

## Andorra city flow batteries

Energy storage industry veteran and tireless clean energy technology advocate Anthony Price, organiser of the annual International Flow Battery Forum returns to Guest Blogging with a view of the sector, the players and technologies involved, and the progress made in the past few years.

Some things seem to take a long time to happen. In 2018, the UK government Department for Business, Energy & Industrial Strategy (BEIS), the forerunner of what recently became the Department for Energy Security and Net Zero (DESNZ), initiated the Electricity Storage Health and Safety Gap Analysis.

"Is the current H&S standards framework for electricity storage appropriate, robust and future proofed for the expected increase in deployment and as technologies develop? If not, how should this be addressed?"

The report is worthwhile reading for many reasons - anyone with an interest in the deployment and use of battery electricity storage systems should read about the hazards and risks of energy storage systems. Specialists should use this as a starting point to consider where and how we can improve the safety challenges presented by electricity storage.

As a long-term enthusiast for the benefits of flow batteries, I felt the report sang a similar song to the chorus we heard in Prague this summer at the International Flow Battery Forum (IFBF) industry event, with comparisons made between different energy storage types, particularly between lithium-ion batteries and flow batteries and the need to communicate the benefits of flow battery technology.

The Gap Analysis says much about the need for more work to understand the safe use of lithium-ion batteries, but its comments on flow batteries are confined to just a few paragraphs. I suspect that these paragraphs were written at the start of the Gap Analysis Project, when flow battery installations were less commonplace.

The authors comment on a few flow battery projects, noting that flow batteries were at the demonstration phase of the commercialisation timetable.

Unfortunately they do not comment on some of the more recent projects and announcements of future projects.

If we cast our minds back a few years, large scale battery projects of any technology were an occasional curiosity, and flow battery projects were very scarce. It's in marked contrast to the enthusiasm that we see today for battery electrical energy storage, and increasing numbers of successful flow battery installations.

On the same day, I was also sent news about a new market research study which predicts growth in the global flow battery market to rise from US\$209 million in 2023 to US\$805 million by 2028. Such growth sounds

very promising, but is not unexpected.

In Prague, at the IFBF, we heard from representatives of many of the companies listed in the report, who gave their perception of progress, the market and the opportunities ahead.

We had been invited to visit Prague by Jiří Vrška of Pinflow, a small, but steadily growing Czech flow battery company. Pinflow build flow battery stacks, both for their own installations and for others to integrate into their projects. Pinflow completed a small flow battery project at the water treatment works in Písek, in Czechia, where their vanadium flow battery gives real economic benefit to the operator from time shifting energy.

Contact us for free full report

Web: <https://www.kary.com.pl/contact-us/>

Email: [energystorage2000@gmail.com](mailto:energystorage2000@gmail.com)

WhatsApp: 8613816583346

