

GE is powering the global energy transition



This week, U.S. President Joe Biden convened the Leaders Summit on Climate, which brought together leaders from 40 countries to discuss opportunities to accelerate the global effort to combat climate change. Together with our customers, GE provides one-third of the world's energy, and we are already working with many of the attending countries to help them achieve their climate goals. Here's how GE is working with some of the countries that attended the Summit.



Australia: We provide 90 percent of Australia's grid software and more than 2GW of wind capacity either installed or under construction, along with 3.9GW of hydro capacity and 10.3GW of installed gas-turbine generation. GE's Hydro Solutions business provides nearly half of Australia's hydropower capacity today and we are working with BE Power to co-develop a [400 MW Big-T pumped hydro storage project](#) in Toowoomba, which will help to balance power on Australia's energy grid and support the development of new wind and solar projects.



Kenya: GE Renewable Energy and GE Energy Financial Services [collaborated](#) with Kipeto Energy Plc to provide turbines and advisory support for the flagship Kipeto Energy Plc 100 MW wind power project in Kajiado, Kenya. The project, which started generating power this year, will produce enough clean electricity to power the equivalent of approximately 40,000 homes, as part of Kenya's Vision 2030.



China: GE is a long-term partner of China's energy sector for decades and was the first international supplier of gas turbines to enter China. Today, we serve more than 100 gas power plants with more than 200 in-service gas turbines. In December of 2020, GE [commissioned](#) its 1st 9HA Junliangcheng Power Plant in Tianjin City. The switch of this coal-to-gas power plant will reduce nearly 58% CO₂, 61% NO_x, and 83% SO_x emissions respectively, comparing with a similar scale coal power plant.



Turkey: GE Steam Power provides its Arabelle steam turbine for the Akkuyu nuclear power plant, Turkey's first. GE [delivered the first](#) of four turbines this year, ahead of schedule. When complete, the plant will provide 4.8GW of CO₂-free power. Security of energy supply is core to Turkey's energy strategy of "More Local, More Renewable." As a trusted partner, GE supports Turkey's goal through its 1.4 GW wind power and 550 turbines installed base across more than 35 wind farms. GE Hydro's installed base is also more than 10 GW in the country.



France: France is home to the headquarters of GE Renewable Energy. At its Saint-Nazaire manufacturing plant, it assembles the offshore wind nacelles that will power the very first offshore wind farm in France. In Cherbourg, LM Wind Power [recently announced](#) plans to hire and train 300 more employees to support increased manufacturing of blades for GE's Haliade-X offshore wind turbine. France is also home to GE's [Arabelle](#), the most powerful nuclear steam turbine in operation, which is manufactured at our factory in Belfort. With a global fleet of 53 GW, each Arabelle turbine can generate up to 1750 MW of dependable CO₂-free power.



United Arab Emirates: GE supports the goals of the UAE Energy Strategy 2050. The UAE's first two GE HA gas turbines [were delivered to Hamriyah Independent Power Plant](#) in March 2021. The 1.8 GW project, which was [supported by GE EFS](#) is expected to be the most efficient power plant in the Middle East's utilities sector when completed. GE also supplied solar technology to the Mohammed bin Rashid Solar Park, the largest single-site solar energy project in the world. Additionally, GE Aviation has [partnered with Etihad Airways](#) to launch GE's 360 Foam Wash, a groundbreaking jet engine cleaning system, to optimize performance of Etihad's GE-powered fleets and significantly reduce fuel consumption.



India: About half of all power generated and distributed in India is done using GE technology, equipment and services. We serve Indian customers across all major renewable sectors and were [selected last year](#) to provide four 125 MW fixed speed pumped storage turbines for the new Kundah hydropower plant in India as part of the central government of India's plan to significantly increase hydropower resources locally.



United Kingdom: GE Renewable Energy is the [turbine provider](#) for the Dogger Bank wind farm, which, when completed, will be the largest offshore wind farm in the world. GE is also providing [transmission systems](#) for the Sofia offshore wind farm, and recently announced plans to open a [new facility](#) in Teesside to manufacture wind turbine blades for the Haliade-X, the most powerful offshore wind turbine in operation today.



Indonesia: GE generates up to 26 percent of Indonesia's power with an install base of 130+ gas turbines. Indonesia's Java1 gas and steam power plant is [powered by GE's 9HA.02 gas turbines](#), which are engineered to be extremely efficient and flexible to help lower emissions. GE is also supporting government efforts to accelerate renewable energy development.



