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Affordable High-Performance Green Redox Flow Batteries

GRANT AGREEMENT No. 875613



## HIGREEW – Deliverable Report

<< D1.1 – System Specifications >>



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<b>Written By</b>	Eid Maraqah (GAMESA)	2020-02-05
<b>Checked by</b>	Eid Maraqah (GAMESA)	2020-02-26
<b>Reviewed by (if applicable)</b>	Marta Castilla / Eduardo Sánchez (CICe) David Hall (C-Tech)	2020-02-27
<b>Approved by</b>	Raquel Ferret (CICe)	2020-02-28
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## Publishable summary

The main goal of the HIGREEW project is to develop an aqueous organic redox flow battery (AORFB), that is fully functional, safe and cost-competitive with other energy storage technologies available in the market nowadays.

As first step to do so, one has to define the technical and economical specifications of the battery system. This report provides a summary of the main technical and economical KPIs that characterizes the HIGREEW battery on the system-level with the target value for each parameter defined. The targets are both ambitious and challenging, the thing that will help in the design of an innovative technical prototype that is price competitive.

Afterwards, the specifications of the materials and components on the cell are defined. The system-level specifications have been translated into some specific requirements or parameters that are presented in two scenarios: the first with the minimum requirements that need to be achieved by the HIGREEW system and a second one with some ideal and more challenging values that are in the accordance with the targets presented previously for the whole system.

The results and conclusions presented in this report should be used as a guide for the subsequent work packages that deal with the optimization of materials and the design of the power stack, as well as a primary input to the economical assessment tool that will be used to calculate the levelized cost of storage (LCOS).