

From: [REDACTED]
To: [REDACTED]
CC: [REDACTED]
Sent: 4/19/2021 3:26:06 PM
Subject: RE: Hardening Circuits

[REDACTED] has shared a OneDrive for Business file with you. To view it, click the link below.

 [Reliability Indices for MAT 08W Circuit Hardening Project \(2020\).xlsx](#)

Not sure I have the math right, but if System Hardening is calculated to be 62%, then I would expect a 62% improvement in reliability for each hardened circuit.

62% effectiveness

Reduced Cmin/mile 3,207
Reduced Outage/mile 0.12

	Miles 08W	Reduced Cmin	Reduced Outages
2021	180	577,300	21.2
2022	470	1,507,396	55.4
2023	470	1,507,396	55.4
2024	450	1,443,251	53.1
2025	450	1,443,251	53.1
2026	450	1,443,251	53.1

So these are my estimates of reliability improvements.

[REDACTED]

From: [REDACTED]
Sent: Thursday, April 8, 2021 12:19 PM
To: [REDACTED]
Cc: [REDACTED]
Subject: FW: Hardening Circuits

[REDACTED]

As discussed during our call last night, the attached file contains the unique circuits from the HFTD circuits/zones provided from your master file and the associated line miles from Column have been summed/provide. Then for each unique circuit, we merged the 2020 distribution unplanned CESO and CMin values (excluding MEDs and omitting any UG equipment failure outages). In addition and for reference, we also added the total OH and UG distribution circuit miles from EDGIS for each circuit.

As discussed, please use this file to estimate the reliability benefits of the hardening work for use in the GRC reliability forecasts and let us know if we can provide any additional information.

Thanks

[REDACTED]

From: [REDACTED]

Sent: Thursday, April 8, 2021 11:57 AM

To: [REDACTED]

Cc: [REDACTED]

Subject: RE: Hardening Circuits

Hi, [REDACTED]

Here's the data for the circuits in the attachment...

From: [REDACTED]

Sent: Thursday, April 8, 2021 6:02 AM

To: [REDACTED]

Cc: [REDACTED]

Subject: Hardening Circuits

[REDACTED]

Please use columns C and D in the attached file to determine all unique circuits on this worksheet and add the miles in Column I for each of these circuits. Then take these summary results and merge it with a summary by circuit of the 2020 distribution unplanned CESO and CMin values (excluding MEDs and excluding the Basic cause of Equipment Failure and Supplemental Cause of Underground). In other words, we want to omit major events and outages that occurred on the UG system. In addition, please also provide the total OH circuit miles from EDGIS for each circuit.

Please complete this request by today if possible and let me know if there are any questions.

Thanks