**QUESTIONS & ANSWERS**

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| Questions | Answers |
| About the battery market |
| **What types of batteries are most commonly bought?** | **Alkaline batteries account for 86%** of all batteries bought. However, as miniature appliances gain popularity, more specialty batteries are bought as well. They are the second most popular type and account for 9% of all battery sales. Compared to those numbers, zinc carbon and rechargeable batteries show relatively small volume shares of respectively 3 and 2%.The overall EU battery market is expanding as well. Compared to last year, **battery purchases increased by 8%** and the EU battery market value has seen a 6% increase. That increase was caused by a slightly lower average retail price per cell. What battery sizes are the most popular? AA & AAA combined account for 93% of all alkaline batteries sales. Interesting to note: the **AAA size is becoming more popular**. This seems to be caused by the growing number of appliances with remote controls. The other battery sizes are bought less often, but their volumes are stable. |
| **How often are batteries****purchased?** | Alkaline batteries are generally bought three to four times a year.Most battery purchases (50%) are impulse buys. The main reasons people buy batteries include:* Their battery stock at home ran out
* They see an interesting promotion in store
* They notice batteries at the checkout counter
* They are buying a product at the same time that requires batteries

Specialty batteries are bought once to twice per year. Purchase behaviour of the new coin batteries is based on the product code mentioned on the old coin battery, as this specifies which type of battery fits the appliance. |
| **How is the COVID-19 crisis affecting the battery industry and Panasonic sales?** | The battery market hasn’t suffered from the COVID-19 crisis. The pandemic even stimulated battery sales. The UK market, for example, grew by +3% during the first half of 2020. Value for Panasonic battery sales in the UK rose by a solid +14%.At the start of the lockdown, we saw people all around the world stockpiling essentials like toilet paper, flour and also batteries.Then during the lockdown, people spent a lot of time in their homes and therefore increasingly engaged in activities like gaming, watching tv, cooking… These all require battery use, so again we saw an increase in sales.The way people shop changed somewhat too: trips to the shop became less frequent during the lockdown, which resulted in higher spending per trip. There was more local shopping too and more online sales.Overall, COVID-19 created less pressure to offer promotions. Consumers are looking for reliable batteries that offer value for money. This means Panasonic batteries can benefit from its great quality and value. |
| **What consumer trends are you seeing in 2020?** | One trend is consumers increasingly seek value for money. In the battery category, this leads to people looking for larger pack sizes. We’re launching larger battery pack sizes indeed, in response to this trend.As for products, we see sales for Alkaline batteries rising consistently as well as a strong growth for Lithium button cells. |
| **What time of the year is the peak of battery purchases?** | The battery market is highly seasonal. Over 40% of Panasonic’s yearly volume is bought between October and January. This period includes the holiday season, with Christmas toys and gadget sales contributing to the increase in battery sales.  |
| **What is the consumer perception of rechargeable batteries?** | The global trend towards environmental awareness is changing battery purchase behaviour. Ever more people understand the impact of what they buy and consider this in their decision-making process. In this context, consumers increasingly understand the environmental benefits of rechargeable batteries and the value-for-money that they offer. In the UK, 73% of shoppers are definitively open to, or thinking about, buying rechargeable batteries(2). Even though rechargeable batteries are on the mind of consumers, the development of the rechargeable battery market still has plenty of room for growth. This gap in the market is a perfect fit for eneloop, Panasonic’s sustainable battery range. eneloop batteries are produced in Japan and meet the highest quality standards. They are eco-friendly and at the same time more powerful than classic alkaline batteries. Rechargeable batteries such as the eneloop range save consumers money in the long run. They cost more than classic alkaline batteries at first purchase, but their ability to recharge often makes them cost-effective in the long run.  |
| **Where are most batteries purchased?** | Supermarkets and hypermarkets account for 85% of batteries purchased by volume. One in every two consumers buying batteries claims to buy them from these traditional channels.The market for the traditional channels seems to remain stable, however their future doesn’t look bright. Traditional channels are facing severe competition from other channels such as e-commerce and the fast-growing number of discount stores.The main market growth for batteries is in e-commerce where rechargeable batteries sales increased by 7%. (1) For non-rechargeable batteries, a 100% increase was observed between 2016 and 2019(2). The key countries for online battery sales in Europe are Germany and the UK. E-commerce presents new opportunities, as it offers a chance to include the unique selling points (USPs) of premium batteries.The second growth opportunity is in discount stores and discount supermarkets. Action and other discount stores are growing in number internationally. Moreover, discount supermarkets like Lidl and Aldi are adding more and more branded products to their range. The focus here is on everyday low-pricing, bigger battery packs and basic ranges. |
| **Why are there different types of batteries?** | The right choice of batteries is important, because the composition of each type of battery differs. Each type is suited for specific applications, and hence has a different energy level to suit those applications.To get the most out of toys and appliances, the right batteries must be selected. Choosing the wrong batteries can lead to toys and appliances not working properly or battery leakage, which can cause unwanted damage.The following Panasonic alkaline batteries are suited for different toys and appliances:* [EVOLTA NEO](https://www.press.panasonic-batteries.com/panasonic-energy-launches-its-longest-lasting-alkaline-battery-with-added-silver) - Panasonic’s longest lasting alkaline battery
* [EVOLTA](https://www.panasonic-batteries.com/en/alkaline/evolta)
* [Pro Power](https://www.panasonic-batteries.com/en/alkaline/pro-power)

