
From: [REDACTED]
To: [REDACTED]
CC: [REDACTED]
Sent: 3/24/2021 1:39:49 PM
Subject: RE: Request: Intro conversation regarding strike tree analysis

Jon [REDACTED]

I don't think I'm the right person to respond to [REDACTED] request on providing him the detailed Excel tree strike calculation steps? And also whether to port the calculations to a different portal?

I had some brief discussions with [REDACTED] line slap project team to ultimately port over both the line slap and tree strike calculations to the PG&E ArcGIS portal, but this effort has not been scoped and funded. Thanks,

From: [REDACTED]
Sent: Wednesday, March 24, 2021 1:22 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Request: Intro conversation regarding strike tree analysis

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What calculations are being performed in the Excel spreadsheet? Did you already share it with me? (If not, could you?)

What is the Excel spreadsheet providing to the VBA script? Specifically, how does the VBA know the location of each span?

Also, in your previous email you'd mentioned that it could take ~150 hours to expand coverage of the Strike Tree model to cover all of HFTD 2/3 - is that because this approach depends on Excel? Is much of that time spent by humans interacting with Excel? (and do those answers also apply to expanding the Line Slap model?)

Has it been considered to port your Excel models and VBA scripts to Jupyter Notebook, Python, etc? Or is that outside your skill set currently?

Thanks, [REDACTED]

On Wed, Mar 24, 2021 at 12:25 PM [REDACTED] wrote:

The risk calculations are performed in an Excel spreadsheet. I wrote an Excel VBA script in the spreadsheet to write the results to KML file, and then used the 7-Zip program to compress the file to KMZ.

From: [REDACTED]

Sent: Wednesday, March 24, 2021 12:03 PM

To: [REDACTED]

Cc: [REDACTED]

Subject: Re: Request: Intro conversation regarding strike tree analysis

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How is the KMZ file produced? Do you have any code you can point me to that produces the KMZ? Or do you use some particular software package or technique to produce the KMZ?

On Wed, Mar 24, 2021 at 11:53 AM [REDACTED] > wrote:
[REDACTED]

Sorry I just found that I have not responded to your question regarding FEA model outputs: the KMZ format is the only output format, and there is no plan to create shape file outputs. There is talk to export the results to text file such that the data can then be imported into ArcGIS portal, but this task hasn't been formalized yet. Thanks,
[REDACTED]

From: [REDACTED]

Sent: Thursday, March 11, 2021 8:10 PM

To: [REDACTED]

Cc: [REDACTED]

Mir [REDACTED]

Subject: Re: Request: Intro conversation regarding strike tree analysis

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OK great!

[REDACTED] before you start to figure out how to proceed, we should attempt to check that your data is actually useful.

I'm going to see if the RaDA data scientists can run an analysis to see if the presence of your data (just the fraction of HFTD 2 / 3 that is currently available) improves the predictive power of our model.

You mentioned that your model produces output in KMZ format - do you have any other output formats available? In particular, do you have an output of all your results in a single file (or set of files that make up a "shape file")?

Can you send me, or point me to where I can access, all of your results?

We'll be sure to share with you what we learn!

Thanks, [REDACTED]

On Thu, Mar 11, 2021 at 6:24 PM [REDACTED] > wrote:

I think we can accommodate this expansion. I am going to be out on Monday and Tuesday.

From: [REDACTED]

Sent: Thursday, March 11, 2021 6:12 PM

To: [REDACTED]

Cc: [REDACTED]

Subject: Re: Request: Intro conversation regarding strike tree analysis

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I've discussed [REDACTED] data and analysis with [REDACTED] and there is interest from RaDA in having [REDACTED] data expanded to cover all of HFTD 2/3.

[REDACTED] notes below that this might require perhaps 150 hours of labor - that is certainly a non-trivial effort.

I like to ask how we might approach a decision regarding if and when [REDACTED] model results could be expanded - I'll add this topic to our Monday sync meeting agenda.

