From: [redacted]
To: [redacted]
CC: [redacted]
Sent: 2/23/2021 11:05:01 AM
Subject: RE: Request: Intro conversation regarding strike tree analysis

[Looping in [redacted] and [redacted]

[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,

[redacted]

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

*****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*****

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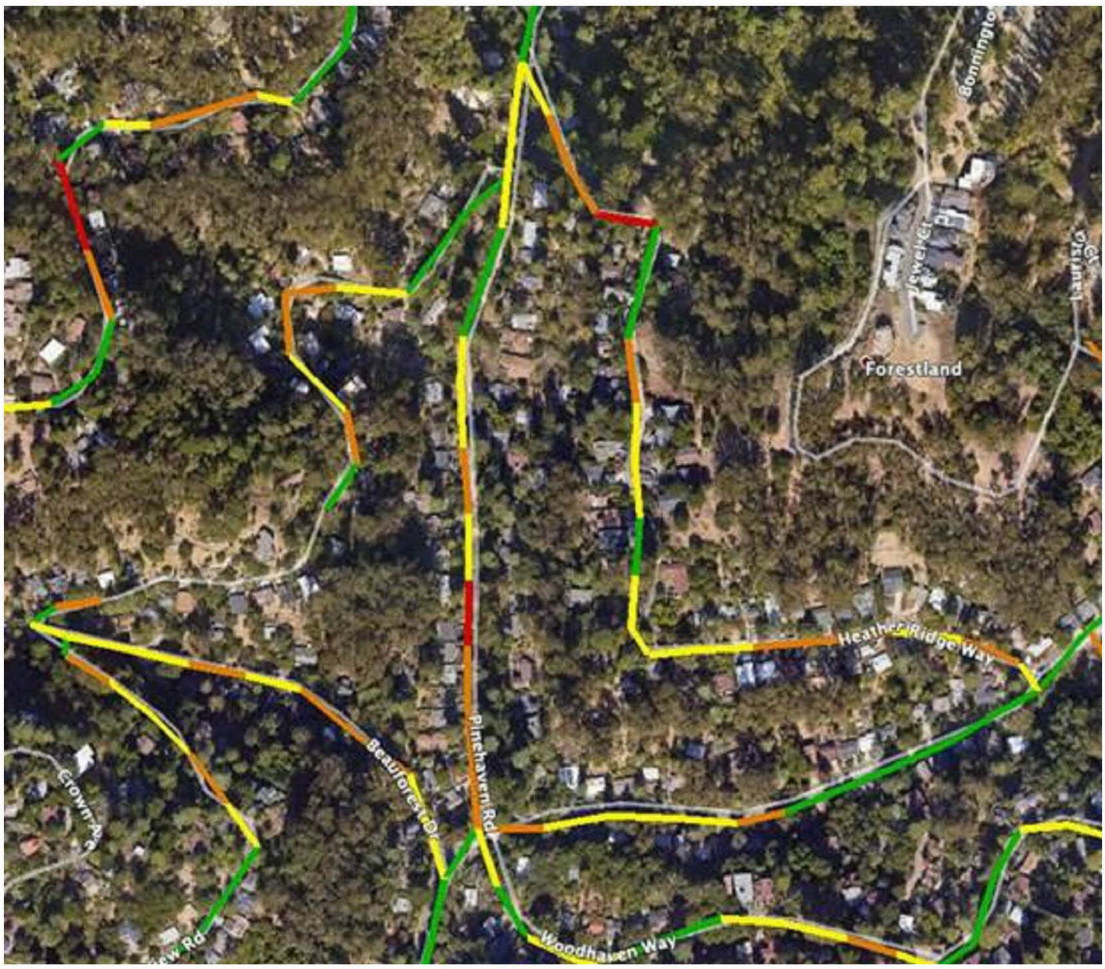
Thanks [redacted] sorry for my delay in cracking this open.

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?

[redacted] showed me some color-coded visualizations in Google Earth - did those come from you?

Are you producing KMZ files? Shape files? Raster files? CSV or other tabular data?

Could you point me to a sample of your calculation results?

Much appreciated

Cheers, [redacted]

PS. My first name is [redacted], last name [redacted] - backwards, I know!

[redacted]
Product/Project Manager (Contractor)
Risk and Data Analytics (RaDA), PG&E
[redacted]

On Mon, Feb 1, 2021 at 5:53 PM [redacted] wrote:
[redacted]

Adding to [redacted] PSPS work scope, similar calculations have been performed on about 70 distribution circuits (HFTD 2/3 areas) for [redacted] system hardening scoping projects:

ALLEGHANY 1101	DESCHUTES 1104	KESWICK 1101	MOUNTAIN QUARRIES 2101	PUTAI
BANGOR 1101	DIAMOND SPRINGS 1105	KIRKER 2104	NORTH DUBLIN 2101	RINCC
BIG BASIN 1101	DIAMOND SPRINGS 1107	KONOCTI 1102	OAKHURST 1101	RINCC
BIG BEND 1102	DUNBAR 1101	LAS GALLINAS A 1105	OLETA 1101/MARTELL 1101	SHINC 2109
BRUNSWICK 1103	DUNLAP 1102	LOS GATOS 1106	OREGON TRAIL 1103	SILVE
BRUNSWICK 1110	ELK CREEK 1101	MARIPOSA 2101	PINE GROVE 1102	SILVE
BUCKS CREEK 1101	FITCH MOUNTAIN 1113	MARIPOSA 2102	PLACERVILLE 1112	SILVE
CALISTOGA 1101	FROGTOWN 1701	MIDDLETOWN 1101	PLACERVILLE 2106	STANI
CALISTOGA 1102	FROGTOWN 1702	MIDDLETOWN 1102	POSO MOUNTAIN 2103	TIDEV
CAMP EVERS 2106	FULTON 1107	MIDDLETOWN 1103	POSO MOUNTAIN 2104	TULUC
CLAYTON 2212	HALF MOON BAY 1103	MIWUK 1701	POTTER VALLEY P H 1105	UPPE
COARSEGOLD 2104	HIGHLANDS 1102	MIWUK 1702	PUEBLO 2102	VACA

Thanks,

[redacted]
[redacted]
Mechanical Engineering and Numerical Analysis
Applied Technology Services (ATS)
[redacted]

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. Wen's 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.

[redacted]

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

*******CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*******
Ah, well, I wonder if perhaps I already know about your model Wen!

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] and [redacted] work.

Thanks, [redacted]

On Mon, Feb 1, 2021 at 4:53 PM [redacted] wrote:
Hey [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]
Sr. Manager – Mechanical & Materials Engineering
Applied Technology Services
[redacted]

[redacted]

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

*****CAUTION: This email was sent from an EXTERNAL source. Think before clicking links or opening attachments.*****

Hi [redacted] and [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]
Product/Project Manager (Contractor)
Risk and Data Analytics (RaDA), PG&E
[redacted]