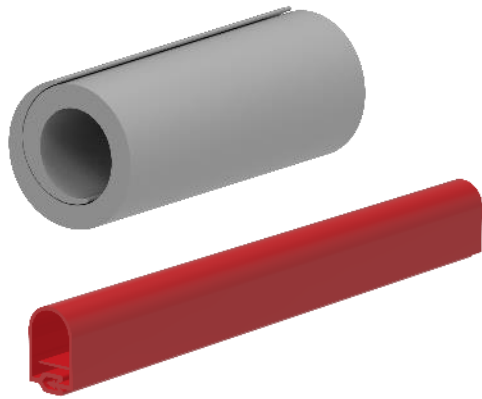


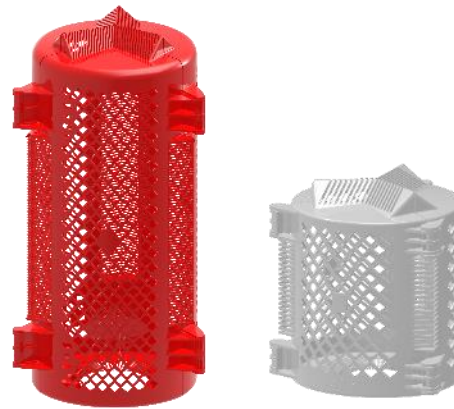
Wildlife and Asset Protection Solutions (WAP)

Our Raychem portfolio includes systems of tubes, tapes, sheets, pre-formed covers and barriers. We offer cost-effective and easy-to-install solutions to bird, animal and weather-related outages.



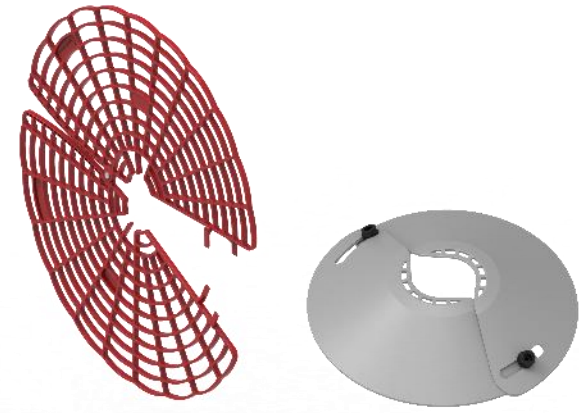
CONDUCTOR INSULATION

- Versatile conductor insulation
- No disconnection required
- Large range of conductor sizes



BUSHING AND CONNECTOR COVERS

- Insolation and Insulation of bushings and connections
- Superior visual and thermal inspection

