

**DOCKETED**

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## **Transmission Power Line Interrupter Device development**

Mastery Instruments is developing an inexpensive, easy to install Power line interrupter device that would be mounted atop a power transmission pole and sense its failure from toppling or contact with trees and sever the downed power line, eliminating the potential of downed lines causing bodily injury or wildfires. This device would pay for itself by eliminating vegetation removal or the recently forced power outages during unsafe weather conditions. Other advantages of installing this device exist. We are looking for funding to complete the design and testing of the device. PH 408-482-1852. You can see the device at <http://www.masteryinstruments.com/pli.html>.

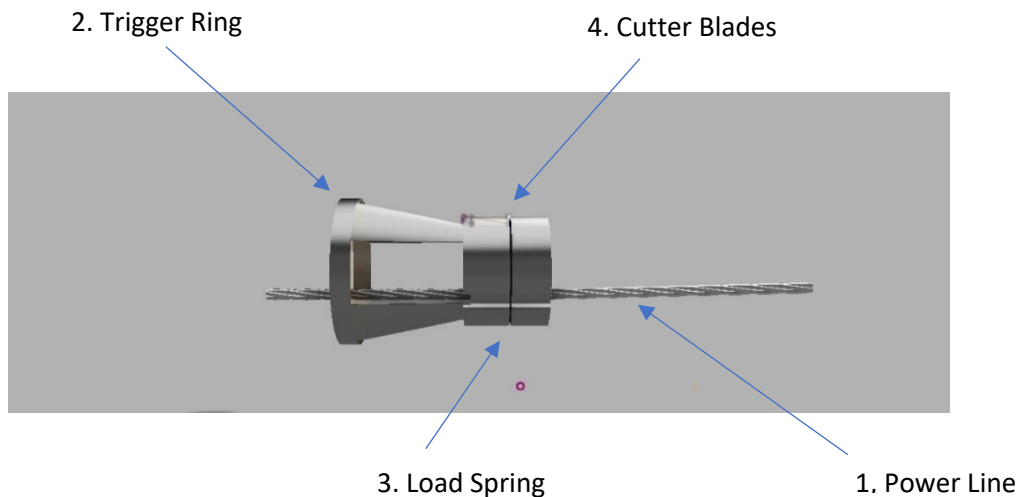
*Additional submitted attachment is included below.*



## Power Line Emergency Interrupter

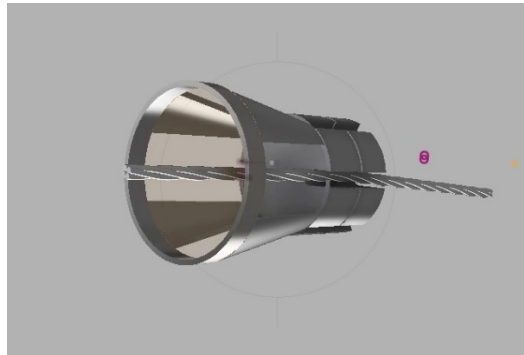
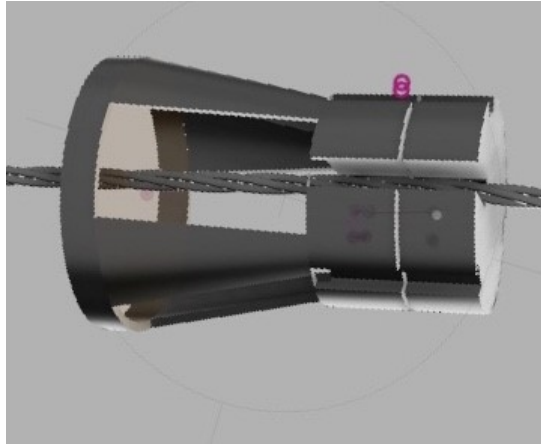
As seen in the recent California Napa area forest fires, fallen power lines continue to flow power and create sparks from the free end of the power line. Numerous deaths are attributed to victims coming in contact with power lines that have severed and fall to the ground. In addition, power is lost to the entire local grid area when the substation circuit breakers are activated to stop the flow of power through the fallen power lines. Loss of trees due to vegetation clearing around power poles and lines is expensive and harmful to the environment.

**Description** - This device would sense a separation of a power line, or a downed power pole by the acute angle the power line would make from its normal straight-line projection to the adjacent power pole. The internal cutter would sever the downed power line at the nearest undamaged power pole. The severed line attached to an undamaged pole could still function.



**Operation** - Device slips onto existing Power Line (1) near power pole insulator. Locking screws clamp device to power line. When a line breaks or a power pole is downed, the power line comes in contact with the Trigger Ring (2). This forces the trigger ring (2) to shift, causing a locking device to release. Upon release the load spring (3) causes the two cutter rings to rotate which engages the cutter blades (4) to sever the power line.

**Conclusion** – This unpowered device is inexpensive and could be placed on power lines easily without any need to disturb the power line. Only locations in High Risk Areas may need installation. Safety of persons near an interruption would be greatly enhanced. Because the undamaged power lines stay in service, savings in loss of transmission because of districts being disconnected would be a benefit.



**Proprietary Disclaimer-** This proposal includes data that shall not be disclosed outside the intended recipient and shall not be duplicated, used, or disclosed-in whole or in part-for any purpose other than to evaluate this proposal. This device is protected by U.S. Patent and Trademark regulations.

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