

*Southern California Edison*  
*A.09-09-022 – ASP*

**DATA REQUEST SET CPUC - Supplemental Data Request - 020**

**To: CPUC**  
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**Response Date: 11/14/2023**

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**Question DG-MISC-93 Follow Up:**

The Third Amended PEA Appendix P: Revised Air Quality and GHG Calculations indicates additional and/or changes in motor vehicle usage during the construction phase. Changes to motor vehicle usage is indicated for the 500kV-Transmission Line, 115-kV Transmission Line, and Alberhill Substation construction. However, the Third Amended PEA Table 4.15-14 does not show any changes to the Construction Trip Generation. Confirm if the Vehicles per Day (Construction Worker Vehicles and Heavy Vehicles) in the Third Amended PEA Table 4.15-14 would change and explain why or why not. Provide updated Table 4.15-14 as needed.

**Response to Question DG-MISC-93 Follow Up:**

The values in the Third Amended PEA Table 4.15-14 have been revised to reflect the anticipated vehicle usage. This table was updated using the following steps:

1. Each construction activity was correlated to one or more of the following three “zones” defined in the original traffic impact analysis (Appendix J from the Final EIR) as shown in Table A:
  - a. Zone 1 – Alberhill Substation
  - b. Zone 1 – Staging Area
  - c. Zone 2 and 3 – Staging Area
2. The total number of daily worker commutes and heavy vehicle trips were calculated for each construction activity. Daily worker commutes were identified by reviewing the Motor Vehicle Usage table from each construction activity listed in Appendix P of the Third Amendment to the PEA. Vehicles were identified as “heavy” if categorized as Heavy Heavy Duty Truck (HHDT) in the Motor Vehicle Exhaust Emission Factors from each construction activity listed in Appendix P of the Third Amendment to the PEA. All

heavy vehicles from the Motor Vehicle Usage table from each construction activity listed in Appendix P of the Third Amendment to the PEA were then summed. Table A presents the results of these calculations.

3. Table 2 from Appendix P of the Third Amendment to the PEA lists construction activities for each project component that could occur simultaneously. Worker commutes and heavy vehicle trips from construction activities that could occur simultaneously were then summed, as shown in Table B. These values were used to calculate the peak number of anticipated trips for each zone. Table B presents the results of these calculations. Redline/strike out and a clean, revised version of Table 4.15-14 have been provided to reflect these updated calculations.

**Table A: Trips Generation and Zone Assignments by Construction Phase**

Phase	Worker Commute Trips	Heavy Vehicle Trips	Zone 1 – Alberhill Substation	Zone 1 – Staging Area	Zone 2 and 3 – Staging Area
<b>Substation Site Demolition</b>	<b>4</b>	<b>41</b>	✓		
<b>Substation Site Water Line Relocation</b>	<b>7</b>	<b>3</b>	✓		
<b>Substation Construction</b>					
Survey	4	0	✓		
Grading	10	23	✓		
Fencing	10	1	✓		
Civil	15	20	✓		
Control Building	6	1	✓		
Electrical	15	0	✓		
Wiring	8	0	✓		
Transformers	10	1	✓		
Maintenance Crew Equipment Check	4	0	✓		
Testing	4	0	✓		
Asphalting	10	15	✓		
Landscaping	10	25	✓		
<b>500 kV Transmission Line Construction</b>					
Survey	4	0		✓	
Marshalling Yard	4	7		✓	
Roads and Landing Work	10	3		✓	
Install Helicopter Platforms	6	0		✓	
Tower Removal	8	1		✓	
Foundation Removal	4	1		✓	
Tower Foundations Installation	9	5		✓	
Install Micropile Foundations	6	0		✓	
Tower Steel Haul	4	1		✓	
Tower Steel Assembly	10	0		✓	
Tower Erection	12	0		✓	
Tower Erection (Helicopter) Ground Support	20	0		✓	

Phase	Worker Commute Trips	Heavy Vehicle Trips	Zone 1 – Alberhill Substation	Zone 1 – Staging Area	Zone 2 and 3 – Staging Area
Tower Helicopter Operations	0	0		✓	
Wire Stringing	55	8		✓	
Restoration	7	2		✓	
<b>115 kV Subtransmission Line Construction</b>					
Survey	4	0		✓	✓
Marshalling Yard	4	1		✓	✓
Roads and Landing Work	5	2		✓	✓
Guard Structure Installation	6	1		✓	✓
Remove Existing Wood H-Frames and Poles	6	1		✓	
Remove Existing Tubular Steel/Light Weight Steel Poles	8	0		✓	✓
Install Tubular Steel Pole Foundations	7	5		✓	✓
Steel Pole Haul	4	1		✓	✓
Steel Pole Assembly	8	0		✓	✓
Steel Pole Erection	8	0		✓	✓
Wire Stringing	20	3		✓	✓
Vault Installation	20	11			✓
Duct Bank Installation	20	10			✓
Install Underground Cable	20	2			✓
Guard Structure Removal	6	1	✓	✓	✓
Restoration	7	2	✓	✓	✓
<b>Telecommunications Construction</b>					
Tower Foundation	4	1	✓		
Tower Construction	4	0	✓		
Dish Installation	4	0	✓		
Control Building	2	0	✓		
Overhead Communications Installation	4	0	✓	✓	
Substation Telecommunications Equipment Installation	2	0	✓		
Santiago Peak Communication Site	4	0			

