

## ***File S1***

### ***Details on the Systematic Literature Review Method***

The SLR was conducted from February 2021 until August 2021. The main results of the SLR are listed below:

- **Results of Database Search and Article Shortlisting:** The search string was entered into the four primary databases, namely: ProQuest, Web of Science, Scopus and Science Direct. They were searched within the titles, abstracts or articles' keywords. The search was performed in March 2021. There was no date limit for the search, although only articles in English were retrieved. This step resulted in 574 articles extracted as source metadata to Microsoft Excel and EndNote X9. The 285 articles were assessed by the authors, excluding those that were not addressing the research focus at hand. The remaining number of articles was then reduced to 295 once the duplicates had been removed.
- **Results of Shortlisting of Articles:** A list of exclusion criteria was formulated before reviewing the shortlisted articles. References were excluded from the shortlist if they could not be retrieved or included case studies with hydrocarbon based power supply, included case studies of vehicles only, if they were published before 2007, involved the use of unconventional energy supply such as bioethanol, and if the study type of the paper did not align to the objectives of this research. Upon completion of this process, 53 articles remained.
- **Results of Analysis of the Articles:** The 53 shortlisted articles were then analyzed according to their themes, and a thematic analysis of their content completed this. This analysis was as follows: Read the articles whilst transcribing notes and initial ideas; Identify common themes and elements included in the articles; Build a Microsoft excel spreadsheet to quickly note down the principal elements and results of the case study.

The shortlisted articles identified the three preliminary themes, energy management strategies, comparison of system configurations and techno-economic feasibility studies. Using the Microsoft

Excel tool, data such as the type of battery technology used, if any; hydrogen technology used; power supply source; purpose of system (ie community or single dwelling); size of system and levelized cost of electricity (LCOE) (US\$/kWh) achieved, was extracted. These results provided a systematic and solid foundation for the semi-structured interviews.