

From: [REDACTED]
To: [REDACTED]
CC: [REDACTED]
Sent: 1/15/2021 3:11:39 PM
Subject: Unit Cost Comparison - SH vs Butte Rebuild
Attachments: RE: SH 2020 unit cost - draft; RE: URG: Unit Cost for Butte Rebuild Review Day

Hi [REDACTED]
 Per [REDACTED] request, the team has compiled a unit cost comparison below for System Hardening and Butte Rebuild. Thank you Butte Rebuild team for your input.

2020 Unit Cost for Completed Projects

System Hardening		Butte Rebuild
Base Projects	Fire Rebuild Projects	
\$1.8M/mile	\$1.0M/mile	\$2.3M/mile

SH Base Projects vs Butte

- Base projects are primarily OH (minor UG), Butte is UG
- Base projects have significant more veg work due to line clearances in dense veg areas. Butte removes trees only if they are in the trench alignment or present a safety hazard to our crews
- Butte Rebuild joint trenching costs split between Electric and Gas, unlike System Hardening where costs are only Electric
- Butte Rebuild was in an emergency response effort in 2019 and early 2020 and did not have all the proper project controls in place to track financials. There are likely costs not included in current unit cost. Program will be more accurate moving forward in 2021
- Butte Rebuild given a blanket permit from Town of Paradise to expedite encroachments permits reducing project impacts. System Hardening works with many local, state, and federal agencies to clear permitting requirements that do impact project costs
- Butte Rebuild unit costs include the service connection to the home and service stubs, while System Hardening is solely focused on primary lines

SH Base Projects vs SH Fire Rebuild

The reduced unit cost for Fire Rebuild projects is attributed to fewer constraints and more accommodating conditions during emergency response:

- Rebuilding damaged facilities in place with the same alignment which reduces scoping/estimating efforts
- Facilities are de-energized – No need to schedule clearances or take working on energized facility precautions
- 12-16 hour work days – Less travel and setup/break down time
- All stakeholders including Shared Services support staff (Land/Environmental/Permitting) are on stand-by and respond quickly when needed – Agencies are more accommodating during emergency response
- Less need to demo / remove
- No / limited competition for resources, materials
- Potentially less veg removal
- Potentially less traffic control and less impact to production from traffic
- No customer refusal issues to impact productivity
- No customer notification needed where evacuations are in effect
- Short project duration reduces monthly AFUDC and Labor Overheads costs

Note, the financial data for rebuild projects is not as granular as base projects. Therefore, some of the assumptions and observations above are more empirical.

See attached e-mails for reference.

Regards,

