

TransGard™

SUBSTATION FENCING

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 climbing 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 it seems to be growing:



- Wildlife near power equipment is the **most common cause** of outages at public power utilities, according to the American Public Power Association.
- In 2015, squirrels caused **560 power outages...in Montana alone.**
- On average, **13,000 people** are affected by each animal-caused outage
- A single substation outage can **cost tens of thousands of dollars** in equipment costs, man hours and more.

Animal outages have been a persistent headache for substation operators — and an increasingly costly problem. Fortunately, there's a time-tested solution: **TransGard fencing**.



Proven in the field: Patented protection

TransGard manufactures and installs the only substation fencing that delivers a humane — but effective — electric shock that deters climbing animals, an approach the IEEE calls the most effective barrier against animal incursion.

It works so well that power providers have chosen TransGard fences to protect more than 2,500 North American substations. Here are the unique features that provide exceptional results — and years of uninterrupted performance:



EASY INSTALLATION

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



NO POWER INTERRUPTION

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



FREESTANDING SYSTEM

Installs on the ground, requiring no postholes, foundation or concrete. Our specially designed circular stand bases create a strong, level fencing system.



LESS HASSLE, LOWER COST

TransGard requires far less material, expense and time than a perimeter fence.



MODULAR PANELS, FLEXIBLE DESIGN

Use any fence panel as a hinged gateway for maintenance access; easily reconfigure a fence or expand an existing system.



ENGINEERED ENTRYWAY

Non-electrified entry system offers smooth finish and tight clearances to prevent animal intruders.



DURABLE MATERIALS

PVC and steel construction requires no scheduled maintenance — and offers a 20-year track record of service in all weather conditions.



SNAKE PROTECTION

TransGard's optional snake prevention panels deter snakes as small as 1/4" in diameter.



Substation Fencing Components

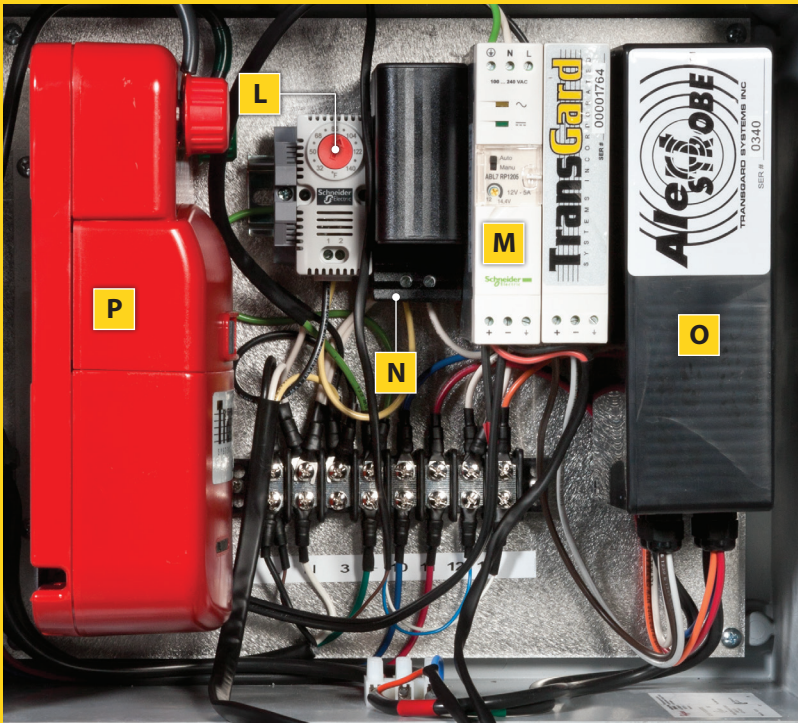
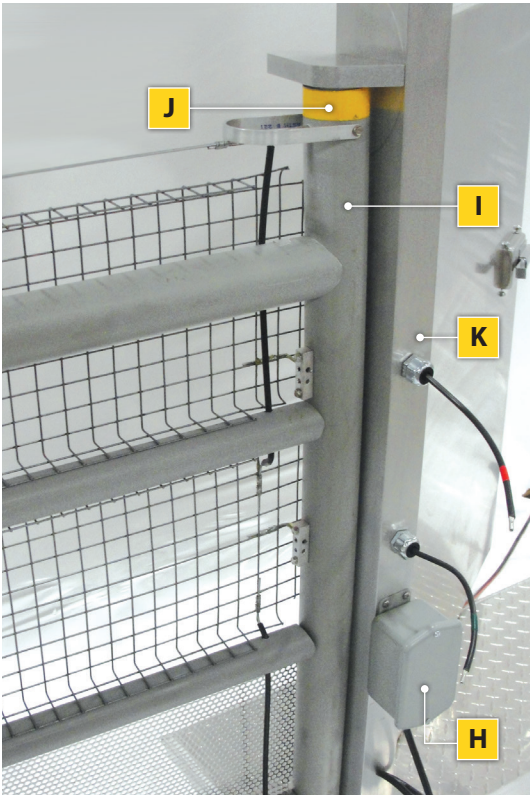
TransGard fences feature a unique modular design that offers fast installation, easy access and simple reconfiguration or expansion. Here are the fencing components, features and benefits in detail.

