

Working to Solve Social Issues

Providing Energy for the Pursuit of Happiness

KPI	FY2023*1	FY2031*1
Sales of stationary storage batteries that support clean energy	1.3	4.0
Sales of healthcare storage batteries that support everyday life	1.3	2.4
Sales of dry batteries that provide support in emergencies*2	1.1	2.2
Sales of batteries that protect the security of mobility*3	1.0	8.2

*1 Sales volume with fiscal 2022 set as 1

*2 Sales in the three key regions

*3 Automotive batteries excluding those for drive applications

Policy

Electrical supply and power sources serve as the foundation for convenient, comfortable, safe, and secure lifestyles, which is why securing these has become an indispensable part of contemporary society. With a focus on building a better world through electricity, Panasonic Energy genuinely confronts the environmental issues being faced throughout the world, and continues to undertake the further challenge of engaging in businesses centered on batteries to realize a society in which enriched lifestyles and a sustainable environment are harmonized free of conflict. As an example of these efforts, we support safe, secure social infrastructure that remains active even in the event of disasters and other emergencies, and contribute to sustainable urban development with the inclusion of disaster prevention. In addition, we contribute to solutions for hunger and poverty by supplying energy to regions without electricity. To enable these efforts, we

will continue to undertake the challenge of developing world-first and one-of-a-kind technologies, and to encourage innovation.

Social contribution through business activities

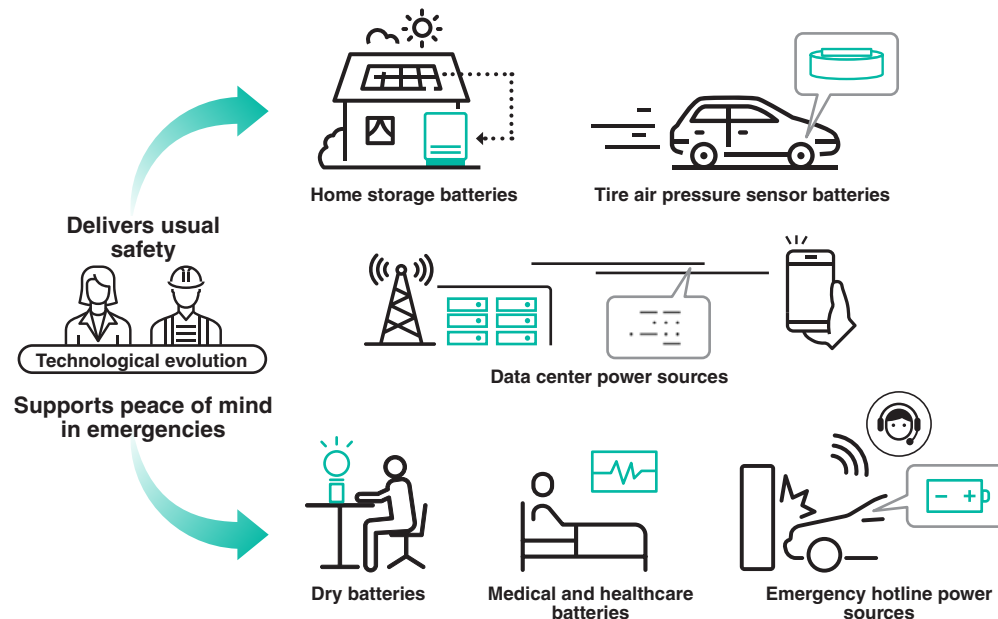
We also contribute to the happiness of people's lives in a wide range of fields.

The Energy Solutions Business Division provides high-quality, high-capacity Li-ion batteries and storage battery systems for stationary power sources, which are used as data center power sources that enable stable operations 24 hours a day, 365 days a year, and as home storage batteries that support the efficient use of electric power. In addition, these batteries have also been adopted for various healthcare devices that assist in aspects of medicine and everyday life requiring stable operations. In this way, these products support social infrastructure, and contribute to the expansion of clean energy and to lasting health for people.

The Energy Device Business Division provides high durability, high reliability batteries as power sources for automobile tire air pressure sensors and emergency hotlines, which help deliver peace-of-mind for mobility. Moreover, the Division's dry batteries go beyond serving as more than common daily necessities as they play an important role in supporting lifelines as reserve stocks in the event of an emergency.

