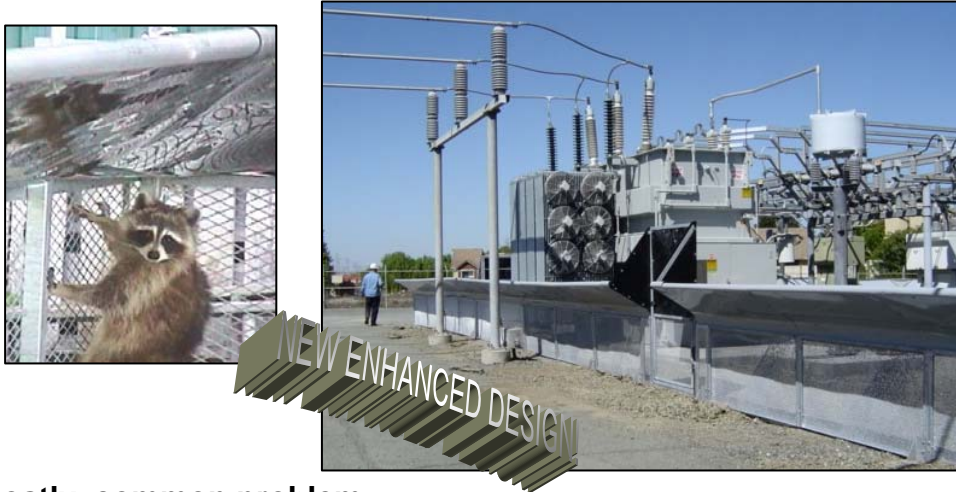


# THE *POWERKAGE*

## A PATENTED NON-ELECTRIC FENCE

EFFECTIVE FACILITIES PROTECTION FROM ANIMAL INTRUSION AND DAMAGE



### A costly, common problem

Electrical utilities and substations frequently experience costly and disruptive power outages when animals interfere with equipment and components. Power outages caused by animal intrusion typically involve significant man-hours and high repair costs to resolve and can seriously impact transmission and distribution station performance. In addition, animals may experience burns or receive other severe injuries resulting in lingering pain and/or death. Trapping, a common mitigation technique, can be costly and is not always reliable.

### Effective functional design

Kinectrics has developed the *PowerKage*; an innovative non-electric fence designed to prevent ground access by squirrels, raccoons, and other animals to electrical ground equipment at substations, thereby eliminating a common cause of power outages. Kinectrics' design has proven effective in preventing substation intrusion by animals. Kinectrics' *PowerKage* can also be combined with cone technology to expand protection.

Kinectrics' patented *PowerKage* design is backed by extensive research and testing (at the *Metro Toronto Zoo* facility) which included thorough evaluations and comparisons with other animal control technologies (e.g. electric fence, acoustic devices, strobe lights etc.). A recent design modification will also allow the *PowerKage* to stop snakes.



### NEW POWERKAGE FEATURES

- **Self-closing Personnel Gate** – Kinectrics has developed a new “self-closing” gate design to eliminate worry over gates being left open.
- **Galvanized Steel Shield** – *PowerKage* features a new galvanized powder-coated steel shield to replace the HDPE plastic top. The new product will not distort, offering improved resistance to climate change. Its true straight surface is impassable by ground animals. This product also requires fewer fasteners and will be offered at the same price as the original plastic option.

- Constructed using high quality, durable materials
- Structural steel fence components and wire mesh, are welded into a singular unit and galvanized; upper fence components consist of heavy gauge plastics
- Modular design (6 ft. units) is easy to assemble/install, disassemble or reconfigure (*two-three days required for most installations*)
- Fences sit on ground surface (*some installations require anchoring of the fence to existing structures or concrete footings*)
- Installation does not require shutdown of electrical equipment
- The *PowerKage* fence system can be readily grounded
- Able to withstand high wind loading (designs available)
- Gates provide for easy entry/exit for electrical equipment maintenance and inspection purposes; overall fence height of approximately 4 feet can be readily surmounted in an emergency
- A payback period on the installed fence price is estimated at 0.5 to 4 years for most moderate to high-risk substations
- Offers substantial reduction, or elimination of repair costs due to animal intrusion over the lifetime of the fence



**The *PowerKage* significantly decreases potential issues related to safety, liability and animal welfare that can be associated with electric fence installations and no staff training in fence operation or safety measures is required.**

## A flexible, low maintenance solution



*PowerKage* maintenance is minimal. *PowerKage* fence layouts can be very flexible and focused to contain specific problem areas, i.e. using one or more, smaller fence enclosures within the utility premises. Where costs of animal-related outages are high, the payback period for the *PowerKage* becomes very short. The *PowerKage* non-electric fence provides a practical, humane and highly effective option in preventing power outages caused by animal intrusion.

For more information, contact:  
Transmission & Distribution Technologies

**Bob Reesor, Senior Engineer**  
Phone: 416.207.6000 x5842  
E-mail: [bob.reesor@kinectrics.com](mailto:bob.reesor@kinectrics.com)

**Russell Pennington (USA)**  
Phone: 704.948.4118  
E-mail: [russell.pennington@kinectrics.com](mailto:russell.pennington@kinectrics.com)

**KINECTRICS INC.**  
800 KIPLING AVE.  
TORONTO, ON  
M8Z 6C4 CANADA  
416.207.6000  
[www.kinectrics.com](http://www.kinectrics.com)