



Fraunhofer
ISIT

Fraunhofer Institute for Silicon
Technology ISIT

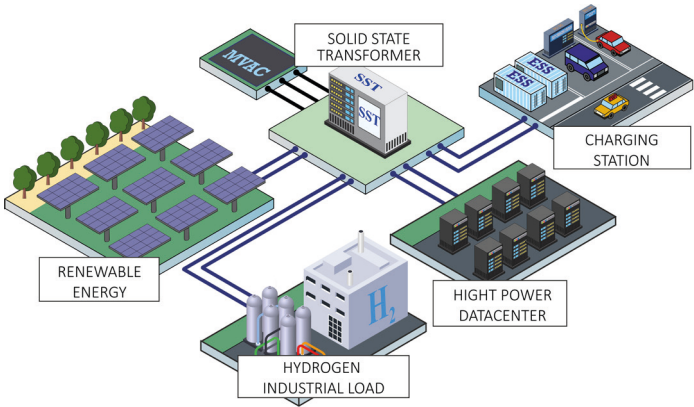
Rethinking Power Conversion

**Solid State Transformer
– SST Field Tested Benefits**

**We develop hardware and software solutions
enabling SST deployment in:**

- AI-ready data centres
- Fast charging infrastructure
- Reliable BESS integration
- Isolated microgrids

From Prototype to Grid-Ready



Fraunhofer ISIT develops **power converters** for hybrid AC/DC grids. — Building on our proven expertise in **optimal design methodologies and high-power testing**, we deliver solutions that are ready for real-world grid integration.

SST technology development:

- Modular design and building blocks (PEBB)
- Embedded monitoring, control, and communication
- Lifetime extension strategies for enhanced reliability

Grid-oriented services:

- Grid forming control and grid services
- Islanding detection, fault ride-through, and stability
- AC- and DC- grid analysis and interoperability

Advanced test capabilities:

- MVA medium-voltage converter design and testing
- PHIL testing under realistic conditions

Battery System and Integration

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