

SF6 FREE SWITCHGEAR WITH DRY AIR

Delivering power in today's
challenging environments



SF6 FREE SWITCHGEAR WITH DRY AIR

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SF6 FREE SWITCHGEAR



DEVELOPMENT ROADMAP



72kV VACUUM CIRCUIT BREAKER



THE CASE FOR VACUUM



SF6-FREE SWITCHGEAR WITH DRY AIR

SF6-Free switchgear features

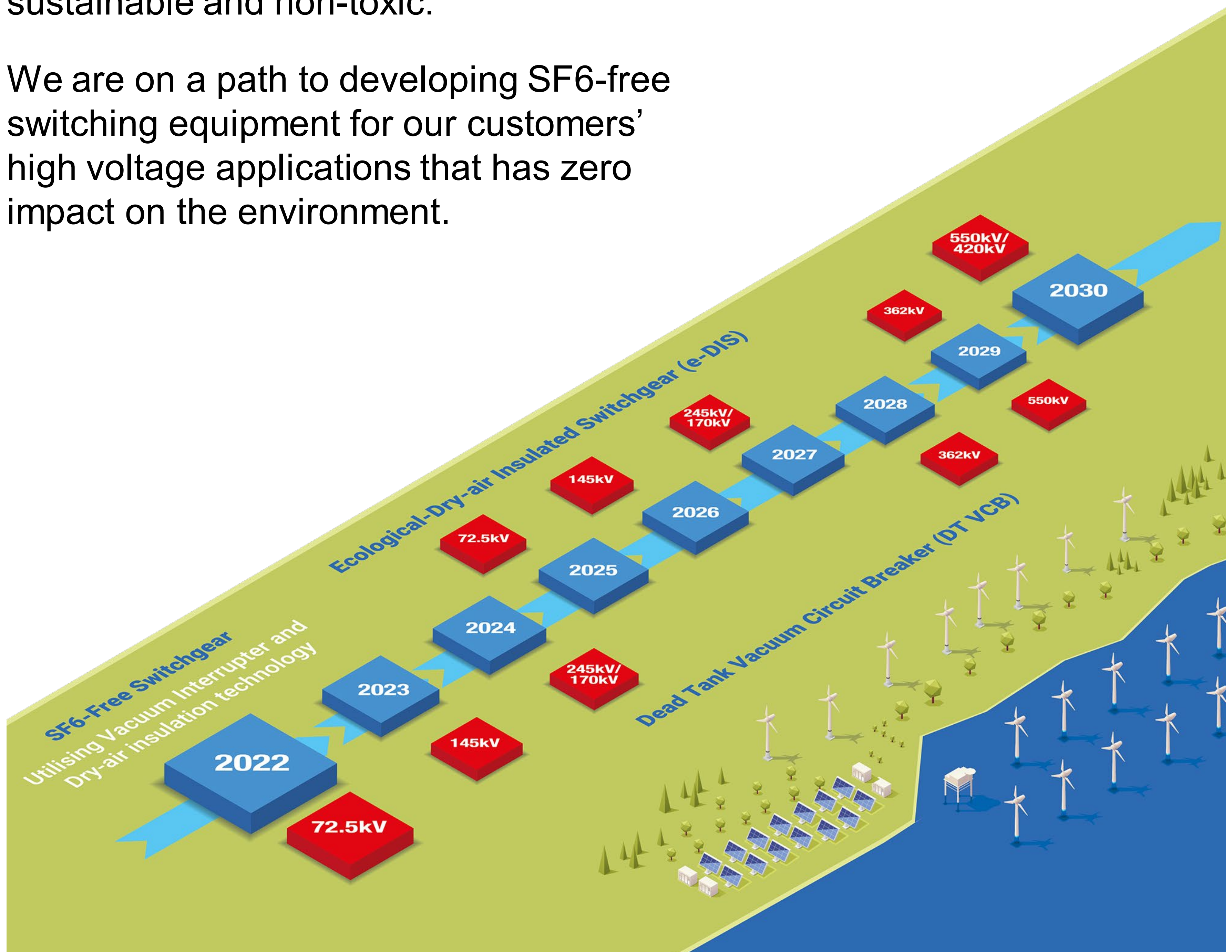
- ▶ **Zero GWP* solution substituting SF6 with dry air insulation, which features easy handling and non-toxic effects**
- ▶ **An operating temperature range of -50° C to 50° C, which eliminates the need for tank heaters in substations**
- ▶ **Significantly lower operational and maintenance (O&M) costs**
- ▶ **A life cycle of 20+ full-fault interruptions, which extends product lifespan compared to equivalent voltage SF6 gas insulated breakers whilst achieving no maintenance on VCB contact replacement**



DEVELOPMENT ROADMAP

Mitsubishi Electric is focused on providing high voltage, dead-tank circuit breakers and switchgear with dry air technology for insulation, which is sustainable and non-toxic.

