Climate Integrate "Offshore Wind in Japan: Policy Agenda and Prospects" Mar 2024

Appendix 1: Global offshore wind targets/ambitions/potential, and policies (GW)

	Current capacity (GW)	2030	2040	2050	Policies, sources
UK	13.9	50 (incl. 5 floating)	34 floating		British Energy Security Strategy (Apr. 2022) ● Aims to cut process time by over half • 2030 50 GW "ambition" is up from 40 GW in 2020 Ten Point Plan 34 GW by 2040 "potential" for floating offshore wind announced by RenewableUK
EU (27)	<u>16.3</u>	About 111	About 232	About 317	Sums of non-binding agreements in EU countries (Jan.2023), preceded by: EU strategy on offshore renewable energy (Nov. 2020) • 60 GW by 2030, 300 GW by 2050 • € 800 billion investment needed by 2050 • European Commission (EC) to provide a clear and supportive legal framework for offshore wind • EC will help mobilize all relevant funds to support development • EC will strengthen the supply chain
North Sea Countries Denmark Netherlands Germany Belgium France Ireland Luxembourg Norway UK		120		300	Ostend Declaration (April 2023) Builds on Esbjerg Declaration (2022) signed by Denmark, Netherlands, Germany, Belgium aiming to replace fossil fuels with offshore wind and green hydrogen from the North Sea Jointly develop hybrid/multi-purpose and cross-border offshore projects and hubs Germany, Denmark, Netherlands, UK have set combined targets of 30 GW renewable hydrogen production capacity by 2030
U.S.	0.042	30 largely <u>fixed-</u> <u>bottom</u>	15 floating by 2035	110 (if 30 by 2030 target is achieved)	Support initiatives, policies for floating offshore wind: • Floating Offshore Wind Shot initiative to reduce cost by 70% • Inflation Reduction Act (IRA) provides manufacturing tax credits
China	31.4	200 (GWEC)		1,000 (GWEC)	Both are <u>industry group initiative goals</u> , not government official goals (GWEC Global Wind Report 2023)
Japan	0.136	10	30-45		
Taiwan	1.4	13.1		40-55	Part of <u>2050 Net-Zero strategies</u> ■ Development to focus on large-scale, floating offshore wind
Vietnam	0.874	6		70-91.5	8th National Power Development Plan (PDP8) approved in May 2023
South Korea	0.142	14.3	26.7 by 2036		10th Basic Plan on Electricity Supply and Demand announced Jan. 2023

Appendix 2: Offshore wind power stations in Japan (as of January 2024) •: floating offshore wind

	Project name	Location	Developer/owner/ operator	Start of operation	Installed capacity (connected capacity)	
1	Setana Town offshore wind power station	Setana Town, Hokkaido	Setana Town	Apr. 2004	<u>1.2 MW</u>	
2	Wind Power Kamisu No. 1	Kamisu City, Ibaraki	Wind Power Group	Jul. 2010	14 MW	
3	Wind Power Kamisu No. 2	Kamisu City, Ibaraki	Wind Power Group	Mar. 2013	16 MW	
4	• Sakiyama 2 MW Floating Offshore Wind Turbine	Goto City, Nagasaki	Goto City (operated by Toda Corp)	Commercial operation began in Mar. 2016	2 MW	Government pilot → Commercial
5	Choshi Offshore Wind Power Plant	Choshi City, Chiba	TEPCO Renewable Power	Commercial operation began in Jan. 2019	2.4 MW	Government pilot → Commercial
6	• Hibiki	Kitakyushu City, Fukuoka	NEDO (Marubeni and others taking part)	May. 2019	3 MW	Government pilot project
7	Noshiro Port Offshore Wind Farm	Noshiro Port area, Akita	Akita Offshore Wind Corp. (13 companies including Marubeni, Obayashi Clean Energy)	Dec. 2022	<u>84 MW</u>	Port area
8	Akita Port Offshore Wind Farm	Akita Port area, Akita	Akita Offshore Wind Corp. (13 companies including Marubeni, Obayashi Clean Energy)	Jan. 2023	<u>54.6 MW</u>	Port area
9	Nyuzen Offshore Wind Farm	Nyuzen Town, Toyama	Venti Japan, JFE Engineering, Hokuriku Electric	Sep. 2023	9 MW (7.5 MW)	General sea area
10	Ishikari Bay New Port Offshore Wind Farm	Ishikari Bay New Port, Hokkaido	JERA, Green Power Investment	Jan. 2024	112 MW (<u>99 MW</u>)	Port area
Total					298 MW (284 MW)	

Compiled by Climate Integrated based on company, JWPA announcements

Appendix 3: Offshore wind promotion zones (as of Oct. 2023)

	Promotion Zone (City/Town, Prefecture)	Generation capacity (start of operations)	Developers/Operators/Owners	
1	Goto, Nagasaki (floating)	<u>16.8MW</u> (<u>2026.1</u>)	Toda, JRE, Osaka Gas, Kansai Elec, INPEX, Chubu Elec.	
2	Choshi, Chiba	390 MW (2028.9)	Mitsubishi Corp, C-Tech	
3	Yurihonjo, Akita	<u>819 MW</u> (2030.12)	Mitsubishi Corp, Venti Japan, C-Tech	
4	Noshiro/Mitane/Oga, Akita	479 MW (2028.12)	Mitsubishi Corp, C-Tech	
5	Happo/Noshiro, Akita	375 MW (2029.6)	JRE, Iberdrola, Tohoku Elec.	
6	Saikai (Enoshima), Nagasaki	420 MW (2029.8)	Sumitomo Corp, TEPCO	
7	Oga/Katagami/Akita, Akita	315 MW (2028.6)	JERA, J-Power, Itochu, Tohoku Elec	
8	Murakami/Tainai, Niigata	<u>684 MW</u> (2029.6)	Mitsui & Co, RWE, Osaka Gas	
9	Yuza, Yamagata		Tender in Jan. 2024	
10	Sea of Japan (south side), Aomori		Tender in Jan. 2024	
Total		3,499 MW (3.5 GW)		

Compiled by Climate Integrate based on government and company announcements