

Southern California Edison
Presidential Substation Project A.08-12-023

DATA REQUEST SET Presidential ED-05

To: ENERGY DIVISION
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Question 05:

Alternatives

Provide construction duration and equipment use information for the scenarios described in the table below.

Construction Equipment Use - Undergrounding

Activity and Number of Personnel	Number of Work Days	Equipment and Quantity	Duration of Use (Hours/Day)
Proposed Project Distribution (16 kV) Underground Along Portions of Subtransmission Route (Includes both East and West of Hwy 23) . This information was provided in Data Response #4.			
<u>Civil</u> (13 people)	<u>62</u>	<u>2- Backhoes</u> <u>4- Dump Trucks</u> <u>1- Roller</u> <u>1- Grinder</u> <u>1- Delivery Truck (vault & pull box)</u> <u>4- Cement Trucks</u>	<u>8</u> <u>8</u> <u>8</u> <u>8</u> <u>8</u>
<u>Electrical</u> (14 people)	<u>43</u>	<u>1- Rodder Truck</u> <u>1- Cable Dolly</u> <u>2- Companion Vehicle</u> <u>1- Splice Truck</u> <u>1- Double Bucket</u>	<u>8</u> <u>8</u> <u>2</u> <u>8</u>

		<u>Truck</u>	<u>8</u>
		<u>1- Troubleman Truck</u>	8
<u>Electrical</u> <u>(3 people)</u>	2	<u>1-Line Truck</u>	<u>8</u>
		<u>1-Companion Vehicle</u>	2
<u>Proposed Project Distribution (16 kV) Underground Along Portions of Subtransmission Route (Only East of Hwy 23).</u>			
<u>Civil</u> <u>(13 people)</u>		<u>2- Backhoes</u> <u>4- Dump Trucks</u> <u>1- Roller</u> <u>1- Grinder</u> <u>1- Delivery Truck</u> <u>(vault & pull box)</u> <u>4- Cement Trucks</u>	
<u>Electrical</u> <u>(14 people)</u>		<u>1- Rodder Truck</u> <u>1- Cable Dolly</u> <u>2- Companion Vehicle</u> <u>1- Splice Truck</u> <u>1- Double Bucket Truck</u> <u>1- Troubleman Truck</u>	
<u>Electrical</u> <u>(3 people)</u>		<u>1-Line Truck</u> <u>1-Companion Vehicle</u>	
<u>Alternative – Subtransmission Underground along Read Road from Sunset Valley Rd. to west of SR 23) – leaving the Distribution (16 kV) overhead. – Double Circuit.</u>			

<u>Civil</u>			
<u>Electrical</u>			
<u>Electrical</u>			
Alternative – Subtransmission Undergrounding along Read Road from Moorpark Road to west of SR 23 – leaving the Distribution (16 kV) overhead. – Single circuit from Moorpark Rd to Sunset Valley Rd, Double circuit from Sunset Valley Rd to west of SR 23.			
<u>Civil</u>			
<u>Electrical</u>			
<u>Electrical</u>			
Alternative – Subtransmission, Distribution and telecommunications collocation Underground (both the 66 kV and 16 kV) along Read Road from Sunset Valley Road to west of SR 23 – no overhead. - Double Circuit.			
<u>Civil</u>			
<u>Electrical</u>			
<u>Electrical</u>			
Alternative – Subtransmission, Distribution and telecommunications collocation Underground (both the 66 kV and 16 kV) along Read Road from Moorpark Road to west of SR 23 – no overhead. Single circuit from Moorpark Rd to Sunset Valley Rd, Double circuit from Sunset Valley Rd to west of SR 23.			
<u>Civil</u>			
<u>Electrical</u>			
<u>Electrical</u>			

Response to Question 05:

Please see enclosed attachment.

Presidential Substation Project CPUC Data Request 5, Question 5

Construction workforce estimates for the distribution 16 kV scenarios presented in Question 5 are presented in the table below:

Activity and Number of Personnel	Number of Work Days	Equipment and Quantity	Duration of Use (Hours/Day)
Proposed Project Distribution (16 kV) Underground Along Portions¹ of the Subtransmission Route			
Civil (13 people)	47*	2- Backhoes 4- Dump Trucks 1- Roller 1- Grinder 1- Delivery Truck (vault & pull box) 4- Cement Trucks	8 8 8 8 8 8
Electrical (14 people)	33*	1- Rodder Truck 1- Cable Dolly 2- Companion Vehicle 1- Splice Truck 1- Double Bucket Truck 1- Troubleman Truck	8 8 2 8 8 8
Electrical (3 people)	2	1-Line Truck 1-Companion Vehicle	8 2
Distribution Underground (16 kV) from State Route 23 to the Proposed Substation Site			
Civil (13 people)	20	2- Backhoes 4- Dump Trucks 1- Roller 1- Grinder 1- Delivery Truck (vault & pull box) 4- Cement Trucks	8 8 8 8 8 8
Electrical (14 people)	20	1- Rodder Truck 1- Cable Dolly 2- Companion Vehicle 1- Splice Truck 1- Double Bucket Truck 1- Troubleman Truck	8 8 2 8 8 8

¹ Portions include the intersection of Read Road and Moorpark Road, the intersection of Tierra Rejada and Sunset Valley Road, the intersection of Read Road and Sunset Valley Road to Highway 23, and east of Highway 23 to the Proposed Substation location.