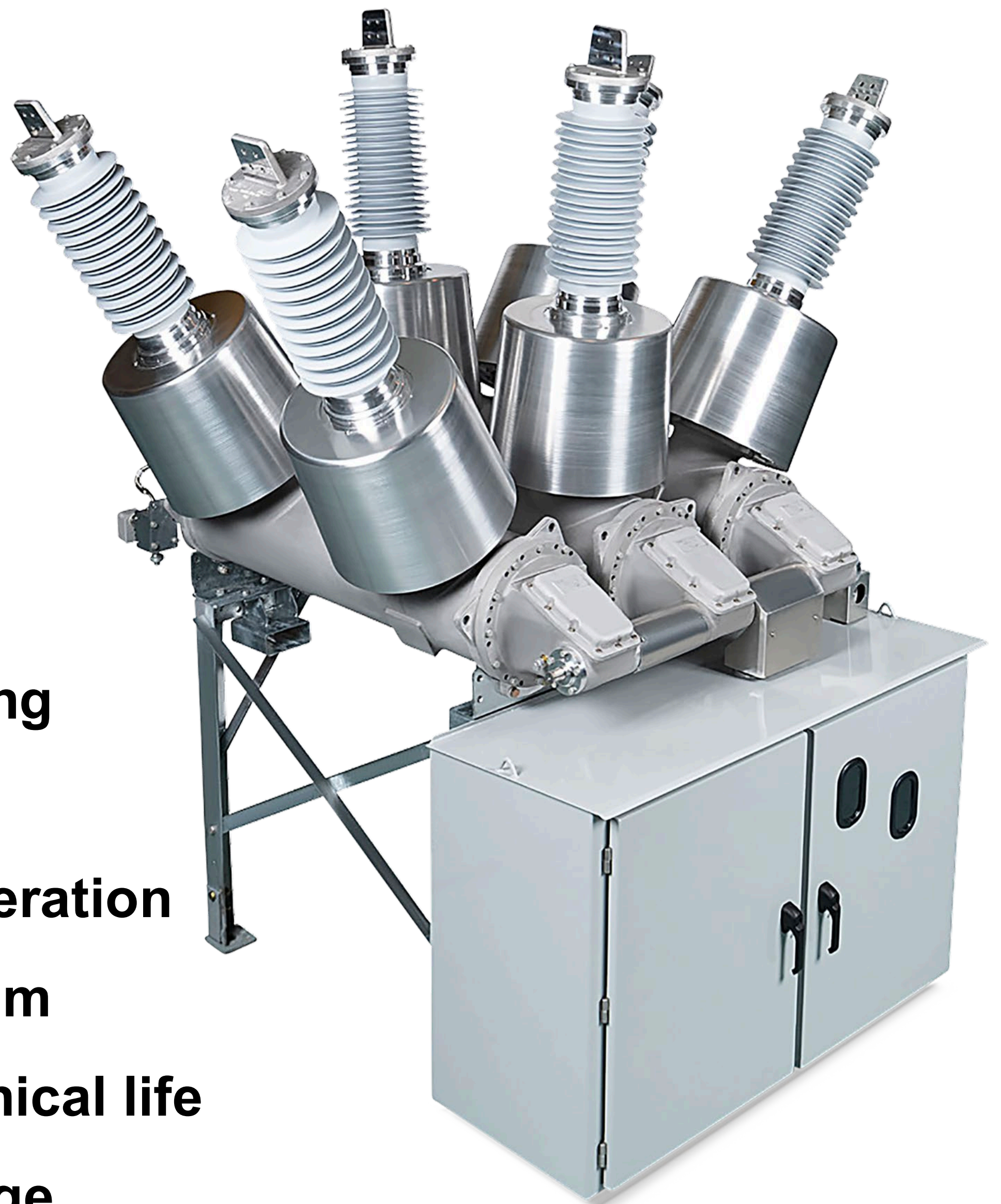
We are on a path to developing SF6-free switching equipment for our customers' high voltage applications that has zero impact on the environment.



72kV VACUUM CIRCUIT BREAKER

Features

- ▶ Pressurized dry air insulating medium
- ▶ 31.5kA Interrupter capacity
- ▶ 2000A Continuous current rating
- ▶ 350kV BIL
- ▶ Full fault current life of 20+ operation
- ▶ Spring / spring drive mechanism
- ▶ M2 (10,000 operations) mechanical life
- ▶ 50°C to +50°C temperature range
- ▶ No tank heaters required



Key differentiators

- ▶ Mitsubishi Electric Vacuum Interrupters
- ▶ Superior multi-stage / dry-air seal system
- ▶ Focus on minimizing overall breaker size
- ▶ Fork-lift tubes options



THE CASE FOR VACUUM

Features

- ▶ **Reliable – decades of history in medium voltage**
- ▶ **Ecological – zero Global Warming Potential**
- ▶ **Regulatory – no reporting or tracking requirements**
- ▶ **Safety – no special HAZMAT or PPE**
- ▶ **O&M – no complicated gas handling**
- ▶ **TCO – overall lower lifetime costs**