Social contributions made through these businesses are supported by technological developments that pursue safety and security. For example, we achieve high-quality for our Li-ion batteries by employing safety technologies that rely on separators with high heat resistance, as well as by implementing uncompromising control of manufacturing processes through the establishment of strict design control standards. In addition, we enable long storage lives for our dry batteries using our proprietary "battery leakage preventing manufacturing process Ag+," which utilizes a silver compound for the cathode materials.

We will continue to provide the driving force for the advancement of society through tireless technological evolution.



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Social contribution activities

We engage in a wide range of social contribution activities for the varying challenges and demands of each region and country. In the following pages, we will introduce several examples of our initiatives.

Contributing to safe and secure lifestyles

1. Improving the educational environment of India

We provide learning materials to schools and help improve educational facilities in regions where our sites are located with the goal of bettering educational environments. We conduct this activity on an annual basis, and in fiscal 2023 provided assistance to six schools. Specifically, we installed and extended external walls, repaired classrooms, and donated school desks and playground equipment in order to provide safe and secure learning environments for children. In addition, we installed new water tanks and toilets, and made donations to improve conditions where children had to return home just to use the restroom because the restroom facilities were insufficient. And we will continue to engage in efforts to create environments in which children can learn with peace of mind.



Restrooms and playground equipment donated to an elementary school in India



2. Assistance for Ukraine

Concerning the situation in Ukraine, the Panasonic Group donated a total of around 20 million yen in March 2022 to the Polish Red Cross as assistance to those sheltering there, as well as to Peace Winds Japan, an NGO that conducts assistance activities within Ukraine itself.

In November 2022, we also donated around 20 million yen collected from employees of the Panasonic Group and Panasonic Holdings Corporation to Peace Winds Japan as assistance for power outage countermeasures and surviving the winter at shelters and hospitals. We also donated nearly 2,000 LED lanterns made by Panasonic Energy and 8,000 EVOLTA NEO replacement dry batteries to this NGO. Peace Winds Japan used the donated funds to deliver generators to hospitals in Ukraine facing chronic blackouts, and to supply hot meals and warm winter clothing to shelters in the neighboring country of Moldavia. Similarly, our LED lanterns have broadly benefited local populations as lights for supporting everyday life during the constant power outages that occur at shelters and other locations in Ukraine. Along with praying for the fastest possible return to a safe, peaceful world, we will continue to provide the necessary assistance to build a better world through electricity.



LED lanterns distributed to shelters in Ukraine

3. LIGHT UP THE FUTURE

The Panasonic Group is working as a unified entity on the LIGHT UP THE FUTURE project to illuminate the future of regions without electricity. In collaboration with NGOs, NPOs, international organizations, and various other partners, this project delivers light using renewable energy to local regions, and contributes to the building of a sustainable society free from poverty through support programs.

Through this project and its predecessors, we delivered a total of nearly 120,000 solar lanterns made by Panasonic Energy to regions in Asia, Africa, and elsewhere without electricity from fiscal 2010 to fiscal 2023.

By replacing kerosene lamps with solar lanterns, we are reducing CO₂ emissions as we help to prevent fires and mitigate the health impacts of smoke.

The light from these solar lanterns also enables learning, medical activities, and manual labour at night, thereby helping to create opportunities for education, health, and higher incomes. Moreover, these reliable light sources also help invigorate family time and community.



Utilization of solar lanterns

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The funds for providing these solar lanterns came from donations collected through the AKARI Action Project, which calls for support among employees and citizens, as well as from funds collected through the donation of used books and recycled items.

In order to support and transform society through the provision of energy, we will continue to contribute to regions without electricity.

 **AKARI Action Project**
<https://holdings.panasonic/global/corporate/sustainability/citizenship/utf/akari.html>

Contributing to learning among children


1. Battery and Necklight School, Factory Tours

Panasonic Energy has contributed to local communities through educational activities on the types, history, and proper ways of using batteries. Since 1966, we have organized battery workshops and factory tours as educational programs to extend classroom learning covering science, social studies, environmental studies, and other subjects. Following the Great East Japan Earthquake, we also planned and organized Necklight School in support of recovery efforts, and have continued to engage in activities around Japan that convey the value and importance of batteries and light during the many earthquakes, typhoons, and other disasters.

Since 1995, we have expanded the region covered by our Visit Battery School first held at elementary schools in Osaka prefecture. And to enable as many children as possible to participate in the Company's Battery School, in 2002 we began holding Remote Battery School (renamed Online Battery School in July 2022) using teleconferencing systems. These later workshops entered their 20th year in September 2022.

