



**FLOW  
BATTERIES  
EUROPE**

A united voice for flow batteries



# ACTIVITY REPORT 2024



**EMBRACING SUCCESS  
AND SHAPING TOMORROW**



## Acknowledgment

Special acknowledgement to the FBE members who helped make this publication possible.

Page 1: © Picture by CellCube

Page 7: © Picture by Fraunhofer Institute for Chemical Technology ICT, Germany

Page 8 : © Picture by Fraunhofer Institute for Chemical Technology ICT, Germany

Page 8: © Picture by Voltstorage

Page 13: © Picture by Bryte Batteries



# Contents

Welcome by the FBE President, Kees van de Kerk	<b>4</b>
About Flow Batteries Europe	<b>6</b>
FBE Structure	<b>7</b>
Recap of the year	<b>8</b>
Advocacy Work	<b>10</b>
▶ The Batteries Regulation: Ongoing Work on Secondary Legislation	
▶ Net-Zero Industry Act and Strategic Technologies for Europe Platform	
▶ FBE's Manifesto for the 2024 European Elections	
▶ Reports on Regions: Asia Pacific	
▶ EU Funding Advocacy	
▶ GB Cap-and-Floor Mechanism	
▶ Working Group on Carbon Footprint Calculation for Flow Batteries	
Visibility and Events	<b>14</b>
Working Programme	<b>16</b>
Closing by FBE Secretary General, Anthony Price	<b>17</b>
FBE Members	<b>18</b>



# Welcome by FBE President, Kees van de Kerk

**The EU faces many challenges with decarbonising the economy, lowering energy prices and enhancing its industrial competitiveness. To foster a competitive decarbonisation plan, further investments are required in renewable energy sources and energy storage facilities. As advocates for a cleaner, more resilient energy future, we recognise the readiness of the flow battery sector's crucial role in advancing renewable energy. Leveraging flow batteries will be pivotal in helping to power energy systems in a flexible, stable and reliable way which are needed throughout Europe and throughout the world.**



## Kees van de Kerk

Flow Batteries Europe  
President

As the EU seeks to accelerate the clean energy transition, driven by ambitious climate goals and the need for enhanced energy security, the installation of renewable energy sources is increasing rapidly. However, a green transition cannot succeed without sufficient energy storage. The EU must pick up the pace to reach its net-zero ambitions and to remain a competitive player in the sector. Flow batteries, as an innovative long-duration energy storage (LDES) solution, are well-positioned to support the EU's transition to a sustainable energy system, with many examples of projects being deployed globally.

Remarkable strides have been made in LDES particularly in China and the USA, which have been supported by their national and local governments. The EU on the other hand, needs a new approach to prevent lagging behind. Flow batteries are market ready, but increased investment and awareness must occur, to help drive the global adoption of the technology.

Flow batteries are key to fulfilling our shared green vision. Their capability as LDES systems makes them vital for ensuring grid stability and facilitating the large-scale adoption of renewable energy. With their high recyclability and minimal degradation, they support both the circular economy and strategic autonomy of the EU, all while offering a low levelised cost of storage.

At FBE, we are committed to elevating the profile of flow batteries as a pivotal energy storage solution. To help achieve this, more and more organisations from the flow battery ecosystem continue to join our mission. The addition of six new members to our association in 2024 underscores our sustained growth and growing influence.

FBE has solidified the role of flow batteries as a key energy storage solution through its targeted advocacy activities and close collaboration with European policymakers. FBE continues to be a vigilant guardian in the development of regulations, ensuring that policies align seamlessly with the goals and interests of flow battery stakeholders. In 2024, our association actively promoted our priorities and policy recommendations with the publication of our Manifesto prior to the European Parliament elections in June.

FBE's Manifesto sets out our advocacy priorities for the 2024-2029 legislative period. In it we presented four key EU policy goals and accompanying actionable solutions to ensure a smooth transition to climate neutrality. It demonstrated how flow battery technology can bolster the achievement of the EU's environmental objectives while safeguarding Europe's competitiveness and security. The manifesto is a signal to politicians, investors and other stakeholders of FBE's collective position, calling for funding support and policy alignment for the sector.



FBE's role will be vital in shaping the discussions surrounding new European Commission proposals as part of the Commission's new 5-year term of political leadership.

As the deployment of flow batteries expands around the globe, FBE looked at developments outside Europe to draw lessons from global leaders in energy storage in a series of *Reports on Regions*. The first publication in the series focused on the Asia Pacific region, with its rapid advancements in energy storage policies and its positioning as the largest market for flow batteries. We analysed the policy landscapes of major countries like China, Japan, Australia, and South Korea.

