

A Race to the Top

ARABIC-SPEAKING COUNTRIES ON PACE TO GROW THEIR UTILITY-SCALE WIND AND SOLAR CAPACITY MORE THAN 500% BY 2030

Global Energy Monitor – Ingrid Behrsin, Kasandra O'Malia, Shradhey Prasad, Amanda Hinh, Nagwa Abdallah

Summary

At the epicenter of the oil economy, a renewables boom is taking shape. With over 73 gigawatts (GW) of utility-scale solar and wind in the works, the Arabic-speaking region is setting its sights on renewable energy. Oman, Morocco, and Algeria are at the vanguard, collectively pursuing over 39.7 GW of prospective [solar](#) and [wind](#) energy projects – nearly four times their prospective new gas-fired capacity. These emerging leaders are on track to join Egypt and the United Arab Emirates as solar and wind powerhouses, and help the Arab League meet its collective goal of developing 80 GW of renewable energy by 2030.

The Middle East and North Africa have always had tremendous potential for wind and solar

development, with ample sun and favorable conditions for solar and wind farms. Wind farms emerged in the region in 2000, followed by utility-scale solar developments at the end of that decade. Now, groundbreaking plans for green hydrogen development and large-scale transcontinental green energy export are propelling this emerging energy future. Because of these opportunities, much of the region's forecasted renewables capacity are mega projects. The average size of prospective solar farm phases in the region is more than four times that of the rest of the world, and the average wind phase farm size is more than one and a half times that of the rest of the world.

Regional Background

In 2013, the Arab League [committed to increasing](#) the region's installed renewable power generation capacity across all renewable sources from 12

(GW) in 2013 to 80 GW in 2030.¹ According to the [Global Wind Power Tracker](#) and the [Global Solar Power Tracker](#), if all the utility-scale solar and wind power projects the region is currently pursuing come

¹ /mena/Pan-Arab-Clean-Energy-Initiative. "Pan-Arab Clean Energy Initiative." Accessed May 26, 2022. <https://www.irena.org/mena/Pan-Arab-Clean-Energy-Initiative>.

online according to their projected timelines, these new projects plus current operating projects will account for 91% of this goal.

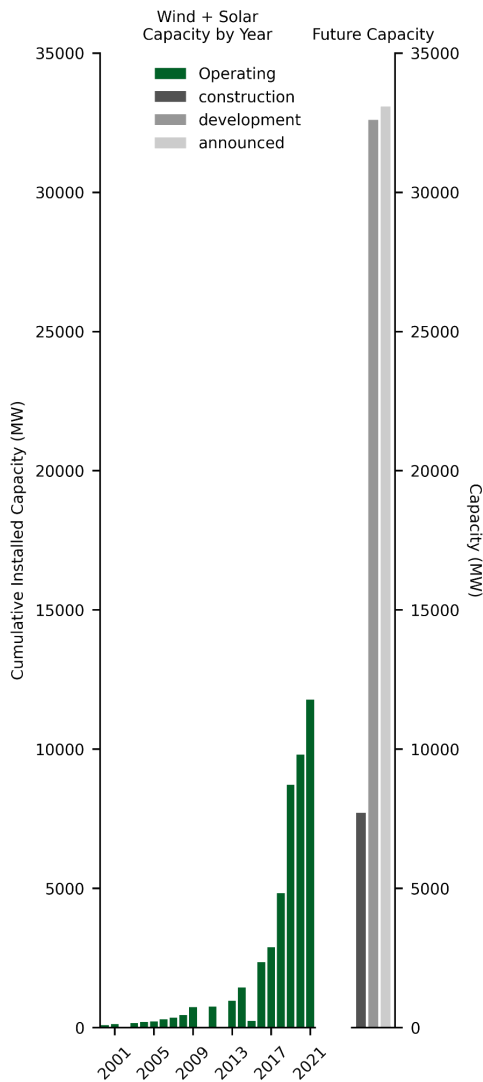
Current Utility-Scale Solar and Wind Generation

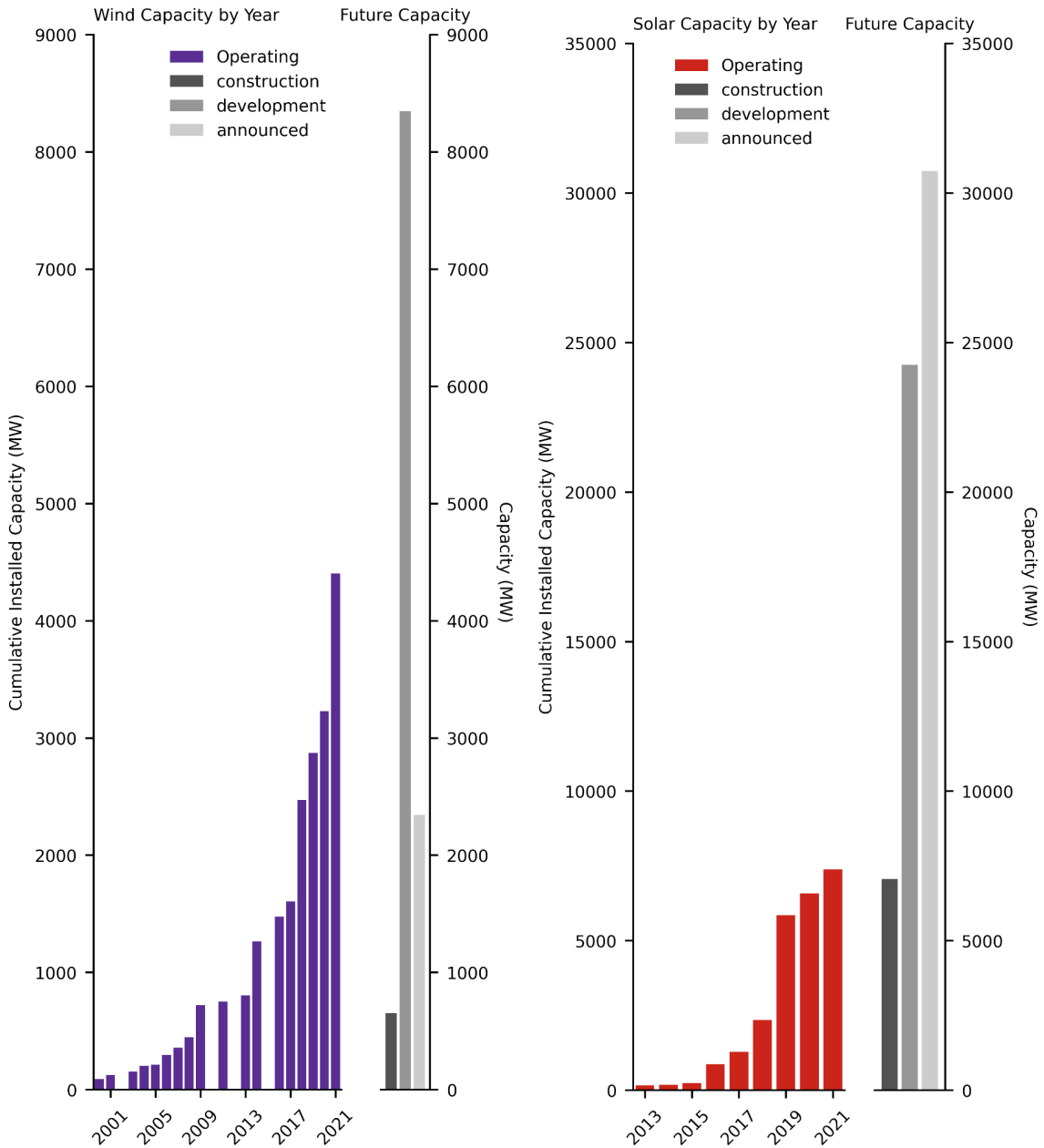
As a whole, the region currently has over 12 GW of operating utility-scale solar and wind power. Morocco, Tunisia, and Egypt put the region’s first wind farms into operation in the year 2000. The first utility-scale solar operations began in the United Arab Emirates and Saudi Arabia in 2009 and 2010, respectively. Today, the region has over 12.1 GW of generating capacity from these two renewable