The following specialty batteries are only suited for compatible appliances:* Lithium Coin
* Cylindrical Lithium
* Micro Alkaline
* Silver Oxide
* [Eco solutions (rechargeable batteries)](https://www.panasonic-batteries.com/en/rechargeable)

[eneloop](https://www.panasonic-eneloop.eu/en) is Panasonic’s sustainable battery range. They are pre-charged using solar energy and can be recharged up to 2,100 times.(6) |
| About Panasonic brand |
| **Can most people identify the Panasonic brand?** | Panasonic scores a 67% in aided brand awareness and a 16% in spontaneous brand awareness(4). Such awareness stems from the brand’s strong heritage and the support of its parent company, Panasonic Corporation Worldwide.Panasonic is the fourth largest battery brand in Europe and is considered an A brand challenger because it challenges its competitors in quality, performance and innovation. This includes competition brands like Varta, Duracell and Energizer. Panasonic also differentiates from B brands and private label batteries. |
| **How does Panasonic ensure quality control?** | Panasonic considers the quality of its batteries during consumer use.Typically, battery failure claims have three possible causes:* Improper, abnormal, or reckless use (e.g., applying the wrong polarity)
* Appliance failure or poor design
* Production or manufacturing fault

Panasonic investigates all battery failure complaints, where a detailed technical analysis is conducted on the batteries and the damaged appliance.If the technical analysis shows the failure is caused by a battery product defect, Panasonic will reimburse the damagesdirectly incurred by the defect. In 2019, out of millions of batteries produced and sold, Panasonic received only 16 justified battery failure complaints. This proves Panasonic’s reliability as a technical expert. |
| **How does Panasonic mitigate counterfeit and look-alike products?** | Like other major brands, Panasonic is occasionally faced with counterfeit or look-alike products.Panasonic’s policy has both proactive and reactive measures against illegal trade. It actively investigates suspicious goods found in the European marketplace.A dedicated team that addresses this issue can be contacted at counterfeit@ap.solutions  |
| **How does Advanced Power Solutions ensure safety and promote childproofing batteries?** | Advanced Power Solutions (APS), along with the rest of the European battery industry, is working together to improve battery safety, especially around children. The combined effort is in response to an increasing number of incidents where a child accidently swallows a button cell battery.APS is trying to prevent such incidents by improving the design of the battery packaging and through highly visible warning messages. As for communications, the company aims to increase general awareness among parents, teachers and medical practitioners about children and potential battery-related accidents.Advanced Power Solutions uses recognisable safety diagrams and warning symbols on its packaging, including an icon showing the risk of swallowing. Recently, this warning symbol has been added to the battery itself too, creating extra visibility. Then, each battery package contains child-safety advice targeted at parents and teachers. APS is continuously improving its product safety and cautionary notices, including safety diagrams. Coin lithium battery packs are now childproof: you cannot open them without using scissors.To ensure optimal battery safety, Advanced Power Solutions recommends the following:* Store batteries in a dry location, out of reach of children
* Watch out for signs of battery leakage
* Use a charger from the same brand as the rechargeable battery provider to ensure compatibility
* Properly dispose of batteries after use
* When buying toys or appliances, check that the battery compartment requires a screw or other form of security to make it more difficult for children to access
* Teach children that button cell batteries aren't toys and that they are dangerous to play with
* Clearly separate new and used batteries
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| **What’s the difference between alkaline and zinc carbon batteries?** | The main **difference** between a zinc battery and an **alkaline battery** is the type of electrolyte used. Zinc batteries are mostly composed of ammonium chloride while alkaline batteries use potassium hydroxide. However, these technical specifications don't say much more about the usage of the batteries. Below are with some of the benefits for each battery type.Benefits of alkaline batteries:* + Higher energy density than a zinc carbon battery
	+ Longer shelf life
	+ Anti-leak protection
	+ Greater reliability
	+ Longer lasting power
	+ Ideal for high-drain devices

