Chapter 23  Intentional Destructive Acts

Intentional destructive acts, that is, acts of sabotage, terrorism, vandalism, and theft, sometimes occur at power facilities, including transmission lines and substations. Vandalism and thefts are most common, especially theft of metal and other materials that can be sold. BPA has seen a significant increase in metal theft from its facilities over the past few years. Thefts increase when the price of metal is high on the salvage market. In the last 10 years, BPA has experienced over 200 thefts or burglaries. BPA estimates that the average monetary damage for each crime is $150,000, but the actual amount is likely much higher since this number does not factor in all the labor-related costs associated with repairing the damage.

The impacts to the transmission system from vandalism and theft, though expensive, have not generally caused service disruptions to BPA’s service area. Stealing equipment from electrical substations, however, can be extremely dangerous. Nationwide, many thieves have been electrocuted while attempting to steal equipment from energized facilities. Recent examples include the July 2011 electrocution death of a man attempting to steal copper from a Duke Energy substation in South Carolina, the August 2011 electrocution death of a man attempting to steal copper from an Entergy substation in Louisiana, the August 2011 severe burning of a woman attempting to steal copper from a Puget Sound Energy substation in Washington, the October 2011 electrocution death of a man attempting to steal copper from a Duke Energy substation in North Carolina, and the December 2011 electrocution death of a man attempting to steal copper from a Memphis Light Gas & Water substation in Tennessee.

Federal and other utilities use physical deterrents such as fencing, cameras, warning signs, rewards, etc., to help deter theft, vandalism, and unauthorized access to facilities. BPA also is in the process of replacing much of its solid copper wire with copper-coated steel wire, posting signage that indicates a trade has been made, and installing surveillance cameras to deter future break-ins. Transmission towers and overhead transmission conductors, however, are mostly on unfenced utility rights-of-way. Although towers are constructed on footings in the ground and are difficult to dislodge, they remain vulnerable to potential vandalism. In an effort to help prevent intentional destructive acts, BPA established a Crime Witness Program that offers up to $25,000 for information that leads to the arrest and conviction of individuals committing crimes against BPA facilities. Anyone having such information can call BPA’s Crime Witness Hotline at 1-800-437-2744. The hotline is confidential, and rewards are issued in such a way that the caller remains anonymous.

Acts of sabotage or terrorism on electrical facilities in the Pacific Northwest are rare, though some have occurred. In the past, these acts generally focused on attempts to destroy large steel transmission line towers. For example, in 1999, a large transmission line steel tower in Bend, Oregon, was toppled. In June 2011, at BPA’s Alvey Substation near Eugene, Oregon, almost $1 million in damages was incurred when unknown individuals were able to breach a security fence and damage equipment in the substation yard during an attempt to disrupt transmission service.
Depending on the size and voltage of the line, destroying towers or other equipment could cause electrical service to be disrupted to utility customers and other end-users. The effects of these acts would be as varied as those from the occasional sudden storm, accident or blackout, and would depend on the particular configuration of the transmission system in the area. For example, when a storm affects transmission lines, residential customers can lose power for heating, cooking, refrigeration, lighting, etc. and can experience impacts related to those functions unless they have backup generators. Similarly, commercial, industrial and municipal customers can experience impacts when infrastructure such as machinery, traffic signals, light rail, or elevators stops functioning.

In some situations intentional destructive acts would have no noticeable effect on electrical service as power can be rerouted around an area because of redundancies built into the transmission system. In other situations, service could be disrupted in the local area, or, if an intentional destructive act caused damage to a major piece of transmission system equipment or a large part of the transmission system, a much greater area could be left without power.

During scoping, BPA received comments about the increased risk of terrorism to the transmission system and to nearby landowners if a new line is built next to an existing line or lines. BPA also received comments about the increased risk to landowners if a new line is built on new right-of-way in areas where no lines exist now.

It is difficult to predict the likelihood of, and increased risk for, terrorist or sabotage acts from building the project near, next to, or far from existing transmission system facilities. New transmission towers, overhead conductor, and new substation facilities would increase the risk incrementally on BPA’s 15,000 circuit-mile transmission system. Placing a new line next to an existing line may increase the risk more than building the line far from existing facilities. However, given the extensive security measures that BPA, public and private utilities, energy resource developers, and federal agencies such as the U.S. Department of Homeland Security have and are continuing to implement to help prevent such acts and protect their facilities, along with the inherent difficulty in significantly affecting such large and well-constructed facilities as transmission towers and substation sites, it is considered extremely remote and unlikely that a significant terrorist or sabotage act would occur. Accordingly, the incremental increase in risk to landowners from the presence of the proposed project would be minimal. If such acts did occur, the problem area would be isolated quickly and electricity rerouted as much as possible to keep the system functioning. In addition, it is expected that federal, state, and local agencies would respond quickly if any such act posing any human or natural resource risks occurs.