



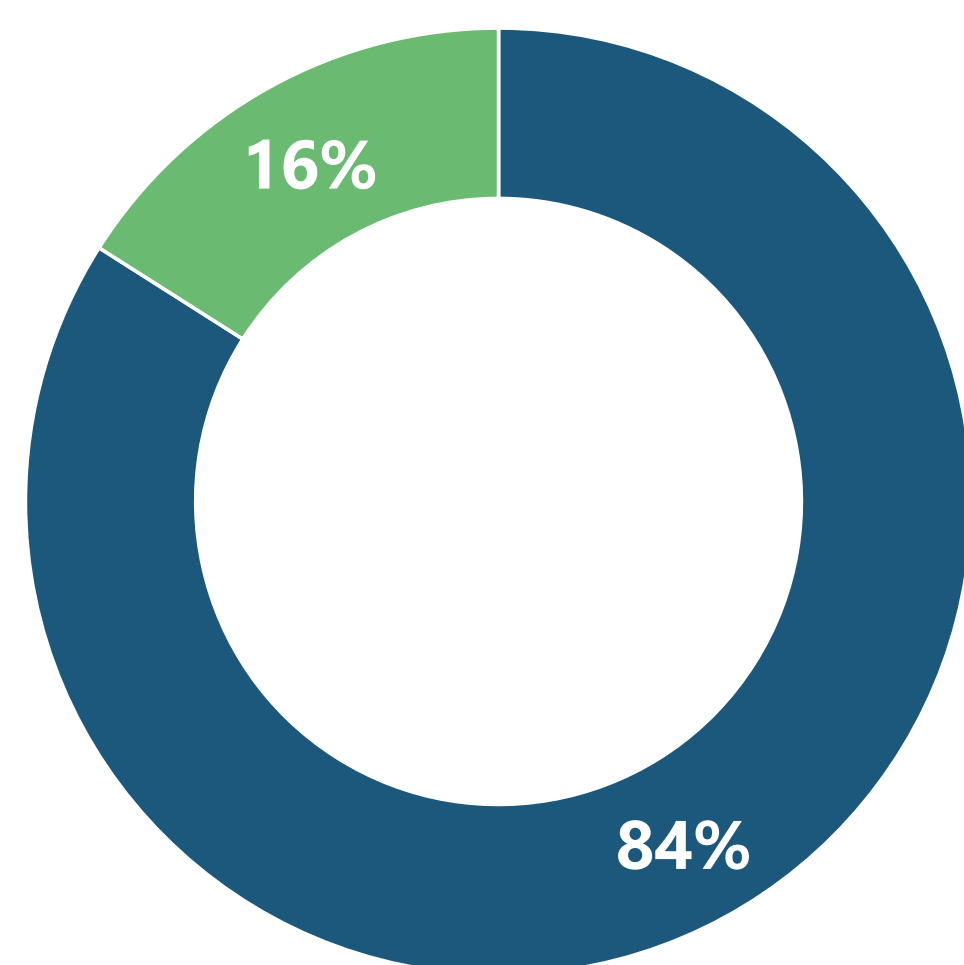
HVDC in EMEA: Navigating Affordability and Technology Advancement in Africa and the Middle East

The infographic gives insights on the transition of HVDC technology and the current technology split of installed base in EMEA.