energy sources. Operating wind farms have 4.7 GW of capacity, while operating utility-scale solar facilities have 7.4 GW.

Prospective Utility-Scale Solar and Wind Generation

The region is pursuing utility-scale solar and wind projects that together would increase its renewables capacity by 73.4 GW (60.9 GW by 2030). More than 49.5 GW of prospective utility-scale solar projects and more than 11.3 GW of wind projects are slated to come online by 2030, as well as a 12.5 GW solar project in Oman that is projected to come online by 2038.





FIGURES 1-3. Development of Utility-Scale Solar and Wind Capacity in the Arabic-Speaking Region over Time

TABLE 1. Country-Level Operating and Prospective Wind and Solar Capacity in the Arabic-Speaking Region

Country	Wind and Solar Operating Capacity (MW)	Wind and Solar Prospective Capacity (MW)	Wind Operating Capacity (MW)	Wind Prospective Capacity (MW)	Solar Operating Capacity (MW)	Solar Prospective Capacity (MW)
Oman	180	15,300	50	0	130	15,300
Morocco	1,867	14,393	1,165	963	702	13,430
Algeria	444	10,012	10	5,030	434	4,982
Kuwait	30	9,632	10	132	20	9,500
Iraq	0	5,755	0	0	0	5,755
Saudi Arabia	776	5,090	400	500	376	4,590
United Arab Emirates	2,600	4,000	0	30	2,600	3,970
Egypt	3,523	3,254	1,641	2,350	1,882	904
Western Sahara ²	658	1,520	553	1,520	105	0
Tunisia	253	1,030	233	60	20	970
Qatar	15	800	0	0	15	800
Libya	0	650	0	50	0	600
Jordan	1,669	600	621	0	1,048	600
Syria	0	490	0	0	0	490
Sudan	0	335	0	325	0	10
Lebanon	0	220	0	220	0	0
Mauritania	95	100	30	100	65	0
Bahrain	0	100	0	0	0	100
Djibouti	0	89	0	59	0	30
Comoros	0	0	0	0	0	0
Palestine	0	0	0	0	0	0
Somalia	10	0	0	0	10	0
Yemen	0	0	0	0	0	0

² Note: Global Energy Monitor tracks projects located in [non-self-governing territories](#), including Western Sahara, separately. Areas of [Western Sahara](#) are administered by Morocco.

Current Renewable Energy Leaders in the Arabic-Speaking Region

Among Arabic-speaking countries, the United Arab Emirates leads the region in terms of utility-scale solar generation; its utility-scale solar farms generate [2.6 GW of electricity](#). Egypt is the region's wind leader, with its wind farms generating [1.6 GW of electricity](#). Egypt's operating wind capacity combined with its [operating utility-scale solar capacity](#) (1.9 GW), puts the country at the top of the region for combined utility-scale solar and wind generation (3.5 GW total). Because of its investment

in utility-scale solar, the United Arab Emirates ranks second in the region for utility-scale solar and wind. Morocco (1.9 GW total) and Jordan (1.7 GW total) come in third and fourth, respectively.

In the region, the top five countries in terms of current operating utility-scale solar and wind are:

1. Egypt (3.5 GW)
2. United Arab Emirates (2.6 GW)
3. Morocco (1.9 GW)
4. Jordan (1.7 GW)
5. Saudi Arabia (0.78 GW)

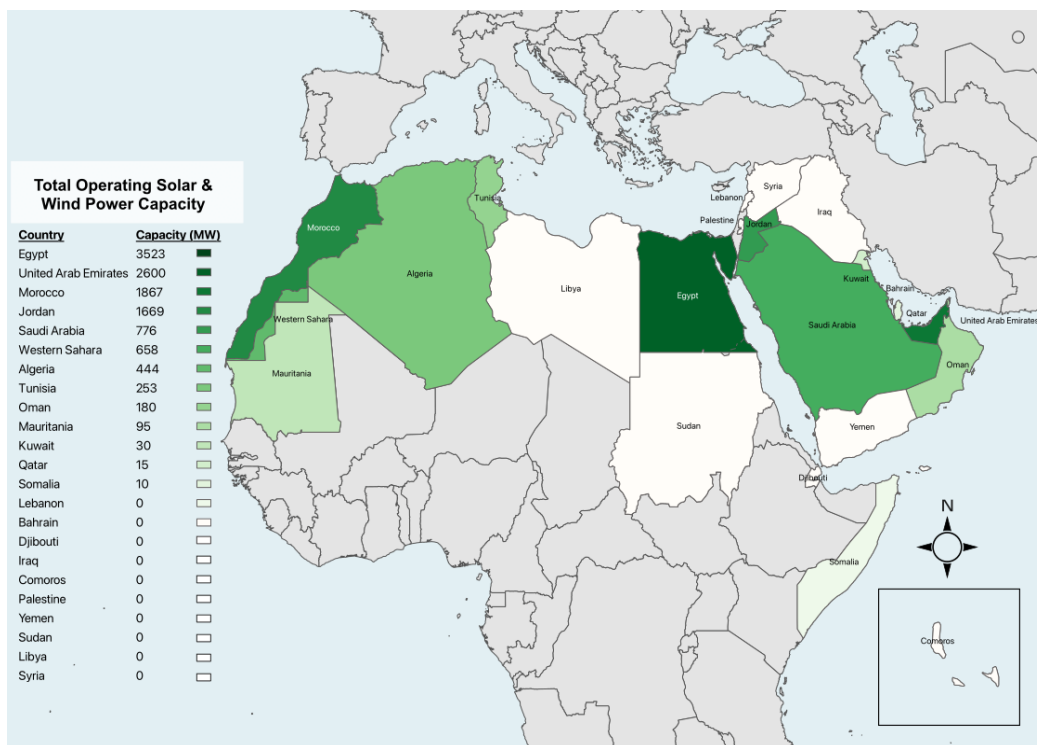


FIGURE 4. Operating Utility-Scale Solar and Wind Capacity (Combined) in Arabic-Speaking Countries

