# Article information:

Back-to-Back H-Bridge Cell Based Modular Solid State Transformer with High-Frequency Link | IEEE Conference Publication | IEEE Xplore
<https://ieeexplore.ieee.org/document/9367687>

# Article summary:

1. Solid state transformer (SST) is a promising candidate for energy conversion in various applications.

2. Two modular SST topologies based on back-to-back H-bridge cells with the high-frequency bus as the extra intermediate link are proposed.

3. The feasibility of the proposed topology is verified using simulation results of a 10kV/380V SST with the capacity of 1MVA.

# 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 an overview of two modular solid state transformer (SST) topologies based on back-to-back H-bridge cells with a high-frequency link, and their potential applications in various fields such as charge station, data center, distribution grid, traction systems and so on. The article also provides an analysis of one topology as an example, along with its corresponding control strategies and design criterion. The feasibility of the proposed topology is verified using simulation results of a 10kV/380V SST with the capacity of 1MVA.

The article appears to be reliable and trustworthy overall, as it provides detailed information about the two proposed SST topologies and their potential applications, along with an analysis of one topology as an example and verification through simulation results. However, there are some points that could be improved upon in terms of trustworthiness and reliability. For instance, while the article does provide some information about existing SST topologies, it does not provide any comparison between them and the two proposed ones in terms of cost or efficiency; this would have been useful for readers to better understand how these new topologies compare to existing ones. Additionally, while the article does provide some information about possible risks associated with these new topologies (e.g., cost), it does not provide any detailed discussion or analysis on how these risks can be mitigated or managed; this would have been useful for readers to better understand how to manage any potential risks associated with these new technologies.

# Topics for further research:

* Cost comparison of SST topologies
* Efficiency comparison of SST topologies
* Risk management of SST topologies
* Mitigation strategies for SST topologies
* Simulation results of SST topologies
* Control strategies for SST topologies

# Report location:

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