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## Review of testing for BESS in consideration of implementing repurpose and reuse batteries

(IEC TR 62933-2-201:2024)

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# TECHNICAL REPORT



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**Electrical energy storage (EES) systems –  
Part 2-201: Unit parameters and testing methods – Review of testing for battery  
energy storage systems (BESS) for the purpose of implementing repurpose and  
reuse batteries**

INTERNATIONAL  
ELECTROTECHNICAL  
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## INTERNATIONAL ELECTROTECHNICAL COMMISSION

### ELECTRICAL ENERGY STORAGE (EES) SYSTEMS –

#### **Part 2-201: Unit parameters and testing methods – Review of testing for battery energy storage systems (BESS) for the purpose of implementing repurpose and reuse batteries**

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## INTRODUCTION

Battery energy storage systems (BESS) will become an important component of the energy infrastructure in the future as energy demand increases and the transition to sustainable power sources continues. Designing BESS using repurpose and reuse batteries requires a multidisciplinary approach that balances technical, economic, environmental, and regulatory considerations. This document reviews test methods and evaluations related to repurpose and reuse battery integration into BESS. As society seeks solutions to manage the dual challenges of energy storage and waste reduction, BESS evaluation methods become important. This report examines the obstacles to battery reuse based on the legal context and examples and aims to provide valuable insights that facilitate decision-making more efficiently.

## **ELECTRICAL ENERGY STORAGE (EES) SYSTEMS –**

### **Part 2-201: Unit parameters and testing methods – Review of testing for battery energy storage systems (BESS) for the purpose of implementing repurpose and reuse batteries**

#### **1 Scope**

This part of IEC 62933, which is a technical report, focuses on the necessity of using repurpose and reuse batteries in BESS. This document also illustrates, through case studies from various countries, how repurpose and reuse batteries are regulated as per legislation. Furthermore, business examples of BESS using repurpose and reuse batteries are investigated and issues derived in terms of both the design, manufacturing, testing, operation, and maintenance of BESS, considering the anticipated future deployment of BESS<sup>1</sup>.

#### **2 Normative references**

There are no normative references in this document.

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