Open Real Time Development Platform for Smart Grids

Publieke samenvatting / Public summary

Aanleiding

Results of the stress-test in Lochem (IPIN project IN4Energy) have shown that, in future scenarios excessive loads from households and electrical vehicles may lead to a power outage as the total power consumption exceeds the fuse ratings of the low voltage network (the network is not designed for this excessive demand).

Doelstelling

This project aims at creating a development platform for soft-real time control applications. This platform will give 3rd party application developers the opportunity to develop (real-time) energy management applications that can utilise the maximum grid capacity without risking an outage. The platform is intended to an open platform to stimulate 3rd party application development.

Korte omschrijving

In this project an open Real-Time development platform (ORTEP) will be developed in which 3rd party development is stimulated. Data from energy management systems and real time measurement data from substation automation systems will provide the required information needed to control, plan and manage excessive loads in distribution grids. Task Locamation - Set up the ORTEP framework - Define APIs for 3rd party software - Set up a test environment for 3rd party software Task University of Twente - Design and development of the RT adaptive control algorithms - Resilience aspects of the ORTEP - Test the algorithms with a EV

Projectinformatie / Project information

Projectnummer / Project number
TEID215063
Subsidiebedrag / Grant amount
€ 796.800,00

Algemene informatie / General information

Penvoerder / Secretariat
Universiteit Twente

Publicaties en materialen / Publications and attachments

- **03.11.2021**

  Eindrapport TEID215063

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charging use case Task Stedin - Field trial - Consultancy - Evaluation of project results - Media visibility / dissemination

Resultaat
The main result of this project is the specification, design and test of an Open Real Time Development Platform. This platform will provide 3rd party application developers the opportunity to develop (real-time) energy management applications that are capable of utilizing the maximum grid capacity without risking an outage.

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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