Phase	Worker Commute Trips	Heavy Vehicle Trips	Zone 1 – Alberhill Substation	Zone 1 – Staging Area	Zone 2 and 3 – Staging Area
<b>Additional Substation Construction</b>					
Civil	7	7		✓	✓
Electrical	10	0		✓	✓
Wiring	10	0		✓	✓
Testing	4	0		✓	✓
Civil – Demo	7	5		✓	✓

**Table B: Trip Generation by Zone Assignment and Overlapping Construction Phases**

Proposed Project Component/Activity	Worker Commute Trips	Heavy Vehicle Trips	Zone 1 – Alberhill Substation		Zone 1 – Staging Area		Zone 2 and 3 – Staging Area	
			Worker	Heavy Vehicle	Worker	Heavy Vehicle	Worker	Heavy Vehicle
<b>Substation Construction</b>								
Survey	4	0	4	0	0	0	0	0
Grading	10	23	10	23	0	0	0	0
Fencing, Control Building, Electrical, Wiring, Transformers, Maintenance Crew Equipment Check, Testing, Asphaltting	67	18	67	18	0	0	0	0
Civil	15	20	15	20	0	0	0	0
Landscaping	10	25	10	25	0	0	0	0
<b>Maximum</b>	<b>67</b>	<b>25</b>	<b>67</b>	<b>25</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
<b>500 kV Transmission Line Construction</b>								
Survey	4	0	0	0	4	0	0	0
Marshalling Yard, Road and Landing Work, Install Helicopter Platforms	20	10	0	0	20	10	0	0
Marshalling Yard, Tower Removal, Tower Foundations Installation, Install	73	14	0	0	73	14	0	0

Proposed Project Component/Activity	Worker Commute Trips	Heavy Vehicle Trips	Zone 1 – Alberhill Substation		Zone 1 – Staging Area		Zone 2 and 3 – Staging Area	
			Worker	Heavy Vehicle	Worker	Heavy Vehicle	Worker	Heavy Vehicle
Micropile Foundations, Tower Steel Haul, Tower Steel Assembly, Tower Erection, Tower Erection (Helicopter) Ground Support, Tower Helicopter Operations								
Marshalling Yard, Foundation Removal	8	8	0	0	8	8	0	0
Marshalling Yard, Wire Stringing	59	15	0	0	59	15	0	0
Restoration	7	2	0	0	7	2	0	0
<b>Maximum</b>	<b>73</b>	<b>15</b>	<b>0</b>	<b>0</b>	<b>73</b>	<b>15</b>	<b>0</b>	<b>0</b>
<b>115 kV Subtransmission Line Construction</b>								
Survey	4	0	0	0	4	0	4	0
Marshalling Yard, Roads and Landing Work, Guard Structure Installation, Remove Existing Wood H-Frames and Poles, Remove Existing Tubular Steel/Light Weight Steel Poles, Install Tubular Steel Pole Foundations, Steel Pole Haul, Steel Pole Assembly, Steel Pole Erection, Wire Stringing, Guard Structure Removal, Vault Installation, Duct Bank Installation, Install Underground Cable	142	38	6	1	82	15	136	37
Restoration	7	2	7	2	7	2	7	2
<b>Maximum</b>	<b>142</b>	<b>38</b>	<b>7</b>	<b>2</b>	<b>82</b>	<b>15</b>	<b>136</b>	<b>37</b>
<b>Telecommunications Construction</b>								
Tower Foundation	4	1	4	1	0	0	0	0
Tower Construction	4	0	4	0	0	0	0	0
Dish Installation, Control Building, Overhead Communications Installation, Substation Telecommunications Equipment Installation	12	0	12	0	4	0	4	4