Since 2007, we have also held these workshops globally in Thailand, Iran, Australia, Myanmar, Tanzania, and elsewhere a total of 153 times. (Held 40 times on-site and 113 times online as of September 2023)

We have also undertaken the role of delivering the light of hearts to bring smiles to children. Currently, we are incorporating a broader range of course content that includes the environment, the Sustainable Development Goals (SDGs), and disaster prevention. And we will continue to engage in this project as an activity that embodies energy in the pursuit of happiness.

 **Factory tours and hands-on learning intended to teach about and provide experience on batteries**
<https://www.panasonic.com/jp/energy/study.html>



An early factory tour in the 1960s

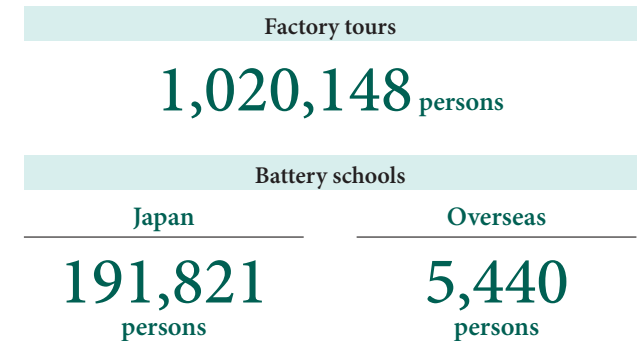


Online Battery School



Global Battery School for regions without electricity (Myanmar)

Cumulative number of participants at factory tours and battery schools (as of March 31, 2023)



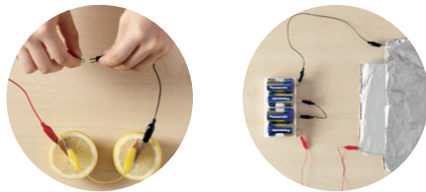
Participant feedback

- Teachers**
 - "I became familiar with Japan and batteries through the workshop. And I really enjoyed the class."
 - "This program was my only opportunity to make a dry battery. And it was a great hands-on opportunity to learn about science and the environment."
- Children**
 - "I want to make life better and the environment more beautiful using batteries."
 - "I didn't really like science before, but now I want to study more and become a battery scientist."
 - "We were so overjoyed by the opportunity given by Panasonic and we are very grateful for them giving us a chance."

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2. Battery Education Academy

Through our website, we have made our Battery Education Academy publicly available for all to learn about batteries and their close connections with everyday life. The site provides easy-to-understand explanations regarding experiment methods for making batteries from everyday objects, as well as knowledge on using batteries safely. Along with videos on making batteries from fruit and capacitors from aluminum foil, the site is full of text-based content explaining the detailed mechanisms behind these.



We will continue to communicate these activities in a way that fosters the desire among children to ask why and to learn more with a sense of wonder.



 Battery Education Academy
<https://www.panasonic.com/global/energy/study/academy.html>

3. Work Experience & Career Education

As an activity intended to help foster work ethics and professionalism through work experience, since February 2022 we have offered the Work Experience & Career Education program for elementary school students. As part of this program, Panasonic Energy employees in various occupations act as lecturers and hold classes to convey the fun and satisfaction of work. In light of today's situation where the use of ICT is becoming a normal part of every corner of society, this activity is primarily held online as part of the GIGA School Program administered by the Ministry of Education, Culture, Sports, Science and Technology (MEXT) to ensure one device for each student. In this way, we actively engage in efforts while collaborating with the government and local authorities to teach about society and foster the capability of children to remain relevant in the society of the future.



Work Experience & Career Education

4. Quest Education

In July 2022, Panasonic Energy began offering Quest Education career education supporting program activities organized by Educa & Quest Inc. Quest Education is an industry-academia collaborative program that plans new projects unlike anything else in the world through which 62,000 junior and high school students from 320 schools in 37 prefectures undertake missions designed by companies. The students participated as interns for us as they experienced field work and group discussions together with employees of Panasonic Energy. This program also holds the Quest Cup national competition every February as the culmination of the year-long activities. In fiscal 2023, the Konodai Girls' Senior High School team, which represented Panasonic Energy, achieved the overall top score among the representative teams chosen from 11 sponsoring corporations, and was honored with the grand prize. We will continue to engage in activities together with future generations in a way that creates new opportunities for learning.



Career education supporting program