



CPUC Docket: A.22-08-003
Exhibit: TURN-04

**PG&E Response to TURN Data Request 9, Question 2
(including Atch01, Atch02, Atch03)**

PACIFIC GAS AND ELECTRIC COMPANY
CSU Monterey Zonal Electrification
Application 22-08-003
Data Response

PG&E Data Request No.:	TURN_009-Q002
PG&E File Name:	CSU-MontereyZonalElectrification_DR_TURN_009-Q002
Request Date:	October 28, 2024
Requester DR No.:	TURN-PG&E-009
Requesting Party:	The Utility Reform Network
Requester:	Thomas Long
Date Sent:	October 29, 2024
PG&E Witness(es):	Rachel Kuykendall Marques Cruz

SUBJECT: PG&E OCT. 21, 2024 REBUTTAL

QUESTION 002

Please refer to PG&E’s rebuttal (filed on October 21, 2024), specifically Chapter 1, Section B (“Electrification Cost Estimates”):

- a) Please refer to DR TURN_007-Q004Atch01(tab: “PGE-Completed-Remediation”) and provide supporting calculations showing \$8,607 as the “upper quartile” for remediation work.

ANSWER 002

In reviewing the SJV remediation cost calculation, an error was discovered in Rachel Kuykendall’s workpaper formula at cell J2 where the total remediation costs were summed as the remediation costs of all measures (columns C-G) *plus the total costs of remediation* (column H). This had the effect of doubling the reported remediation costs when calculating the third quartile. Attachment Cell K2, which shows a corrected third quartile cost of \$3,064. See “CSU-MontereyZonalElectrification_DR_TURN_009-Q002Atch01.xlsx” for the workpaper and the correction.

Using the corrected third quartile value will reduce the estimated electrification costs. See “CSU-MontereyZonalElectrification_DR_TURN_009-Q002Atch02.xlsx” and “CSU-MontereyZonalElectrification_DR_TURN_009-Q002Atch03.xlsx” for corrected electrification costs.

The reduced estimated electrification costs will impact PG&E’s NPV calculation. The result continues to demonstrate a cost-effective project. While the project was still deemed to be cost-effective using the \$8,607 value, we are also providing an updated version of the NPV calculation using the \$3,064 value below.

**CSU Monterey, Project
Cash Flows Overview**

<i>\$ millions</i>	Conventional Gas Pipe Replacement		Electrification		Cash NPV
	Nominal	Cash NPV	Nominal	Cash NPV	Benefit:cost ratio Avoided gas repair:electrification
Phase 1	\$9.82	\$9.11	\$4.83	\$3.53	2.58
Phase 2	\$5.65	\$5.24	\$8.16	\$5.98	0.88
Phase 3	\$1.20	\$1.12	\$0.21	\$0.17	6.55
Total NPV, Ph 1-3		\$15.46		\$9.67	1.60

See Attachments “CSU-MontereyZonalElectrification_DR_TURN_009-Q002Atch04.xlsx” for underlying workpapers.

PG&E will submit an errata and provide a redline of the testimony for review.

For Q2 2023 Quarterly Report

3rd Quartile (erroneous, in testimony)

3rd Quartile (corrected value)

