Located in Fort Saskatchewan, Canada, the Shell Scotford Complex consists of a bitumen upgrader, oil refinery, chemicals plant and a carbon capture and storage (CCS) facility. It is one of North America’s most efficient, modern and integrated hydrocarbon processing sites, converting oil sands bitumen into finished, marketable products.

Much like Oil Sand mining facilities near Ft. McMurray use measures to protect birds in the area, Shell Scotford wants to make sure birds stay safe when they’re near our site. However, the bird hazards near Scotford are a little different – in this case electrical power lines are the main threat.

Customized bird proofing of a power distribution system, in the form of molded covers, has been installed to prevent avian electrocution and subsequent power outages at the site.

“We implemented this technology in 2009 to protect the raptors and the habitat in which they thrive, all the while delivering water reliably to the Scotford site,” says Nicolas Leblanc, Chief Electrical Engineer, Shell Canada Products. “It's a win-win for both Shell and the environment. The area is alive with all sorts of animals, birds, and vegetation – an amazing variety, in fact. Taking this into account in our everyday job is paramount to accomplishing our health, safety, and environment goals.”

Shell Scotford made the move because, during the two years before the installation, three birds were electrocuted on power lines feeding the Scotford’s river water-pump facility, with fatal results for the birds and loss of power to the facility. An avian electrocution expert was brought in and made recommendations based on several criteria, including past mortality, structure configurations, topographical placement and evidence of raptor use.

“The remedy was to insulate all conductive metal parts with molded covers that are durable and resistant to deterioration from sunlight,” Leblanc says. “It’s a long-term solution to prevent bird and animal electrocution on the power poles.” So far, no birds have been injured since the insulating covers were installed.

Kevin Leitch, Scotford Projects Group, Electrical, stated, “Our license to operate requires that we prevent an impact to the environment. Bird proofing the power lines in the habitat in which our neighbors live was simply the right thing to do.”