



## ENERGY CUSTOMER NEEDS IN JAPAN

## Access to cost-effective clean energy is becoming a <u>key</u> <u>factor in companies' business</u> investment decisions in Japan.

With one of the world's largest economies and as a global leader in manufacturing, Japan heavily relies on fossil fuels for power generation, and for the first time in over a decade, Japan's electricity demand is projected to grow. Accelerating clean energy investment and deployment would provide an opportunity for Japan to retain and attract new investment in critical industries while also strengthening industrial competitiveness, enabling electricity cost savings, improving self-sufficiency and resilience, and contributing to carbon neutrality by 2050.

Japan has taken important steps toward adding more clean energy through the adoption of its <u>Green Transformation (GX) policy</u>. However, further public-private sector collaboration is needed to address barriers constraining the deployment of cost-effective clean energy, especially for commercially mature and scalable renewable energy technologies.

The Clean Energy Buyers Association (CEBA) is a business trade association that activates a community of energy customers and partners to deploy market and policy solutions to facilitate clean energy procurement and accelerate the decarbonization of the global power sector. CEBA's more than 400 members represent over U.S.\$20 trillion in market capitalization and include the world's largest clean energy customers as well as energy and service providers, cities, universities, and nonprofit organizations. Through the Clean

Energy Demand Initiative, a joint secretariat with the U.S. Department of State, CEBA fosters public-private collaboration to accelerate the global deployment of clean energy and is eager to support partnership with Japan to build a resilient, carbon-free electricity system that would enable every customer to have a viable and affordable pathway to 100% clean energy.

The primary challenge for CEBA's members and their more than 1,000 value chain partners located in Japan is limited access to costeffective renewable energy as they seek to grow their operations and meet ambitious sustainability commitments. Companies report they can only cost-effectively source 25% of their electricity demand with renewables in Japan, compared to a 50% global average. By 2030, corporate energy customers in Japan could face a 20% to 50% shortfall against their clean energy targets.



Installation costs for renewable energy in Japan are among the highest globally, with utility-scale solar more than double the global weighted average, due to higher costs for materials, labor, and land. Increasing the deployment of clean energy to help Japan achieve climate neutrality by 2050 is feasible and will improve Japan's energy independence and electricity costs, as well as reduce exposure to global regulatory pressures.

To lower costs and bolster Japan's recent policies that have enabled new types of corporate clean energy procurement mechanisms like virtual power purchase agreements (VPPAs), CEBA encourages Japan's government to consider measures that will expand access to cost-effective renewable energy by 2035, accelerate deployment, and advance carbon-free technologies in future years as Japan develops its GX 2.0 and next Strategic Energy Plan:





**Accelerating and increasing government GX investment** for expansion of renewable energy by directing additional funds to the Organization for Cross-regional Coordination of Transmission Operators (OCCTO) and the Japan Organization for Metal and Energy Security (JOGMEC) to support infrastructure development of offshore wind and grid reinforcement.



**Evaluating and unlocking accessible land** for new renewable energy. If agricultural councils, with community agreement, relaxed minimum requirements for converting uncultivated agricultural land to non-agricultural use, <u>roughly 560,000 hectares</u> could be opened to renewable energy development.



**Incentivizing, accelerating, and upgrading grid infrastructure.** OCCTO's grid planning should transparently and proactively plan for load growth at an accelerated clean energy scale and should include commissioning timelines to mitigate significant delays in project delivery.



**Streamlining the permitting and environmental impact review process** by establishing reliable and faster timelines without compromising the integrity or intent of environmental protections or community consultation. Measures may include designating a single lead agency, ensuring agencies are properly resourced, and providing a community benefit commitment mechanism and <u>technical assistance funding</u> to support community acceptance and co-prosperity.



UNLOCK COMPETITION TO CATALYZE CLEAN ENERGY AT LEAST COST THROUGH ECONOMIES OF SCALE. Energy customers support well-designed organized wholesale markets and urge steps to reduce costly grid curtailment and promote a transparent, open, and level playing field:



**Ensure fair competition** between incumbent utilities and independent power producers as well as generation sources. Decision-makers should reduce artificial or legacy barriers that limit renewables participation, including fossil fuel subsidies, high interconnection costs, and capacity wheeling charges, and should promote market-based mechanisms like economic dispatch.



**Develop transparent, equitable, and robust processes for demand-side participation** in energy policy and grid planning decision-making, to establish good-faith partnership and ensure the needs of all stakeholders, including <u>energy customers</u>, are considered.

- ENHANCE AND EXPAND COST-EFFECTIVE CLEAN ENERGY OPTIONS.

  Companies play an important part in funding the energy transition, and procuring clean energy in Japan is cost-prohibitive for many companies seeking to accelerate their climate goals. To retain and attract new corporate investment, Japan should consider procurement mechanisms that:
  - Encourage fair and transparent pricing. Decision-makers should consider market-based mechanisms and incentives that minimize additional costs and encourage customers to accelerate renewable energy adoption. Generators should also be required to include generation-side wheeling charges in Japan Electric Power Exchange price bids, to avoid double charging through VPPA contracts.
  - Improve utility-driven procurement options and partnerships that offer energy customers access to new renewable energy sources. <u>Utility green tariffs</u> provide customers that may not have the technical expertise or credit rating to enter a PPA with the ability to more flexibly access new clean energy projects.
  - Implement a robust environmental attribute certificate system by consolidating existing frameworks and improving the Non-Fossil Certificate (NFC) system. Attribute information should be included at the time of bidding, to enable customers to select or bid on specific projects. This step also would improve the five-month delay and granting of NFCs through auctions by requiring more timely registration and transfer.
    - **Explore pathways to enable voluntary granular tracking of clean energy** by adding hourly timestamps and location as attributes on an energy purchase certificate, so customers can make hourly claims, encourage clean energy development in highemission areas, and verify green hydrogen production.