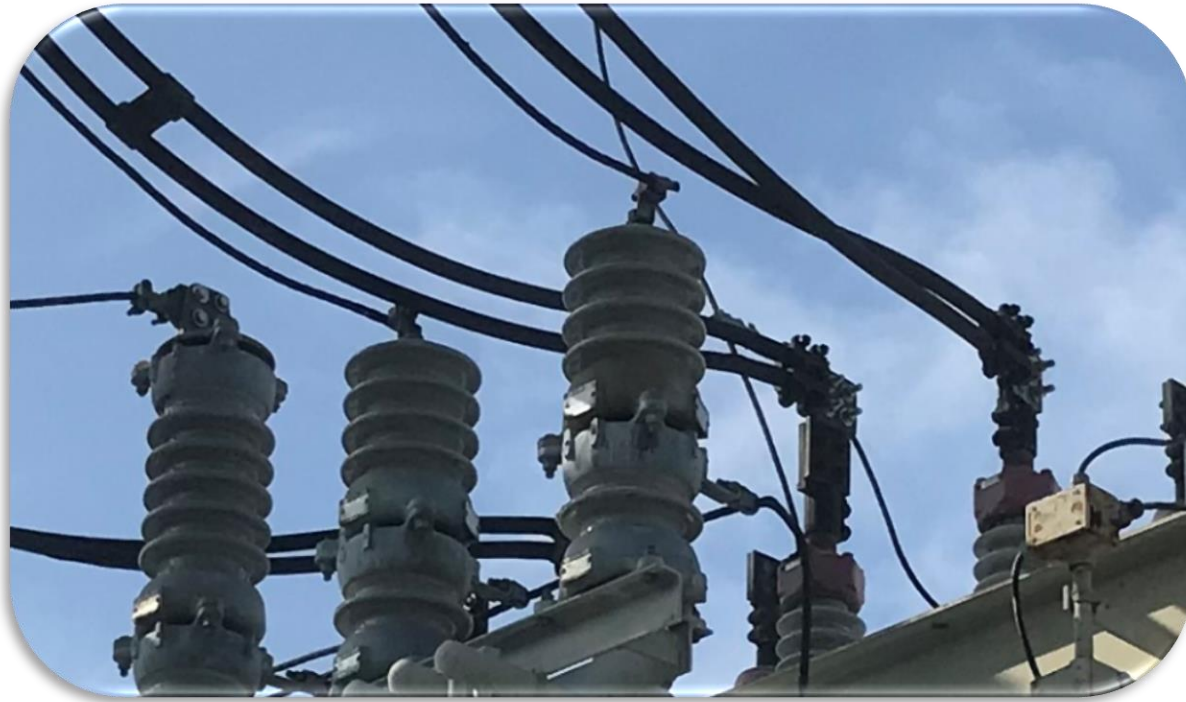


ANIMAL GUARDS

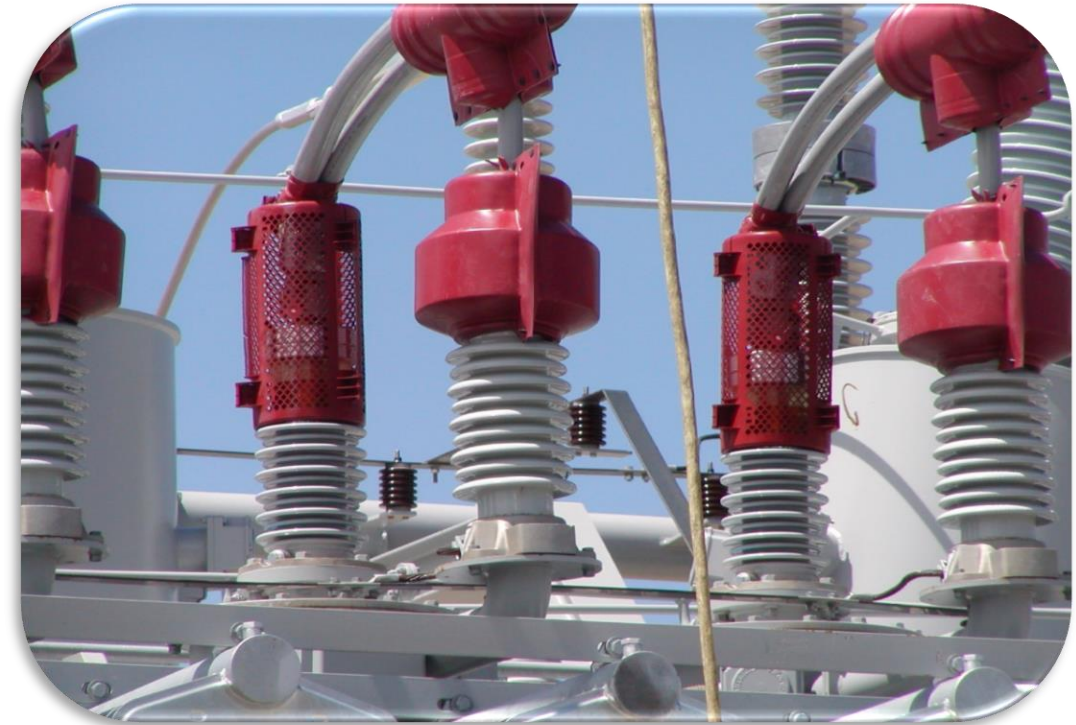
- Perfect for equipment isolation
- Installable on energized assets
- Range taking

Wildlife and Asset Protection Solutions (WAP)

Our Raychem portfolio includes systems of tubes, tapes, sheets, pre-formed covers and barriers. We offer cost-effective and easy-to-install solutions to bird, animal and weather-related outages.