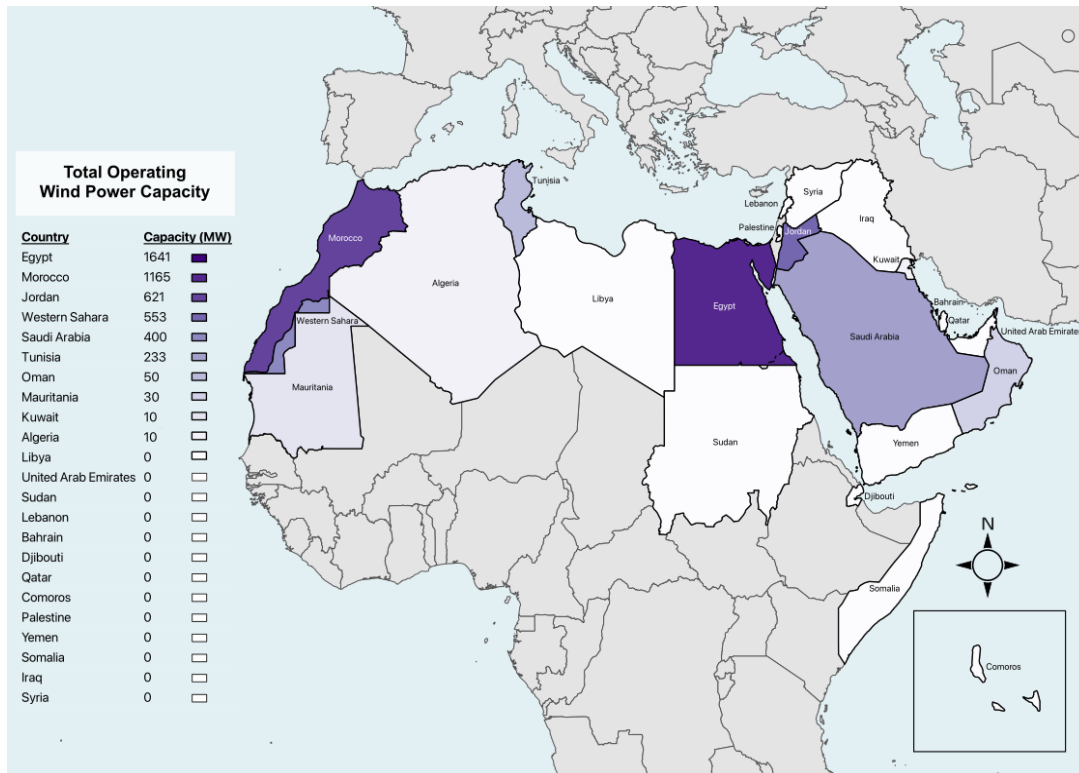


FIGURE 5. Operating Utility-Scale Wind Capacity in Arabic-Speaking Countries

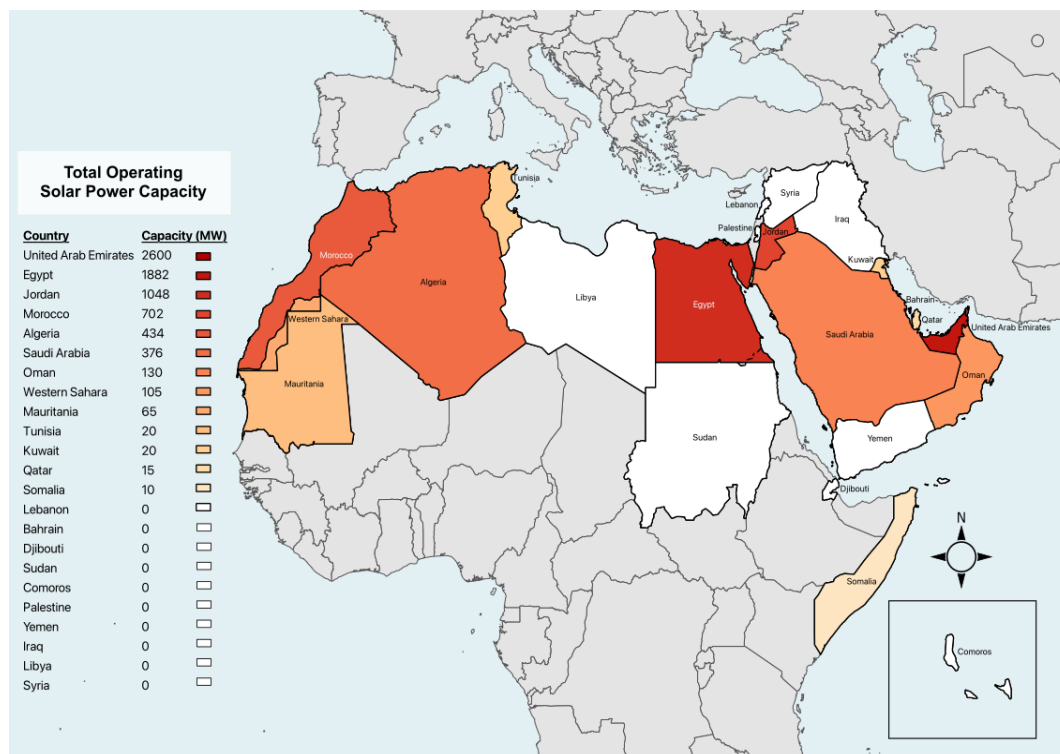


FIGURE 6. Operating Utility-Scale Solar Capacity in Arabic-Speaking Countries

Emerging Renewable Energy Leaders in the Arabic-Speaking Region

While Egypt, the United Arab Emirates, Morocco and Jordan may have been the first countries in the region to embrace utility-scale wind and solar generation, Oman, Algeria, and Kuwait are looking to join these early adopters as regional leaders. The top five countries in terms of prospective utility-scale solar and wind capacity additions are:

1. Oman (15.3 GW)
2. Morocco (14.4 GW)
3. Algeria (10.0 GW)
4. Kuwait (9.6 GW)
5. Iraq (5.8 GW)

Both Oman and Algeria are moving assertively on utility-scale wind and solar projects. Oman, in particular, is demonstrating a marked shift away from fossil power – it has 15.3 GW of prospective utility-scale solar projects announced, in development, or in construction compared to only [0.3 GW of prospective gas-powered](#) and 0.04 GW of prospective oil-powered electricity.³ Roughly 20% of Oman’s prospective utility-scale solar and wind capacity will come online in the next two years; the remaining 12.5 GW are associated with a green hydrogen project that is projected to come online in 2038.

