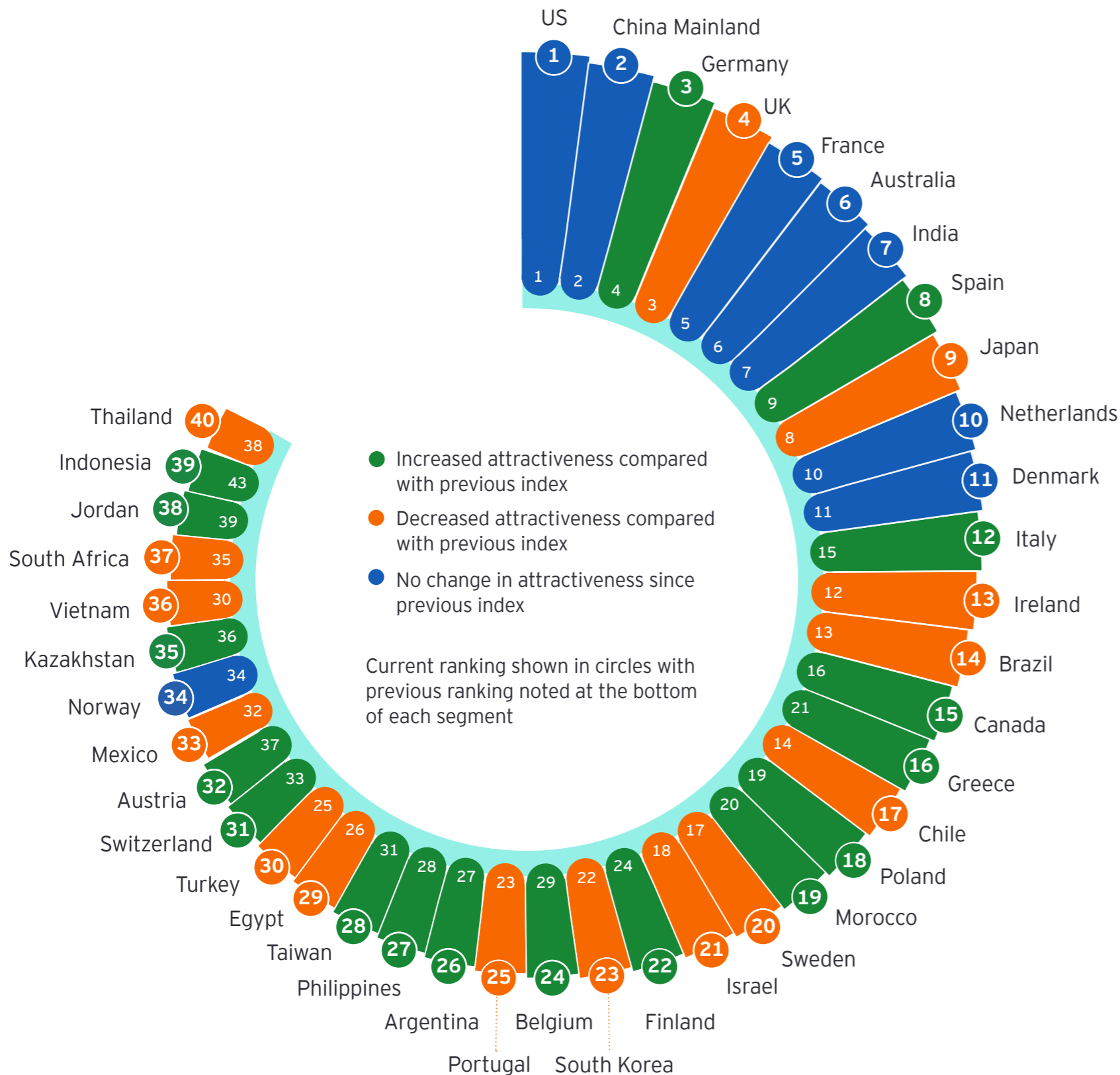


RECAI

Renewable Energy Country Attractiveness Index



Building a better working world



-1 Brazil

Averaging 1GW of new solar PV per month, Brazil now has 19GW of solar installed. Federal lawmakers are considering a draft bill to fill the regulatory gaps that investors believe have slowed the considerable renewables potential.

0 China Mainland

China Mainland is set to install a record 156GW of wind and solar capacity by the end of 2022, a 25% uplift on its previously record-breaking 2021 installations.

+5 Greece

Greece awarded 538MW of capacity in its most recent renewables tender.