Before



After

The Business Drivers Driving WAP

- Initiatives: ALL Utilities are concerned about - **Grid Hardening / Reliability / Resiliency / Safety**
- Compliance with Wildlife and Wildfire Mitigation efforts
- 20 - 30% of all outages are caused by wildlife
- A small Capital Investment (less than 1% of the cost of a new distribution substation) can offer a quick ROI by eliminating wildlife related outages

Common Initiatives Across Many Market Segments

- **Grid Hardening**
- **Reliability & Resiliency**
- **Safety**
- **A Better Customer Experience**



Outage : 45,000 customers without power for 2 ½ hours

Cost= 45,000 Meters X \$.12/Min. X 150 Min.

**Total Cost of Outage
\$810,000**

Protecting Capital



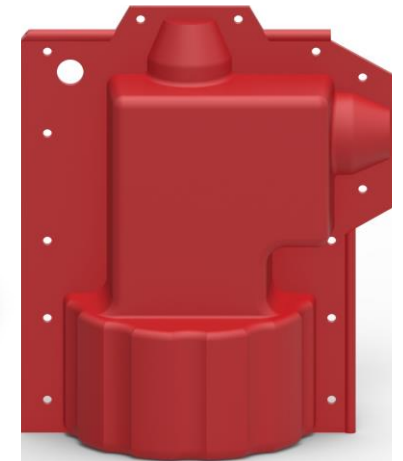
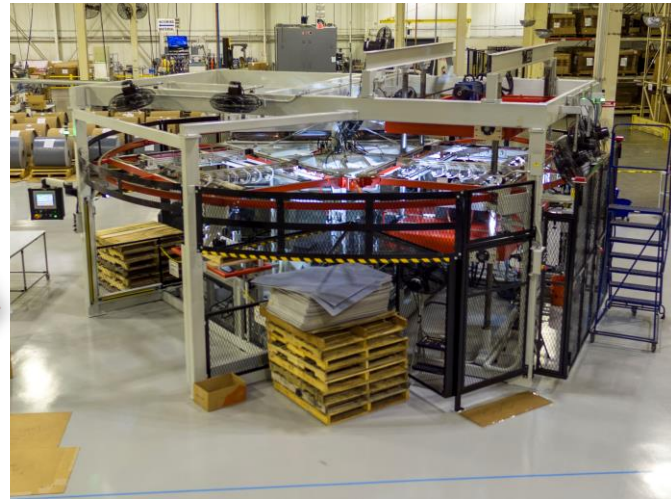
Vertically Integrated

US Headquarters for Energy- Fuquay-Varina, NC

- Fully Integrated Manufacturing
- R&D team- Material Scientists, Electrical and Mechanical Engineering
- HV and MV certified test labs

Manufacturing

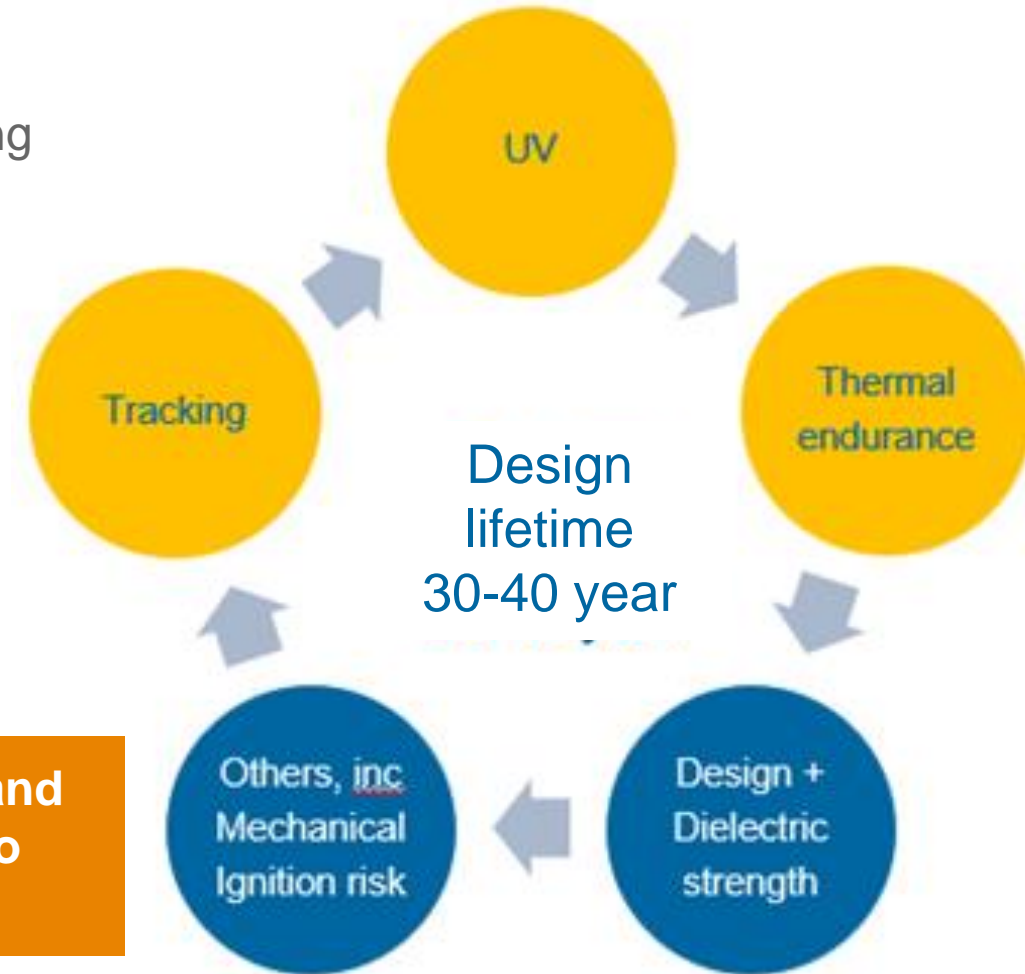
- Sheet Extrusion
- Adhesive Coating
- Expansion
- Molding/Forming
- Cross-linking (Electron Accelerator)



