

TransGard™

Keep animals out. Keep the power on.

TransGard™

**Animal
Deterrent
System**

**CAUTION
STEP**

IT'S GETTING WORSE...

Animal incursions, substation outages

Every year, squirrels, snakes and other ground animals cause hundreds of substation power outages that leave thousands without power — and cost millions in repairs. The scope of the problem is massive, and the threat continues to grow:

- Wildlife near power equipment is the **most common cause** of outages at public power utilities, according to the American Public Power Association.
- Every year, an average of **20–40% of all substation outages are caused by wildlife**: during peak seasons (late fall/early winter, early spring), this can climb to as much as **60% of all outages**.
- On average, **15,000 people** are affected by each animal-caused outage.
- Costs to repair and recover from a single substation outage can quickly run into the **hundreds of thousands of dollars** in equipment costs, staff hours, and more.



SCENARIO	DAMAGE	ESTIMATED COST (USD)	CUSTOMERS AFFECTED	TYPICAL OUTAGE DURATION
High impact	Moderate substation damage <ul style="list-style-type: none">• Damaged circuit breakers• Damaged equipment bushings	\$10,000 – \$100,000	500 – 2,500	1 day – 1 week
Catastrophic impact	Heavy substation damage <ul style="list-style-type: none">• Major reconstruction required/long lead time for equipment replacement	\$100,000 – \$1M+	2,500+	Multi-day+

“An innovative, field-tested solution...
The technology behind the fencing uses an animal’s own behavior against it.”
— *Electric Energy T&D magazine*

“The (TransGard) design and installation teams have provided great support.
We’ve experienced no animal outages on any of the substations protected by TransGard fencing.”
— *Mishawaka Utilities*

Source: radpetroai.com/2022/07/21/how-to-eliminate-animal-caused-outages-in-electric-substations

PROVEN IN THE FIELD

Patented protection

TransGard manufactures and installs the only substation fencing that delivers an effective — but humane — electric shock that deters all ground animals from entering the protected area, an approach the IEEE calls the most effective barrier against animal incursion.

North American power providers have chosen TransGard fences to protect more than 4,200 North American substations.



EASY INSTALLATION

A crew of three can complete a typical TransGard enclosure in just four hours with basic tools — no special training, no heavy equipment (*see Fig. A*).



NO POWER INTERRUPTION

Installation of the TransGard fence requires **zero** downtime — your substation stays online during installation.



FOCUSED PROTECTION

TransGard requires far less material, expense, and time than a perimeter fence, focusing the protection only where needed for maximum results.



ENGINEERED FOR SAFETY

- Non-electrified entryways allow safe human access while keeping animals out
- Quick exit panels can be added to ensure rapid and safe evacuation of the enclosure if needed (*see Fig. B*).
- Built-in Grounding Module ensures full LOTO compliance



MODULAR & DURABLE

PVC and steel construction stands up to the harshest environments and requires minimal maintenance. Modular panels allow easy layout modifications and vehicle access when needed.



FREESTANDING SYSTEM

No postholes, foundation or concrete. Specially designed x-stand base creates a strong, level fencing system, and with optional anchoring can stand up in all weather conditions.



- Ameren operates more than 2,400 substations serving 2.4 million customers in Missouri and Illinois
- Ameren deemed 50% of its Illinois substations “high risk” for damage from squirrels, raccoons, opossums and snakes
- After a successful 2003 test with TransGard, Ameren added TransGard protection to **more than 200** at-risk substations
- Ameren has **not experienced a single animal-related outage** at substations with a properly operating TransGard fence



Figure A



Figure B

TransGard At A Glance

- **PATENTED** The *only* fence that delivers an effective, humane shock to climbing animals
- **SAFE & EASY TO USE** Modular design installs in hours; simple panel removal for maintenance or reconfiguration; multiple safety features to protect your employees
- **COST-EFFECTIVE** Prevention of a *single outage* can offset the cost of a TransGard fence
- **TRUSTED** Adopted by dozens of utilities, cooperatives and other substation operators
- **25-YEAR TRACK RECORD OF SUCCESS** Protects 4,200 substations in North America
- **DETERS ALL GROUND ANIMALS** Squirrels, raccoons, snakes, foxes, cats and more
- **PROTECTION IN MULTIPLE ENVIRONMENTS** Functions in snow, ice or high winds

TAKE THE NEXT STEP

Visit www.transgardsolutions.com to get more details, subscribe to our newsletter, request a quote, or schedule a **FREE** site audit.



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