Vietnam: Vietnam is shifting toward cleaner and renewable power with the target of developing 18-19GW of wind power by 2030. GE provides up to 30% of the country's total electricity generated, with 500MW of wind power under development. GE is providing wind turbines for four wind farms across the country.

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Argentina: Argentina is working to diversify the country's energy matrix, and has set a target to produce 20 percent of its electricity from renewable sources by 2025. GE is supplying wind turbines for the [Los Teros Wind Farm](#) located in Azul Province, which is expected to enable the reduction of 5.5 million tons of CO₂ emissions over the next 20 years.



Mexico: Within Mexico, we have over 35,000 MW of installed capacity across our businesses, which include nuclear, conventional power and wind energy. Our technology represents about forty percent of Mexico's electricity generation capacity. Mexico has an incredible potential for renewable energy. The country is blessed with solar, wind and hydro resources. In the wind sector, GE plays an ever-growing role and in the next few months, we will have [five projects in operation in the country totaling 450 MW](#).



Brazil: Brazil's Federal Government has committed to reducing its greenhouse gas emissions 43% by 2030 compared to 2005 levels. GE is playing a role across Brazil's energy sector and recently [announced](#) an agreement to provide our Cypress platform, our largest onshore turbines, for the Ventos da Bahia wind farm, and GE is also [providing](#) Cypress turbines for an expansion of the Serra da Babilonia wind power complex in Bahia. The Cypress units will be produced at GE's facility in Camaçari and the blades will be produced by LM Wind Power, a GE Renewable Energy's business unit located in the Port of Suape (PE).



Norway: GE is helping Norway's transmission grid operator Statnett reach its goal of reducing its greenhouse gas emissions by 25 percent by 2025. In February, Statnett [announced](#) it will install GE g³ (pronounced "g-cubed") gas insulated equipment at its new Oslo substation. g³ gas is a game-changing alternative to sulphur hexafluoride (SF₆), an insulating and switching gas traditionally used in high-voltage equipment and one of the world's most potent greenhouse gases. More about: [GE's g³-SF₆-free solutions](#).



Canada: Aligned with the Small Modular Reactor (SMR) Action Plan that Canada released in December, GE Hitachi Nuclear Energy [announced](#) in February the formation of its Canadian SMR business to support the deployment in Canada of the [BWRX-300 SMR](#), which represents the simplest, yet most innovative BWR (boiling water reactor) design since GE began developing nuclear reactors in 1955.



Saudi Arabia: Saudi Arabia is working towards a lower-carbon future commitment of 50% gas and 50% renewables by 2030. Increased efficiency and digitalization are also high on the agenda. As a local partner today, GE has ~600 gas turbines generating ~60% of the country's power needs and manages ~50% of its grid. GE is working to support the Kingdom's ambitious infrastructure investment plans over the next decade.



Germany: GE supports Germany's goal of being largely greenhouse gas-neutral by 2050. German wind farm operator Prowind [placed an order](#) for GE's onshore Cypress wind turbines, and GE also [provided](#) turbines for the Merkur offshore wind farm.



South Africa: South Africa is focused on improving the performance of its national electricity system to meet rising energy consumption. As the country looks to meet unmet demand for power with new plants, GE's suite of complementary renewable, gas-fired, nuclear, grid and digital technologies are [key elements in the transformation to a decarbonized energy future](#).



Japan: Japan is aiming for carbon neutrality by 2050 and promoting a greener society is one of the government's key policy priorities. GE is providing wind turbines for a variety of wind farms including the [Akita Katagami onshore wind farm](#), which will provide 66 MW of power, enough to power the equivalent of 40,000 homes in Japan. GE is establishing itself as an important provider of wind turbines in Japan with more than 550 turbines installed and under construction in the country to date.



South Korea: South Korea has set a goal of net zero by 2050 with its Green New Deal, with a focus on increasing the share of renewables and hydrogen to 30–35% by 2040. GE is providing its highly efficient HA gas turbines, which have the capacity to burn up to 50% hydrogen, for a [number of major projects](#) across the country in order to deliver on-demand, low-carbon solutions to help meet the country's growing energy demands.

For more information on GE's work in the energy transition, visit:

www.ge.com/energy-transition