+4 Indonesia

Indonesia has issued regulations, including fiscal incentives, to encourage renewable energy investment, and has plans to retire 15GW of coal-powered generation. The high capital cost of decarbonization efforts will be supported by donor countries, including the US and Japan.

+3 Italy

The government released a draft FER II Decree setting out new price support mechanisms, and announced 5GW of offshore wind power auctions to take place between 2023 and 2026. This follows the completion of its first utility-scale offshore wind farm.

+1 Kazakhstan

Set to launch 40 renewable energy projects by 2025 as part of its ambitious decarbonization targets, Kazakhstan has amended its renewable energy auction prices to protect investors from currency devaluation against the US dollar.

+1 Spain

When launching a 3.3GW renewable tender in November 2022, a budget of around €3B (US\$2.99b) will be used to award up to 1.8GW of solar PV and 1.5GW of onshore wind. PV generation in the first five months of 2022 was 40% higher than in the same period of 2021.

-5 Turkey

The renewable energy market is struggling from the devaluation of the domestic currency. The market's feed-in tariff scheme, which started in 2021, is denominated in Turkish lira, so has lost competitiveness for investors against other global schemes.

-1 UK

The fourth round of the Contracts for Difference scheme has allocated 11GW of new renewable capacity at record low prices. In efforts to limit consumer energy bills and decouple renewables pricing from the gas market, the government has considered introducing a voluntary CfD for operational renewables projects.

-6 Vietnam

Vietnam is attracting insufficient international finance to meet capacity targets due to factors such as difficult permitting procedures, price uncertainty and unbankable power purchase agreements (PPAs).

Methodology

See page 4 for RECAI methodology.

RECAI 60 scores

Rank	Market	Previous rank	Movement on previous index	Score	Technology-specific scores							
					Onshore wind	Offshore wind	Solar PV	Solar CSP	Biomass	Geothermal	Hydro	Marine
1	US	1	●	73.3	58.1	59.3	58.5	46.4	28.9	46.7	40.9	20.5
2	China Mainland	2	●	72.2	56.2	56.8	61.1	54.9	50.6	24.0	50.6	17.6
3	Germany	4	▲	71.7	55.5	52.1	54.4	32.4	53.3	37.1	41.6	21.1
4	UK	3	▼	70.0	59.4	62.0	47.9	15.6	56.2	36.2	39.8	35.3
5	France	5	●	69.1	55.4	52.9	53.3	23.5	47.4	38.5	41.7	38.1
6	Australia	6	●	69.0	54.4	33.6	57.6	48.1	41.5	17.7	26.6	25.2
7	India	7	●	68.6	51.8	26.4	62.9	34.5	44.5	22.0	45.7	20.1
8	Spain	9	▲	65.8	52.8	36.5	51.5	29.3	39.7	15.6	23.4	23.2
9	Japan	8	▼	65.7	50.8	50.0	49.2	19.6	57.4	45.2	38.4	23.6
10	Netherlands	10	●	64.9	53.7	47.5	47.4	15.6	52.5	24.5	27.4	23.6
11	Denmark	11	●	64.0	53.3	50.2	46.3	16.4	43.2	15.5	21.3	21.1
12	Italy	15	▲	63.6	47.7	42.1	50.3	31.4	43.3	32.6	46.0	18.7
13	Ireland	12	▼	63.4	51.6	45.1	46.1	19.6	26.1	17.8	23.4	24.7
14	Brazil	13	▼	62.2	53.7	30.6	52.5	25.0	48.5	13.0	43.7	18.7
15	Canada	16	▲	62.0	54.9	35.6	46.2	19.0	33.3	23.0	45.8	26.1
16	Greece	21	▲	61.5	51.2	30.9	48.2	35.4	44.2	25.1	41.3	14.7
17	Chile	14	▼	61.4	51.5	20.6	48.1	54.7	41.9	45.8	44.9	27.8
18	Poland	19	▲	61.1	48.6	42.0	48.1	13.5	46.9	19.7	36.0	14.3
19	Morocco	20	▲	60.4	46.2	17.9	51.9	50.8	26.9	14.4	34.6	14.4
20	Sweden	17	▼	60.0	48.9	40.6	42.5	15.6	44.6	18.1	32.3	27.1