Algeria has a combined 14.4 GW of utility-scale

solar and wind projects on tap. Meanwhile, Morocco is looking to maintain its early rise to the top of the region’s renewables powerhouses; the 14.4 GW of utility-scale solar and wind projects the country is poised to roll out in the next five years are more than six times its prospective gas investments.

Should all the region’s prospective projects come to fruition, the region’s top five utility-scale solar and wind generators in 2030 would be:

TABLE 2. Projected Total Utility-Scale Solar and Wind Capacity in 2030⁴

Rank	Country	Projected Wind and Solar Capacity (GW)
1	Morocco	16.3
2	Oman	15.5
3	Algeria	10.5
4	Kuwait	9.7
5	Egypt	6.8

For these five countries, the total projected total utility-scale solar and wind capacity in 2030 is 58.8 GW.⁵

³ S&P Global Market Intelligence (Firm). "World Electric Power Plants Database, March 2022." <https://www.spglobal.com/marketintelligence/en/campaigns/energy>.

⁴ Note: These figures include one solar project in Oman that is slated to come on line in 2038.

⁵ Note: These figures include one solar project in Oman that is slated to come on line in 2038.

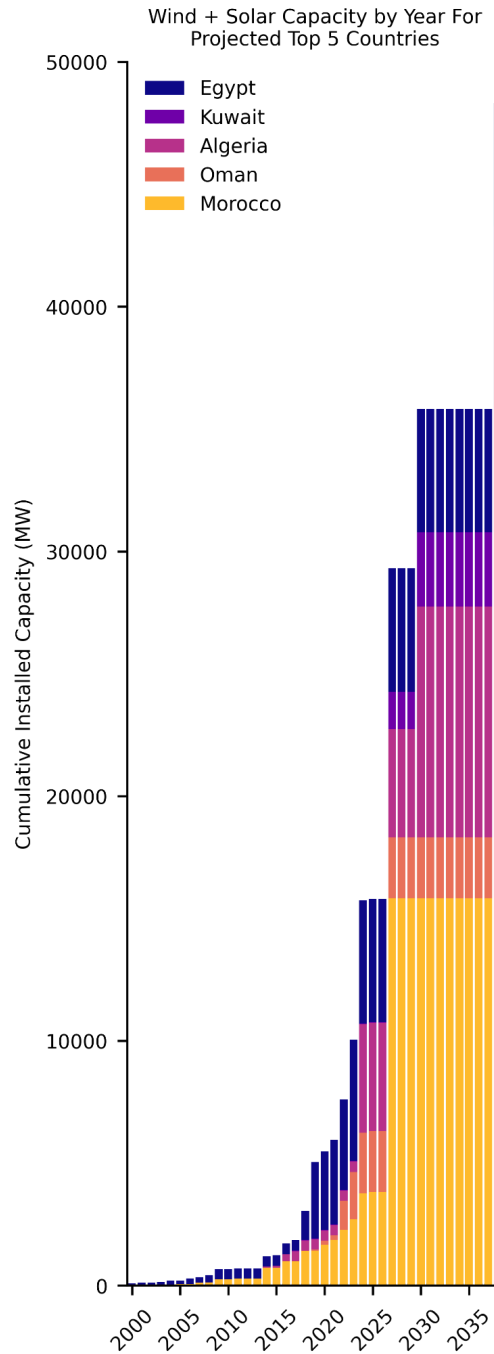


FIGURE 7. Year-Over-Year Combined Utility-Scale Solar and Wind Capacity Development in Morocco, Oman, Algeria, Kuwait, and Egypt⁶

⁶ Note: These figures include one solar project in Oman that is slated to come on line in 2038.

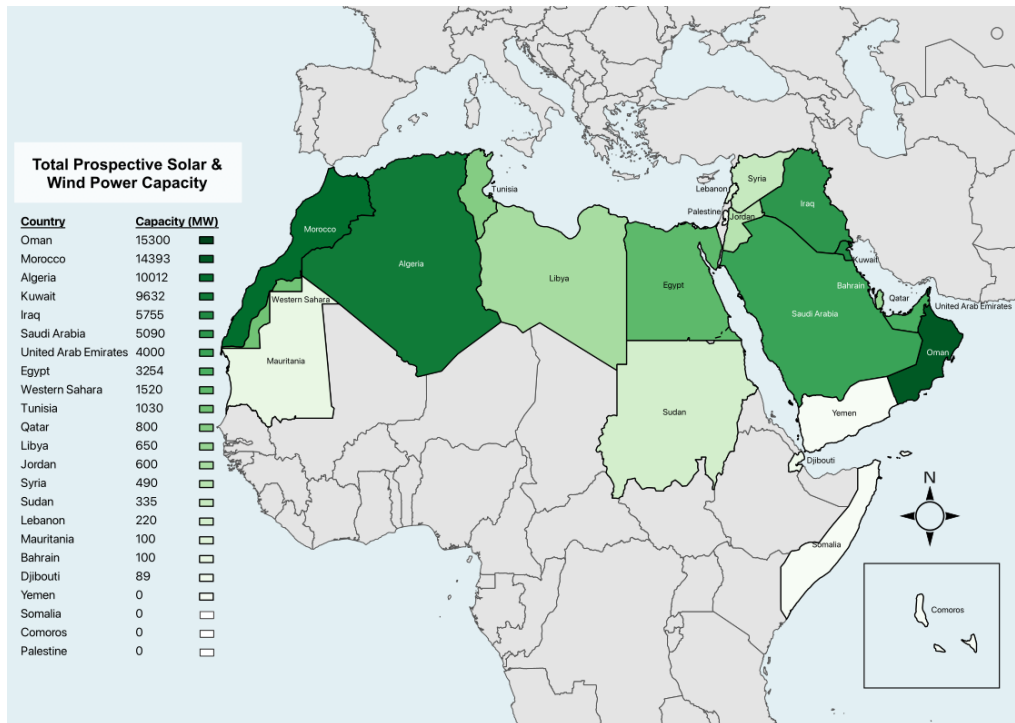


FIGURE 8. Prospective Utility-Scale Solar and Wind Capacity (Combined) in Arabic-Speaking Countries

