

Track 2 - The smart energy system transition in cities and regions

Title of the proposed paper

ECOMunitypark: challenges in the design of smart utility networks in green field situation

Name author

M. Wiggers

Affiliation author

Deerns Nederland B.V.

E-mail address author

Michiel.Wiggers@deerns.com

Name co-author (if applicable)

J. Sap, P. Buurman

Affiliation co-author (if applicable)

Deerns Nederland B.V.

E-mail co-author (if applicable)

jeroen.sap@deerns.com

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Text abstract (max. 300 words)

In the north of the Netherlands a unique industrial area is being developed in two phases. The goal is to realize a park of 17 hectares which is self-sufficient in terms of heating, cooling and electricity. Deerns is a Netherlands based MEP consultant with a large track record on sustainability and smart grids. We are responsible for the design of the electrical and thermic energy concept for the complete area, the program of requirements of the buildings on the park and the business case. The design has led to a BREEAM-NL Outstanding design certificate for area development. The first of its kind in the Netherlands and in the world. This reflects the profound ambition of the developer. Starting from scratch developing in a green field situation and with an ambitious developer suggests that the amount of challenges on the technical and organizational level are limited. However the practice turns out to be more challenging. The paper will focus on the technical design of the park including the considerations to come to this design. Furthermore the paper will focus on the organizational challenges which were encountered. This includes the struggle to apply for an own electricity grid, the agreements on electricity supply, billing and other legal issues. With this description the paper tries to give an insight in possible hurdles which have to be taken into account developing smart utilities networks in a green field situation.