RECAI 60 scores

Rank	Market	Previous rank	Movement on previous index	Score	Technology-specific scores							
					Onshore wind	Offshore wind	Solar PV	Solar CSP	Biomass	Geothermal	Hydro	Marine
21	Israel	18	▼	59.7	39.6	15.3	55.4	36.4	29.6	14.8	17.8	16.8
22	Finland	24	▲	59.4	59.7	43.4	34.6	15.3	50.9	15.3	27.7	15.3
23	South Korea	22	▼	59.3	39.5	41.9	49.2	18.8	49.5	17.2	29.9	33.0
24	Belgium	29	▲	59.1	51.4	36.6	41.7	18.2	45.1	22.6	21.6	20.1
25	Portugal	23	▼	59.0	43.9	23.0	48.6	25.1	40.8	23.0	36.7	23.7
26	Argentina	27	▲	58.1	51.7	23.1	49.1	31.9	41.4	15.6	38.2	19.5
27	Philippines	28	▲	57.9	42.7	21.3	48.8	20.5	44.1	43.5	42.4	20.7
28	Taiwan	31	▲	57.4	42.0	45.9	45.2	18.1	35.7	27.4	32.9	27.2
29	Egypt	26	▼	56.5	46.8	14.9	53.5	47.4	29.7	13.3	23.0	11.5
30	Turkey	25	▼	56.0	47.0	19.1	48.5	23.9	40.0	41.9	43.0	19.7
31	Switzerland	33	▲	55.7	41.3	18.0	43.9	18.5	38.2	22.9	37.5	15.4
32	Austria	37	▲	55.6	45.9	20.8	42.3	13.9	41.4	17.3	39.6	21.0
33	Mexico	32	▼	54.6	41.8	21.2	47.2	24.3	35.9	39.5	34.9	18.9
34	Norway	34	●	54.6	48.2	34.0	38.0	14.2	33.1	16.7	45.2	32.0
35	Kazakhstan	36	▲	53.8	45.5	13.8	45.1	17.6	30.1	14.5	41.6	13.3
36	Vietnam	30	▼	53.7	43.7	43.5	43.5	16.6	39.4	12.1	45.9	17.7
37	South Africa	35	▼	53.3	46.7	18.0	43.9	46.8	32.3	12.3	19.5	20.4
38	Jordan	39	▲	52.9	40.8	14.3	44.8	30.8	20.6	13.8	16.0	13.8
39	Indonesia	43	▲	52.7	38.6	18.5	46.7	17.3	43.5	56.9	47.3	20.2
40	Thailand	38	▼	51.9	38.3	15.0	44.0	21.2	41.8	16.2	31.3	18.2

RECAI methodology

The index rankings reflect our assessment of the factors driving market attractiveness in a world where renewable energy has gone beyond decarbonization and reliance on subsidies.

We have defined the questions being asked, based on what we see as global market trends affecting investment and deployment priorities, and the challenges and success factors impacting EY clients:

- ▶ Is there a long-term need for additional or replacement energy supply? If so, is there a strong case for energy from renewable resources in particular?
- ▶ Is policy hindering or helping the ability to exploit renewables opportunities?
- ▶ Are essential components in place to ensure project delivery, such as long-term contracts, grid infrastructure (including storage) and availability of finance?
- ▶ What does the strength of natural resource, track record and project pipeline reveal about the outlook for particular renewable technologies?
- ▶ Even if all other elements are in place, does the macro stability and investment climate enable or impede the ease of doing business?

These index pillars therefore put emphasis on fundamentals such as energy imperative, policy stability, project delivery (including capital availability) and diversity of natural resource – factors that will increasingly become key market differentiators as markets move toward grid parity, and “artificial” motivations, such as government targets or the ring-fencing of technologies, become less critical.

Determining the rankings

Each parameter within the five pillars comprises a series of data sets that are converted into a score, from one to five, and weighted to generate parameter scores. These are weighted again to produce pillar scores, then an overall RECAI score and ranking. Weightings are based on the EY assessment of the relative importance of each data set, parameter and pillar in driving investment and deployment decisions. Each technology is also allocated a weighting based on its share of historical and projected investment levels.

Separate from the main index, EY technology-specific indices rankings reflect a weighted average score across the technology-specific parameters and a combined score covering our other macro and energy market parameters. This is because some markets may be highly attractive for specific technologies but face other major barriers to entry.

Data sets are based on publicly available or purchased data, EY analysis or adjustments to third-party data. We are unable to publicly disclose the underlying data sets or weightings used to produce the indices.

If you would like to discuss how EY RECAI analysis could help your business decisions or transactions, please contact the RECAI Advisor [Lavaanya Rekhi](#).

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