Thanks, [REDACTED]

On Tue, Feb 23, 2021 at 11:05 AM [REDACTED] > wrote:
[Looping in [REDACTED]

We've performed about 5,000 miles of the HFTD 2/3 calculations so far for [REDACTED] Grid Design team. The calculations are currently setup to calculate one circuit at a time, so using the same approach the effort to calculate 20,000 miles is roughly 150 hours of labor. If you're interested in seeing more of a global effect, the calculations can be modified to calculate one region at a time which will shorten the effort and time considerably, but with the caveat that the calculated risk score will then be for the entire region as a whole. Thanks,

From: [REDACTED]
Sent: Tuesday, February 23, 2021 9:42 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Request: Intro conversation regarding strike tree analysis

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Francis, how much effort is it for you to extend your coverage? Like... if I asked for your results for ALL of HFTD 2/3 (eg. ~25,000 miles), how much work is that?

On Tue, Feb 16, 2021 at 6:04 PM [REDACTED] > wrote:
[REDACTED]

The color code indicates the tree trike failure risk category at the span level:

- Red spans have more than 15 trees in each span that can break the span
- Amber spans have between 6 to 15 trees in each span that can break the span
- Yellow spans have between 1 to 5 trees in each span that can break the span
- Green spans have zero tree in each span that can break the span

Thanks,
[REDACTED]

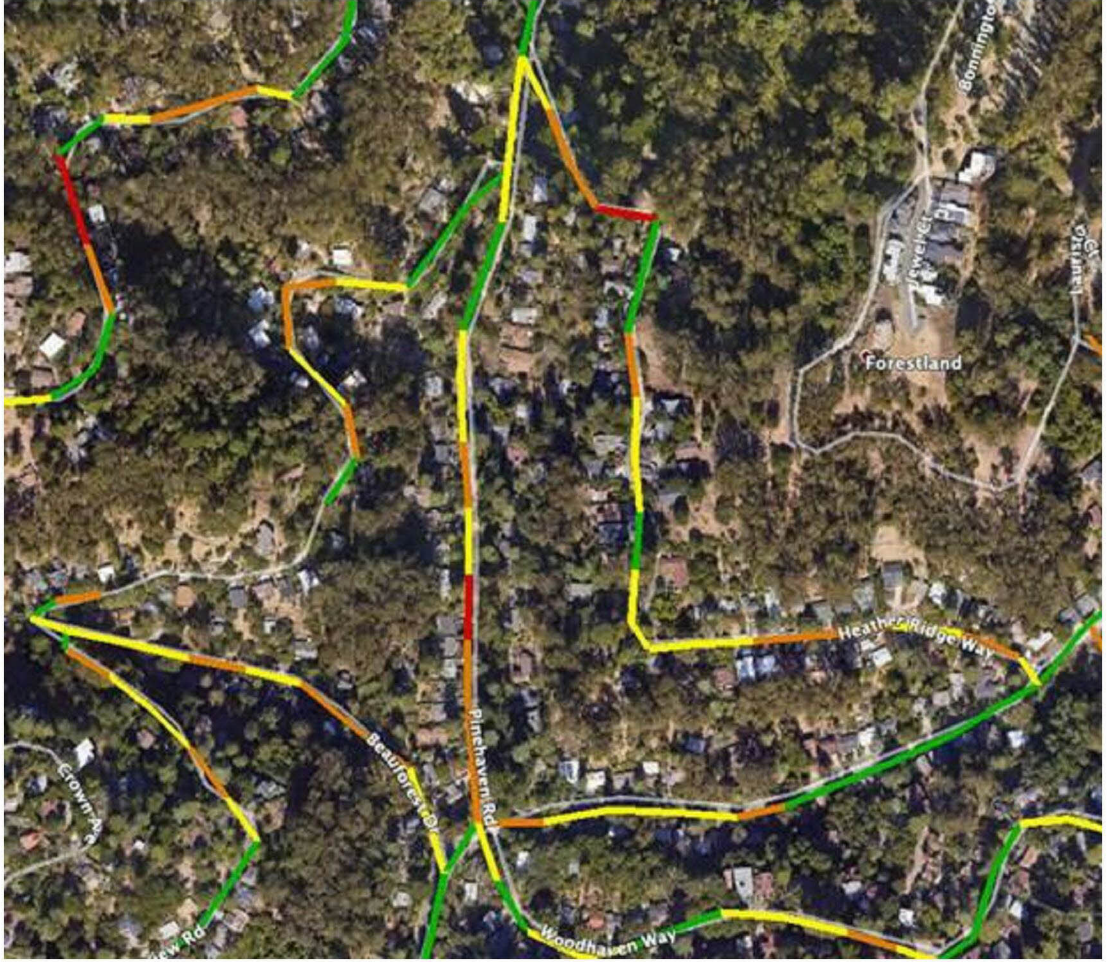
From: [REDACTED]
Sent: Tuesday, February 16, 2021 4:40 PM

