

## Lobo, Michelle@Waterboards

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**From:** Charlie Kuffner <charlie.kuffner@gmail.com>  
**Sent:** Wednesday, February 18, 2015 1:40 PM  
**To:** Bob Cords  
**Cc:** pbarnws@waterboards.ca.gov; Sean Moore; dgarton@tehamacountyadmin.org; Tompkins Jim; Lobo, Michelle@Waterboards; Monheit, Susan@Waterboards; Drescher, Brionna@Waterboards  
**Subject:** Re: LLHP (FERC 12496)

Bob:

Thank you for your email of 2/13/15 regarding the proposed Lassen Lodge Hydroelectric Project.

In response to the question that you posed regarding new transmission line maintenance, we offer the following:

The "Gen-tie" transmission line the project is proposing to build, including the step-up transformer sub-station near the generation site and the Point of Interconnection (POI) switchyard in the project ROW just east of South Powerhouse Road, will be owned and maintained by Rugraw, LLC, the project developer.

PG&E will own and maintain the project Point of Interconnection onto the existing Volta South transmission line on South Powerhouse Road.

We appreciate your continued interest in the project. Please let us know if you have any further questions or comments on the project that we can address.

Tx,

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On Fri, Feb 13, 2015 at 9:16 AM, Bob Cords <[bobcords@frontiernet.net](mailto:bobcords@frontiernet.net)> wrote:  
Although unable to attend the community meeting held in Manton on Monday, Feb. 9, I reviewed some excellent notes taken by Ms. Janet Rogers and have done some limited research on the fire hazard issue.

Although I am the Assistant Chief for the Manton Volunteer Fire Department, and an engineer with 40+ years of experience, I make these comments as a private citizen and resident of Manton.

Provided that there is not significant environmental concerns raised by the EIR, I am inclined to support this project as i believe that hydro power on this scale is one of the most environmentally benign power sources available. The visual and auditory impact of this project seems inconsequential, the footprint small, and the benefit is worthwhile.

#### Fire Issues:

I don't know if there has been a specific study that identifies vegetation fires originating from lightning fire striking utility infrastructure vs. other objects. I did however find some information related to this subject.

According to the NFPA, (NFPA Report "Lightning Fires and Lightning Strikes", 2013, Marty Aherns), there were 10 fires caused by lightning striking utility structures from 2007-2011. This was out of a total of 1630 fires started from all lightning strikes in the report period, (0.6%).

Other data in this report seems to suggest that it is not very common for lightning striking utility structures to start a fire at all. In 2003 there were 3920 non-home lightning strikes that included 120 utility strikes that did not cause a fire. This further demonstrates that even if a utility structure is struck, it is not likely to initiate a fire. Utility systems by design are made to withstand and safely dissipate lightning strikes.

Although this data is derived only from reports from local and municipal fire departments, (does not include State or Federal fire agencies), it does suggest that wild land fires caused by lightning striking utility structures is exceedingly rare.

The data would suggest that the number of wild land fires caused by lightning striking utility structures is statistically insignificant relative to fires caused by lightning striking natural features, particularly trees.

In actuality, trees are much more "attractive" to lightning than power lines for several reasons. First, they are much better grounded, in that they have a massive root structure penetrating deep into moist soil. Second, their structure is inherently more conductive than a power pole because of the natural moisture of the tree. The "Ponderosa Fire", although started by lightning, did not involve any power lines or poles, but was the result of a down strike in dry brush.

Regarding the fuel break, the developers have offered to rehabilitate that portion of the "Hazen Road shaded Fuel Break" that lies along the proposed right of way. It was not proposed as a complete fuel break project, but as an "assist" to existing or proposed projects. The Manton Fire Safe Council has been working with the Tehama County Resource Conservation District to develop a plan to rehabilitate this fuel break, so this would dovetail quite well with this goal. My only question in this regard is that once the transmission line is completed, will maintenance of the line and RoW be the responsibility of PG&E or the LLHP partners.

#### Manton Valley AVA

I can not conceive of any aspect of this effecting the Manton Valley AVA.

Thanks for your consideration of my comments

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