A.13-09-014 SDG&E 1/28/15 Partial Response
Salt Creek Substation Project PTC
Energy Division Request #20 on 11/3/14
ED-SDGE-020

sf#	Data Request #	Request	SDG&E Response
1.	DR 16.2-1	Please specify a location for the potential 230/12-kV loop-in and clarify whether or not this alternative is technically feasible. The response to DR 16.2, item #1 did not specify a potential location for a 230/12-kV underground loop-in. The response also indicates that an underground loop-in is likely possible and that additional engineering would be needed to confirm the feasibility. Please clarify whether or not an underground loop-in is feasible.	The option is technically feasible; see Attachments AD.20-1-1 and AD.20-1-2 for the conceptual layouts of a 230/12 kV substation with underground loop-in including the approximate location of the cable poles. We would like to reiterate other concerns with implementing a 230/12 kV substation alternative. As stated in the PEA, a new 230/12-kV substation would not, in our opinion, meet the reliability objective for the Proposed Project. Due to it being a non-standard substation and non-standard high voltage transformer it could pose technical issues for transferring load between the 69/12kV and 138/12kV substations in the area. Furthermore, if one of the transformers is out of commission the entire substation would then depend on one transformer until the spare is connected. Another concern is that if one of the 230kV transmission lines feeding the 230/12 kV substation has a fault, then the substation utilization would be compromised. With the proposed 69/12 kV substation and the addition of the proposed new 69 kV power line there will be three transmission sources serving the Salt Creek substation to provide a reliable distribution substation design. In addition to the reliability concerns to the system, a 230/12 kV substation will likely require an extensive and lengthy ISO review and approval process thus potentially delaying the in-service date and compromising our ability to serve load in the area. In order for a 230/12 kV substation to meet the same level of reliability and operational flexibility as other 230 kV substations in the SDG&E bulk power system, it would be necessary to build the 230 kV portion of the substation in a breaker-and-a-half configuration, which is more costly than the single-bus, single-breaker design of a typical 69 kV distribution substation. Finally, a 230/12 kV substation is unable to be built as a low profile substation and instead must be built as a standard height substation in order to maintain required electrical clearances. This may have adverse effects from an aesthetics standpoint.

<table>
<tr><td>2.</td><td>DR 16.2-1</td><td>Define the height of the transition poles if an overhead loop-in were used. Provide the location of the potential overhead loop-in.</td><td>Reference Attachment AD.20-2-1 for a conceptual layout of a 230/12 kV substation with an overhead loop-in. Pole heights indicated are estimated based on preliminary engineering.</td></tr>
<tr><td>4.</td><td>DR 16.2-1</td><td>Provide estimates for daily and peak annual emissions from construction of the 230/12-kV substation.</td><td>Reference Attachments AD.20-4-1, -2, and the table below for estimated emissions associated with building a 230/12 kV substation with underground loop-in. These emissions were based on a construction start date of April 30, 2015.

230 kV Substation Alternative - Construction Air Emissions

<table>
<tr><th rowspan="2">Emissions Source</th><th colspan="6">Pollutant (pounds per day)</th></tr>
<tr><th>ROG</th><th>CO</th><th>NO_X</th><th>SO_X</th><th>PM_{10}</th><th>$PM_{2.5}$</th></tr>
<tr><td>2015</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Uncontrolled Emissions</td><td>43.21</td><td>163.17</td><td>243.64</td><td>0.54</td><td>32.72</td><td>13.82</td></tr>
<tr><td>Controlled Emissions[1]</td><td>43.21</td><td>163.17</td><td>243.64</td><td>0.54</td><td>12.69</td><td>9.61</td></tr>
<tr><td>SDAPCD Thresholds</td><td>75</td><td>550</td><td>250</td><td>250</td><td>100</td><td>55</td></tr>
<tr><td>Is Threshold Exceeded?</td><td>No</td><td>No</td><td>No</td><td>No</td><td>No</td><td>No</td></tr>
<tr><td>2016</td><td></td><td></td><td></td><td></td><td></td><td></td></tr>
<tr><td>Uncontrolled Emissions</td><td>7.90</td><td>30.87</td><td>49.71</td><td>0.10</td><td>2.32</td><td>1.84</td></tr>
<tr><td>Controlled Emissions[1]</td><td>7.90</td><td>30.87</td><td>49.71</td><td>0.10</td><td>2.32</td><td>1.84</td></tr>
<tr><td>SDCAPCD Thresholds</td><td>75</td><td>550</td><td>250</td><td>250</td><td>100</td><td>55</td></tr>
<tr><td>Is Threshold Exceeded?</td><td>No</td><td>No</td><td>No</td><td>No</td><td>No</td><td>No</td></tr>
</table>
ROG = reactive organic gases; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter, up to 10 microns; $PM_{2.5}$ = particulate matter, up to 2.5 microns</td></tr>
</table>