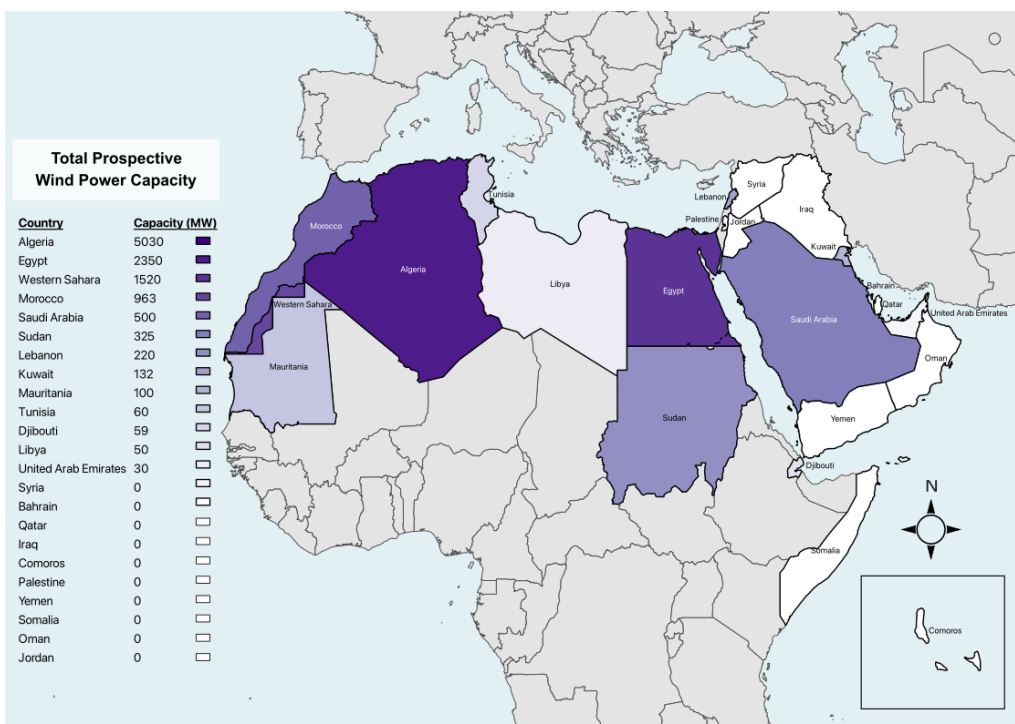


FIGURE 9. Prospective Wind Capacity in Arabic-Speaking Countries

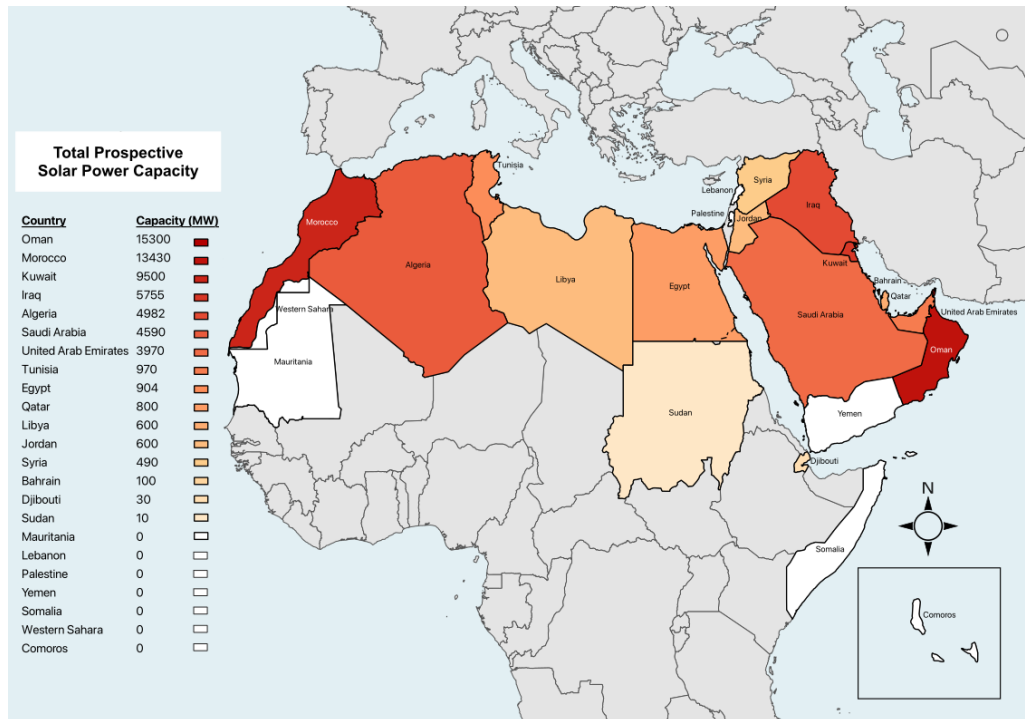


FIGURE 10. Prospective Utility-Scale Solar Capacity in Arabic-Speaking Countries

Storage and export opportunities drive the region's large-scale renewables build out

The utility-scale solar and wind farm projects being pursued in this region are markedly large. The average size of prospective solar farm phases in the region is more than four times that of the rest of the

world, and the average wind phase farm size is more than one and a half times that of the rest of the world.

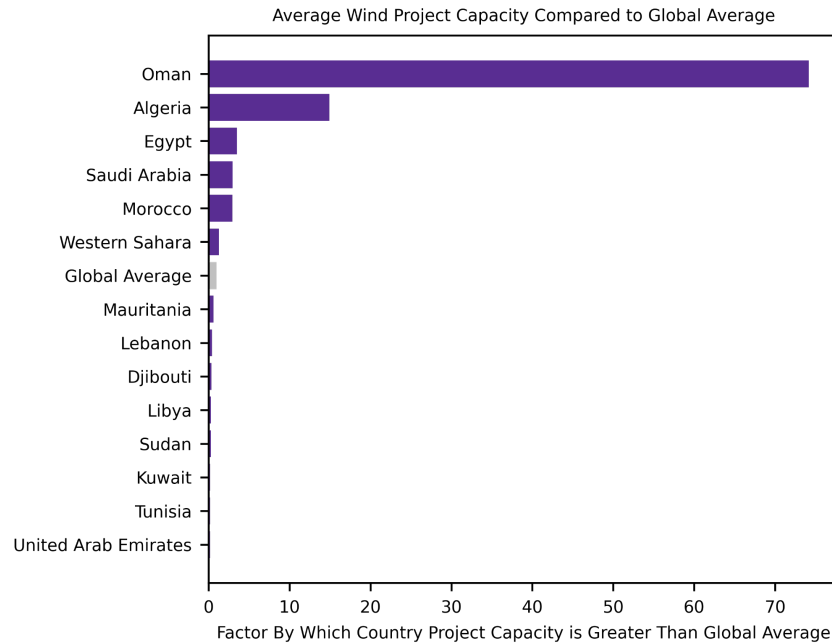


FIGURE 11. Average Prospective Wind Project Capacity in Each Country vs. Global Average