- A ALERT STROBE**
Provides a clear indication of system function
- B DIGITAL VOLT METER**
Precise indicator of system voltage
- C CONTROL PANEL**
Accessible volt meter, on/off switch & LED indicator controls
- D MAIN ENTRYWAY**
Non electrified access port



- E MODULAR DESIGN**
Lightweight PVC panels can be installed by as few as two people
- F GALVANIZED STANDS**
No postholes or foundation required for installation
- G SNAKE PANELS**
Specially designed section can be added to prevent incursion from snakes as small as 1/4" in diameter

- H POWER SOURCE**
Fence may be erected and plugged into any AC outlet in the main panel box within hours
- I TIGHT CLEARANCES**
Eliminates incursion by even small animals
- J SAFETY HINGE**
Prevents accidental contact between entryway door and fence
- K TERMINAL BLOCKS**
Simple connections shorten installation time



- ### Inside the TransGard control panel
- L THERMOSTAT**
 - M POWER SUPPLY**
 - N HEATER**
 - O ALERT STROBE MODULE**
 - P ENERGIZER**



Results – where it counts

Utilities, cooperatives, municipalities and substation operators across North America protect their assets with TransGard, including these:



- Rochester Gas & Electric operates 165 substations in upstate New York
- Concluded that animals caused 80% of its substation outages
- Began system-wide TransGard installation in 1999...now, TransGard fences protect every RG&E substation
- **RG&E says it has saved "hundreds of thousands of dollars"** by preventing animal-caused outages



- Western Farmers Electric Cooperative manages 400+ substations across four states
- Plagued by years of substation outages from costly snake incursions — one damaging a \$300,000 transformer
- After a successful test with TransGard snake panels, WFEC installed them at dozens of substations
- **TransGard is now standard equipment** for all new WFEC substations



- Ameren operates 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 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



Quotable

"TransGard is an investment well worth making. Being able to eliminate an annual outage for a station feeding thousands of customers can easily justify the cost."

— Duke Energy

"Following the installation of TransGard fencing, WFEC has not had a single snake enter its protected substations."

— T&D World magazine

"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

Take the next step

GET A FREE SITE AUDIT

This in-person inspection results in detailed assessment of the animal threat to a substation — and recommendations.

REQUEST A QUOTE

Complete our online form and get a cost estimate based on a few details about your substation.

STAY IN TOUCH

Visit www.TransGardfence.com to get more details, subscribe to our newsletter, or follow TransGard's LinkedIn page.

Have questions? Contact us today.

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TransGard At A Glance

- **PATENTED** The *only* fence that delivers a humane, effective shock to climbing animals
- **EASY TO USE** Modular design installs in hours; simple panel removal for maintenance or reconfiguration
- **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
- **20-YEAR TRACK RECORD OF SUCCESS** Protects 2,500+ substations in North America
- **DETERS MULTIPLE SPECIES** Squirrels, raccoons, snakes, foxes, cats and more
- **PROTECTION IN MULTIPLE ENVIRONMENTS** Functions in snow, ice or high winds



TransGardTM
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