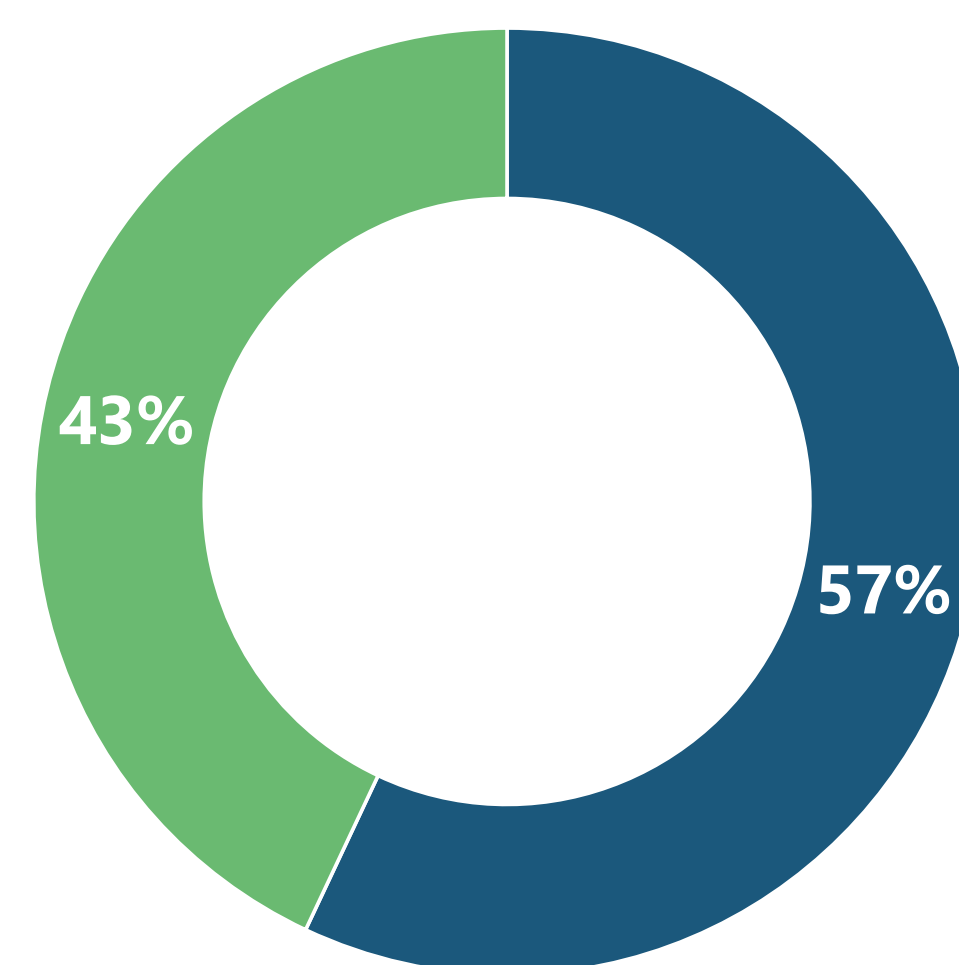
HVDC Infographic

HVDC Technology Transition in EMEA

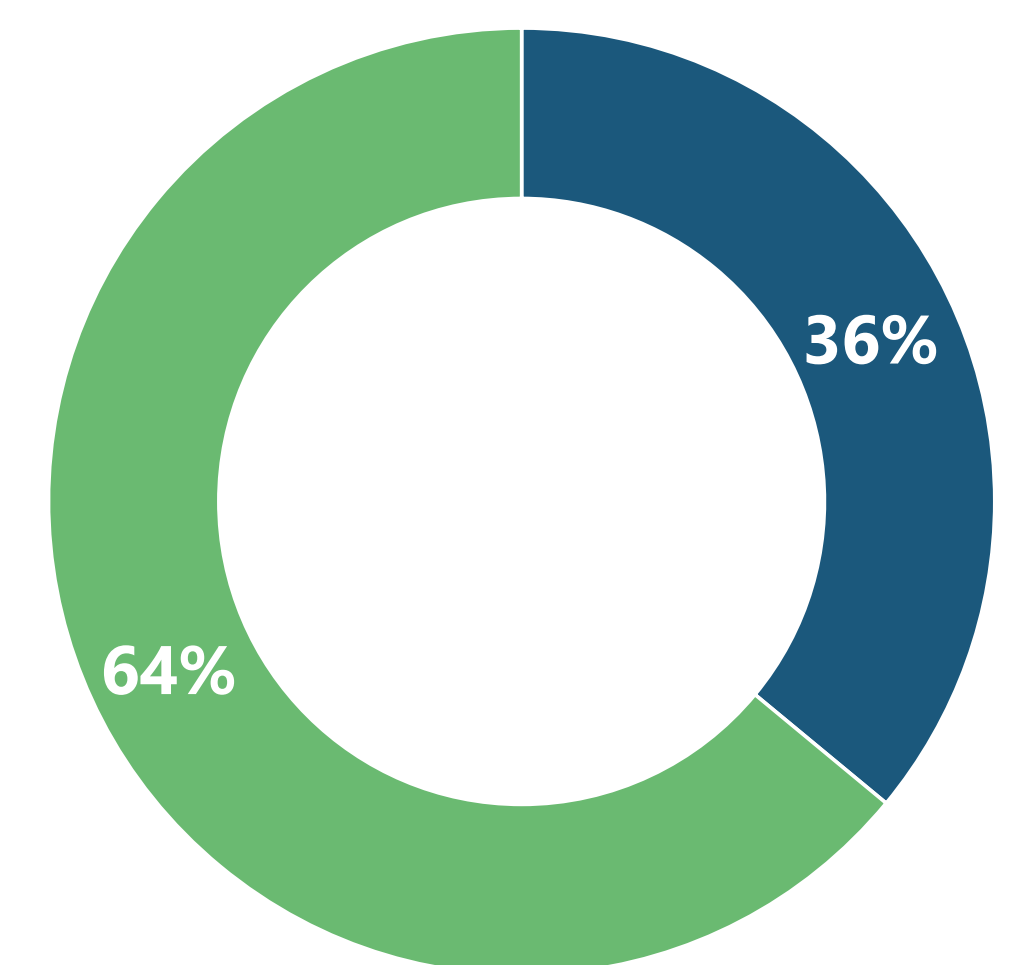
Technology Split in EMEA-Till 2000



Technology Split in EMEA-2001 to 2010



Technology Split in EMEA-2011 to 2021



■ LCC ■ VSC

- EMEA has the HVDC transmission capacity of ~50 GW, accounting for 12% of the total globally installed HVDC transmission capacity.
- The EMEA HVDC market is led by Europe, with a large number of cross border projects between countries in the region to boost electricity trade.
- Through the years, the EMEA HVDC market has experienced a technology transition from line commutated current sourced converter (LCC) to voltage source converter (VSC). In the recent years, VSC HVDC technology has dominated the market in the region.
- The LCC HVDC market still exists in the region and they are mostly deployed in African and Middle Eastern countries where the HVDC technology is still in its early phase of deployment and affordability constraints exist.
- To support the integration of large numbers of renewables in the EMEA, mainly offshore wind farms in the North and Baltic Sea region, VSC HVDC technology is expected to experience a boom in the coming years.