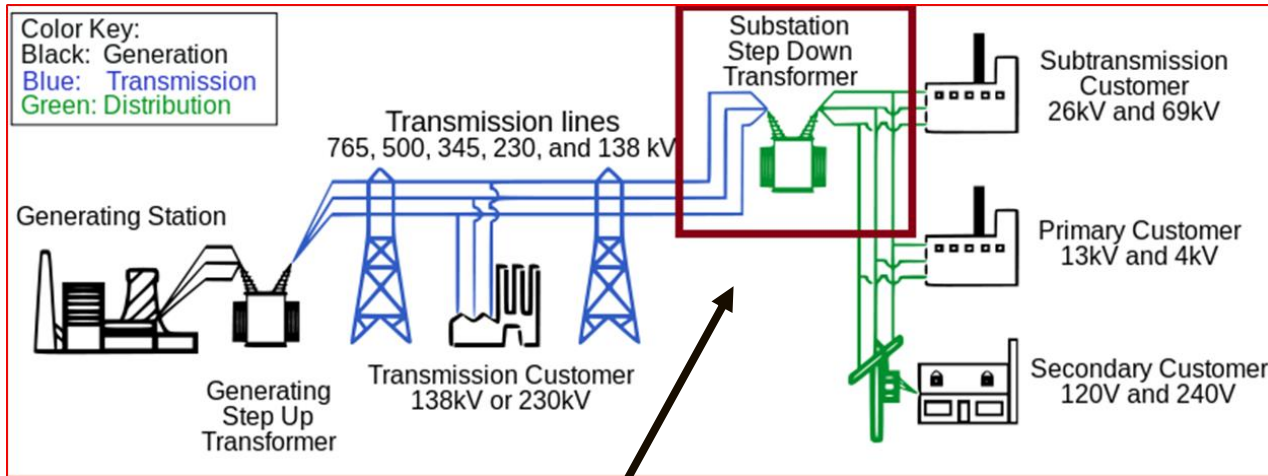
Our Design Philosophy

In order to achieve technical success in service, a materials development philosophy should put a strong focus on the follow material characteristics:

- a. **TERT** (tracking and erosion resistance)
- b. **UV stability** (long term aging)
- c. **Thermal endurance** (lifetime predictor)



TE designs products that will last 30 – 40 years and finds the most stringent of standards and tests to meet and exceed



High Side

Most animal incidences occur on the low-side of the substation < 35kV

Animals climb and seek shelter; warmth; safety and hunt for prey



How do we help you?

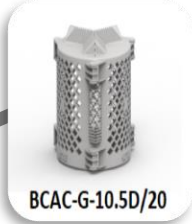


We show you where they go...



TE Material Part

Part Description



BCAC-G-10.5D/20

BCAC-G-IC-10.5D/20 Apply cover between the first and second bushing skirt. The opening core is trimmable.