FBE is proud to embark on an important new initiative: developing a carbon footprint calculation methodology tailored specifically for flow batteries. This effort is driven by the Batteries Regulation, which mandates that all flow batteries sold in Europe must include a Carbon Footprint Declaration from 2030 onwards. To address this challenge, FBE has established a dedicated Working Group of 16 stakeholders from across the flow battery value chain.

The Working Group aims to collectively develop a carbon footprint calculation methodology for flow batteries to help shape carbon footprint rules, thereby maintaining industry credibility and competitiveness. We extend our gratitude to all participants for their commitment to this ambitious project, which will be a cornerstone of FBE's work in 2025.

I sincerely thank the FBE staff, our Secretary General Anthony Price, and all our members for their firm dedication. I am especially grateful to the three committees whose invaluable contributions are made possible by their generous investment of time. Together, we will continue to shape a future where flow batteries are at the forefront of Europe's clean energy transition.

We are working tirelessly to advocate for the sector's interests in policy discussions. This 2024 review of our work highlights our accomplishments, celebrates our successes, and sets the stage for the work ahead.



“

**In 2024, FBE solidified flow batteries as a key energy storage solution through advocacy and collaboration on an EU level.**



# About Flow Batteries Europe

**Flow Batteries Europe (FBE) represents flow battery stakeholders with a united voice to develop a long-term strategy for the flow battery sector.**

We help shape the legal framework for flow batteries at the EU level, contribute to the EU decision-making process, as well as define R&D priorities. FBE is working to create and reinforce networks between key stakeholders in the flow battery industry.

This report looks at the past year and some of our key achievements. FBE aims to accelerate decarbonisation in Europe and beyond by increasing the deployment of energy storage and flexibility solutions through flow battery applications.

The association gathers interested stakeholders to advance research, commercialisation and deployment of flow batteries. To achieve this, FBE engages and promotes flow batteries with European and other relevant organisations.

## FBE'S PRIORITIES



Unite flow battery stakeholders to speak with a powerful and unified voice.



Advocate for more lighthouse projects in the EU and update members on funding opportunities at the EU level.



Identify key business cases and contexts where flow batteries tend to do better than other technologies.



Showcase flow battery projects and success stories. Promote the advantages of flow batteries.



Advocate for harmonised non-fossil focused legal framework at the EU level and implementation in the Member States.



# FBE Structure

## President

Kees van de Kerk (Volterion)

## Vice-Presidents

Johannes Häntzschel (Prolux Solutions)

Ralf Zahn (izM)

## Treasurer

Thomas Gebauer (Redox One)



### Secretary General

Anthony Price

[a.price@flowbatterieseurope.eu](mailto:a.price@flowbatterieseurope.eu)



### Policy Officer

Beata Viršumirska

[b.virsumirska@flowbatterieseurope.eu](mailto:b.virsumirska@flowbatterieseurope.eu)



### Communications Officer

David Twomey

[d.twomey@flowbatterieseurope.eu](mailto:d.twomey@flowbatterieseurope.eu)



### Junior Policy Officer

Daniela Pöhl

[d.pohl@flowbatterieseurope.eu](mailto:d.pohl@flowbatterieseurope.eu)





# Recap of the year

## January

In 2024, Europe's political agenda was dominated by the European Parliamentary elections. FBE outlined key energy and environmental policy topics on the table.

FBE co-signed the open letter urging the European Commission for continued investment in battery R&I under the Horizon Europe programme.

## February

EU institutions agreed on the Net-Zero Industry Act (NZIA) and the Strategic Technologies for Europe Platform (STEP) – FBE published a press release.

The Commission proposed a 2040 target of a 90% net GHG reduction, and a new Strategic Research & Innovation Agenda (SRIA) for batteries was released.

FBE launched the Technology Innovation Survey.

## March

FBE launched the communications campaign 'Understanding Product Environmental Footprint' on new EU rules to calculate CO2 footprints.

FBE attended the Invinity battery launch event, opening its flow battery installation in Aalst, Belgium.

## April

FBE published its Manifesto for the European Elections, outlining key policy asks to support the flow battery industry and accelerate the green transition.

FBE participated in the Cleantech Conference and represented the flow battery sector at the event 'Looking Ahead: Net Zero Technologies & PFAS', highlighting impacts of a potential PFAS ban on the industry.

Jena Flow Batteries joined FBE.

## May

FBE promoted its Manifesto in front of decision-makers and flow battery stakeholders and responded to the public consultation on the format of the carbon footprint calculation, highlighting the importance of considering the reuse of flow battery electrolytes.

