From:
To:
CC:
Sent:
Subject:
Attachments:


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 |

So far each year, I think we're at 180 in 2021 then

## From:

Sent: Thursday, April 8, 2021 12:19 PM
To
Cd
Subject: FW: Hardening Circuits

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


## From:

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

Subject: Hardening Circuits

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

