### June 2024 | 63 edition

RECAI

### **Renewable Energy Country** Attractiveness Index

Since 2003, the biannual RECAI has ranked the world's top 40 markets on the attractiveness of their renewable energy investment and deployment opportunities. The rankings reflect our assessments of market attractiveness and global market trends.



US 0 Retaining the top spot, the US added

4.6GW of solar in Q1 2024, with installed capacity now at 100GW.<sup>1</sup> Federal support for grid upgrades is set to boost renewables transmission.<sup>2</sup>

### **China Mainland**

Draft legislation aims to prioritize renewables and displace fossil fuels, encouraging both international and domestic investment while improving infrastructure in rural areas.<sup>3</sup>

#### France 0

The French government has reiterated its commitment to deploy renewable energy at speed, awarding a tender to build 270MW of floating offshore wind capacity off the Brittany coast. However, the exclusion of emissions targets in the new energy sovereignty bill has raised concerns about decarbonization progress.<sup>4</sup>



In a significant hike from the previous round, the sixth round of the Contracts for Difference scheme has received more than £1b (about US\$1.3b) in government funding - £800m (around US\$1m) for offshore wind.<sup>5</sup> The battery energy storage pipeline is up 67% on last year, reaching 95GW.6

See page 4 for RECAI methodology.



### Ireland

Only 0.6GW of utility-scale renewables was installed during 2023, short of the 1.6GW required annually to meet 2030 goals. Ireland's Climate Change Advisory Council urges planning reforms to accelerate progress.7

### Brazil

Conflicts are growing around "green grabbing," with private institutions appropriating land to build wind farms and other energy assets, and creating investment risk around uncertain ownership.8

### South Korea

A continued reliance on fossil fuel generated power and non-competitive market structure is slowing down South Korea's energy transition. Subsidized tariffs have led to record debt levels within the sector and eroded investment in new energy assets.9

### South Africa

South Africa's Integrated Resource Plan has warned that, while renewables will help decarbonize the power sector, they will be insufficient alone in ensuring energy security in 2050. Coal, nuclear and gas will continue to play a significant role, according to the Plan.<sup>10</sup>

# RECAI 63 scores

					Technology-specific scores								
Ranking	Market	Previous ranking	Movement vs. previous	Score	Onshore wind	Offshore wind	Solar PV	Solar CSP	Biomass	Geothermal	Hydro	BESS*	
1	US	1	•	73.6	59.7	61.2	56.5	51.2	30.1	49.2	39.1	57.6	
2	China Mainland	3		72.0	53.6	57.8	61.5	55.8	52.6	30.6	52.9	57.1	
3	Germany	2	▼	70.5	54.2	52.1	55.2	31.7	51.5	39.5	28.9	41.4	
4	France	4	•	68.7	56.2	50.4	53.0	32.6	48.1	39.3	40.8	31.3	
5	Australia	5	•	68.5	53.0	34.0	56.9	50.1	42.1	15.7	24.7	47.7	
6	UK	7		68.4	59.5	60.1	45.8	15.1	56.2	37.6	37.9	49.5	
7	India	6	▼	66.5	51.5	25.7	61.8	48.7	44.3	24.7	48.2	31.8	
8	Denmark	9		64.3	52.7	52.3	47.1	17.3	44.1	16.4	21.5	18.2	
9	Canada	11		64.1	60.3	34.2	46.3	19.8	36.1	34.8	45.8	27.0	
10	Japan	13		64.0	49.0	53.5	49.6	19.1	57.6	44.6	30.5	31.1	
11	Netherlands	10	▼	63.6	51.0	49.4	47.4	16.1	52.7	24.7	26.5	21.8	
12	Spain	8	▼	63.6	51.5	35.8	50.2	48.2	40.4	15.4	23.0	25.9	
13	Italy	14		62.8	48.4	42.7	50.3	35.7	42.4	39.3	49.2	32.8	
14	Ireland	12	▼	62.8	48.9	46.5	46.7	19.9	37.1	18.1	22.0	29.8	
15	Chile	16		61.3	51.6	25.2	47.8	54.2	37.3	49.5	41.8	30.1	
16	Greece	18		60.6	50.0	31.5	47.7	35.3	44.8	29.1	36.3	29.5	
17	Belgium	21		60.4	54.4	39.6	42.2	18.4	44.9	20.3	27.1	29.6	
18	Poland	15	▼	60.3	48.1	41.5	47.9	13.9	47.1	19.9	35.1	26.0	
19	Sweden	17	▼	59.7	50.1	41.1	40.7	16.1	44.9	18.6	35.4	26.1	
20	Brazil	19	•	59.6	50.1	33.1	53.0	25.9	49.2	12.9	46.6	19.1	

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Ranking	Market	Previous ranking	Movement vs. previous	Score	Onshore wind	Offshore wind	Solar PV	Solar CSP	Biomass	Geothermal	Hydro	BESS*	
21	Finland	20	▼	58.9	57.0	41.9	36.5	15.5	46.2	15.5	26.0	22.0	
22	Israel	23		58.8	42.6	15.2	54.2	48.3	31.1	14.7	17.7	20.9	
23	Norway	26		58.7	51.8	40.7	41.2	15.3	34.8	17.7	45.7	19.9	
24	Taiwan	24	•	58.0	45.8	47.9	43.1	19.0	35.9	30.5	33.3	20.5	
25	Portugal	22	•	57.4	41.2	34.4	47.2	25.2	38.8	23.0	24.2	25.2	
26	Argentina	29		56.9	52.4	26.4	49.4	31.8	42.0	21.5	40.7	13.2	
27	Morocco	25	▼	56.0	43.7	17.1	50.7	51.9	26.0	13.7	32.9	15.5	
28	Austria	28	٠	55.8	45.3	22.4	43.6	14.3	44.4	17.6	35.6	22.6	
29	Switzerland	34		55.4	47.1	17.8	41.5	18.5	37.3	25.3	39.4	20.7	
30	South Korea	27	▼	55.2	37.7	43.2	44.4	18.4	49.4	18.6	29.0	32.5	
31	Turkey	30	▼	54.9	50.7	20.5	45.6	28.0	42.6	43.5	43.2	23.4	
32	Philippines	32	•	54.4	39.4	29.1	47.1	19.9	40.0	44.1	41.8	18.3	
33	Mexico	35		54.2	41.8	21.3	48.6	33.8	34.6	40.2	33.4	12.5	
34	Egypt	31	▼	53.6	43.8	14.8	53.5	48.1	29.7	11.4	22.8	16.7	
35	Kazakhstan	36		52.8	46.3	16.0	42.9	18.0	36.0	16.1	40.8	19.8	
36	Romania	39		52.5	40.2	24.1	43.3	13.5	38.0	18.0	34.2	15.3	
37	Saudi Arabia	40		52.0	43.2	24.8	45.7	43.6	25.0	15.4	11.8	15.1	
38	South Africa	37	▼	51.9	44.8	20.0	43.6	48.8	33.1	12.6	19.4	18.3	
39	Vietnam	33	▼	51.8	44.3	43.8	40.0	17.2	40.2	12.7	45.2	14.4	
40	Peru	41		50.9	42.5	16.6	42.7	23.2	33.5	19.2	44.0	16.9	

## **RECAI 63 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 the market actively seeking to reduce reliance on fossil fuels?
- 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.

RECAI 63 includes battery storage in place of marine technology. This has led to an adjustment to the weightings, reducing the total proportion allocated to solar, onshore wind and offshore wind.

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 Phil Dominy.



04

## References

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