VoltStorage joined FBE.

## June

FBE hosted a webinar on carbon footprint calculation for flow batteries, aligned with the Batteries Regulation. FBE exhibited also at ees in Munich, co-organised the IFBF in Glasgow, and held its General Assembly.

The European Parliamentary Elections took place.

HalioGen Power joined FBE.





## ● July

FBE met with DG Research & Innovation of the European Commission, introducing FBE to the new Head of Unit for Clean Energy Transitions, and discussed with the US Department of Energy the state of commercialisation of flow batteries and pathways to address existing market barriers.

FBE co-signed a joint statement on the next Framework Programme for Research and Innovation, calling for an increased RD&I budget.

## ● August

FBE met with the Joint Research Centre (JRC) scientists working on the recycling efficiency rules for waste batteries, discussing flow battery components to be considered for recycling rules under the Batteries Regulation.

## ● September

The report on the Future of EU Competitiveness by Mario Draghi was released, crucial in setting the path for the EU's strategic direction.

The flow battery industry has been working on developing performance and durability standards, in line with the Batteries Regulation's requirements applicable in June 2025. The JRC sought for input for developing the standards.

## ● October

FBE attended the Energy Storage Global Conference in Brussels and exhibited at Enlit in Milan, showcasing its influential work to other industry stakeholders.

On the occasion of the 40th anniversary of the vanadium flow battery, FBE invited its co-inventor Maria Skyllas-Kazacos to a webinar on the development and future potential of the flow battery industry.

Unbound Potential joined FBE.

## ● November

FBE released the first of the Reports on Regions series, covering energy storage policies with a focus on flow batteries in the Asia-Pacific region and policy recommendations for Europe. A webinar presented key insights and featured speakers from China, Japan and Australia

KN Energies and Flexbase Group joined FBE.

## ● December

FBE held its General Assembly, where the work of 2024 was reflected upon and new members welcomed. Priorities and the way forward for 2025 were decided.

FBE's working group on carbon footprint calculation for flow batteries held its first meeting. Over the coming year, the group will develop a methodology to calculate the CO2 footprint of the technology.



# Advocacy Work

## The Batteries Regulation: Ongoing Work on Secondary Legislation



Although flow batteries are now regulated under the Batteries Regulation, in force since August 2023, much work remains to define the rules through secondary legislation. In 2024, FBE worked to ensure the flow battery industry's needs were represented in the development of implementing and delegated acts.

FBE engaged in discussions on critical provisions, including battery labels, which will be required for all industrial batteries from August 2026 onwards, and producer registration and reporting obligations, which take effect in 2025. These requirements need careful alignment with the realities of the flow battery industry.

A challenge has been establishing the standards for calculating performance and durability parameters. From August 2024, industrial batteries must include documentation on these parameters, but no agreed methodology currently exists for flow batteries. FBE advocated for collaboration between industry stakeholders and policymakers to address this gap by the 2026 deadline.

The battery passport and carbon footprint declaration are other key priorities. From 2027 onwards, industrial batteries must be equipped with a digital product passport (DPP), providing product-specific information designed to enhance transparency in battery manufacturing and facilitate comparability across different battery models.

A key component of the battery passport is the calculation and reporting of batteries' carbon footprint. Flow batteries will require a Carbon Footprint Declaration from 2030. Although no universally applicable methodology currently exists, the European Commission plans to establish one by 2029. To ensure the unique characteristics of flow batteries are addressed, FBE has launched a dedicated working group to develop a tailored methodology and will continue collaborating with the JRC and the European Commission.

By uniting flow battery stakeholders and actively contributing to regulatory discussions, FBE continues to strengthen the industry's position and ensure it is prepared to meet the new requirements introduced by the Batteries Regulation.



**In 2024, FBE was working to ensure that the flow battery industry's needs are represented in the secondary legislation of the Batteries Regulation.**



# Net-Zero Industry Act and Strategic Technologies for Europe Platform

The Strategic Technologies for Europe Platform (STEP) and the Net-Zero Industry Act (NZIA) are key EU initiatives aimed at strengthening Europe's cleantech sector. Both regulations are crucial for reducing dependency on imports and advancing the EU's climate goals. However, the broad scope of eligible technologies risks limiting support for essential sectors like energy storage.

