2. Africa Energy Portal Data Base < <https://africa-energy-portal.org/database> >
3. Africa Energy Portal Data Base < <https://africa-energy-portal.org/database> >
4. Africa Energy Portal Data Base < <https://africa-energy-portal.org/database> >
5. Africa Energy Portal Data Base < <https://africa-energy-portal.org/database> >



