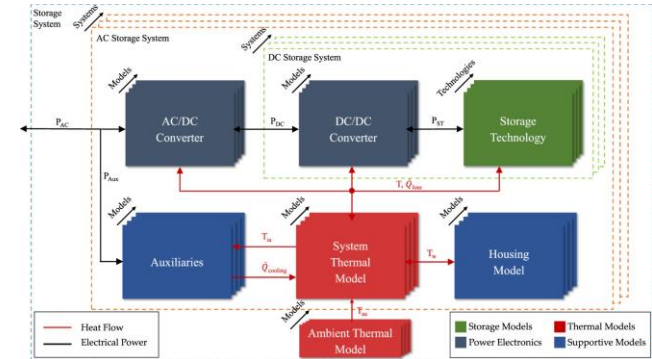
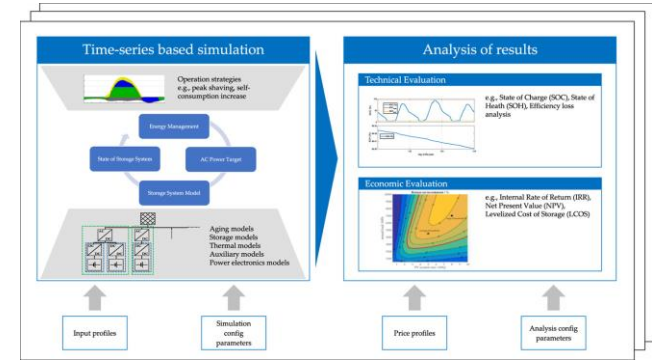


SimSES: A holistic simulation framework for modeling and analyzing stationary energy storage systems

In this work, the tool SimSES for modelling and techno-economic assessment of energy storage systems in variable applications is presented. The time-series simulation tool mimics the behavior of a storage system, e.g. a lithium-Ion battery based on a battery cell, system thermal and power electronics component models.

- A unique simulation framework offering detailed analysis of energy storage systems. Different storage technologies are covered including aging phenomena.
- Various system components are modeled which can be configured to a desired topology.
- The tool offers configurable energy management and power distribution strategies
- Two case studies are conducted investigating technological and economical aspects.



Möller, M., Kucevic, D., Collath, N., Parlrikar, A., Dotzauer, P., Tepe, B., Englberger, S., Jossen, A., Hesse, H. (2022). SimSES: A holistic simulation framework for modeling and analyzing stationary energy storage systems. *Journal of Energy Storage*, 49, 103743.