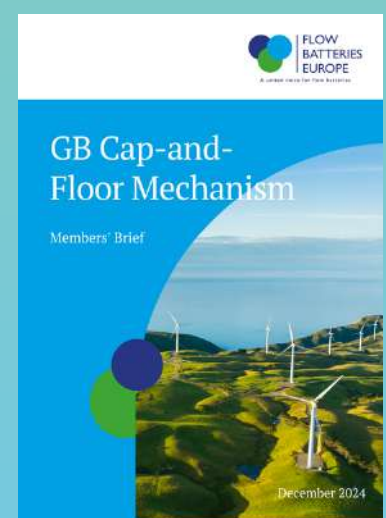
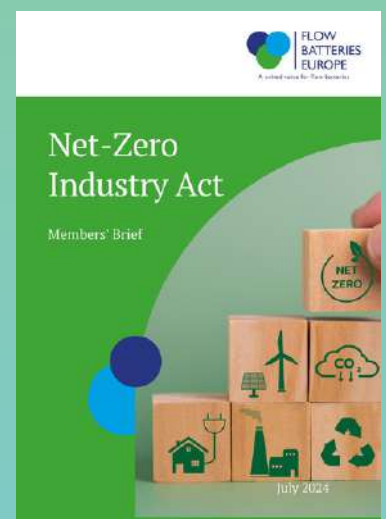
STEP coordinates resources across 11 EU funding programmes, focusing on three primary investment areas: digital technologies, clean and resource-efficient technologies, and biotechnologies. The platform aims to enhance the EU's competitiveness and resilience by mobilising resources to support the green and digital transformations.

Similarly, the NZIA aims to scale up net-zero technology manufacturing and enhance supply chain resilience, aligning with the European Green Deal and Fit for 55 objectives. Both initiatives seek to reduce dependency on imports and accelerate the EU's climate goals.

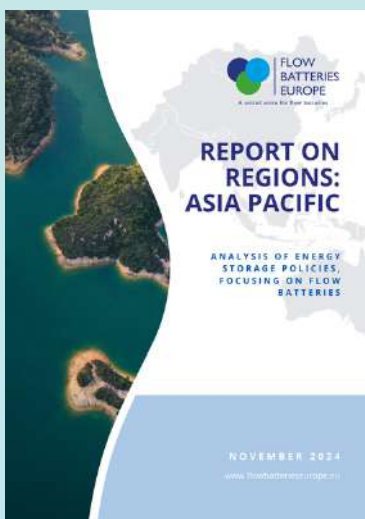
FBE welcomes these initiatives but expresses concern about the broad scope of eligible technologies within STEP and NZIA, which may dilute support for crucial sectors like energy storage. While the NZIA provides important provisions for simplified permitting and workforce training, and STEP offers resources for coordination, the lack of concrete, technology-specific funding remains a critical issue.

In 2024, FBE actively engaged with policymakers on the NZIA and STEP through various initiatives, including publishing a position paper, signing joint letters, preparing policy briefs for members, and issuing a press release.

These efforts emphasised the need for a more focused approach, calling for tailored regulations and increased funding opportunities to prioritise flow batteries within the EU's broader green transition. FBE worked closely with EU stakeholders to ensure the flow battery sector received the necessary support to thrive and contribute to Europe's long-term net-zero objectives.



*Comprehensive reviews of policy topics are available to members of Flow Batteries Europe.*



Explore all our publications and initiatives on our website: [www.flowbatterieseurope.eu](http://www.flowbatterieseurope.eu)

## FBE's Manifesto for the 2024 European Elections

The EU's political agenda in 2024 was dominated by the elections of the European Parliament held in June. The EU faces challenges in meeting the decarbonisation targets set by the European Green Deal. Reliable long-duration energy storage (LDES), such as flow batteries, is essential to ensure a stable energy supply as renewable energy deployment rises. Flow batteries stand out due to their sustainability, long lifespan, and ability to address energy security, grid stability, affordability, and supply chain resilience.

Hence, FBE released its Manifesto, outlining four key EU policy goals and presenting actionable solutions to ensure a smooth transition to climate neutrality.

The FBE Manifesto focuses on strategic priorities for the EU: achieving decarbonisation targets; strengthening energy security and grid stability; ensuring energy affordability and consumer protection; and diversifying and securing energy storage solutions.

To support these priorities, the Manifesto identifies 10 critical steps for the 2024-2029 legislative term. These include creating favourable conditions for flow battery deployment, supporting local manufacturing and supply chains, setting deployment targets, incentivising grid integration, and ensuring the bankability of LDES technologies. Additionally, FBE called for enhanced R&D funding and targeted skills initiatives to bridge workforce gaps.

## Reports on Regions: Asia Pacific

In 2024, FBE expanded its attention to developments outside Europe to draw lessons from global leaders in energy storage and flow battery deployment. The Asia Pacific region, in particular, emerged as a key focus due to its rapid advancements in energy storage policies and its positioning as the largest market for flow batteries.