Insulator core range: 3.5" - 8.5"
Insulator shed range: 6.00" - 10.50"
Cover height: 20"



BCAC-G-IC-8D/18

BCAC-G-IC-8D/18 Install cover between the first and second bushing skirt of surge arrestors (x3). The opening core is trimmable.

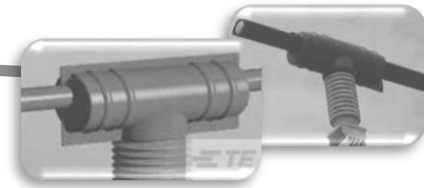
Insulator core range: 3.5" - 6.25"
Insulator shed range: 4.00" - 8.00"
Cover height: 18"



BISG-G-100/400

BISG-G-100/400 Apply to insulator bus supports on the outer busbars.

Disc outer dia – 16"
Inner dia is trimmable



BCIC-7.5D/18-3 – Bus insulator cover. Height 10.4"; Base diameter 4.5-6.75". Apply to all busbar support insulators on this structure.



MVCC-90/3.5X4 – Busbar split hose insulator wrap. Ideal for busbars 3.5 in diameter or less. Insulate entire length of middle busbar for all 12kV bus work.

Voltage Regulators



TE Material Part

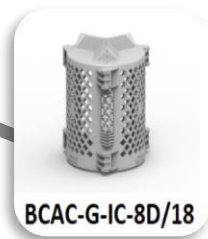
Part Description



BISG-G-24-01 hot-stickable wildlife guard disc is applied to all the switch insulators (2 per switch). Trimmable outer diameter that can be reduced from 24" to 16". Locking wedge is pushed in to close the disc around the insulator skirt.



BCAC-G-4D/13-2 termination cover applied to all voltage regulator terminations (2 per regulator).



BCAC-G-IC-8D/18 Install cover between the first and second bushing skirt (x2). The opening core is trimmable.


Insulator core range: 3.5" - 6.25"
 Insulator shed range: 4.00" - 8.00"
 Cover height: 18"



MVFT-G-G2-12 Apply fusion tape to voltage regulator arrester flanges.



MVCC-G-25/1.0 is a split hose applied to exposed jumper conductors. (Apply if wanting to replace current split hose).

		TE Connectivity Wildlife & Asset Protection BOM	
TE RAM/WAP Name	Steve Varuska	<p>NOTE: Part descriptions have been hyperlinked to the TE product page for ease of access. Most part images in the take-off are also hyperlinked. Below is a link to the TE WAP catalogue.</p> <p>Recommended parts are subject to revision in quantity and size based on the utility's review, feedback and/or field install.</p> <p><i>TE Connectivity thanks you for this opportunity</i></p>	
Rep Name			
Rep Company	TE Connectivity		
Utility			
Substation Name			
PART DESCRIPTION	QTY	APPLICATION	PRICE EACH
BCAC-G-IC-10.5D/20	6	Low-Side Transformer Bushings	
BCAC-G-IC-8D/18	6	Transformer Surge Arrestors	
BCAC-G-IC-7D/12	6	Voltage Regulators	
MVCC-G-90/3.5x4	150'	Busbar Split Hose	
BCIC-G-7.5D/18-3	12	Bus Support Insulators Cover	
BISG-G-100/400	12	Bus Support Insulators Disc	
BCAC-G-4D/13-2	6	Termination Covers	
BISG-G-24-01	20	Disconnect Switches	
BCAC-G-IC-5D/6	6	Station transformer	
MVFT-G-2-12	4 rolls	Medium Voltage Fusion Tape	
TE Wildlife & Asset Protection Catalogue			

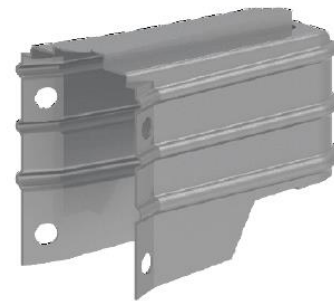
BCIC-Raptor Covers



- Flexible center body with integrated rigid clips
- Extendable arms 72" and beyond
- Numerous center section designs to handle different construction needs



Overhead Equipment Covers



Arrester Caps – By manufacturer type

Various Covers – Terminations and Bushings

Cutout Covers – For Porcelain or Polymer

