
From: [REDACTED]
To: [REDACTED]
Sent: 1/15/2021 11:51:53 AM
Subject: RE: URG: Unit Cost for Butte Rebuild Review Day

From: [REDACTED]
Sent: Friday, January 15, 2021 11:42 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: URG: Unit Cost for Butte Rebuild Review Day

Thanks [REDACTED] See my comments/question in red below for your feedback.

From: [REDACTED]
Sent: Friday, January 15, 2021 10:58 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: URG: Unit Cost for Butte Rebuild Review Day

On a typical overhead hardening job we don't have to convert the customer electric panel. Its simply hardening the mainline assets to the transformer where the secondary takes off to the overhead service.

Understood. Assumption is this is embedded in Butte Rebuild unit cost. Correct? Yes

On the Paradise rebuild our unit costs include excavation of lateral stubs to each property and electric panel conversion of any existing services that were overhead.

Understood. Assumption is this is embedded in Butte Rebuild unit cost. Correct? Yes

For the veg costs, in my opinion, the main difference is not the cost accounting classification, but the actual volume of veg work:

- **Underground projects (Butte) typically have less veg work vs overhead (SH) due to nature of work**
- **Additionally, System Hardening projects are in dense vegetation areas, while Butte Rebuild projects I'm assuming are in areas where previous fires have cleared some of the vegetation. (The fire left many burnt trees in Paradise that still need to be removed. Because we are undergrounding in the streets mostly we don't have to remove as many trees as the OH hardening program for line clearances. We remove trees only if they are in the trench alignment or present a safety hazard to our crews)**

From: [REDACTED]
Sent: Friday, January 15, 2021 10:55 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: URG: Unit Cost for Butte Rebuild Review Day

All:
I reviewed the email with [REDACTED] and added him to this email thread.

Some additional notes/revisions.

- Per [REDACTED] wouldn't the service panel cost already be included in the unit cost?
- Reiterating that not all veg costs are hitting the capital UG orders for BR – the expense veg costs are not included in the unit cost. Also corrected the SH veg unit cost to per mile, not per foot.
- We would like to remove the last bullet about service connections – is that okay?

Thanks.

From: [REDACTED]

Sent: Friday, January 15, 2021 10:28 AM

To: [REDACTED]

Subject: RE: URG: Unit Cost for Butte Rebuild Review Day

[REDACTED] can you take a look at what the service panel conversion costs avg per mile on the 4 jobs you referenced? I would imagine that its significant.

From: [REDACTED]

Sent: Friday, January 15, 2021 10:23 AM

To: [REDACTED]

Subject: RE: URG: Unit Cost for Butte Rebuild Review Day

Thank you all so much! This is very helpful. I am meeting with [REDACTED] at 10:30 and will confirm the service connection piece. I have added the veg costs for SH

Thanks.

From: [REDACTED]

Sent: Friday, January 15, 2021 10:18 AM

To: [REDACTED]

Subject: RE: URG: Unit Cost for Butte Rebuild Review Day

Thank you [REDACTED] Appreciate it.

Hi [REDACTED] – the chart and the key messages are now updated. I left 2 items red though because I think you will have the data for cost per mile for vegetation and to [REDACTED] point – I do not think the Hardening Program does not do any service related work as part of their jobs because when [REDACTED] and I talked with [REDACTED] he said we couldn't charge 08W for services connections. But I think we should confirm that with [REDACTED] before you send the email.

Key Messages on the Unit Costs vs. the Hardening Program

- Butte Rebuild is doing joint trench where the electric and gas facilities are in the same trench for the underground mainline projects since PG&E made the commitment to underground the electric distribution and is required to restore natural gas and replace Aldyl-A Pipe. With the joint trench, costs are being shared with Electric and Gas (i.e. excavation, etc.) to help decrease the electric burden. This differs from the Hardening Program where the costs are only Electric and costs are not shared with Gas since it's only an electric trench.
- Butte Rebuild was in an emergency response effort in 2019 and early 2020 where the Program did not

have all the proper project controls in place to track financials because the focus was trying to restore service to customers that could receive it so customers were not waiting on PG&E to return to their home. The Program went through an RFP effort to help identify a consultant to help implement more project controls and we are much more confident that actuals are truly accurate moving forward in 2021. There are likely costs missing and/or included that is impacting the unit costs.

