

The search for solutions to metal theft

The price of metals, largely driven by China's voracious appetite for them, has made nearly anything made of metal a target for theft. People are fighting back with regulations and technology



By Stan Sauerwein

Last year, the BC Transmission Corporation (BCTC) and BC Hydro were hit 120 times by metal thieves. In many cases the thieves risked their lives for as little as \$3. That's about the price of a pound of copper these days. The pickings have been very good where it's obvious thieves will find copper wire, though breaking into the cramped quarters of an energized sub-station can be lethal. Police claim drug addicts are suspects in the latest crime storm to hit the Lower Mainland and Vancouver Island. In 2006, two people died and another received a significant injury while attempting such metal theft capers. The easy rewards gained by selling non-ferrous scrap metal are too hard for some to ignore.

But things are changing in the battle to beat back the metal thieves. New technology is being employed to identify stolen metal and municipalities are introducing bylaws that force metal recyclers to get on board with them in a fight against metal-stripping criminals.

The cost for the copper grounding material that is often stolen from electrical sub-stations is just part of the total expense BCTC and BC Hydro have had to absorb since prices for copper, aluminum

and stainless steel began soaring on the world market in the past few years. The companies are the most obvious examples of a rash of thefts that has spread like an epidemic across the Lower Mainland, and which parallels a trend that is being felt throughout North America.

Thieves have also been stealing metal from copper piping in homes and businesses, lamp standards, phone boxes, street signs and even grave markers. HVAC ducting and decorative trim

of the Cowichan Valley lost telephone service thanks to a metal thief. The criminal stole 200 metres of copper cable that had been strung along a busy section of Vancouver Island Highway. And most recently in late March, a Vancouver radio station was ripped from the air for more than four hours after nine metres of cable was stolen out of the station's transmission tower in Ladner.

In 2006, Richmond suffered \$400,000 in damage and loss to metal thefts. Surrey estimates \$200,000 in damage from copper wire theft last year, and even the more rural City of Langley claims to have suffered in excess of \$100,000 in similar losses over the last few years.

Some examples of bold thieves making away with metal would be comical if it weren't for the danger to public safety and the senseless waste that results. Entire street lights have been stolen in Richmond. Earlier this year thieves took the copper wires used to power the lights at Port Coquitlam's Gates Park, and in Ucluelet,

aluminum bleachers were dismantled and removed from a multi-use field. Nearby residents thought the brazen thieves were municipal workers making repairs to the ball-diamond bleachers.

To fight the thieves, municipalities are using their only weapon – bylaws. Vancouver and Kelowna have scrap-metal bylaws and in February the City of Richmond joined their ranks by re-



Your clients' valuable metal assets could become by-the-pound scrap bound for China.

is pulled from institutional buildings such as schools or churches that are unoccupied for periods of time. In spite of beefed-up security measures, theft is common at construction projects. In February a man was caught leaving the Canada Line construction site with 50 kilograms of copper wire he had torn out of a tunnel. The wire was worth about \$300. Also that month, 340 homes west

quiring scrap-metal dealers to maintain a registry of all the goods they buy. In Richmond, second-hand goods have to be held for seven days before being cut up, sold or otherwise disposed of to give police time to identify if that property has been stolen.

Cliff Gittens, recently retired City of Langley manager, is heading a group crafting a new scrap-metal bylaw that will be considered by the other municipalities in the GVRD and Fraser Valley. He says recyclers are expressing privacy concerns about the draft bylaw's requirement to collect identification from sellers.

"It is perfectly legal to request that information and forward it to the RCMP," he claims. The privacy issue is under appeal by a pawn broker in New Westminster who was heading to the BC Supreme Court at *BC Broker's* press time. "The outcome of that appeal could have a significant effect on what we are working on now," he says.

The draft bylaw formally requires scrap-metal dealers to hold any non-ferrous metals they buy for seven days if they pay sellers with cash and they've reported the purchase to the RCMP electronically. In this way bylaw enforcement officers can check sales slips with goods in the yard on a weekly basis and any metal reported stolen can hopefully be identified if mistakenly purchased by the recycler.

"The bylaw will have a list of materials that we've discovered are unique to a particular industry like BC Hydro or Telus," to help police and recyclers identify possibly stolen material, he says. Gittens uses the three-sided aluminum extrusions used for some billboards as an example. Only two sign companies use that extruded product in B.C. and "they have told the recyclers if anyone shows up with that stuff it is stolen."

Notification of theft continues to be the key element to tracking down the stolen goods and catching the thieves.

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At the moment two electronic systems in use by police and the pawn broker industry are being considered in terms of the bylaw.

In BC Hydro's case, repair and replacement of fencing and equipment cost about \$3 million last year, according to spokesperson Elisha Moreno. To combat the thieves, BC Hydro and BCTC are

working to reduce metals theft with a multi-tiered approach. Fence lines are being improved

around sub-stations; security guards are being deployed along with detection devices and video surveillance. BCTC is even experimenting with micro-dot serial number technology called Data Dot, which is being applied to targeted metal products in an attempt to make identification of stolen metal more easily possible.

The companies are replacing high-value pure copper wire with copper weld – a mixture of copper and steel – which is just as conductive but almost worthless to thieves. "We have anecdotal evidence that is indicating to us thieves are actually going around our system with magnets to determine if the wire they want to steal is actually a pure copper product. That's good news for us," says Moreno, because evidently word is reaching criminals that BC Hydro has stopped being an easy mark.

Kees Jansen, manager of security for BC Transmission Corp., says the Data Dot identification being tried is just one of the methods BCTC is using to deter copper theft. "We've had it in place four months now and we're still in the process of rolling this out further," he says. Jansen observes BCTC has noted a drop in the level of theft, but he cannot attribute it to the Data Dot initiative alone.

Data Dot involves the application of micro-dot sized pin numbers which are unique to that product lot. Basically, by painting their copper wired assets with the Data Dot pin number adhesive so-

lution, BCTC is giving the property its own DNA for later identification. The pin numbers are maintained in a Data Dot database for access by the public, scrap-metal dealers and law enforcement agencies. (See related article on *Data Dot and Property Cop.*)

While bylaws requiring dealers to catalogue sellers are being drafted, some recyclers like Lane Ketler with Action Metals in Kelowna already demand identification.

"Asking for driver's licence numbers has made a huge difference," says Ketler. "We are just not dealing with guys who come in with 50 lbs. of stuff and refuse to give us their ID. [The problem] is absolutely drug-related," he says. "These are bottom feeders."

Ketler sighs when asked about catching the ones that slip through his ID screen. "The only way we can do anything is when it's been reported stolen," and at the moment there is no system everyone accesses to check. Though the Canadian Association of Recycling Industries has a fax-blast service for stolen items, they are normally big-ticket items and only members are alerted. Data Dot is a commercial service relying on a unique product. XTract and BIW, the online systems employed by the pawn-broker industry and police, need enhancements if they are to be used by scrap-metal recyclers.

And while theft victims and recyclers struggle with a solution, world-wide demand for scrap metal continues to grow. China reportedly imported more than \$1 billion of American scrap in 2003 and the volume has been climbing constantly. More than two thirds of all U.S. copper exports and half of all aluminum exports from the country now go to China, and Canada's experience is similar.

It seems the only sure solution to the theft situation is to make the targeted metal less valuable with a global recession, and who wants that kind of cure? #