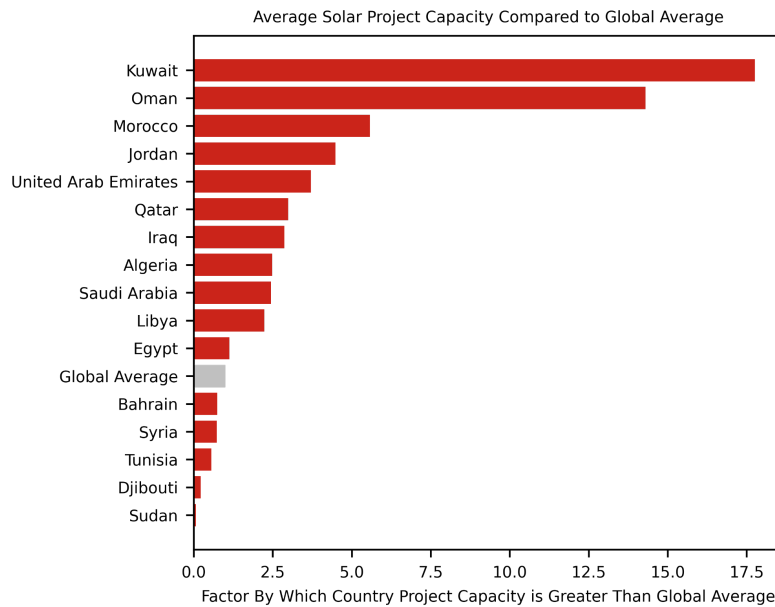


FIGURE 12. Average Prospective Solar Project Capacity in Each Country vs. Global Average

The central drivers behind the size of the region's utility-scale solar and wind projects are twofold. First, the region is looking to capitalize on the demand for energy storage. Second, it is looking

to become a transcontinental node for renewable energy exports, especially given the increasing urgency with which European countries are seeking alternatives to gas imports. And third, the region is

poised to reap the benefits of its favorable conditions for building renewables projects. Countries belonging to the Gulf Cooperation Council–Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the United Arab Emirates–receive 500–600 W/m² of solar energy on every square kilometer of their land per year, which is equivalent to 1.5 million barrels of crude oil.⁷

At least four countries in the region are pursuing green hydrogen or ammonia storage projects. When it comes to green energy storage, Egypt again looks to be a frontrunner in the region's renewables energy space. The Sovereign Fund of Egypt is collaborating with Norwegian company Scatec and others to bring the region's first green hydrogen project online with the 100 MW [Ain Sokhna](#) project. By [some accounts](#), Ain Sokhna will come online in time for COP27 in November 2022.⁸

Saudi Arabia, Morocco, and Oman likewise have wind- and solar-powered storage projects in the works. Saudi Arabia's 4 GW Neom Green Hydrogen project, backed by a [USD 900 million investment from Riyadh-based ACWA Power](#),⁹ looks to begin production in 2026. Morocco's 10 GW Total Eren Guelmim-Oued Noun project represents a [€9.4 billion investment by French company Total Eren](#)¹⁰ to

build out hydrogen and ammonia storage facilities. At 25 GW, Oman's Al Wusta project is [the largest prospective storage initiative](#) in not only the region, but also the entire world; its target operation date is 2038.¹¹ These green hydrogen projects in Saudi Arabia, Morocco, and Algeria, are all being pursued with the objective of international energy exports.

But cutting-edge green hydrogen and ammonia production for export are not the only forces driving the region's mega solar and wind plans. Morocco's 10.5 GW Xlinks wind and solar project is being developed with the explicit objective of [supplying renewable electricity to the United Kingdom's power network](#) in Alverdiscott, Devon and Pembroke, Wales via an undersea cable.¹² Octopus Energy, one of Europe's leading renewable energy investors, [recently agreed to back the initiative](#) for an undisclosed amount.¹³ The project is expected to create 2,000 permanent jobs in Morocco.¹⁴

⁷ Abdul-Wahab, Sabah, Yassine Charabi, Abdul Majeed Al-Mahruqi, Isra Osman, and Selma Osman. "Selection of the Best Solar Photovoltaic (PV) for Oman." *Solar Energy* 188 (August 2019): 1156–68. <https://doi.org/10.1016/j.solener.2019.07.018>.

⁸ RenewAfrica.Biz. "Egypt to Unveil Its First Green Hydrogen Plant in November 2022." *Renew Africa* (blog), January 27, 2022. <https://renewafrica.biz/green-hydrogen/egypt-to-unveil-its-first-green-hydrogen-plant-in-november-2022/>.

⁹ Ivanova, Anna. "ACWA Power Signs USD 900m EPC Deal for Neom Green Hydrogen Project." *Renewablesnow.com*. Accessed May 26, 2022. <https://renewablesnow.com/news/acwa-power-signs-usd-900m-epc-deal-for-neom-green-hydrogen-project-779739/>.

¹⁰ Takouleu, Jean Marie. "MOROCCO: French Total Eren to Invest €9bn in Hydrogen and Green Ammonia." *Afrik 21*, February 1, 2022. <https://www.afrik21.africa/en/morocco-french-total-eren-to-invest-e9bn-in-hydrogen-and-green-ammonia/>.

¹¹ Paddison, Laura. "Oman Plans to Build World's Largest Green Hydrogen Plant." *The Guardian*, May 27, 2021, sec. World news. <https://www.theguardian.com/world/2021/may/27/oman-plans-to-build-worlds-largest-green-hydrogen-plant>.

¹² Bellini, Emiliano. "Submarine Cable to Connect 10.5 GW Wind-Solar Complex in Morocco to the UK Grid." *Magazine International*, April 22, 2021. <https://www.-magazine.com/2021/04/22/submarine-cable-to-connect-10-5-gw-wind-solar-complex-in-morocco-to-the-uk-grid/>.

¹³ Tisheva, Plamena. "Octopus Energy Joins Morocco-UK Renewable Power Transmission Project." *Renewablesnow.com*, May 12, 2022. <https://renewablesnow.com/news/octopus-energy-joins-morocco-uk-renewable-power-transmission-project-784363/>.

