

FCC and Iberdrola extend their collaboration in the circular economy and will work with Glencore to develop battery recycling in Spain

- **Glencore is one of the world's largest natural resource companies and a major producer, recycler and marketer of battery metals.**
- **The exponential adoption of electric vehicles will lead to a rapid increase in battery recalls, which will be around 35,000 metric tonnes per year in Spain by 2035.**
- **This collaboration reinforces the circular economy strategies of FCC and Iberdrola, which are already working to address the recycling of wind turbine blades.**

11/04/2023

FCC Ámbito, a subsidiary of FCC Servicios Medio Ambiente, and Iberdrola, through its PERSEO Venture Builder programme, will collaborate with Glencore to tackle one of the biggest medium- and long-term challenges in the energy sector and will seek to provide industrial-scale lithium-ion battery recycling solutions on the Iberian Peninsula through the development of a specialised facility.

Glencore is one of the world's largest diversified natural resource companies and a major producer, recycler and marketer of key metals for battery production. FCC Ámbito is the subsidiary of FCC Servicios Medio Ambiente, leader in Spain and Portugal in the integrated management of industrial and commercial waste. Iberdrola is a world leader in renewable energy and, through its PERSEO Venture Builder programme, aims to facilitate access to the technologies of the future with a focus on sustainability. Together, the parties will combine their capabilities to develop comprehensive management solutions for lithium batteries from both manufacturing rejects and end-of-life batteries.

In collaboration with the Iberian Energy Storage Research Centre (CIIAE), the parties have carried out an in-depth analysis of the potential battery recycling market in the Iberian Peninsula and are working to identify the right technology partners to carry out the facility. The plant, which will be operated by FCC Ámbito, will allow the pre-separation of lithium-ion batteries for subsequent refining.

To this end, this alliance will seek to establish the strategic arrangements necessary for the effective recovery of lithium batteries, extending the positive impact of the initiative to other actors along the entire value chain. It will also contribute to the research and development necessary for the effective circularity of these materials.

The exponential adoption of electric vehicles will lead to a rapid increase in battery recalls - which will be around 35,000 metric tonnes per year in Spain by 2035 - and new battery manufacturing rejects. In this context, this collaboration aims to develop an industrial facility that will be ready when such recycling capacities are required on the peninsula.

In this way, FCC and Iberdrola are extending the collaboration they began to tackle the recycling of wind turbine blades, for which purpose they created the company EnergyLoop. This new effort further reinforces the circular economy strategies of FCC Ámbito and Iberdrola, which see this model of production and consumption as a key lever for the energy transition.

Kunal Sinha, Global Head of Recycling at Glencore, emphasised that "we are delighted to be part of this alliance on battery circularity with Iberdrola, a world leader in renewable energy, and FCC Servicios Medio Ambiente, a leader in waste management services in Spain and Portugal. Together, we will seek to leverage the individual strengths of each company to bring circularity to the lithium-ion battery ecosystem in the Iberian Peninsula.

This collaboration supports our ambition to grow our recycling business in new markets. We are excited to drive this initiative in Spain, where Glencore has operated one of the world's largest zinc smelters since 1960.

At Glencore, we see production waste and post-consumer materials as valuable resources that will help meet the growing demand for the critical metals that underpin the energy transition and the global ambition to achieve net-zero emissions".

María Jesús Kaifer, Technical Director and Head of Circular Economy at FCC Ámbito, highlighted that "with this collaboration, our company continues its pursuit of strategic growth objectives, on which it has been working, such as the development of recycling solutions for materials related to the energy transition.

It is a continuation of our commitment to the recovery of resources contained in waste in order to minimise dependence on raw materials.

The recycling of lithium-ion batteries is a challenge we are facing together with two leading companies in their sectors, Iberdrola and Glencore, in order to join forces to ensure the necessary recycling capacities.

Álvaro Portellano, Head of PERSEO Venture Builder at Iberdrola, commented that "sustainable business models are at the core of Iberdrola's strategy, which is demonstrated by more than two decades of leadership in the global renewable industry and in driving the transition to a decarbonised economy.

At Iberdrola, we see this new collaboration as a valuable opportunity to contribute to the circularity of the elements of the energy transition that we are driving, as well as expanding the scope of our successful partnership with FCC, which is already addressing the recycling of wind turbine blades.