Proposed Project Component/Activity	Worker Commute Trips	Heavy Vehicle Trips	Zone 1 – Alberhill Substation		Zone 1 – Staging Area		Zone 2 and 3 – Staging Area	
			Worker	Heavy Vehicle	Worker	Heavy Vehicle	Worker	Heavy Vehicle
Santiago Peak Communication Site	4	0	0	0	0	0	0	0
<b>Maximum</b>	<b>12</b>	<b>1</b>	<b>12</b>	<b>1</b>	<b>4</b>	<b>0</b>	<b>4</b>	<b>4</b>
<b>Additional Substation Construction</b>								
Civil, Electrical, Wiring, Testing, Civil - Demo	38	12	0	0	38	12	38	12
<b>Maximum</b>	<b>38</b>	<b>12</b>	<b>0</b>	<b>0</b>	<b>38</b>	<b>12</b>	<b>38</b>	<b>12</b>
<b>PEAK DAILY</b>	<b>332</b>	<b>91</b>	<b>86</b>	<b>28</b>	<b>197</b>	<b>42</b>	<b>178</b>	<b>53</b>

**Revised Table 4.15-14 Construction Trip Generation (Alberhill Project) – Redline/Strikeout**

Project Component	Vehicles Per Day	PCE Factor	Passenger Car Equivalent		
			Daily Trips	AM Peak Hour	PM Peak Hour
<b>Zone 1 Alberhill Substation</b>					
Construction Worker Vehicle	<del>100</del> 86	1.0	<del>200</del> 172	0 <sup>(1)</sup>	<del>100</del> 86
Heavy Vehicles	<del>93</del> 28	2.5	<del>465</del> 140	<del>93</del> 28	<del>93</del> 28
<i>Subtotal</i>	<del>193</del> 105 <sup>(2)</sup>		<del>665</del> 312	<del>93</del> 28	<del>193</del> 114
<b>Zone 1 Staging Area</b>					
Construction Worker Vehicles	<del>100</del> 197	1.0	<del>200</del> 394	0 <sup>(1)</sup>	<del>100</del> 197
Heavy Vehicles	<del>40</del> 42	2.5	<del>200</del> 210	<del>40</del> 42	<del>40</del> 42
<i>Subtotal</i>	<del>140</del> 239		<del>400</del> 604	<del>40</del> 42	<del>140</del> 239
<b>Zone 2 and 3 Staging Areas</b>					
Construction Worker Vehicles	<del>45</del> 178	1.0	<del>90</del> 356	0 <sup>(1)</sup>	<del>45</del> 178
Heavy Vehicles	<del>40</del> 53	2.5	<del>200</del> 265	<del>40</del> 53	<del>40</del> 53
<i>Subtotal</i>	<del>85</del> 231		<del>290</del> 621	<del>40</del> 53	<del>85</del> 231
<b>Zone 4 Quarry</b>					
Construction Worker Vehicles	10	1.0	20	0 <sup>(1)</sup>	10
Heavy Vehicles	72	2.5	360	72	72
<i>Subtotal</i>	<b>82</b>		<b>380</b>	<b>72</b>	<b>82</b>

Note:

- (1) Construction workers assumed to arrive before the AM peak hour (defined as 7:00 to 9:00 a.m.) and leave during the PM peak hour (defined as 4:00 to 6:00 p.m.).
- (2) The value of the subtotal and the sum of the individual components may differ slightly due to rounding.

Key: PCE Passenger Car Equivalent



**Revised Table 4.15-14 Construction Trip Generation (Alberhill Project) - Clean**

Project Component	Vehicles Per Day	PCE Factor	Passenger Car Equivalent		
			Daily Trips	AM Peak Hour	PM Peak Hour
<b>Zone 1 Alberhill Substation</b>					
Construction Worker Vehicle	86	1.0	172	0 <sup>(1)</sup>	86
Heavy Vehicles	28	2.5	140	28	28
<i>Subtotal</i>	<b>105</b>		<b>312</b>	<b>28</b>	<b>114</b>
<b>Zone 1 Staging Area</b>					
Construction Worker Vehicles	197	1.0	394	0 <sup>(1)</sup>	197
Heavy Vehicles	42	2.5	210	42	42
<i>Subtotal</i>	<b>239</b>		<b>604</b>	<b>42</b>	<b>239</b>
<b>Zone 2 and 3 Staging Areas</b>					
Construction Worker Vehicles	178	1.0	356	0 <sup>(1)</sup>	178
Heavy Vehicles	53	2.5	265	53	53
<i>Subtotal</i>	<b>231</b>		<b>621</b>	<b>53</b>	<b>231</b>
<b>Zone 4 Quarry</b>					
Construction Worker Vehicles	10	1.0	20	0 <sup>(1)</sup>	10
Heavy Vehicles	72	2.5	360	72	72
<i>Subtotal</i>	<b>82</b>		<b>380</b>	<b>72</b>	<b>82</b>

Note:

<sup>(1)</sup> Construction workers assumed to arrive before the AM peak hour (defined as 7:00 to 9:00 a.m.) and leave during the PM peak hour (defined as 4:00 to 6:00 p.m.).

Key: PCE Passenger Car Equivalent