¹⁴ Lewis, Michelle. "The World's Longest Subsea Cable Will Send Clean Energy from Morocco to the UK [Update]." *Electrek* (blog), April 21, 2022. <https://electrek.co/2022/04/21/the-worlds-longest-subsea-cable-will-send-clean-energy-from-morocco-to-the-uk/>.

TABLE 3. Largest Green Hydrogen and Energy Storage Projects in the Arabic-speaking Region

Country	Project Name	Solar Capacity (MW)	Wind Capacity (MW)	Total Capacity (MW)	Status	Projected Start Year
Egypt	Ain Sokhna	500	0	500	announced	2022
Morocco	Total Eren-Guelmim-Oued Noun	5,000	5,000	10,000	development	2027
Oman	Al Wusta	12,500	12,500	25,000	announced	2038
Saudi Arabia	Neom Green Hydrogen	2,000	2,000	4,000	development	2026

Country highlights

Algeria

With almost 5 GW of prospective utility-scale solar, and 5 GW of prospective wind projects, Algeria plans to grow its utility-scale solar and wind capacity by more than twentyfold by 2030. This combined prospective capacity amounts to two thirds of its 15 GW 2035 target, with a 2020 plan calling for the commissioning of 1 GW of renewable power per year.¹⁵ Algeria also has the greatest potential for wind power of any country in Africa, with 7.7 GW, according to a September 2020 study by the World Bank's International Finance Corporation. Much of this new renewable capacity will facilitate a transition away from gas domestically; the country also benefits from its proximity to potential renewables export markets in Europe and sub-Saharan Africa.

Algeria is courting foreign investment in solar and wind projects, in part by privatizing the renewable energy market allowing for projects to be developed by Independent Power Producers

(IPP's) and by exempting renewables projects from a rule that limited foreign ownership to 49% of any given project. To support local industry, foreign investors must also commit to local sourcing requirements that support solar panel production centers, like those in Batna, Boukherana, Ouargla, which have a collective annual production capacity of 310 MW.^{16 17 18}

Egypt

Driven by an eight-year energy crisis that began in 2006 when Egypt first became a net-importer of

¹⁶ Bellini, Emiliano. "Aurès Solaire Commissions Algeria's Second Module Factory." pv magazine International, April 25, 2017. <https://www.pv-magazine.com/2017/04/25/ares-solaire-commissions-algerias-second-module-factory/>.

¹⁷ Mondragon Assembly. "Mondragon Assembly's 100MW PV Line Is at Full Production at Milltech in Algeria," April 13, 2021. <https://www.mondragon-assembly.com/2021/04/mondragon-assemblys-100mw-pv-line-is-at-full-production-at-milltech-in-algeria/>.

¹⁸ Algeria Eco. "Ouargla: Inauguration d'une usine de panneaux solaires," June 7, 2022. <https://www.algerie-eco.com/2022/06/07/ouargla-inauguration-dune-usine-de-panneaux-solaires/>.

¹⁵ International Energy Forum. "Algeria Powers Ahead with Huge Renewable Energy Plans." International Energy Forum. Accessed June 1, 2022. <https://www.ief.org/news/algeria-powers-ahead-with-huge-renewable-energy-plans>.

oil,¹⁹ in 2014 president Abdel Fattah el Sisi began to both phase out fuel subsidies and implement a feed-in tariff system to encourage investment in renewable energy.²⁰ These policies led to Egypt's emergence as a regional leader for utility-scale wind and solar adoption. It currently leads the region in terms of operating wind and solar capacity at 3.5 GW. Egypt is slated to add an additional 3.3 GW of utility-scale wind and solar projects by 2024, bringing the national total to 6.8 GW. Egypt's Integrated Sustainable Energy Strategy targets 52 GW of both large-scale and distributed on-grid renewable energy (across all renewable sources) by 2035.²¹

Iraq

According to Iraq's Acting Environmental Minister, the country is "one of the five most fragile countries in the world affected by climate change."²² Given this precarity, Iraq has set a target to reach [12 GW of solar capacity by 2030](#).²³ The [Global Solar Power Tracker](#) identifies 5.8 GW of prospective utility-scale solar capacity, just shy of 50% of that 2030 target. Much of this prospective

¹⁹ Sarant, Louise. "The Rise of Solar Energy in Egypt." Middle East Institute (MEI), February 15, 2015. <https://www.mei.edu/publications/rise-solar-energy-egypt>.

²⁰ Sarant, Louise. "The Rise of Solar Energy in Egypt." Middle East Institute (MEI), February 15, 2015. <https://www.mei.edu/publications/rise-solar-energy-egypt>.

²¹ International Renewable Energy Agency. "Renewable Energy Outlook Egypt Executive Summary." International Renewable Energy Agency, 2018. https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2018/Oct/IRENA_Outlook_Egypt_2018_Executive_Summary.pdf?la=en&hash=58DBAA614BE0675F66D3B4A2AC68833FF78700A0.

²² United Nations Development Program. "COP 26 in Glasgow: Iraq's Preparations Underway." UNDP, October 28, 2021. <https://www.undp.org/arab-states/stories/cop-26-glasgow-iraq%E2%80%99s-preparations-underway>.

²³ Ivanova, Anna. "Iraq Targets 33% Clean Energy by 2030." Renewables Now, October 28, 2021. <https://renewablesnow.com/news/iraq-targets-33-clean-energy-by-2030-759029/>.

solar capacity comes in the form of foreign direct investment by international companies such as the United Arab Emirates' Masdar, Norway's Scatec, China's China Power, and France's TotalEnergies. Unfortunately, the country is also slated to add [9.9 GW of gas-fired power](#) and 2.4 GW of oil-fired power.²⁴

Jordan

Jordan was a relatively early regional adopter of renewable energy policies because it had long been highly dependent on energy imports.²⁴ It passed its first Renewable Energy and Energy Efficiency Law in 2012, after gas supplies imported from Egypt were disrupted by attacks on the Arab Gas Pipeline in 2011.²⁵ However, the country instituted a suspension of new projects over 1 MW in 2019 in response to electricity oversupply and grid capacity concerns.²⁶ Jordan's relatively low prospective utility-scale solar and wind capacity figure (0.6 GW) is likely a reflection of this suspension, as well as a 15-year commitment made in 2016 to import gas from Israel.²⁷

²⁴ US International Trade Administration. "Jordan - Renewable Energy." Jordan - Country Commercial Guide. Accessed June 7, 2022. <https://www.trade.gov/country-commercial-guides/jordan-renewable-energy>.

²⁵ Vidal, Marta. "Could Solar Energy Help Revive Jordan's Virus-Hit Economy?" Al Jazeera, July 24, 2020. <https://www.aljazeera.com/economy/2020/7/24/could-solar-energy-help-revive-jordans-virus-hit-economy>.