Benefits of zinc carbon batteries:* + Simple and reliable technology
	+ Price versus quality ratio
	+ Should only be used in low drain appliances

Due to these different characteristics, both batteries should be used in different applications. |
| **What marketing support do you have for your products this year?** | It’s a really exciting year marketing-wise. We’ve teamed up with Hasbro’s POWER RANGERS in a Europewide campaign, including Special Edition POWER RANGERS Battery Packs and an amazing online competition. Each month offers a new chance to win POWER RANGERS prizes and Panasonic batteries. The first prize will be a complete POWER RANGERS Karate Boot Camp at a top secret location.Check out poweryourday.win.eu.panasonic.com if you’d like to enter. You’ll see the special edition battery packs – including the competition website - in your stores too. Panasonic batteries are a perfect fit for children’s toys, like POWER RANGERS figures. That’s why this campaign works so well.In addition to the POWER RANGERS partnership, there’s new displays and clip strips themed according to activities or to key times of the year, and attractive consumer packs. |
| About sustainability |
| **What existing policies/programmes are helping to reduce the environmental impact of batteries?** | * Advanced Power Solutions and other battery manufacturers have been instrumental **in setting up battery collection systems throughout Europe**.

This environmental effort was much needed, as since 2008 European legislation requires that all European countries collect and recycle batteries. In 2015, around 91,000 tonnes of used batteries were collected in Europe.Other sustainability-oriented efforts at APS Belgium include:* Using **100% renewable energy**, which is generated by wind turbine plants and solar panels.
* Opting for recycled building materials.
* **Re-using water** internally.
* Choosing for 100% LED lighting.
* Making sure **zero waste** goes to landfill.

The battery factory in Poland runs on 100% green electricity as well and produces zero waste to landfill.* Every APS manufacturing plant received an ISO-14001 certification for environmental management.
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| **What efforts does Advanced Power Solutions make to create safe and environmentally friendly products?** | High-quality, safety and sustainability are paramount for Advanced Power Solutions. Therefore, our batteries: * **Do not contain hazardous chemicals** such as lead, cadmium and mercury.
* Are made of **95% recyclable materials.**
* Are manufactured in continuously improving production processes that use APS latest **sustainable technologies.**
* Have **sustainable packaging** such as:

