

Environmental Business NEC's GX (Green Transformation) Business for Carbon Neutrality

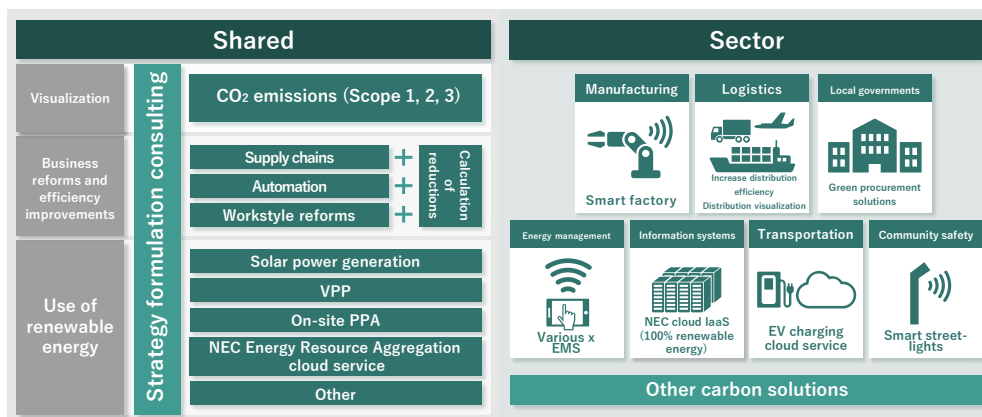
Our Approach

Around the world, climate change and other environmental issues are having a major impact on the safety and security of our lifestyles as well as the continuity of business. Leveraging its accumulated strengths in digital technology, NEC helps resolve various environmental issues to move toward a carbon-free society and circular economy. In the priority businesses under the mid-term management plan, including digital government, core DX and global 5G, NEC is expanding scale and strengthening businesses related to carbon neutrality, such as resource aggregation, while advancing green initiatives.

NEC's Environmental Solutions

NEC has a long list of solutions that help solve environmental issues.

Regarding decarbonization, in particular, we offer various solutions tailored to industry and business types for improving visibility, changing workflows, increasing work efficiency, and utilizing renewable energy. In addition to our solutions, we combine with other solutions and consulting services to provide the optimal solution to our customers from various perspectives. This chart shows NEC's solutions that support initiatives in decarbonization. Starting with the visualization of CO₂ emissions, NEC provides complete ongoing support to its customers, from clarifying the areas in need of CO₂ reduction and related issues to setting and achieving targets.



List of Environmental Solutions

Category	Solution	Description
Visualization	Environmental performance management solution (GreenGlobeX)	Collect, manage, and visualize environmental data on CO ₂ , water, and waste
Support for certifications / Compliance with strict laws	Energy, environmental management analysis, reporting support	Provide support for energy and environmental management in order to assist operations of ESG real estate
Energy conservation	Smart streetlights	Reduce environmental load and size of disasters with smart streetlights
	Energy solutions	Optimize total energy management in construction of plants and offices and equipment installation
	ZEB solutions	One-stop support for ZEB,* from planning to design, construction, and operational management * Net zero energy building
Renewable energy / Distributed energy	Solar power generation business (PPA)	On-site energy services
	Off-site PPA	Off-site energy services
	Renewable energy solutions for in-house energy consumption	Installation and operation of facilities suitable for renewable energy solutions for in-house energy consumption
	Solar power generation x Storage battery systems	Systems for decarbonization during normal times and responding to long power outages
	Supply-demand adjustment solutions	Resource aggregation services
	Microgrid system	System for reliably supplying electricity and responding to regional power outages with distributed power sources
Adaptation	IoT monitoring system for river water levels	Installation and maintenance of river water level measurement equipment, integrated systems for transmission of data
	Satellite communications system	Provision of integrated systems, from building to maintenance, including broadcasting systems that use satellites and disaster prevention systems
Resource circulation	Cellulose-based bioplastics	High-performance biomaterial ("NeCycle") derived from cellulose
	Regional resource recycling services	Visualization of recycled resource collection and participation of local residents, services to promote intra-regional recycling of resources and energy

Greenification of Priority Businesses and Green ICT Infrastructure

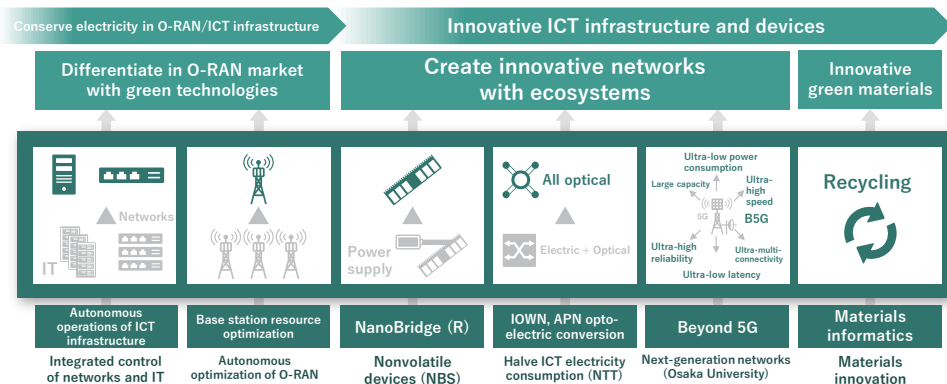
NEC aims to provide value from an environmental standpoint in digital government, digital finance, core DX, and global 5G, the priority businesses in our mid-term management plan. NEC is working closely with partner companies and universities on the development of innovative infrastructure devices, for example, as those based on the IOWN concept, in addition to ongoing efforts to conserve electricity in O-RAN/ICT infrastructure in a bid to make ICT infrastructure greener.

Greenification of Priority Businesses: Strengthening and Expanding Scale of Businesses Related to Carbon Neutrality



*RA: Resource aggregation

Realization of Innovative, Green ICT Infrastructure



CO₂ Visualization: Environmental Performance Management Solution GreenGlobeX

NEC provides the cloud-based service GreenGlobeX (GGX) as a solution for efficiently managing the environmental performance of plants and offices of corporate groups in Japan and around the world. By unifying the management of collected environmental data, the solution links data with target management and the visualization of CO₂ emissions. The solution enables more efficient management by significantly reducing the number of processes involved in data collection, collation, and progress management.

Moreover, in the past, customers had problems visualizing their Scope 1 and Scope 2 CO₂ emissions, and they have been trying in recent years to visualize CO₂ emissions (Scope 3) in their supply chains. In light of this situation, NEC aims to enhance the functionality of GGX in stages to handle Scope 3 emissions from fiscal 2023.

Deployment track record

Since launching operations in 2012, our solution has been adopted by 37 companies and is in operation at more than 4,000 bases in Japan and around the world, thanks to customer satisfaction with our environmental business know-how and support services.

Diverse range of companies that have adopted our solution

Auto parts manufacturers, heavy industry manufacturers, industrial equipment makers, electric equipment makers, precision equipment makers, office equipment makers, oil wholesalers, chemical manufacturers, cosmetic manufacturers, food companies, beverage companies, and pharmaceutical manufacturers

