For decades, SF₆ gas has been used extensively in switchgear due to its excellent dielectric insulation and current interruption properties. However, it is a greenhouse gas that requires careful handling.

ABB achieved breakthrough in research and development (R&D) with a new eco-efficient gas mixture, AirPlus, an alternative to SF₆.

AirPlus has a Global Warming Potential (GWP) < 1 vs 22,800 of SF₆.

World’s first installation with HV and MV gas-insulated switchgear with AirPlus.

Scalability in voltage levels from MV to HV to Ultra High Voltage (UHV) in both interruption and insulation technology.

Future proof to comply with environmental regulation changes.

AirPlus™ enhancing eco-efficiency
Alternative to SF₆ for high- and medium-voltage products

AirPlus is part of ABB’s family of eco-efficient gas mixtures as an alternative to SF₆ for high-voltage (HV) and medium-voltage (MV) products.

ABB’s family of eco-efficient gases consists of components of air (O₂, N₂, CO₂) plus C₅-Fluoroketones.

1960s

2010

2015

ewz Oerlikon substation in Switzerland
Installations with AirPlus

Left picture:
World’s first GIS 170 kV, 40 kA with AirPlus
Installed since 2015

Right picture:
World’s first GIS 24 kV, 25 kA with AirPlus
Installed since 2015

Left picture:
Pilot LTB 145 kV, 31.5 kA with AirPlus
Installed since 2010

Right picture:
DCB 72 kV, 31.5 kA with AirPlus
Installed since 2015