²⁶ International Renewable Energy Agency. "Renewables Readiness Assessment: The Hashemite Kingdom of Jordan - Executive Summary." International Renewable Energy Agency, February 2021. https://www.irena.org/-/media/Files/IRENA/Agency/Publication/2021/Feb/IRENA_RRA_Jordan_Summary_2021_EN.pdf?la=en&hash=DE5015E14770A43E9BFF2DFF8FAE684CED6E8EEB.

²⁷ Vidal, Marta. 2020.

Kuwait

Kuwait has a 2030 installed renewable energy target of 4.3 GW.²⁸ If all prospective utility-scale solar and wind projects move forward, the country will have more than doubled its target, for a total of 9.7 GW. The Shagaya Renewable Energy Project, developed by the Kuwait Institute for Scientific Research, would account for 3.2 GW of capacity. The Kuwait Authority for Partnership Projects (KAPP) is considering a USD 3.5 billion proposal for a 5 GW solar complex in Northern Kuwait from a group of private investors whose names KAPP has not disclosed.²⁹ Kuwait is endeavoring to attract foreign investment in renewables projects through a public-private partnership (PPP) program.

Morocco

In 2015, Morocco announced that it [planned to add 4.6 GW of solar and 4.2 GW of wind capacity](#) between 2018 and 2030 to meet its target of reaching 52% renewable capacity by 2030.³⁰ By October 2021 the country had added 4 GW of renewable energy, and renewables had risen to 37% of the country's energy mix, up from 35% in

2019.^{31 32} According to the [Global Wind Power Tracker](#) and [Global Solar Power Tracker](#), Morocco will have added 14 GW of solar capacity, and 1.3 GW of wind capacity between 2018 and 2027, almost doubling its target. However, approximately 12 GW of prospective capacity is slated for export-oriented projects.

Oman

According to the [Global Wind Power Tracker](#) and [Global Solar Power Tracker](#), Oman has 15.3 GW of combined wind and solar prospective capacity in various stages of development. If all the projects are completed, the country will have expanded its wind and solar capacity by more than eightyfold. Oman aims to generate 3,050 MW electricity from renewable sources by 2025.³³ Based on its current project pipeline, the country is set to meet 98% (2,980 MW) of that target through utility-scale solar and wind alone.

United Arab Emirates

The United Arab Emirates (UAE) became an early regional leader in renewables development with the landmark [Mohammed bin Rashid Al Maktoum Solar Park](#), which began operation in 2013, and which, when complete, will have a capacity of 2.3 GW.

The UAE also hosts one of the world's largest single-site solar projects, [Noor Abu Dhabi](#), which began commercial operation in 2019. It broke

²⁸ Middle East Solar Industry Association. "Solar Outlook Report 2020." Dubai, United Arab Emirates: Middle East Solar Industry Association, January 2020. <https://www.mesia.com/wp-content/uploads/2020/01/MESIA-Annual-Solar-Outlook-Report-2020.pdf>.

²⁹ Chandak, Pooja. "Kuwait Receives An Offer For 5000 MW Solar Plant." SolarQuarter, December 15, 2021. <https://solarquarter.com/2021/12/15/kuwait-receives-a-n-offer-for-5000-mw-solar-plant/>.

³⁰ Berahab, Rim, and Uri Dadush. "Morocco at COP 26." Policy Center for the New South, November 2021. https://www.policycenter.ma/sites/default/files/2021-12/PB_43-21_Rim-Dadush-vf.pdf.

³¹ Shahan, Zachary. "Morocco Aims For 50% Renewable Energy By 2030." CleanTechnica, January 22, 2021. <https://cleantechnica.com/2021/01/22/morocco-aims-for-50-renewable-energy-by-2030/>.

³² Ivanova, Anna. "Morocco to Attract USD 1.6bn of Global Investment for Wind Power Programme." Renewables Now, November 2, 2021. <https://renewablesnow.com/news/morocco-to-attract-usd-16bn-of-global-investment-for-wind-power-programme-759502/>.

³³ Oman Sustainability. "Oman Targets 3,050 MW of Renewables by 2025." Accessed June 1, 2022. <https://www.omansustainabilityweek.com/LatestUpdate2021.aspx?LatestUpdate=pressRe3>

records in 2016 attracting the world's most competitive tariff.³⁴ By 2030, the UAE plans to have 20 GW of installed solar capacity.³⁵ Its current operating and prospective utility-scale solar capacity together amount to 6.6 GW.

Data Gaps & Future Research

The [Global Wind Power Tracker](#) and the [Global Solar Power Tracker](#) may be missing some projects that meet the tracker thresholds. This is because data for the Global Wind Power Tracker and the Global Solar Power Tracker are updated once each year. Additional projects will be added for the next release of the trackers, which is scheduled for December 2022.

Distributed solar installations, off-grid solar installations, and even sub-10MW grid-connected utility-scale solar installations are common and amount to roughly 35% of all global solar power capacity.³⁶ A complete picture of the region's current and prospective solar capacity would include solar projects with capacities that fall below the Global Solar Power Tracker's established threshold.

In addition, initial research for the Global Solar Power Tracker focused primarily on investigating photovoltaic (PV) solar installations. While less common globally than PV, Concentrated Solar Power (CSP) installations nonetheless make up an additional 1.5 GW of operational solar power in Arabic speaking countries.³⁷ The next research cycle of the Global Solar Power Tracker will continue to add CSP projects with the intention of having a complete global and regional picture of all utility-scale solar installations regardless of technology type.

³⁴ Emirates Water and Electricity Company. "Noor Abu Dhabi." Accessed June 1, 2022. <https://www.ewec.ae/en/power-plants/noor-abu-dhabi>

³⁵ Malek, Caline. "GEUF: UAE Targets 20GW of Clean Energy by 2030." Energy & Utilities, March 7, 2022. <https://energy-utilities.com/geuf-uae-targets-20gw-of-clean-energy-by-2030-news116599.html>.

³⁶ Source: Bloomberg Finance L.P.

³⁷ Johan Lilliestam, Richard Thonig, Chuncheng Zang, & Alina Gilmanova (2021). CSP.guru (Version 2021-07-01) [Data set]. Zenodo. <http://doi.org/10.5281/zenodo.5094290>

Background on Global Energy Monitor

Global Energy Monitor is a nonprofit research organization developing information on energy projects worldwide. Through its Global Solar Power Tracker and Global Wind Power Tracker projects, Global Energy Monitor provides annual updates on

wind and solar powered facilities. Global Energy Monitor data is used by the International Energy Agency (IEA), the OECD Environment Directorate, UN Environment Programme, U.S. Treasury Department, and World Bank.

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