

Anubis Project

Publieke samenvatting / Public summary

Aanleiding

The transport sector is changing rapidly from being highly fossil-fuel dependent to being electricity-driven. Based on the assumption that after 2030, all cars, trucks and busses will be electrical, more than 150,000 tons of batteries will become available for recycling within the Netherlands each year. These batteries are currently classified as a waste products and sent to recycling facilities abroad. However, these batteries could have a second life: they hold enough capacity to be used in stationary applications. Stationary storage is a key element in the transition to a zero-carbon energy system. By recycling the batteries at a higher grade (defined as first being used in a stationary application) compared to conventional recycling, the battery resources are used more efficiently. By doing so, a significant amount of CO2 reduction can be achieved. To be able to do this, certain barriers and technical challenges need to be overcome.

Doelstelling

The goal of this project is to demonstrate and validate an innovative bus battery-based stationary energy storage plant for large scale rollout as a contribution to the high-grade recycling of bus batteries in the Netherlands. With the Anubis project, RWE aims to show that existing barriers and technical challenges can be overcome and that knowledge and experience regarding the construction and operation of the plant can be gained. This will lead to CO2 emission reduction in the Netherlands, as the batteries are recycled at a high-grade. Conventional recycling is delayed until less CO2 intensive recycling methods are available,

Projectinformatie / Project information

Projectnummer / Project number

DEI221020

Subsidiebedrag / Grant amount

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Algemene informatie / General information

Penvoerder / Secretariat

RWE Generation NL B.V.

Publicaties en materialen / Publications and attachments

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and using batteries as stationary storage improves the balance between electricity demand and the variable supply of renewable energy production.

Korte omschrijving

In the Anubis project, RWE will lease end-of-life bus batteries. These batteries will be used in a demonstration installation, which will be used to balance the transmission network. The activities as part of this demonstration are as follows: first, the batteries will be tested in preparation for the demonstration. Afterwards, RWE will apply for and obtain the relevant permits, conduct detailed engineering of the plant and secure contracts and offers. Then, RWE will start with the construction and commissioning of the plant. Finally, the plant will be tested and validated, after which conclusions will be drawn on the lessons learned from the process. All activities will be carried out by RWE itself, in collaboration with the supplier of the batteries.

Resultaat

The end result of the project is a fully functional demonstration Battery Energy Storage System (BESS) based on 2nd life bus batteries. The system is unique in the Netherlands and will result in effective high-grade recycling of bus batteries into a 2nd life situation, significant CO2 reductions compared to conventional recycling, and an effective increase in the recycling of waste streams. In addition, technical knowledge will be gained on the functioning of RWE's system and the project is used as an example to other e-mobility manufacturers that the batteries coming from their products can be recycled high grade.

De data in deze applicatie is afkomstig van de Rijksdienst voor Ondernemend Nederland (RVO) en wordt in samenwerking met de Topsector Energie ontsloten.

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