In 2020, the PERSEO Venture Builder programme was launched to promote the development of innovative industries such as, among others, those related to the circular economy. In that regard, we are excited to combine that objective with the strengths and capabilities of Glencore and FCC,

global leaders in the natural resources and waste management industries, respectively, to lead the recycling of lithium-ion batteries in the Iberian Peninsula".

Aligned with FCC Environment's Sustainability Strategy 2050

FCC Ámbito is the subsidiary of FCC Servicios Medio Ambiente specialising in the integrated management of industrial and commercial waste, recovery of by-products and soil decontamination. As a whole, it has a total of 39 treatment centres in Spain and Portugal, with more than 67 processing lines that guarantee the functionality of the facilities.

FCC Servicios Medio Ambiente is the FCC Group company that has been providing municipal services and integrated waste management for 120 years, serving more than 60 million people in 5,200 municipalities around the world. In 2021, the company managed 24 million tonnes of waste and produced nearly four million tonnes of secondary raw materials and fuel derived from waste.

FCC Ámbito contributes its extensive experience in the recycling and marketing of secondary raw materials for the definition of the operational processes in the development of the projects arising from this alliance. The incorporation of new technologies in this type of project will allow FCC Ámbito to consolidate and position itself as a key player in the country's circular economy processes, a fundamental pillar of FCC Environment's 2050 Sustainability Strategy.

This Sustainability Strategy consists of a 30-year business development roadmap that integrates very demanding objectives and commitments with high added value for the company and society as a whole, and which are grouped into four lines of action: environmental, social, excellence and good governance.

The circular economy, at the core of the Iberdrola Group's sustainable business model

This collaboration responds to Iberdrola's commitment to a sustainable energy model and is part of its PERSEO Venture Builder programme to promote the development of innovative industrial companies working in new areas of electrification and in sectors that are difficult to decarbonise.

Iberdrola defines its circular economy strategy as a process that affects its entire value chain, both its own production processes and those of its suppliers and customers. The group prioritises the contracting of companies with environmental management systems and, together with its suppliers, promotes eco-design, the analysis of the life cycle of products, and the use of materials with a low environmental impact.

The company also promotes the circular economy by reducing the use of natural resources through its commitment to decarbonisation and electrification, and the more sustainable use of natural resources by promoting the use of more efficient and cleaner technologies and processes. It also encourages research to develop solutions for waste use and promotes responsible consumption through environmental awareness programmes.

Since its creation in 2008, PERSEO has invested €100 million in start-ups that develop innovative technologies and business models, focusing on those that improve the sustainability of the energy sector through greater electrification and decarbonisation of the economy. The programme has focused its actions on the analysis of business opportunities and technological collaboration with *start-ups* and emerging companies around the world.

Through PERSEO, the Venture Builder programme was launched in 2020 with €40 million for the creation of new business models aimed at supporting electrification in sectors that are difficult to decarbonise and the development of circular economy solutions, among others.

Glencore: recycling towards a true circular economy

Glencore recognises its responsibility to contribute to the global effort to achieve the Paris Agreement targets through decarbonising its own carbon footprint and takes a holistic approach to its global industrial emissions. Against the 2019 baseline scenario, Glencore is committed to reducing its Scope 1, 2 and 3 industrial emissions by 15% by the end of 2026, 50% by the end of 2035 and has an ambition to achieve zero net industrial emissions by the end of 2050.

This collaboration strengthens Glencore's recycling platform, which provides infrastructure to contribute to the goals of a circular economy. Through its industrial assets, Glencore has over 75 years of experience in the recycling business and actively recycles copper, nickel, cobalt, zinc and precious metals. By recycling these metals responsibly, it contributes to the circular economy, removing materials from landfills and helping to reduce environmental impacts.

Aiming to expand its recycling footprint across the commodity complex, it is looking to invest in capacity expansions in our core markets of Europe and North America, and to enter new markets that currently lack formal and responsible recycling points for end-of-life materials. Glencore seeks to significantly expand its role in recycling in the metals chain necessary for the decarbonisation of the economy. There is a growing recognition of the need to increase the use of secondary metals, for which its recycling business is well positioned.