STATEMENT OF

RON TURLEY

SPECIAL PROGRAMS MANAGER

WESTERN AREA POWER ADMINISTRATION

U.S. DEPARTMENT OF ENERGY

BEFORE THE

SUBCOMMITTEE ON WATER AND POWER

AND THE

SUBCOMMITTEE ON NATIONAL PARKS, FORESTS AND PUBLIC LANDS

COMMITTEE ON NATURAL RESOURCES

U.S. HOUSE OF REPRESENTATIVES

JUNE 16, 2009

I am Ron Turley, Special Programs Manager for the Department of Energy's Western Area Power Administration (Western). This is my testimony for the June 16 hearing on *"Mountain Pine Beetle: Strategies for Protecting the West."*

Good morning, Madame Chairwoman, Mr. Chairman, and Subcommittee members. Western is committed to delivering reliable, cost-based Federal electrical power. We do this over an integrated 17,000 circuit-mile, high-voltage transmission system—an electrical Federal highway system—that spans most of the western half of the United States. Our role, as transmission owner and provider, is not only critical to the delivery of Federal power, it is integral to our Nation's interconnected electrical grid and helps ensure reliable and secure delivery of our Nation's power supply.

Given the importance of this role, I appreciate the opportunity to update you on the urgency of real risks to public safety and power system security and reliability resulting from the bark beetle epidemic in the Rocky Mountains. This situation in Western's service area is a great concern. Wildfires in dead and dying timber stands of beetle-infested forests can seriously interrupt power system operations and significantly damage transmission lines. This situation could result in widespread, regional power outages potentially requiring extended periods of repair time.

Today I will provide technical information on the risks that beetle-kill forests pose to Western's power system; the substantially more aggressive vegetation management practices required to reduce these risks; and how Western is taking an active role to address the issue.

Beetle-killed, forested landscapes and Western's transmission infrastructure

Today, the impact to Western's transmission lines and facilities from the bark beetle is concentrated in Colorado. Much of Western's transmission system in Colorado is located on heavily forested lands administered by the United States Forest Service (USFS), as well as on lands under other ownerships (private, Bureau of Land Management, tribal and others).

Dead and dying trees are threats to public safety, reliability and grid security

Our transmission lines cross a variety of vegetation types, but trees are one of the main vegetation management concerns when it comes to ensuring public safety, reliable system operations and grid security.

Today, vegetation management includes more than just cutting danger trees—trees tall enough to either grow into contact with electrical conductors or fall into the conductors or structures. It involves actively managing the plant communities beneath our transmission lines and within our rights of way as well as addressing fire-related impacts that affect the overall ability of transmission facilities to withstand a fire.

Under extreme fire conditions, multiple large, high-intensity wildfire events can simultaneously impact multiple electrical grid components resulting in potentially severe regional consequences.

Direct risks to Western's lines

Many segments of Western's grid-critical transmission system pass through lodgepole pine areas impacted by the mountain pine beetle. The dead and dying trees present multiple risks to transmission lines, including physical damage and operational threats to facilities from falling trees, increased threats to facility operation and physical damage from wildfire events and the possibility of causing wildfire by igniting trees that fall on or near high-voltage transmission lines. Associated power outages could be sudden or extended, or both, potentially jeopardizing public safety. Accordingly, Western is concerned about management implications of forest health not only associated with lodgepole pine but in many other forest types as well.

Indirect risks to Western's lines

In addition, indirect risks in the forested areas—sometimes many miles from Western's facilities—may put Western's transmission facilities at risk. The potential for large fires in beetle-killed timber presents a serious risk to continuous power system operations and the integrity of transmission lines. Fuels treatments in areas both adjacent to and, in some cases, distant from the right of way may mitigate but not completely eliminate the risk presented by wildfires and enhance the likelihood of the operational security of our transmission facilities when fire occurs within these fire-adapted landscapes. As illustrated in the attached photos, managing fuels to enhance transmission line fire survivability is complex. However, utilities' rights and authority concerning vegetation management end at the edge of the transmission line's right of way.

