

**A.13-09-014 SDG&E 10/10/14 Response
Salt Creek Substation Project PTC
ED-SDGE-014**

Please note that the items highlighted in **yellow** are confidential pursuant to CPUC Section 583, General Order 66-C and any applicable Non-Disclosure Agreements; Confidential Non-Public Information exempted from disclosure under federal and state law.

#	Request	SDG&E Response
1.	<p>Remodel impacts for the proposed 69kV power line using a maximum possible current of 1,079 amperes. Provide additional mitigation as needed to address the additional impacts from the maximum current. The study conducted by ARK engineers used a maximum load flow of 600 amperes for the proposed 69 kV power line and is well below the maximum emergency future flow of 1,079 amperes identified by SDG&E. Use of 600 amperes to calculate the electromagnetic impacts of the proposed 69 kV transmission line in the 2014 study underestimates its impacts, is unacceptable and does not conform to acceptable industry practices.</p>	<p>The study was re-modeled using 1,079 A as requested. No additional AC features (referred to as “mitigation” by ARK) were required. Refer to attachment DR.014.1.</p>
2.	<p>Confirm the assumption that the single ground wire on the 230 kV transmission line is solidly grounded. ARK engineering has assumed in its modeling and calculations that the single ground wire on the 230 kV transmission line (#7, 10 Alumoweld conductor) is solidly grounded. However, the report does not reflect that SDG&E has confirmed that the ground wire is in fact solidly grounded. Utilities often do not solidly ground their ground wire and segment it for several miles using low flashover insulators. This approach reduces losses at the expense of not providing electromagnetic protection during normal operations and may not even function properly during faults conditions. If the ground wire on the 230 kV line is not solidly grounded, the entire calculation performed will not be valid.</p>	<p>The overhead ground wire for the 230 kV power line collocated in the utility corridor with the proposed power line is solidly grounded through the hardware to the lattice towers– no insulators are used.</p>

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3.	<p>Clarify why mitigation was not provided on the new 69kV power line and was focused on the gas pipelines. Placement of the ground wires on the new proposed 69 kV line can significantly reduce its own and other transmission lines' interferences with the parallel gas and water pipeline.</p>	<p>Each pole for the proposed TL6965 line will have individual structure grounding to meet the 10 ohms resistance level as specified in the AC Interference Analysis report. SDG&E's typical design practice is to install overhead ground wires on lower voltage lines (less than 200 kV) only in high isokeraunic regions; the proposed tieline is not in such an area. Since shielding is not needed for lightning protection or to meet grounding requirements at each pole location, the addition of shield wire to the proposed circuit would unnecessarily increase cost. It would also impact pole heights affecting aesthetics.</p>
4.	<p>Provide analysis of AC Interference for an alternative double-circuit 69-kV power line on the western side of the utility corridor. The CPUC is preparing an EIR and intends to analyze rebuilding the TL 6910 line as a double-circuit line as an alternative to the proposed project. We are requesting that SDG&E conduct modeling for a double-circuit 69kV line on the western side of the utility corridor to support the analysis of alternatives.</p>	<p>Refer to Attachment DR.014.2.</p>