

# Breaker installation services

Service solutions for your T&D infrastructure

## Start-up/commissioning tests

Siemens will provide a field service engineer and test equipment to perform the breaker start-up/ commissioning tests.

- Gas filling of the circuit breaker
- Complete installation
- Commissioning checklist as supplied with the new circuit breaker
- Operational and functional checks
- Measure contact resistance terminal to terminal
- Verify SF<sub>6</sub> pressure switch operation
- SF<sub>6</sub> quality check (moisture & purity)
- Submit start-up/commissioning report

## Customer benefits:

- Single source supplier with no third parties to coordinate
- Augment your in-house service capabilities
- Factory trained, certified field engineers who specialize in SF<sub>6</sub> breaker installation
- Comprehensive project management with access to OEM engineering departments who understand your breaker design and technology
- Turnkey installations can also include extended warranty
- On-time completion; fixed price contract, if desired

Turnkey installation services can also include replacement and disposal of an existing oil circuit breaker. Thousands of oil circuit breakers (OCBs) made by a variety of OEMs are nearing the end of their useful life. In addition to the high cost and difficulties of finding placement parts, environmental concerns have encouraged customers to replace these breakers with new Siemens SF<sub>6</sub> breakers (SPS2, CPV2, and 3AT2).



With Siemens Energy Management Customer Services, an experienced, factory trained engineer who specializes in High Voltage SF<sub>6</sub> breaker installations will be on site to provide technical assistance each step of the way. Siemens can assist with:

- Start-up/commission testing
- Turnkey installation/replacement



## Breaker installation Services



Installation of a Siemens 69kV SPS2 circuit breaker

### Technical field assistance

Siemens will provide a field service engineer to provide technical assistance to your crew during circuit breaker installation. Services may also include Siemens performing the start-up/commissioning tests.

- Advise your crew on recommended procedures for breaker installation
- Supervise breaker fill with SF<sub>6</sub>
- Supervise start-up/commissioning tests
- Submit start-up/commissioning report



Installation of a Siemens 145kV SPS2 circuit breaker

### Turnkey installation/replacement

Siemens will provide a field service engineer, work crew, tools and test equipment to install the breaker.

- Removal of existing circuit breaker (if included)
- Prepare existing foundation, as necessary (replacement)
- Place and bolt new breaker to foundation; inspect breaker setting and leveling
- Connect existing bus to new bushing terminals
- Connect existing control wiring inside control cabinet
- Install control cabinet interface (as required)
- Fill breaker with SF<sub>6</sub>
- Perform manufacturer recommended commission tests
- Perform operational and functional checks
- Test timing at normal operating voltage
- Measure contact resistance terminal to terminal
- Verify SF<sub>6</sub> pressure switch operation
- SF<sub>6</sub> quality check
- Verify local alarms and control circuits
- Submit installation and commissioning report

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