To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Request: Intro conversation regarding strike tree analysis

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Thanks [REDACTED], sorry for my delay in cracking this open.

Can you remind me what the color coding is indicating?



On Wed, Feb 3, 2021 at 3:03 PM [REDACTED] wrote:
[REDACTED] – sorry for the miss! The outputs are KMZ files. An example is attached (you may need to uncheck the Terrain box in order to see the outputs in Google Earth because some LiDAR elevations are not perfectly compatible with Google Earth terrain rendering).

[REDACTED]

From: [REDACTED]
Sent: Wednesday, February 3, 2021 2:20 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Request: Intro conversation regarding strike tree analysis

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Thanks [REDACTED],
In what form do you produce the results of the calculations for the circuits below?

From: [REDACTED]
Sent: Monday, February 1, 2021 5:47 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: Request: Intro conversation regarding strike tree analysis

Just select distribution circuit segments that are begin identified for PSPS de-scoping at this time.

From: [REDACTED]
Sent: Monday, February 01, 2021 5:44 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Request: Intro conversation regarding strike tree analysis

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Very nice!

For what coverage area is this model's results available? All of HFTD 2 and 3? Or only the potential PSPS descoping areas being considered? Or some other extent?

On Mon, Feb 1, 2021 at 5:41 PM [REDACTED] wrote:
[REDACTED]

This work is part of the PSPS descoping criteria. [REDACTED] team builds a mechanical simulation of the distribution line and then uses the LiDAR tree data to identify which trees can reach the line. The simulation then models those trees falling on the line and the results indicate whether the tree is likely to break the line or other components of the line.

From: [REDACTED]
Sent: Monday, February 01, 2021 5:00 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: Re: Request: Intro conversation regarding strike tree analysis

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Ah, well, I wonder if perhaps I already know about your model [REDACTED]

I work for and closely with [REDACTED])

Wen, today [REDACTED] showed me a great presentation about your strike tree analysis work - could you share it with me?

[REDACTED] can you help illuminate things here? I'm sure I'm missing something simple with regards to understanding [REDACTED] work.

Thanks [REDACTED]

On Mon, Feb 1, 2021 at 4:53 PM [REDACTED] wrote:
[REDACTED]

Happy to share. The model we developed is being utilized by [REDACTED] and his PSPS descoping model and some other purposes. Plugging in [REDACTED] so he is aware of the ask.

What times are available for you?

Cheers,

[REDACTED]



[REDACTED]

From: [REDACTED]
Sent: Monday, February 1, 2021 4:47 PM
To: [REDACTED]
Subject: Request: Intro conversation regarding strike tree analysis

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Hi [REDACTED]
My team develops wildfire risk models for PG&E - you can learn more about us and our work here <https://wiki.comp.pge.com/display/RaD/Risk+and+Data+Analytics>

I recently became aware of your work on analyzing tree data (from PG&E's LiDAR surveys, I believe) to inform [REDACTED] System Hardening work planning.

My team would very much like to learn more about your work - would you have time to share some details with us? Just a half-hour would be great!

I'm happy to schedule a mutually-available time.

Please let me know, thanks.

Cheers [REDACTED]

--
[REDACTED] PG&E