- Butte Rebuild also has been given a blanket permit and worked with the Town of Paradise to expedite encroachments permits to install the underground mainline projects so permitting has not impacted scope/schedule/budget unlike the Hardening Program that is working with multiple agencies and not have one governing body issuing the permits. The Hardening Program cost profile and schedule impacting by permitting requirements a lot more than the Butte Program.
- Butte Rebuild does not capitalize all vegetation work on the Program. Based on guidance from Capital Accounting, Butte is required to expense vegetation management work that is not required to install the capital assets (this is driven from the high risk trees still standing from the Camp Fire surrounding construction zones) . The unit costs below only include the vegetation costs that the Program is able to capitalize vs. the Hardening Program that capitalizes all vegetation management work for their projects(Hardening Program Vegetation Average is [REDACTED] per mile).
- Butte Rebuild unit costs include the service connection to the home and service stubs. **This is not the case with the Hardening Program. The Hardening Program only works on mainline distribution and not on service connections.**

Type of Work	Units Complete	Unit Cost (\$ Per Foot or Mile)
Joint Trench Underground		
Electric Miles	28.8 Miles	[REDACTED]
Gas Miles	28.74 Miles	[REDACTED]
Overhead Tap Lines	33.95 Miles	[REDACTED]

Thanks all and have a great day!

Thanks

From [REDACTED]

Sent: Friday, January 15, 2021 10:07 AM

To: [REDACTED]

Subject: RE: URG: Unit Cost for Butte Rebuild Review Day

I would use these below jobs as our "best representation" of actual costs. I would exclude 2019 jobs for reasons you stated below and Lunar appears to have some JE issues to be able to accurately portray gas and electric unit costs.

BR Primary #	Project Name	Planned Year
BR-01-01	HEAVEN'S GATE	2020
BR-02-07	DOLORES	2020
BR-03-08	BELLEVIEW	2020
BR-03-12	PENTZ RD S.R.T.S.	2020
BR-04-06	VALLEY RIDGE	2020
BR-10-02	CIRCLEWOOD	2020
BR-14-08	MALIBU	2020

The unit cost for these jobs are as follows:

Type of Work	Units Complete	Unit Cost (\$ Per Mile)
Joint Trench Underground		
Electric Miles	28.8 Miles	
Gas Miles	28.74 Miles	

Also, another point we should make is that service connections to homes and service stubs to lots are baked into these units costs. This may not be the case for the typical hardening job.

[REDACTED]

From: [REDACTED]
 Sent: Friday, January 15, 2021 9:59 AM
 To: [REDACTED]
 Subject: RE: URG: Unit Cost for Butte Rebuild Review Day

Thanks [REDACTED] – I have incorporated [REDACTED] edits.

[REDACTED] Can you sign off on the unit costs and how I pulled that from the DOT please?
 [REDACTED] Once [REDACTED] signs off, please send and if possible include this Team on the email thread so we are all aligned?

Thanks all,
 [REDACTED]

From: [REDACTED]
 Sent: Friday, January 15, 2021 9:55 AM
 To: [REDACTED]
 Cc: [REDACTED]
 Subject: RE: URG: Unit Cost for Butte Rebuild Review Day

Hi [REDACTED]
 I made some small edits in red. Can you adjust the unit cost to be per mile versus per foot?

Thanks,
[REDACTED]

From: [REDACTED]
Sent: Friday, January 15, 2021 9:39 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: RE: URG: Unit Cost for Butte Rebuild Review Day

This looks good to me.

From: [REDACTED]
Sent: Friday, January 15, 2021 9:34 AM
To: [REDACTED]
Cc: [REDACTED]
Subject: URG: Unit Cost for Butte Rebuild Review Day
Importance: High

Hi [REDACTED]

Based on the comment that [REDACTED] made at the meeting with [REDACTED] last night, [REDACTED] sent an urgent request to Finance to ask them to compare the unit costs for Butte vs. the Hardening Program since Aaron said that our underground costs are lower than the hardening program's overhead costs. Please review the unit cost [REDACTED] and the key messages [REDACTED] so [REDACTED] can share with [REDACTED] and others.

Below is a chart that I pulled together based on the DOT (Thank you [REDACTED] - this is continuing to be an amazing resource) and the Financial Reports. The figures are calculated by using these filters – filtered the MLUG 1.6 for Projects in 2019 + 2020 along with making the Construction Status 100% Civil and 100% Electric Complete for Mainline Projects. For Overhead, I simply divided the total completed miles by the total amount on the two overhead planning orders to get a unit costs (\$30.65M).

Key Messages on the Unit Costs vs. the Hardening Program

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case with the Hardening Program.

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Thanks all and have a good day!

Thanks,

