

# PROTECTION IS OUR NATURE



# NATURE. BEAUTY. POWER. PROTECTION.



With TE Connectivity (TE), the protection of our abundant wildlife and the reliable delivery of power distribution do not have to be mutually exclusive. With nature as our inspiration, we strive to offer protection solutions that allow wildlife and power to co-exist harmoniously.

With more than 40 years' experience in wildlife and asset protection, TE provides a complete range of versatile products developed to protect substations and overhead power lines, and the many animals that come into contact with them including birds, squirrels, raccoons, cats, rodents, snakes and many others.



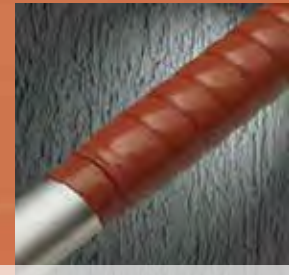
## BUS INSULATION & CLEARANCE REDUCTION

When it comes to wildlife and power distribution, bridging the gap isn't a good thing. TE's wide range of Bus Insulation & Clearance Reduction solutions protect against accidental bridging. These products have excellent tracking resistance, are easily installed and engineered to withstand harsh environmental conditions.

- ✿ High Voltage Busbar Insulating Tape (HVBT) and High Voltage Busbar Insulating Sheets (HVIS) feature an adhesive layer that fuses tape layers without sticking to the bus or hardware, providing environmental sealing while allowing fast, easy installation and removal.
- ✿ Busbar Insulating Tubing (BBIT/BPTM) offers protection as high as 35kV, is extremely flexible for easy positioning and fits a wide range of busbar sizes.
- ✿ TE rugged Interphase Insulating Barrier Boards are resistant to damage from solvent, mechanical impact and general wear-and-tear.
- ✿ TE High Voltage Cable-to-Bus Insulation Kits greatly simplify field installation and eliminate the labor and skill needed for tape-and-putty methods.



HVBT - High Voltage  
Busbar Insulating  
Tape (5 - 15 kV)



High Voltage Busbar Insulating Tape | Busbar Insulating Tape | High Voltage Insulating Sheet  
Interphase Insulating Barrier Board | High Voltage Cable-to-Bus Insulating



# Prevent BRIDGING



## SUBSTATION

Because critters love to explore nooks and crannies, TE's array of substation solutions guard against a multitude of animal interactions and outages. These solutions are easily installed, engineered with superior, rugged materials and are backed by Raychem brand quality and assurance of a lengthy life-span.

- ✦ TE Bus Isolation Squirrel Guards (BISG/BISG-24) allow excellent visibility of switch blades and other components, while providing resistance to power arcs and stability in high winds.
- ✦ TE Bushing Connection Animal Covers (BCAC) are designed with a superior proprietary polymer that provides long-term performance in all environments.
- ✦ Medium Voltage Conductor Covers (MVCC) provide high-quality electrical insulation for substation leads and jumpers and are an excellent solution against flashovers.



BISG - Bus Isolation Squirrel Guards



Bus Isolation Squirrel Guard | Bushing Connection Animal Covers | Bushing Connection Inspection  
Bushing Connection Insulating Covers | Medium Voltage Fusion Tape | Medium Voltage Conductor Covers | BCIC-Angle Cover

# Insulate Against INCURSIONS



## OVERHEAD

In today's world, it's inevitable that nature and technology will collide. TE's extensively tested, rugged and easily installed overhead protection solutions keep these interactions benign.

- ⌘ TE Raptor Protection Covers (BCIC) prevent harmful raptor interaction on medium voltage distribution lines.
- ⌘ TE Distribution Covers for Animal Protection (BCAC/BCIC) allow conductors to exit in both vertical and horizontal directions.
- ⌘ TE Avian Flight Diverters (BCIC-AFD-01) incorporate high reflectivity and "glow-in-the-dark" appliques designed to prevent bird collisions with power lines.



Raptor  
Protection Cover



Raptor Protection Cover | Distribution Covers for Animal Protection | Recloser Covers  
Medium Voltage Line Cover | Transmission Flashover Protection Cover | Avian Flight Diverter



# Collision COVERAGE



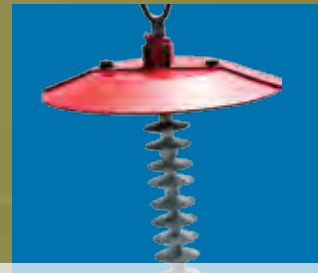
## CONTAMINATION/FLASHOVER PREVENTION

Nature can be harsh, and sometimes it isn't always the animals that need protecting. TE's Contamination and Flashover Prevention solutions are designed to handle any contaminants and fluids wildlife and Mother Nature can dish out. Made with advanced UV-resistant and anti-tracking polymer, our shields, sheds and extenders protect against bird streamers, heavy wetting and ice cascade-induced flashovers.

- ☼ TE Rigid Red Guano Shields (RRGS) are designed to fit both porcelain bells and polymeric insulators.
- ☼ High Voltage Booster Sheds (HVBS) feature rapid wraparound installation.
- ☼ TE High Voltage Creepage Extenders (HVCE) reduce the surface electrical stress and leakage current, increase the electric strength of the insulators, and are compatible with conventional spray-washing techniques.



RRGS - Polymeric and Porcelain Rigid Red Guano Shield



High Voltage Creepage Extenders | Wraparound High Voltage Creepage Extenders | High Voltage Booster Shed | Guano Shield

# Reliable SHIELDING





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TE's wildlife and asset protection products and systems of tubes, tapes, sheets, pre-formed covers and barriers provide a proven, cost-effective and easy-to-install solution to bird, animal and weather-related outages.

By insulating bare metalwork, we can create an environment for wildlife to roam substations and overhead lines without damaging themselves or causing costly equipment failures and outages. Together, we can help nature live in harmony with technology.

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### **TE High-Voltage Test Lab**

Located in Fuquay-Varina, North Carolina, TE's brand-new 12,600 square-foot test lab has two impulse generators and employs numerous state-of-the-art testing capabilities including high-voltage, environmental and mechanical static testing to ensure the highest performance and reliability.

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## RAPID RESPONSE PROGRAM

The TE Rapid Response Program provides a world-class support system to customers seeking guidance or assistance on everything from design integration to onsite training and field supervision. Our dedicated team of engineers will design to your needs, while our on-site product specialists provide custom solutions and on-site project estimates.

Utilizing state-of-the-art technology available at our North Carolina lab, TE is able to offer the following:

- ✿ Customized design solutions, take-offs, on-site estimates.
- ✿ In-house medium and high voltage test capabilities.
- ✿ In-house materials development group.
- ✿ Specialty formulated materials.
- ✿ State-of-the-art capability to rapidly model, prototype and manufacture products.





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By utilizing a combination of TE's Wildlife and Asset Protection products, Georgia Power has greatly minimized its number of animal-induced outages. The added benefits of the Raychem solutions include ease of maintenance and unparalleled service life.

- tdworld.com

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### ISO 9001 Certified

**NEETRAC Member** (National Electric Energy Testing Research and Applications Center)

#### FOR MORE INFORMATION: TE Technical Support Centers

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