



# System Dynamics Vehicle to Grid simulations

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## Introduction

Energy systems are complex, especially those including renewable energies and Vehicle to Grid designs. Solar energy can generate peaks of energy production during daytime, meanwhile electric vehicles produce a peak demand during the evening, when there is no solar production. This mismatch between energy production and consumption can cause problems in the electricity network distribution, and can be solved with Vehicle to Grid technology and a proper planning thanks to energy modelling.

## Aim

To achieve a decarbonized energy system fuelled by renewable energies, and where these renewable energies provide electricity for a clean mobility system based on electric vehicles.

## Expected deliverables

Detailed understanding of the relations between the elements of a Vehicle to Grid and renewable energies system. This knowledge can be used to find the perfect match between renewable energies, stationary energy storage and electric vehicles.

## Required partners

Adopters of Vehicle to Grid technology. Middle and large size organisations able and committed to make a real contribution to a sustainable future where electromobility and renewable energies are integrated.

## More information / Website

Hugo Niesing and Carlos Varela Martín – Resourcefully (<http://resourcefully.nl/>)

