

Annex 36: Systems Analysis

Fuel cells are distinguished with their high efficiency and low emissions. They are seen as competitive products which can replace conventional energy conversion technologies. However, conventional technologies are further improved and additionally there are other competitive technologies. Therefore, it is necessary to identify the current technology level and the future potential of fuel cells based on sound technical and scientific studies.

The aim of Annex 36 is to assist the development of fuel cells through analysis to enable a better interpretation of the current status, and the future potential, of the technology. This work will provide a competent and factual information base for technical and economic studies.

The Annex began in October 2011 and will run until February 2014. The interim leaders for this Annex, acting as the Operating Agent, are Professor Dr Detlef Stolten of Forschungszentrum Jülich and Dr Nancy Garland of the United States Department of Energy.

Annex 36 focuses on the following areas:

- Provide a data basis for various analyses in electro-mobility. Data collection will focus on fuel cells in transportation. Benchmark data on competitive technologies which can be alternatives to fuel cells in transportation will also be given; and
- An additional area of focus is stationary fuel cell systems. Related aspects are electrical and total system efficiency, installed power for prototypes and field tests, available systems classified according to the power class and fuel options, measured emissions as well as lifetime and degradation rates.

The delivered product of this Annex will be a high quality technical reference book. The book will contain concrete information about fuel cells and benchmark data competitive technologies. The aim is to deliver a sound information basis to highlight the potential and advantages of fuel cells clearly.