FBE released the first of the Reports on Regions series on Asia Pacific, analysing the policy landscapes of major countries such as China, Japan, Australia, and South Korea. These nations have established ambitious targets and robust frameworks to foster energy storage and flow battery innovation and commercialisation.

China, for instance, has made significant strides with large-scale flow battery projects supported by the 14th Five-Year Plan for Energy Storage. Japan and Australia have prioritised innovative storage technologies, supply chain security, and enhanced investment schemes.

By studying these developments, FBE highlighted the contrast with Europe's current energy storage trajectory and stressed the need for more sustained policies and investments. This report aims to encourage Europe to draw lessons from the Asia Pacific region to enhance its competitiveness and accelerate the clean energy transition.

## EU Funding Advocacy

FBE actively represents flow battery stakeholders and provides members with updates on funding opportunities.

As part of Batteries Europe, we contributed to the Strategic Research Agenda for flow batteries, ensuring their inclusion in EU funding priorities. To support battery R&I, FBE co-signed an open letter urging continued investment under the BATT4EU Partnership and co-signed a joint statement advocating for increased R&I funding in the next Framework Programme (FP10).

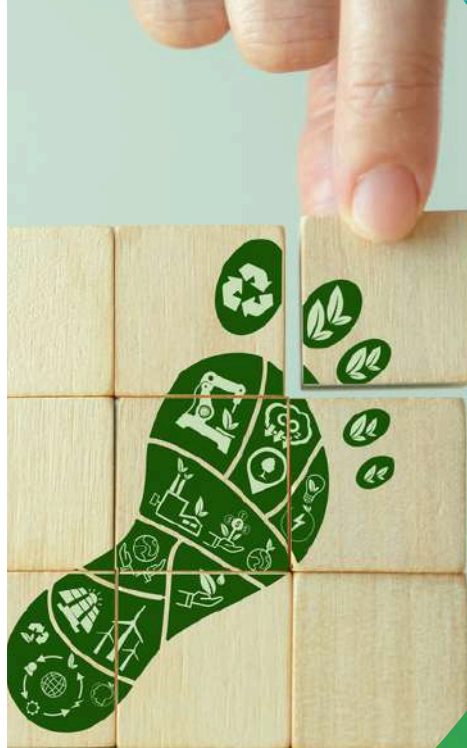
FBE also informed members about key EU funding opportunities, including the 2025 Innovation Fund call and the Horizon Europe call on long-duration storage. For the latter, we organised a webinar with EU funding experts to guide those interested through the application process.

## GB Cap-and-Floor Mechanism

In October 2024, the UK Department for Energy Security and Net Zero confirmed plans to support long-duration energy storage (LDES) projects through a cap-and-floor mechanism. This model addresses high upfront costs and unpredictable revenue by providing top-up payments if revenues fall below the floor and requiring developers to return excess earnings above the cap.

The scheme, overseen by Ofgem, aims to deploy the UK's first significant LDES facilities in nearly 40 years, supporting renewable energy integration, energy security, and grid management, while unlocking funding and creating jobs. Recognising LDES's role in stabilising costs and supporting net-zero goals, the UK Government sees it as a key initiative to ensure a cleaner and more resilient energy system.

FBE welcomes this decision and has informed members about its implications for the flow battery sector. In 2025, FBE continues to monitor the scheme's progress and keeps members updated.



## Working Group on Carbon Footprint Calculation for Flow Batteries

### Batteries Regulation: The Carbon Footprint Declaration

As the Battery Regulation takes a full life cycle approach, a central part of the legislation is that battery producers, importers, and distributors along the EU supply chain have to report on their batteries' carbon footprint (CFB). The CFB must consider the raw material acquisition and pre-processing, main product production, distribution, and end-of-life and recycling. From 2030 onwards, every flow battery placed on the European market must include this information in a Carbon Footprint Declaration.

### The project: Developing a Robust Methodology

To proactively address these requirements, FBE is developing a dedicated carbon footprint calculation methodology for flow batteries. This effort aims to help shape future CFB rules while preserving industry credibility and competitiveness. Throughout 2024, FBE has worked intensively to establish a dedicated working group of 16 committed industry stakeholders, with the project's start in December 2024.

Over 2025, the group will collaborate to create a methodology that meets specific industry needs and undergoes rigorous testing based on the Life Cycle Assessment approach. Key elements of the methodology, including the functional unit, representative manufacturing processes, verification of battery lifetime, end-of-life processes, and data modelling, will be defined.