8607.31 **3064.115**

		Remediation							
		PX171		PX170		PX185		PX172 or PX173	
Azure ID	Community	HVAC	Water heater	Cooking	Dryer	Electrical	Total	External (TECH)	Notes
62	Seville	\$ -	\$ 1,181.21	\$ -	\$ -	\$ -	\$ 1,181.21		\$ 2,362.42
91	Seville	\$ 1,204.76	\$ -	\$ -	\$ -	\$ -	\$ 1,204.76		\$ 2,409.52
92	Seville	\$ 1,041.45	\$ -	\$ -	\$ -	\$ 570.60	\$ 1,612.05		\$ 3,224.10
109	Seville	\$ 1,356.78	\$ -	\$ -	\$ -	\$ -	\$ 1,356.78		\$ 2,713.56
118	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
119	Seville	\$ 1,179.72	\$ -	\$ -	\$ -	\$ -	\$ 1,179.72		\$ 2,359.44
120	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
184	Seville	\$ 1,252.71	\$ -	\$ -	\$ -	\$ 325.00	\$ 1,577.71		\$ 3,155.42
208	Seville	\$ 1,211.29	\$ 1,214.20	\$ -	\$ -	\$ -	\$ 2,425.49		\$ 4,850.98
213	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
214	Seville	\$ 1,303.48	\$ 1,422.39	\$ -	\$ -	\$ 450.00	\$ 3,175.87		\$ 6,351.74
219	Allensworth	\$ -	\$ 1,381.37	\$ -	\$ -	\$ 1,315.00	\$ 2,696.37		\$ 5,392.74
248	Seville	\$ -	\$ 1,181.21	\$ -	\$ -	\$ -	\$ 1,181.21		\$ 2,362.42
249	Seville	\$ -	\$ 1,220.85	\$ -	\$ -	\$ -	\$ 1,220.85		\$ 2,441.70
250	Seville	\$ 2,378.99	\$ 698.90	\$ -	\$ -	\$ -	\$ 3,077.89		\$ 6,155.78
251	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
252	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
253	Seville	\$ -	\$ 1,350.22	\$ -	\$ -	\$ 3,695.10	\$ 5,045.32	45.32	\$ 10,135.96
255	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
256	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
305	Seville	\$ 1,193.53	\$ 1,180.54	\$ -	\$ -	\$ -	\$ 2,374.07		\$ 4,748.14
306	Allensworth	\$ 1,174.04	\$ 526.00	\$ -	\$ -	\$ 5,479.72	\$ 7,179.76	2,179.76	\$ 16,539.28
309	Seville	\$ -	\$ 2,090.43	\$ -	\$ -	\$ -	\$ 2,090.43		\$ 4,180.86
333	Allensworth	\$ -	\$ 811.67	\$ -	\$ -	\$ -	\$ 811.67		\$ 1,623.34
335	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
336	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
337	Allensworth	\$ -	\$ 1,213.27	\$ 394.50	\$ -	\$ 1,555.59	\$ 3,163.36		\$ 6,326.72
338	Allensworth	\$ 1,202.77	\$ -	\$ -	\$ -	\$ -	\$ 1,202.77		\$ 2,405.54
339	Cantua Creek	\$ 1,236.62	\$ 1,220.32	\$ -	\$ -	\$ -	\$ 2,456.94		\$ 4,913.88
340	Cantua Creek	\$ 334.36	\$ -	\$ -	\$ -	\$ -	\$ 334.36		\$ 668.72
341	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
342	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
343	Cantua Creek	\$ 1,193.07	\$ 2,429.89	\$ -	\$ -	\$ 2,336.49	\$ 5,959.45	959.45	\$ 12,878.35
344	Cantua Creek	\$ -	\$ -	\$ -	\$ 526.00	\$ -	\$ 526.00		\$ 1,052.00
348	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
350	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
352	Cantua Creek	\$ -	\$ 1,331.82	\$ -	\$ -	\$ -	\$ 1,331.82		\$ 2,663.64
363	Cantua Creek	\$ 1,187.92	\$ 3,574.38	\$ -	\$ -	\$ 4,780.31	\$ 9,542.61	4,542.61	\$ 23,627.83
388	Allensworth	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
393	Seville	\$ 903.54	\$ 1,236.32	\$ -	\$ -	\$ 298.00	\$ 2,437.86		\$ 4,875.72
402	Seville	\$ -	\$ -	\$ -	\$ -	\$ 311.00	\$ 311.00		\$ 622.00
404	Seville	\$ -	\$ 1,180.15	\$ -	\$ -	\$ -	\$ 1,180.15		\$ 2,360.30
411	Cantua Creek	\$ 1,182.68	\$ 1,241.97	\$ -	\$ -	\$ -	\$ 2,424.65		\$ 4,849.30
413	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
421	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
423	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
429	Allensworth	\$ 1,194.36	\$ 1,350.63	\$ -	\$ -	\$ 425.00	\$ 2,969.99		\$ 5,939.98
430	Allensworth	\$ 1,167.54	\$ -	\$ 657.50	\$ -	\$ 2,252.98	\$ 4,078.02		\$ 8,156.04
446	Seville	\$ 107.63	\$ -	\$ -	\$ -	\$ -	\$ 107.63		\$ 215.26
449	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ 561.00	\$ 561.00		\$ 1,122.00
450	Cantua Creek	\$ 1,191.02	\$ 1,242.02	\$ -	\$ -	\$ 1,649.92	\$ 4,082.96		\$ 8,165.92
455	Allensworth	\$ -	\$ 1,238.95	\$ -	\$ -	\$ 1,886.99	\$ 3,125.94		\$ 6,251.88
463	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
474	Seville	\$ -	\$ -	\$ -	\$ -	\$ 1,409.95	\$ 1,409.95		\$ 2,819.90
478	Seville	\$ -	\$ 1,235.28	\$ -	\$ 652.74	\$ 2,174.84	\$ 4,062.86		\$ 8,125.72