Western's vegetation management program—adapting to new realities

Today, the goal of our vegetation management program is to establish a more manageable, long term right-of-way condition that reduces the build up and concentration of fire fuels and reduces the overall risk of tree-caused outages or fires, increasing public safety and enhancing power system security and reliability.

Program history

Western has always conducted a robust vegetation management program to manage and control vegetation on its rights of way. Historically, we performed maintenance work when vegetation had grown near the point of becoming a problem. We principally focused on managing tall trees, consistent with industry standards.

With the passage of the Energy Policy Act of 2005, the Federal Energy Regulatory Commission and North American Electric Reliability Corporation (NERC) have established mandatory vegetation management standards. The electric utility industry is now required to actively manage vegetation well before it can potentially threaten reliable power system operations. Consequently, Western must significantly change its past practices on some forested transmission line rights of ways —most of which are on National Forest System lands.

Two-phased approach tackles major workload

To meet these new and more stringent NERC reliability requirements, Western undertook an intensive, systematic review of the power system to locate and remove danger trees with the intent to immediately ensure the safety, security and reliability of the Federal transmission system.

Western plans to follow with a second phase of more aggressive treatments to convert heavily forested rights of ways to a more manageable condition of stable, low-growth and slow-growing native vegetation. This conversion process involves removing or grinding previously cut trees

and debris, removing standing trees, and actively selecting for native, lower-growth plant species. This approach increases species diversity through the establishment and retention of early-succession plant communities that are appropriate to the ecology of the area.

This second phase is pending the completion of an environmental review process co-led by the USFS and Western. Western and the USFS are in negotiations regarding this environmental review process, and we anticipate a lengthy review and analysis. In the interim, trees continue to grow, and Western will continue to annually remove danger trees on previously treated transmission line sections. This is required to maintain the integrity of the Federal power system and remain in compliance with the mandatory reliability standards.

Western's role—solutions to the bark beetle threat

Western provides industry leadership on vegetation management issues related to power grid safety, security and reliability. Western is recognized for collaborative approaches to address today's complex natural resources management issues. As a result, Western sits on the steering committee for the Colorado Bark Beetle Cooperative and has been appointed to Colorado Governor Bill Ritter's Healthy Forest Advisory Council. We have been appointed to the NERC Standards Drafting Team tasked with writing international industry reliability standards for vegetation management.

Expedited environmental review

Western continues to work with the USFS on the environmental review and other steps required to fully implement our vegetation management program. To help address the immediate need created by the bark beetle epidemic, Western is exploring a recent proposal by the USFS to provide an expedited, programmatic environmental analysis for a one-time, limited authorization to treat fuels and mitigate wildfire hazards.

Collaborative partnerships show promise

In addition, Western is encouraged by our participation in the Uncompahgre Plateau Project in Colorado. This project is an example of a collaborative approach to addressing multiple resource objectives, including transmission line protection and fire-hazard mitigation projects, across jurisdictional boundaries using a variety of authorities and funding sources.

The goal of the Uncompahgre Plateau Project is to develop collaborative approaches to improve or restore ecosystem health on various landscapes, using best available science, community and other stakeholder partnerships and adaptive management practices. Principal project partners include: the Public Lands Partnership, Bureau of Land Management, Colorado Division of Wildlife, the USFS, Western and Tri-State Generation and Transmission Association, Inc.

Primary components of the Project include: landscape scale project planning, invasive species management, a native plant program, on-the-ground treatments, and education and technology

transfer. The Project directs, coordinates and/or facilitates these activities across jurisdictional boundaries, but does not supersede management authority on any Federal, state, or private lands.

Through its innovative powerline protection projects, the Uncompahgre Plateau Project model works well for protecting transmission resources—critical wildland and urban interface infrastructure traversing these lands. An environmental decision memo further describing one of these projects is attached.

Cooperative effort—key to solution

Many questions remain, but the need is urgent. The solution will involve all stakeholders working cooperatively. Western is committed to being part of the solution, continuing our role as an industry leader in enhancing public safety and increasing the security and reliability of the electric grid.

Thank you, Madame Chairwoman and Mr. Chairman. I would be pleased to answer any questions that you or the Subcommittee members may have.