



**BRIGHTZERO®** – purpose-built, licensable,  
sustainable power management technology  
for Chip Manufacturers

# Why the consumer market is ready for sustainability-focused power management solutions



From construction yards to childrens' bedrooms, university campuses to hospital wards, many of the devices that power modern life have lithium-ion batteries at their core. With our transition to an electrified future only accelerating, and with public, legislative, and environmental pressure mounting, it is critical every stakeholder involved in the production, distribution, storage, and consumption of energy do all they can to minimise energy waste and conserve vital resources like **cobalt**.

Chip manufacturers – and those that supply charger microcontrollers to charger manufacturers in particular – occupy a critical link in this complex, interlinked energy supply chain. The wall socket, and the charger

that plugs into it, are the key access points through which consumers power their world. And, from power plant to Playstation controller, the only choice a consumer can make at this point is to select the charger their devices are charged with.

So: If a consumer has the opportunity to ensure every device they own is optimally charged in total safety by a charger that will reduce needless energy waste **and** extend the **battery life of their devices by at least up to one year**, then that is a choice they will make – if the option is available to them. This option can be made available in a scalable, risk-free way through smart chargers and outlets with BrightZero-enabled microprocessors at their hearts.





1 year of  
extended  
battery life

## How chip manufacturers can capitalise on demand

Sustainability is now baked into all aspects of **politics**, governance, design, branding, and business. In the EU in particular, legislation such as the EU **Eco-design Directive** and the upcoming rollout of **USB-C** as the default port for all handheld devices is already making waves. Yet there are still major challenges that will lessen the potential impact of these changes.

For instance, despite many devices already boasting on-board BMS capabilities, the issue of interoperability – the ability to deliver sustainable charging which devices are coupled with chargers from different

manufacturers – has not been solved. This scenario will become all the more common with the standardisation of USB-C, and the fact that many device manufacturers are removing the charging brick from consumer packaging is only adding to the challenge. People will simply connect any device to any charging cable that fits.

Therefore, there is an opportunity: to offer BrightZero-enabled chargers for sustainability-focused consumer charging device manufacturers.

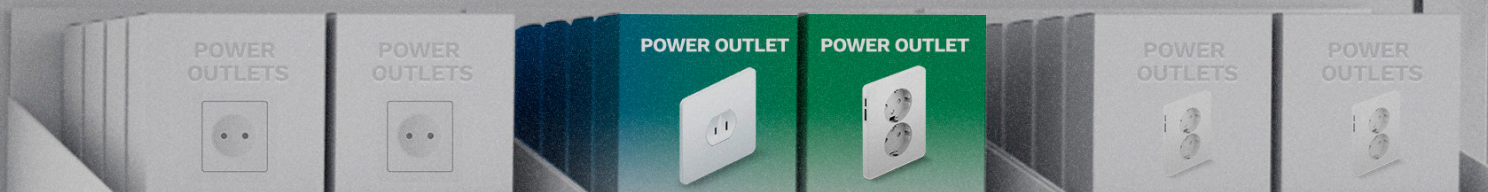




BRIGHTCHARGER



YOUR CLIENTS'  
CHARGERS HERE?



## The issue with on-board BMS

While it is true many devices now incorporate on-board Battery Management Systems (BMS), they do not cut power at the optimal time to preserve a battery's lifetime. The BrightZero algorithm is **designed to ensure the power feed auto cut-off** with any device after an optimal charge, regardless of the device incorporates an on-board BMS or not. The BrightZero innovation is independent of device, battery type and voltage.

Also, if consumers knew that an action as simple as choosing to charge their device with a BrightZero-enabled charging brick would give them up to 1 year more use from their devices, then the decision would be an easy one to make.



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The charger-based BrightZero® algorithm monitors charging process real-time and cuts off the power feed as soon as the device battery reaches an optimal charge.

## Access to a patented charging control solution

Chargers are only able to deliver this functionality through our **patented BrightZero® charging control technology**. And, as a chip manufacturer, your developers will be able to access and implement our algorithm in your chip applications.

In short, you can offer a new kind of sustainability-focused charger controller to manufacturers, who in turn can capitalise on mounting consumer demand for sustainable chargers. They will have the opportunity to capture market share while being protected from copycats by our charger controller patent.

### Get access to:

- Patented technology
- BrightZero® algorithm
- Access to BrightZero® reference designs
- Full implementation support





## The golden licensing opportunity

To sum up: in pure business terms, the **patented** BrightZero -technology gives chip manufacturers the ability to test the receptiveness of charger manufacturers to a fully scalable solution that addresses a clear consumer demand – without having to make significant hardware investments or up front purchases.

The technology can easily be integrated with existing microprocessors, and after an initial up-front contract fee, BrightZero's licensing structure means chip manufacturers only pay for units sold. BrightZero is specifically designed to help you move quickly, gauge manufacturer demand, and capture market share when consumer demand trickles through to the supplier side.

The opportunity is there – to capture new sales, to create a new market category, and to make a meaningful impact on e-waste production, power consumption, and resource preservation. At scale, this technology has the potential each year to stop 50 kilo tons of cobalt, energy production equivalent to 9 nuclear power plants, and countless thousands of consumer devices from being wasted.

With the right partners, we can all make a real difference.

Contact us to find out  
more about BrightZero