- cardboard battery packs, which contain up to 90% recycled materials.- PET plastic packaging, which can be recycled. |
| **What changes in production help lower Advanced Power Solutions environmental impact?** | APS products sold in Europe are mainly produced in Europe as well. Up to **85% is produced locally** in the Belgian and Polish plants, creating several environmental benefits:* Shorter transport routes.
* More efficient waste management.
* **Smaller ecological footprint.**
* Environmental standards and quality assured by EU law.
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| **How does Advanced Power Solutions encourage sustainability at and outside of the workplace?** | Advanced Power Solutions values sustainability in and outside of the workplace. The following initiatives promote this vision: * Serving fair-trade coffee.
* **Banning plastic cups.**
* Encouraging employees to cycle to work by offering an allowance.
* Making **bicycles freely available** during lunch breaks.
* Recycling toners and printers.
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| **What does Advanced Power Solutions do to reduce the environmental impact of its transport?** | 99% of all APS products produced in Europe are **packaged locally**. This ensures short transport routes and reduces the kilometres spent in transport, thus lowering our environmental impact.Moreover, APS aims to choose the **most ecological method of transport** when supplying raw materials to the factories in Europe. Transporting the goods by ship is our preference, followed by rail and trucks.Advanced Power Solutions also endeavours to reduce void fill. That is achieved by creating smart displays and optimising the way our pallets are stacked. Through this optimisation, we need less space in transport. That means fewer trucks and **reduced** **emissions.** |
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| About eneloop brand |
| **What is eneloop?** | [eneloop](https://www.panasonic-eneloop.eu/en) is a rechargeable battery range that aligns with environmentally conscious lifestyle choices of consumers. Developed with the concept of sustainability and care for the Earth, eneloop embodies the principles of ‘recharge’ and ‘reuse’ for a clean energy society.Economic benefits* The purchase price is offset by its extra-long lifespan and its reusability
* eneloop batteries can be recharged up to 2,100 times(6)

Environmental benefits* Green Certificate System
* Pre-charged using solar energy
* Reduces battery waste

Ready to use and low self-discharge* Shipped fully charged and ready to use
* Maintain 70% of their charge even after up to 10 years of storage(5)

High power battery* Keeps the voltage level over 1,1 Volt for a long time

Suitable in low temperatures* Shows superior performance at 0°C
* Has a low self-discharge rate in temperatures as low as -20°C
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| **Which eneloop batteries****and chargers are the best****for photography?** | Using eneloop batteries for photography ensures a steady power flow while using them. With their long lifecycle, they can be recharged up to 2,100 times(6). Regular eneloop batteries are suitable for every camera type and are ideal for day-to-day camera use.For a little extra power for your camera, the eneloop pro batteries might be a better option. eneloop pro batteries are charged with a higher capacity compared with their regular counterparts. However, these pro batteries are better suited for sophisticated DSLR-cameras and separate flash guns.A rechargeable battery goes hand-in-hand with a charger. There are different types of eneloop chargers to suit different lifestyles. Amateur photographers who like a casual point-and-shoot session, can go for the BQCC55, a smart and quick charger. For professional photographers, a BQCC65 charger is a must-have item. |
| **What’s the consumer verdict on eneloop?** | Here are some eneloop reviews from some of APS customers.[**FANTASTIC CAPACITY AND CHARGE RETENTION**](https://www.press.panasonic-batteries.com/eneloop-launches-new-storage-case-as-a-sustainable-packaging-solution)Stephan Mendi, sound technician for TOTEM™, a Cirque du Soleil® show, tested the eneloop AA batteries.*“We are using the eneloop batteries here at TOTEM and we are more than satisfied. eneloop batteries have a fantastic capacity and retain their charge very well. Other brands would discharge considerably over time without use. We are going to continue to use eneloop for a long time.”*[**CONSISTENT POWER FLOW THROUGHOUT THEIR LIFETIME**](https://www.panasonic-eneloop.eu/en/news/eneloop-pro-reviews)Justin Thomas, blogger for MetaEfficient, tested the eneloop pro AA batteries.*“The eneloop pro batteries greatly outperform their good old alkaline counterparts.”*[**A BREATH OF FRESH AIR**](https://www.panasonic-eneloop.eu/en/news/eneloop-batteries-reviews)UK based blogger Marcus Wilson writes for RoundReviews, tested the eneloop batteries and charger:*“They hold their charge for longer, while keeping the output voltage constant, meaning whatever device you’re using them with, will deliver maximum performance 24/7.”*[**AN INVESTMENT FOR THE FUTURE**](https://www.panasonic-eneloop.eu/en/news/eneloop-pro-reviews)YouTuber, DJ Marc Antomattei, tested the eneloop pro AAA batteries.*“eneloop pro batteries are the best rechargeable batteries on the market right now.”* |

(1) Growth from Knowledge, 2019

(2) GFK Data 2019

(3) Haystack research, 2015

(4) Haystack Brandtracker, 2020

(5) Internal IEC 61951-2 (7.3.2) testing. Varies according to conditions of use.

(6) Internal IEC61951-2 (7.5.1.3) testing.