

vgbe-Standard | VAIS-Merkblatt

Guideline for Acceptance Tests on Water-Electrolysis Plants

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--- Single-User-Version | Einzelplatzversion ---

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Preface

Water electrolysis is a key element on the road to a CO₂ neutral future. It will enable the production of hydrogen, which can be used as an energy source and raw material for industrial processes. In addition, water electrolysis can also help to store energy and stabilise the electricity grid.

To develop the full potential of water electrolysis, it is crucial that the systems work reliably and efficiently. This requires a standardised and binding basis for proof of guaranteed performance of water electrolysis plants as a milestone on the way to acceptance. These Acceptance Tests have long been established in energy technology and ensure that the guaranteed properties of a technical system can be verified. Experience from many projects shows that early and reliable agreements between the contractor and client ensure that the Acceptance Tests run efficiently and thus ensure the success of the project.

This document is the result of joint efforts by the VAIS and vgbE energy associations and the companies involved in the construction and operation of such plants.

Acceptance Tests on technical systems are a complex task that requires careful planning and implementation. These guidelines are intended to help make the Acceptance Tests as efficient and trouble-free as possible. They provide a standardised basis for the definition and determination of acceptance figures and agreed properties to ensure comparability between different systems. The aim is to develop a practical and easy-to-understand standard for Acceptance Tests of water electrolysis plants. Experience and findings from current and future projects will be incorporated into the further development of these guidelines

We hope that these guidelines will help to further establish water electrolysis as an important element on the way to a CO₂ neutral future and contribute to a sustainable energy supply. We would like to thank all those involved for their cooperation and commitment in the development of these guidelines.

Düsseldorf, July 2024

VAIS e.V.

Essen, July 2024

vgbE energy e.V.

Note: “British English” (BE) is usually used.

In English-language texts, the “dot” is generally used as the decimal separator with the “comma” as the thousands separator.

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