

PG&E's Enhanced Transmission Line Clearance Process

- When PG&E is constructing a new transmission line or reconductoring or rebuilding an existing line, the engineering design specifications are established such that the conductors' height meets the GO-95 clearance requirements. Once the line is constructed, PG&E's current practice is to have an inspector check the tension, which is then compared with the design calculations to ensure it meets the height requirements. PG&E is planning to enhance this current practice to also conduct a LiDAR analysis of each line after construction. This newly incorporated procedure leverages the precision of the LiDAR tool to ensure the line meets GO 95 clearance requirements and provides PG&E with electronic records of the line ensuring that the electronic database of line measurements is complete.
- PG&E has recently enhanced its existing patrol and inspection program to add additional physical measurements of transmission lines. Previously, physical measurements were conducted when there were obvious signs of change to the conductor clearance. In 2011, in response to the early LiDAR results, PG&E enhanced its annual patrol process to include a physical measurement of the lowest span per mile of line as identified using field knowledge. PG&E has provided a CDM-75¹ to every Troublemaker and area Supervisor to complete this work.
- PG&E is also committed to using LiDAR or other available technology in the future to assess transmission line clearances. PG&E is evaluating the appropriate intervals and approach for future clearance assessments once the current assessment is completed later this year.

¹ The Cable Distance Meter is a handheld device for measurement of cable sag, cable height distance and overhead clearance of conductors. It is a modern alternative to telescopic measuring poles. The Cable Distance Meter utilizes ultrasonic signals to determine the height of overhead cables up to 75 feet.