### The Outcome: Acquiring Skills and Shaping Final Rules

By participating, organisations are not only preparing for future regulatory requirements but are also actively influencing the European Commission's final calculation rules. This initiative ensures the sector remains compliant, competitive, and ready for the upcoming challenges.



01

### Looking Ahead: Net Zero Technologies & PFAS, Brussels — April 2024

FBE presented at the event ‘Looking Ahead: Net Zero Technologies & PFAS’ which was organised by the European Partnership for Energy and the Environment (EPEE). We were invited to share our insights and position during this esteemed gathering. The debate gathered industry stakeholders to discuss the PFAS restriction implications in various sectors.



02

### Flow Batteries Europe’s Manifesto Webinar — May 2024

FBE hosted a pivotal webinar titled “Accelerating Europe’s Green Transition: The Crucial Role of Flow Batteries” in anticipation of the EU elections in June 2024. The event served as a platform for industry stakeholders and policymakers to engage in a comprehensive dialogue about the future of the flow battery sector and its critical role in Europe’s green transition.

### EES Europe, Munich — June 2024

FBE had an exhibition stand at the EES Europe in Munich, Germany. It is Europe’s largest international exhibition for batteries and energy storage systems. EES Europe provided a cross industry and cross sector meeting point and played host to many in-depth discussions of hot industry topics.

03



04

### The International Flow Battery Forum, Glasgow — June 2024

FBE was an organiser of the pre-conference (IFBF) workshop on flow batteries and held its 9th General Assembly in Glasgow, Scotland. Additionally, FBE successfully contributed to the organisation of the 2024 edition of the IFBF, which attracted over 300 delegates. Many FBE members had an opportunity to present their projects and showcase great results.

# Visibility and Events



# 05

## Energy Storage Global Conference, Brussels – October 2024

FBE attended the Energy Storage Global Conference (ESGC) along with more than 380 energy storage stakeholders and policymakers. With three separate days dedicated respectively to policy, market, and technology, there was plenty of activity and interest in FBE.



# 06

## Enlit Europe, Milan – October 2024

FBE had an exhibitor stand at Enlit Europe which gave us the opportunity to network and interact with industry representatives, academics, and other interested parties.



# 07

## Celebrating 40 Years of Vanadium Flow Batteries Webinar – October 2024

FBE hosted a webinar to mark the 40th anniversary of vanadium flow batteries. The webinar featured an exclusive interview with Emeritus Professor Maria Skyllas-Kazacos AM (UNSW), the co-developer of the first vanadium flow battery, along with two FBE members.



# 09

## FBE General Assembly, Brussels – December 2024

The FBE Secretariat organised its second General Assembly of the year in Brussels. FBE presented the association's advocacy activities, ongoing projects, publications, communications campaigns, successes stories and plans for 2025.



# 08

## Virtual Battery Day – November 2024

FBE's Policy Officer, Beata Virsumirska presented online at the Virtual Battery Day 2024 event (Germany). She spoke about FBE's ongoing activities, achievements and how the association helps flow battery stakeholders.



# 10

## Working Group on Carbon Footprint Rules for Flow Batteries kick-off – December 2024

The kick-off meeting for the Working Group brought together participants to discuss and define the next steps forward. The Working Group aims to influence the development of carbon footprint calculation rules for flow batteries by working closely with industry stakeholders.



# Working Programme



FBE boasts three dynamic Committees: Business Development, Technology, and Communications. Members are empowered to select the committee that aligns with their interests and expertise. Within each committee, collaboration thrives as members collectively decide on crucial topics and anticipated outcomes. Work in the committees fosters knowledge sharing and synergistic collaboration among members, driving innovation and progress within the association.

## Business Development Committee

**Chair:** Jan grosse Austing, Vanevo

A central topic of the Business Development Committee in 2024 was to look into business cases for flow batteries. The main goal has been to showcase the advantages of flow batteries from an economic and commercial perspective. The long duration and scalability of flow batteries make them an ideal storage technology to manage the variability of renewable energy and thus an essential technology for the energy transition.

Therefore, the Committee tackled cases for front-of-the-meter as well as behind-the-meter applications. Additionally, members looked into capacity and energy markets in different parts of the world, including Europe and North America. Some group members have been involved in a project related to a business case on the collocation of flow batteries with gas peaker power plants, whose results are expected in 2025.