480	Allensworth	\$ -	\$ 1,309.46	\$ -	\$ -	\$ 2,168.70	\$ 3,478.16		\$ 6,956.32
481	Allensworth	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
482	Allensworth	\$ 1,175.38	\$ 1,299.59	\$ -	\$ -	\$ -	\$ 2,474.97		\$ 4,949.94
486	Seville	\$ 1,216.09	\$ 2,084.22	\$ -	\$ -	\$ 14,288.47	\$ 17,588.78	12,588.78	\$ 47,766.34
487	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
504	Seville	\$ 755.37	\$ -	\$ -	\$ -	\$ -	\$ 755.37		\$ 1,510.74
505	Seville	\$ -	\$ 1,310.62	\$ -	\$ -	\$ -	\$ 1,310.62		\$ 2,621.24
508	Allensworth	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
510	Allensworth	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
511	Allensworth	\$ 1,235.91	\$ 1,266.09	\$ -	\$ -	\$ -	\$ 2,502.00		\$ 5,004.00
515	Allensworth	\$ -	\$ 1,790.70	\$ -	\$ -	\$ -	\$ 1,790.70		\$ 3,581.40
520	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
522	Seville	\$ 1,194.61	\$ 1,223.70	\$ -	\$ -	\$ 1,599.46	\$ 4,017.77		\$ 8,035.54
525	Allensworth	\$ 1,280.79	\$ -	\$ -	\$ -	\$ 2,142.03	\$ 3,422.82		\$ 6,845.64
527	Allensworth	\$ 1,235.15	\$ -	\$ -	\$ -	\$ 15,758.74	\$ 16,993.89	11,993.89	\$ 45,981.67
528	Allensworth	\$ -	\$ 1,181.21	\$ -	\$ -	\$ 1,616.60	\$ 2,797.81		\$ 5,595.62
540	Seville	\$ -	\$ -	\$ -	\$ -	\$ 467.67	\$ 467.67		\$ 935.34
542	Seville	\$ -	\$ 1,267.13	\$ -	\$ -	\$ -	\$ 1,267.13		\$ 2,534.26
543	Seville	\$ 1,216.12	\$ 2,090.43	\$ -	\$ -	\$ 13,762.50	\$ 17,069.05	12,069.05	\$ 46,207.15
546	Allensworth	\$ -	\$ 1,300.59	\$ -	\$ -	\$ -	\$ 1,300.59		\$ 2,601.18
547	Allensworth	\$ 429.28	\$ 1,290.06	\$ -	\$ -	\$ 2,241.26	\$ 3,960.60		\$ 7,921.20
548	Allensworth	\$ 730.94	\$ 1,293.37	\$ 2,104.00	\$ -	\$ 8,707.17	\$ 12,835.48	7,835.48	\$ 33,506.44
550	Cantua Creek	\$ 1,206.97	\$ 1,369.92	\$ -	\$ -	\$ 14,201.77	\$ 16,778.66	11,778.66	\$ 45,335.98
563	Seville	\$ 1,127.67	\$ -	\$ -	\$ -	\$ -	\$ 1,127.67		\$ 2,255.34
565	Seville	\$ -	\$ 1,180.54	\$ -	\$ -	\$ -	\$ 1,180.54		\$ 2,361.08
566	Seville	\$ 1,205.37	\$ -	\$ -	\$ -	\$ -	\$ 1,205.37		\$ 2,410.74
567	Seville	\$ 1,042.92	\$ -	\$ -	\$ -	\$ 2,642.66	\$ 3,685.58		\$ 7,371.16
569	Seville	\$ -	\$ 1,255.36	\$ -	\$ -	\$ -	\$ 1,255.36		\$ 2,510.72
570	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		Adan Llamas
574	Allensworth	\$ -	\$ 1,176.66	\$ -	\$ -	\$ 4,055.43	\$ 5,232.09	232.09	\$ 10,696.27
576	Allensworth	\$ 1,227.25	\$ -	\$ -	\$ -	\$ -	\$ 1,227.25		\$ 2,454.50
579	Seville	\$ -	\$ 1,181.21	\$ -	\$ -	\$ 283.00	\$ 1,464.21		\$ 2,928.42
581	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
588	Seville	\$ 1,182.69	\$ -	\$ -	\$ -	\$ -	\$ 1,182.69		\$ 2,365.38
593	Cantua Creek	\$ 2,647.24	\$ -	\$ -	\$ -	\$ -	\$ 2,647.24		\$ 5,294.48
594	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
595	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
596	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
599	Cantua Creek	\$ 1,222.79	\$ 1,379.44	\$ -	\$ 338.33	\$ 12,565.69	\$ 15,506.25	10,506.25	\$ 41,518.75
601	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
603	Seville	\$ -	\$ 1,261.39	\$ -	\$ -	\$ -	\$ 1,261.39		\$ 2,522.78
604	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
605	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
606	Allensworth	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
607	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
608	Cantua Creek	\$ 1,082.24	\$ 1,395.89	\$ -	\$ 380.87	\$ 12,828.67	\$ 15,687.67	10,687.67	\$ 42,063.01
609	Cantua Creek	\$ 1,063.88	\$ 1,314.00	\$ -	\$ -	\$ 12,039.69	\$ 14,417.57	9,417.57	\$ 38,252.71
610	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
621	Cantua Creek	\$ -	\$ 1,205.54	\$ -	\$ -	\$ -	\$ 1,205.54		\$ 2,411.08
622	Cantua Creek	\$ 1,189.72	\$ 1,231.84	\$ -	\$ -	\$ -	\$ 2,421.56		\$ 4,843.12
623	Cantua Creek	\$ -	\$ 1,438.15	\$ -	\$ -	\$ 4,871.31	\$ 6,309.46	1,309.46	\$ 13,928.38
624	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
625	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
626	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
627	Cantua Creek	\$ 314.11	\$ -	\$ -	\$ -	\$ -	\$ 314.11		\$ 628.22
628	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ 526.00	\$ 526.00		\$ 1,052.00
642	Cantua Creek	\$ -	\$ -	\$ 2,007.60	\$ -	\$ 1,117.59	\$ 3,125.19		\$ 6,250.38
643	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
644	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
645	Cantua Creek	\$ 620.46	\$ -	\$ -	\$ -	\$ -	\$ 620.46		\$ 1,240.92