*Please note, this table reflects refinements to what SCE previously provided in Data Request 4 (Design Update).

Distribution Underground (16 kV) along Read Road from Sunset Valley Road to State Route 23			
Civil (13 people)	12	2- Backhoes 4- Dump Trucks 1- Roller 1- Grinder 1- Delivery Truck (vault & pull box) 4- Cement Trucks	8 8 8 8 8 8
Electrical (14 people)	12	1- Rodder Truck 1- Cable Dolly 2- Companion Vehicle 1- Splice Truck 1- Double Bucket Truck 1- Troubleman Truck	8 8 2 8 8 8
Distribution Overhead (16 kV) along Read Road from Sunset Valley Road to State Route 23			
There would be no work associated with leaving distribution overhead in this location.			
Distribution Underground (16 kV) along Read Road from Moorpark Road to State Route 23			
Civil (13 people)	35	2- Backhoes 4- Dump Trucks 1- Roller 1- Grinder 1- Delivery Truck (vault & pull box) 4- Cement Trucks	8 8 8 8 8 8
Electrical (14 people)	20	1- Rodder Truck 1- Cable Dolly 2- Companion Vehicle 1- Splice Truck 1- Double Bucket Truck 1- Troubleman Truck	8 8 2 8 8 8
Electrical (3 people)	2	1-Line Truck 1-Companion Vehicle	8 2
Distribution Overhead (16 kV) along Read Road from Moorpark Road to State Route 23			
Electrical (3 people)	2	1-Line Truck 1-Companion Vehicle	8 2

With regards to telecommunications, as explained in SCE’s responses to CPUC Data Request 5, Questions 1-4, telecommunications would follow the route of distribution in all scenarios. Construction workforce estimates for telecommunications would be the same if the distribution facilities were located overhead or underground. Please note the workforce estimate provided below is the same as what was presented in the PEA for the Presidential Substation Project:

Activity and Number of Personnel	Number of Work Days	Equipment and Quantity	Duration of Use (Hours/Day)
Telecommunications Construction			
Fiber Optic Installation (4 People)	10	1- Pickup Truck	8
		2-Heavy Duty Truck	8

Construction workforce estimates for the 66 kV subtransmission source line scenarios presented in Question 5 are presented in the table below:

Activity and Number of Personnel	Number of Work Days	Equipment and Quantity	Duration of Use (Hours)
66 kV Subtransmission Underground Construction along Read Road from Moorpark Road to Sunset Valley Road			
Survey (4 people)	1	2-1 Ton Truck, 4x4	8
Vault Installation (6 people)	18	2-1 Ton Crew Cab, 4x4	4
		1-Backhoe/Front Loader	8
		1-Excavator	6
		1-Dump Truck	8
		1-Water Truck	8
		1-165 Ton Crane	6
		3-Concrete Mixer Truck	2
		1-Lowboy Truck/Trailer	4
Duct Bank Installation (6 people)	17	3-Flat Bed Truck/Trailer	4
		2-1 Ton Crew Cab, 4x4	4
		1-Backhoe/Front Loader	6
		2-Dump Truck	6
		1-Pipe Truck/Trailer	6
		1-Water Truck	8
		3-Concrete Mixer Truck	2
		1-Compressor Trailer	6
1-Lowboy Truck/Trailer	4		
66 kV Subtransmission Underground Construction along Read Road from Moorpark Road to			

State Route 23			
Survey (4 people)	2	2-1 Ton Truck, 4x4	8
Vault Installation (6 people)	34	2-1 Ton Crew Cab, 4x4 1-Backhoe/Front Loader 1-Excavator 1-Dump Truck 1-Water Truck 1-165 Ton Crane 3-Concrete Mixer Truck 1-Lowboy Truck/Trailer 3-Flat Bed Truck/Trailer	4 8 6 8 8 6 2 4 4
Duct Bank Installation (6 people)	32	2-1 Ton Crew Cab, 4x4 1-Backhoe/Front Loader 2-Dump Truck 1-Pipe Truck/Trailer 1-Water Truck 3-Concrete Mixer Truck 1-Compressor Trailer 1-Lowboy Truck/Trailer	4 6 6 6 8 2 6 4
66 kV Subtransmission Underground Construction along Read Road from Sunset Valley Road to State Route 23			
Survey (4 people)	1	2-1 Ton Truck, 4x4	8
Vault Installation (6 people)	18	2-1 Ton Crew Cab, 4x4 1-Backhoe/Front Loader 1-Excavator 1-Dump Truck 1-Water Truck 1-165 Ton Crane 3-Concrete Mixer Truck 1-Lowboy Truck/Trailer 3-Flat Bed Truck/Trailer	4 8 6 8 8 6 2 4 4
Duct Bank Installation (6 people)	17	2-1 Ton Crew Cab, 4x4 1-Backhoe/Front Loader 2-Dump Truck	4 6 6

		1-Pipe Truck/Trailer	6
		1-Water Truck	8
		3-Concrete Mixer Truck	2
		1-Compressor Trailer	6
		1-Lowboy Truck/Trailer	4