



Energy, Manufacturing

METZEN & Siemens Energy – High-Precision Solutions for Viking Link

Siemens Energy faced the demanding task of implementing two large-scale HVDC connections – Viking Link and Attika Crete. The goal was to establish a stable and reliable infrastructure for integrating renewable energy, supplying up to 1.4 million households with sustainable electricity.

These projects required durable system components that guarantee maximum operational safety even under extreme conditions. Within this framework, METZEN supplied precisely fabricated aluminium welded assemblies for the converter stations – a key element for the stability and efficiency of power transmission. With deep manufacturing expertise, advanced technology, and certified welding competence, METZEN supported the implementation of this forward-looking energy infrastructure.

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Challenge

The Viking Link and Attika Crete projects presented complex requirements for planning, manufacturing, and integration. METZEN addressed these challenges through specialised processes and excellent production quality.

- **High-Precision Aluminium Fabrication:** Custom welded assemblies for converter stations made from specialised alloys.
- **Electromagnetic Shielding Technology:** Design of functional components for Faraday cages.
- **Long-Term System Stability:** Mechanically and electrically robust under changing environmental conditions.
- **Project-Specific System Integration:** Adaptation to geographic, technical, and safety requirements.

Solution

METZEN relied on experience, innovation, and precise manufacturing expertise to meet the projects' requirements successfully.

- **Aluminium Welding Technology:** Development of precise assemblies for HVDC shielding structures.
- **Specialised Manufacturing Competence:** Application of proven methods and suitable materials.
- **Integrated Project Coordination:** Seamless collaboration with Siemens Energy.
- **Sustainable System Design:** Construction of durable, safe components for future energy networks.

Result

Viking Link exemplifies pioneering efficiency and sustainability in power distribution. METZEN's high-precision aluminium welded components ensure durability, robustness, and the highest safety standards through innovative shielding. As a reliable partner of Siemens Energy, METZEN played a key role in the successful delivery of this forward-looking project.

- **Supply Security:** Stable, sustainable electricity for up to 1.4 million households.
- **Maximum Safety:** Effective electromagnetic shielding in the converter stations.
- **Long-Term Operation:** Welded assemblies provide decades of trouble-free service.
- **Reliable Partnership:** Successful delivery through cooperative collaboration with Siemens Energy.

Project Conclusion

Through innovative manufacturing and technical expertise, METZEN made a decisive contribution to the successful realisation of Viking Link – a milestone for the European energy transition.

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Highlights

- **State-of-the-Art Power Connections:** Viking Link connects the UK and Denmark via a 767 km high-voltage direct current (HVDC) line.
- **Renewable Energy Integration:** Facilitates distribution of renewable energy to up to 1.4 million households.
- **Advanced Technology:** Fabrication of aluminium welded components for the converter station shielding.
- **Sustainable Infrastructure:** Solutions designed for decades of operation under demanding conditions.
- **Interdisciplinary Collaboration:** Close cooperation with Siemens Energy for planning and implementation.

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