647	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
652	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
662	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
668	Allensworth	\$ -	\$ 1,269.69	\$ -	\$ -	\$ -	\$ 1,269.69	\$	2,539.38
669	Allensworth	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
670	Allensworth	\$ -	\$ 1,216.21	\$ -	\$ -	\$ -	\$ 1,216.21	\$	2,432.42
680	Seville	\$ 1,252.71	\$ -	\$ -	\$ -	\$ -	\$ 1,252.71	\$	2,505.42
682	Cantua Creek	\$ 621.83	\$ -	\$ -	\$ -	\$ 423.04	\$ 1,044.87	\$	2,089.74
786	Seville	\$ 1,179.72	\$ 1,181.21	\$ -	\$ -	\$ -	\$ 2,360.93	\$	4,721.86
939	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
942	Seville	\$ 1,215.07	\$ -	\$ -	\$ -	\$ -	\$ 1,215.07	\$	2,430.14
943	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
944	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
948	Cantua Creek	\$ 3,050.34	\$ -	\$ -	\$ -	\$ -	\$ 3,050.34	\$	6,100.68
949	Allensworth	\$ -	\$ 1,269.69	\$ -	\$ -	\$ -	\$ 1,269.69	\$	2,539.38
979	Seville	\$ -	\$ 1,300.59	\$ -	\$ -	\$ 3,076.63	\$ 4,377.22	\$	8,754.44
980	Allensworth	\$ -	\$ -	\$ -	\$ -	\$ 2,195.43	\$ 2,195.43	\$	4,390.86
992	Allensworth	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
1006	Allensworth	\$ -	\$ 1,266.44	\$ -	\$ -	\$ -	\$ 1,266.44	\$	2,532.88
1007	Allensworth	\$ -	\$ -	\$ -	\$ -	\$ 1,934.83	\$ 1,934.83	\$	3,869.66
1008	Allensworth	\$ 1,240.74	\$ 1,337.12	\$ -	\$ -	\$ 7,900.46	\$ 10,478.32	\$ 5,478.32	\$ 26,434.96
1014	Allensworth	\$ -	\$ 2,433.45	\$ -	\$ -	\$ 8,588.13	\$ 11,021.58	\$ 6,021.58	\$ 28,064.74
1026	Seville	\$ -	\$ 1,297.86	\$ -	\$ -	\$ -	\$ 1,297.86	\$	2,595.72
1027	Seville	\$ 1,316.71	\$ 1,308.42	\$ -	\$ -	\$ 2,794.89	\$ 5,420.02	\$ 420.02	\$ 11,260.06
1028	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
1029	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
1031	Seville	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
1034	Seville	\$ 1,224.25	\$ -	\$ -	\$ -	\$ -	\$ 1,224.25	\$	2,448.50
1035	Seville	\$ -	\$ 1,321.34	\$ -	\$ -	\$ 16,569.26	\$ 17,890.60	\$ 12,890.60	\$ 48,671.80
1036	Seville	\$ 1,213.93	\$ 1,330.21	\$ -	\$ 230.93	\$ 4,636.32	\$ 7,411.39	\$ 2,411.39	\$ 17,234.17
1037	Seville	\$ 1,175.13	\$ 1,336.50	\$ -	\$ -	\$ 17,781.73	\$ 20,293.36	\$ 15,293.36	\$ 55,880.08
1039	Cantua Creek	\$ 1,239.02	\$ -	\$ -	\$ -	\$ -	\$ 1,239.02	\$	2,478.04
1040	Cantua Creek	\$ 1,194.67	\$ -	\$ -	\$ -	\$ -	\$ 1,194.67	\$	2,389.34
1041	Cantua Creek	\$ 1,497.27	\$ 1,415.00	\$ -	\$ -	\$ 13,572.75	\$ 16,485.02	\$ 11,485.02	\$ 44,455.06
1043	Cantua Creek	\$ 1,067.48	\$ 1,344.24	\$ -	\$ -	\$ 13,354.73	\$ 15,766.45	\$ 10,766.45	\$ 42,299.35
1044	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
1056	Allensworth	\$ -	\$ 1,308.09	\$ -	\$ -	\$ -	\$ 1,308.09	\$	2,616.18
1060	Seville	\$ -	\$ 2,109.82	\$ -	\$ -	\$ 13,236.57	\$ 15,346.39	\$ 10,346.39	\$ 41,039.17
1110	Allensworth	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
1132	Cantua Creek	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -		
1158	Cantua Creek	\$ 1,144.72	\$ -	\$ -	\$ -	\$ -	\$ 1,144.72	\$	2,289.44
1189	Seville	\$ -	\$ 1,298.67	\$ -	\$ -	\$ 16,569.26	\$ 17,867.93	\$ 12,867.93	\$ 48,603.79
1208	Cantua Creek	\$ 1,224.83	\$ 1,404.27	\$ -	\$ -	\$ 12,039.72	\$ 14,668.82	\$ 9,668.82	\$ 39,006.46
1209	Cantua Creek	\$ -	\$ 1,369.18	\$ -	\$ -	\$ 13,354.72	\$ 14,723.90	\$ 9,723.90	\$ 39,171.70