## Technology Committee

**Chair:** Amirreza Khataee, KTH

FBE's Technology Committee is focused on technical aspects and progress of flow battery technology. In light of carbon footprint calculation requirements, the Committee discussed critical aspects which need to be defined for flow batteries, such as the functional unit and the reference flow. The Committee also launched the Technology Innovation Survey, which aims to identify key research areas which deserve specific funding attention.

## Communications Committee

**Chair:** Juergen Wieshoff, i2m

The Communications Committee proactively communicated about flow battery technology and its advantages. With the European Parliamentary Elections in June 2024, the Committee worked on publishing the FBE Manifesto, which it promoted in a webinar ahead of the elections, in order to ensure flow batteries and LDES are considered during the next legislative term.

Moreover, the Committee continue its work on the Flow Batteries Tour, showcasing flow battery projects being undertaken by FBE members in Europe and beyond. In addition, the group has started its work on a flow battery installations map, which will demonstrate projects around the world. In order to communicate flow batteries as a market-ready technology, the Committee developed a visual on flow battery business cases and advantages.







# Closing comments by the FBE Secretary General, Anthony Price



## Anthony Price

Flow Batteries Europe  
Secretary General

In 2024, FBE played a pivotal role in fostering the growth of the flow battery sector. We brought together companies and institutions across the industry to exchange ideas, shape policy, and enhance the visibility of flow battery technology. Our advocacy activities are making significant progress, providing our members with increased visibility and promoting the sector among policymakers, politicians, regulators, and the customers for energy storage in finance, industry, and commerce.

Throughout the year, FBE made significant progress in the continued rollout of flow batteries across Europe. By collaborating with companies and institutions spanning the entire value chain, FBE worked to elevate the visibility and importance of flow batteries.

We strengthened our engagement with European policymakers, ensuring that flow batteries were represented on key topics throughout the year. These efforts provided our members with a cohesive and influential voice at the European level.

FBE fully supports the EU's mission to achieve a sustainable energy transition and decarbonise Europe, offering solutions to advance this goal. While the number of flow battery projects continues to grow each year, the scale and pace of development must accelerate, and increased investment will be a key aspect to achieve this.

We are proud to have embarked on an important new initiative: our Working Group on Carbon Footprint Rules for Flow Batteries. This initiative is a testament to the collaborative spirit and commitment of the flow battery sector to take charge of its future. The work on carbon footprint calculation methodology is more than just a regulatory requirement – it represents a strategic opportunity to guide policymakers and ensure that the unique characteristics of our technology are understood and accounted for.

FBE co-organised the IFBF 2024, held in Glasgow, Scotland bringing together key players in the industry and some of the greatest minds in flow batteries. The event was a tremendous success, with 350 attendees and almost 20 exhibitors from across the globe coming together to learn and share their knowledge of flow batteries. We will be back in Vienna in 2025 for the 17th edition of the IFBF, and it promises to be as exciting as ever.

During the year, FBE took part in several key industry events across Europe, engaging with stakeholders and promoting flow battery technology. In June, we attended the ees exhibition as exhibitor in Munich. Following this, we attended the Energy Storage Global Conference in Brussels and also participated as an exhibitor at Enlit Europe in Milan.

As FBE grows alongside the expanding flow battery sector, our voice will become even more influential in shaping the landscape of the European energy transition. Be part of the movement to make 2025 the year of flow batteries!



# FBE Members

FBE now brings together 32 members from across the entire flow battery value chain! 6 new members joined the association over the last year. We look forward to welcoming many more!



## HalioGen Power Limited

Graphene Engineering and Innovation Centre  
The Masdar building  
Sackville St  
Manchester  
M1 3BB  
[www.halio-gen-power.com](http://www.halio-gen-power.com)



## Amer-Sil

61, rue d'Olm  
8281 Kehlen  
Luxembourg  
[www.amer-sil.com](http://www.amer-sil.com)



## i2M

Schwieberdinger Str. 126  
71636 Ludwigsburg  
Germany  
[www.i-2-m.com](http://www.i-2-m.com)



## Bryte Batteries

Solveig Abrahamsens veg 34B  
7054 Ranheim  
Norway  
[www.brytebatteries.com](http://www.brytebatteries.com)



## Jena Flow Batteries

Otto-Schott-Strasse 15,  
07745 Jena  
Germany  
[www.jenaflowbatteries.de](http://www.jenaflowbatteries.de)



## CellCube

IZ NÖ-Süd Straße 3 Objekt M36  
2355 Wiener Neudorf  
Austria  
[www.cellcube.com](http://www.cellcube.com)



## KEMIWATT

11 Allée de Beaulieu  
35000 Rennes  
France  
[www.kemiwatt.com](http://www.kemiwatt.com)



## Cic energyGUNE

Albert Einstein 48  
1510 Vitoria-Gasteiz  
Spain  
[www.cicenergigune.com/en](http://www.cicenergigune.com/en)