			Notes: 1. Controlled emissions calculated assuming standard fugitive dust control measures, including watering the site three times daily, as SDG&E's construction restrictions require.
10.	DR 16.2-3	Provide additional information on the underground alternative within Hunte Parkway, Proctor Valley Road, and Mt. Miguel Road. Additional information is needed to fully describe and analyze the underground alterative in public ROW in the EIR. Please provide the following details: 1. Are there utility conflicts that could affect the feasibility of this alternative? 2. What is the width of the work area? 3. What is the trench width and depth for the underground cable? 4. Where would the underground cable be located within the road and	1. Preliminary utility research suggests the alternative is feasible; however, more precise utility research would be necessary for complete feasibility assurance. 2. Work areas for trenching would be approximately 16 feet and for manholes would be approximately 30 feet. 3. The trench width would be approximately 3 feet. The trench depth would vary based on existing utilities; it is estimated that the minimum trench depth would be 6 feet. More utility research would be necessary to determine the depths of the proposed trench line. 4. See Attachment AD.20-10-1 for an estimated location

		would the work area be located in a single lane? 5. Where would vaults be located? 6. What is the estimated duration and timing for construction? 7. Would the underground cable installation require removal of trees in the median? 8. Provide the peak daily emissions from underground construction.	5. See Attachment AD.20-10-1 for approximate locations 6. Approximately 225 to 285 days total for both the underground portion and the overhead segment of TL6965 (from Mount Miguel Road to the existing substation). The construction start date would be timed to meet project in service date. 7. At this time, SDG&E does not see a need for tree removal in the median. 8. See Attachments AD.20-10-2, -3, and the table below for estimated emissions.

Underground Alternative - Construction Air Emissions

Emissions Source	Pollutant (pounds per day)					
	ROG	CO	NO_X	SO_X	PM_{10}	$PM_{2.5}$
2014						
Uncontrolled Emissions	28.46	105.98	233.60	0.43	164.38	41.10
Controlled Emissions[1]	28.46	105.98	233.60	0.43	20.67	10.92
SDAPCD Thresholds	75	550	250	250	100	55
Is Threshold Exceeded?	No	No	No	No	No	No
2015						
Uncontrolled Emissions	24.81	116.86	212.49	0.44	31.15	10.75
Controlled Emissions[1]	24.81	116.86	212.49	0.44	11.12	6.55
SDAPCD Thresholds	75	550	250	250	100	55
Is Threshold Exceeded?	No	No	No	No	No	No
2016						
Uncontrolled Emissions	0.97	5.50	5.25	0.01	0.32	0.22
Controlled Emissions[1]	0.97	5.50	5.25	0.01	0.32	0.22
SDCAPCD Thresholds	75	550	250	250	100	55
Is Threshold Exceeded?	No	No	No	No	No	No

ROG = reactive organic gases; NO_X = nitrogen oxides; CO = carbon monoxide; SO_X = sulfur oxides; PM_{10} = particulate matter, up to 10 microns; $PM_{2.5}$ = particulate matter, up to 2.5 microns

Notes:

1. Controlled emissions calculated assuming standard fugitive dust control measures, including watering the site three times daily, as SDG&E's construction restrictions require.

		9. Provide the estimated noise levels from construction.	9. See Attachment AD.20-10-4 for estimated noise levels.