159 records - Adan Llamas twice (moved)

Total \$	\$	70,659.63	\$	94,969.10	\$	5,163.60	\$	2,128.87	\$	307,390.37	\$	480,311.57
Total Count		159		159		159		159		159		159
Zero		99		90		155		154		105		53
Values		60		69		4		5		54		106
Average	\$	1,177.66	\$	1,376.36	\$	1,290.90	\$	425.77	\$	5,692.41	\$	3,020.83

Line No.	Scope Item	Estimated Cost Per Residential Unit
1	Replace existing furnace with ducted heat pump	\$16,685
2	Demo existing mechanical room	1,000
3	Pour concrete pad for heat pump condenser	750
4	Duct seal and test	500
5	Install heat pump water heater	5,500
6	Run electrical to mechanical room and kitchen	500
7	Run drain to mechanical room	500
8	Install electric resistance range	1,500
9	Cap gas line	500
10	Remediation cost	3,064
11	External Incentive	-3,800
12	Total estimated cost per residential unit	\$26,699

Line No.	Phase Number	Scope of Work in Phase	Estimated Cost
1	1	Electrification of 154 Customers	\$4,111,646.00
2	2	Electrification of 260 Customers	\$6,941,740.00
3	3	Retirement of Electrified Gas Pipeline	\$213,800.00
4		Total	\$11,267,186