## KN Energies

Burių g. 19,  
LT-92276 Klaipėda,  
Lithuania  
[www.kn.lt](http://www.kn.lt)



## CENELEST

Fraunhofer ICT,  
Joseph-von-Fraunhofer Str.7 76327  
Pfinztal, Germany  
[www.ict.fraunhofer.de](http://www.ict.fraunhofer.de)



## KTH Royal Institute of Technology

Brinellvägen 8  
114 28 Stockholm, Sweden  
[www.kth.se](http://www.kth.se)



## FlexBase

Werkstrasse 12,  
5080 Laufenburg  
Switzerland  
[www.flexbase.ch](http://www.flexbase.ch)



## Largo Clean Energy

500 Research Drive,  
Wilmington,  
MA 01887  
[www.largoinc.com](http://www.largoinc.com)



## W.L. Gore & Associates

Hermann-Oberth-Str. 26 85640  
Putzbrunn Germany  
[www.gore.com](http://www.gore.com)



## Norge Mineraler AS

Langholmveien 6,  
4373 Egersund,  
Norway  
[www.norgemineraler.com](http://www.norgemineraler.com)



**Oxkem**  
117 Loverock Road  
Reading, Berkshire  
RG301DZ, United Kingdom  
[www.oxkem.com](http://www.oxkem.com)



**Pinflow Energy Storage**  
Křižovnická 86/6  
110 00 Prague  
Czech Republic  
[www.pinflowes.com](http://www.pinflowes.com)



**Prolux Battery Storage**  
Pankofen - Bahnhof 1  
94447 Plattling  
Germany  
[www.prolux-solutions.com](http://www.prolux-solutions.com)



**Quino Energy**  
2235 Polvorosa Ave Suite 230  
San Leandro, CA 94577  
USA  
[www.quinoenergy.com](http://www.quinoenergy.com)



**Redox One**  
P.O. Box 62425  
8046 Paphos  
Cyprus  
[www.redoxone.com](http://www.redoxone.com)



**SBaA**  
Namestie 1.maja 18  
81108 Bratislava  
Slovakia  
[www.sbaa.sk](http://www.sbaa.sk)



**Stolthaven Terminals**  
Westerlaan 5  
3016CK Rotterdam  
Netherlands  
[www.stolt-nielsen.com](http://www.stolt-nielsen.com)



**Tekniker**  
Calle Iñaki Goenaga 5  
20600 Gipuzkoa  
Spain  
[www.tekniker.es](http://www.tekniker.es)



**Unbound Potential**  
Bönirainstrasse 14/16  
CH-8800 Thalwil  
Switzerland  
[www.unbound-potential.com](http://www.unbound-potential.com)



**Vanevo**  
Johann-Hinrich-Engelbart-Weg 2  
26131 Oldenburg  
Germany [www.vanevo.de](http://www.vanevo.de)



**Vanitec**  
Hildenbrook House, The Slade  
TN9 1HF Tonbridge  
United Kingdom  
[www.vanitec.org](http://www.vanitec.org)



**Voith**  
St. Pöltener Str. 43  
89522 Heidenheim an der Brenz  
Germany  
[www.voith.com](http://www.voith.com)



**Volterion**  
Carlo-Schmid-Allee 3  
D-44263 Dortmund  
Germany  
[www.volterion.com](http://www.volterion.com)



**VoltStorage**  
Detmoldstr. 26-28 80935  
Munich  
Germany  
[www.voltstorage.com](http://www.voltstorage.com)



**Wevo-Chemie**  
Schönbergstrasse 14  
73760 Ostfildern-Kemnat  
Germany  
[www.wevo-chemie.de](http://www.wevo-chemie.de)



**XL Batteries**  
33 Locke Dr MA 01752  
Marlborough  
USA  
[www.xl-batteries.com](http://www.xl-batteries.com)



**ZHAW**  
Gertrudstrasse 15  
CH-8401 Winterthur  
Switzerland  
[www.zhaw.ch](http://www.zhaw.ch)



# FLOW BATTERIES EUROPE

A united voice for flow batteries



Avenue Adolphe  
Lacomblé 59/8BE,  
1030 Brussels, Belgium

[www.flowbatterieseurope.eu](http://www.flowbatterieseurope.eu)  
+32 (0) 2 743 29 86  
[b.virsumirska@flowbatterieseurope.eu](mailto:b.virsumirska@flowbatterieseurope.eu)