

Solid state sulfide Based LI-Metal batteries for EV applications

Deliverable 6.6 – Cell cost assessment

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Publishable summary

This document provides an overview of cost-efficiency of the technology proposed by the SUBLIME project. The results included in this deliverable are part of the task 6.9 “Cell cost assessment” developed in the frame of WP6.

As the demand for EVs continues to grow, the successful implementation of innovative battery technologies will be crucial in supporting the transition to a low-carbon economy and ensuring that the benefits of electric mobility are realized on a global scale.

To calculate the costs associated with the battery cells developed in the project, an Excel tool was developed and utilized with the aim to estimate the cost associated with the new materials and processes used in the development of sulfide-based batteries.

The current version of the Excel-based tool provides a solid foundation for estimating material costs, and by adjusting cell parameters, it is possible to test different scenarios proposed in the project. This allows flexibility in evaluating how changes in materials or processes might impact the overall cost and performance of the battery cells.

The cost estimation tool being developed as part of the project plays a crucial role in ensuring that the technology is not only technically feasible but also economically viable, paving the way for large-scale commercial adoption in the future. The Horizon Europe program, which is the European Union's key funding initiative for research and innovation, has set ambitious cost reduction targets for energy storage technologies. One of the key goals is to reduce the cost of battery energy storage systems to 75 €/kWh by 2030. This target is crucial for enabling the widespread adoption of energy storage technologies in various sectors, including electric vehicles (EVs) and renewable energy integration. At this point it is important to emphasise that within the development of new technology it is a gradual process to determine the best way for scaling up the production processes and although at this point the Sublime cell meet all the requirements defined, next steps after this project could be focused on scaling up this technology.

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Project partners

#	PARTICIPANT SHORT NAME	PARTNER ORGANISATION NAME	COUNTRY
1	FEV	FEV Europe GmbH	Germany
2	ABEE	AVESTA BATTERY & ENERGY ENGINEERING	Belgium
3	CICE	CENTRO DE INVESTIGACION COOPERATIVA DE ENERGIAS ALTERNATIVAS FUNDACION, CIC ENERGIGUNE FUNDAZIOA	Spain
4	FORD	FORD OTOMOTIV SANAYI ANONIM SIRKETI	Turkey
5	CRF	CENTRO RICERCHE FIAT SCPA	Italy
6	AIT	AIT AUSTRIAN INSTITUTE OF TECHNOLOGY GMBH	Austria
7	MIM	MIMI TECH GMBH	Germany
8	POL	POLITECNICO DI TORINO	Italy
9	SAFT	SAFT	France
10	SOL	RHODIA OPERATIONS	France
11	TNO	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO	Netherlands
12	Fraunhofer	FRAUNHOFER GESELLSCHAFT ZUR FOERDERUNG DER ANGEWANDTEN FORSCHUNG E.V.	Germany
13	CEA	COMMISSARIAT A L ENERGIE ATOMIQUE ET AUX ENERGIES ALTERNATIVES	France
14	UMC	Umicore	Belgium
15	UNR	Uniresearch BV	Netherlands

Table 3: Project Partners



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