# Article information:

使用年化储能生命周期成本（LCCOS）和平准化能源成本（LCOE）指标对储能系统进行技术经济评估 - ScienceDirect  
<https://vpn.csust.edu.cn/https/77726476706e69737468656265737421e7e056d234336155700b8ca891472636a6d29e640e/science/article/pii/S2352152X19316925>

# Article summary:

1. Renewable energy production is rapidly increasing globally in response to environmental and social initiatives, technological and economic developments, and global commitments to reduce the use of carbon-intensive fossil fuels.

2. Energy storage systems are needed to support system reliability, increase flexibility, quickly recover from interruptions, and promote the integration of high-penetration levels of renewable energy into clean and sustainable modern power systems.

3. This article presents a techno-economic cost model for energy storage systems that considers long-term, medium-term, and short-term applications, technologies, and technical characteristics in an integrated context supported by in-market insight.

# Article rating:

May be slightly imbalanced: The article presents the information in a generally reliable way, but there are minor points of consideration that could be explored further or claims that are not fully backed by appropriate evidence. Some perspectives may also be omitted, and you are encouraged to use the research topics section to explore the topic further.

# Article analysis:

The article provides a comprehensive overview of the current state of energy storage systems (ESSs) and their potential applications in modern power systems. The authors present a techno-economic cost model for ESSs that considers long-term, medium-term, and short-term applications, technologies, and technical characteristics in an integrated context supported by in-market insight. The article is well researched with numerous references to relevant studies on the topic.

The article does not appear to be biased or one sided as it presents both the benefits of ESSs as well as their associated costs. It also acknowledges potential risks such as intermittency issues related to renewable energy sources which could affect the performance of ESSs. Furthermore, it provides a detailed analysis of different ES technologies with respect to their technical characteristics as well as economic feasibility based on various metrics such as levelized cost of energy (LCOE), levelized cost of storage (LCOS), life cycle cost analysis (LCCOS), etc., which helps readers gain a better understanding of the topic at hand.

However, there are some points that could have been explored further such as possible counterarguments against using ESSs or other alternative solutions that could be used instead or alongside them. Additionally, while the authors provide an extensive list of references for their research findings they do not provide any evidence for their claims made throughout the article which could have strengthened its credibility further.

# Topics for further research:

* Renewable energy intermittency issues
* Alternative energy storage solutions
* Cost-benefit analysis of energy storage systems
* Life cycle cost analysis of energy storage systems
* Levelized cost of energy (LCOE)
* Levelized cost of storage (LCOS)

# Report location:

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