Complete	Incomplete	Response Under Review by ALJ	Incomplete No Further Request At This Time	No Applicant Response / NEW

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
Deficiency #3							
1.1	**Summary**						
1.1-2	General - GIS Data		**Deficiency Request #1:** Provide GIS data for the entire SDG&E/SoCalGas natural gas transmission system within SDG&E's service area. This can be on a web site that is password protected to maintain security. **Deficiency Request #2:** Update the confidential GIS website provided to include attribute data. At minimum, the attribute data must include pipeline diameter and identification number (e.g., 16 inch, Line 1600) for every pipeline. Also, this site needs to be available for as long as the proceeding is open at the CPUC. Did SDG&E/SoCalGas establish a site expiration date?	10/30/15 12/30/15	2/19/16	Complete	Web site was accessed and is functional.
1.1-2.1	General		Provide four flow diagrams for the SDG&E transmission system showing the daily design capacity – winter and summer – with and without the proposed Project facilities. On these diagrams, include: – Diameter, wall thickness, and length of existing pipe and the pipe proposed to be installed as well as the diameter and wall thickness at connections. – The installed horsepower at existing compressor station(s) and the suction and discharge pressure – Size and number of compressor units. – Pressures and volumes of gas at the inlet and outlet connections of each compressor station. – Pressures and volumes at each receipt and delivery point and the pressure and volumes at the beginning and end of the proposed facilities.	4/29/16		NEW	
1.1-4	Agency Involvement: Project Description / MCAS Miramar	p. 1-4, 3-68, 3-70, 3-72 (Table 3-9)	**Deficiency Request #1:** Provide the status of the reimbursement agreement with MCAS Miramar. **Deficiency Request #2:** An update provided by the Applicants but agreement not signed.	10/30/15 12/30/15	2/12/16	Agreement with MCAS Miramar is not yet executed.	Marine Corps Air Station (MCAS) Miramar has indicated that it will sign the MOA. MCAS Miramar will determine the funding mechanism, whether it will be through a reimbursement agreement or some other means.
1.1-6	Agency Involvement: Project Description /	p. 1-4, 3-68, 3-70, 3-72 (Table	**Deficiency Request #1:** Provide SDG&E/SoCalGas' anticipated timeline for MCAS Miramar management approval to act as Lead Agency under NEPA. CPUC discussions with MCAS Miramar's Antoinette Perez indicate that acceptance of the Final Tier 1 Application is anticipated to occur before the end of the year. The next step would	10/30/15	2/12/16	Agreement with MCAS Miramar is	Applicants acknowledge agreement is between CPUC, MCAS Miramar and potentially Caltrans. Applicants have

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
			Deficiency #3				
	MCAS Miramar	3-9)	be to seek management approval of the MOU/MOA with the CPUC for environmental document preparation. Their approval process will include MCAS Miramar management review and approval of the Tier 1 Application and MOU. It appears that this is likely to occur early 2016. **Deficiency Request #2:** Acknowledge that the timeline is unknown. Need to know who the lead agency is before scoping. Lead agency also needs to review the PEA.	12/30/15		not yet executed.	provided MCAS Miramar with necessary information and documentation. Anticipate an executed MOU/MOA.
1.1-8	Agency Involvement: Project Description / Caltrans /Alternatives	p. 1-4, 3-68, 3-70, 3-72 (Table 3-9), 4.16-3	**Deficiency Request #1:** Discuss the possibility of a reimbursement mechanism similar to the one in process with MCAS Miramar for Caltrans to take an active role early in the EIR/EIS process to help ensure that the document meets their permitting requirements. It is anticipated that Caltrans may be a signatory on the MOU with Miramar. Caltrans met internally about this project on 10/23/15. The CPUC will follow up with Ann Fox, Amy Vargas, and Bruce April at Caltrans as soon as possible to further discuss the MOU. **Deficiency Request #2:** Further discussions required.	10/30/15 12/30/15	2/12/16	A draft agreement was sent to Caltrans. No executed agreement to date.	The Applicants anticipate entering into a reimbursement mechanism with Caltrans and provided Caltrans with a draft reimbursement agreement.
1.1-9	Agency Involvement: Project Description / Caltrans / Alternatives	p. 1-4, 3-68, 3-70, 3-72 (Table 3-9), 4.16-3, Ch 5	**Deficiency Request #1:** – FHWA delegated NEPA responsibility to Caltrans in 2012 (see http://www.dot.ca.gov/hq/env/nepa). Discuss the possibility of Caltrans acting as the Lead Agency under NEPA. About 20 miles of the proposed 47-mile pipeline would generally follow the alignment of U.S. Route 395 (PEA cites Old Hwy 395) and Interstate 15. U.S. Route 395, Interstate 15, and several other State Routes would be crossed. 41 miles of the pipeline would be installed within roadways and road shoulders. About 3.5 miles of the pipeline would cross land within MCAS Miramar. – Confirm whether U.S. Route 395 is a federal/state roadway or if it is now under county jurisdiction and not federal/state jurisdiction along the entire alignment of the proposed pipeline. – **Deficiency Request #2:** Further discussions required.	10/30/15 12/30/15	2/12/16	A draft agreement was sent to Caltrans. No executed agreement to date.	The Applicants anticipate entering into a reimbursement mechanism with Caltrans and provided Caltrans with a draft reimbursement agreement. Caltrans will be a joint lead agency.
1.1-14	Agency Involvement: Project Description / USFWS	p. 1-4, 1-5	**Deficiency Request #1:** Provide a contact list of the USFWS representative(s) contacted by SDG&E/SoCalGas and Insignia. Provide the contact letters or point to the location in the PEA where these are located. The PEA states on p. 1-5 that no comments from USFWS about the proposed project have been received.	10/30/15	2/12/16	Marked complete but will continue throughout the CEQA process.	In their November 30, 2015 Response, the Applicants provided Exhibit D: Response to 1.1-14 and 1.4.4-4, which documents all correspondence with the United States (U.S.) Fish and Wildlife Service

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
			Deficiency #3				
			Deficiency Request #2: No consultation letters submitted or comments received to date.	12/30/15			(USFWS) to date. On January 12, 2016, the Applicants met with representatives of the U.S. Army Corps of Engineers (USACE), Regional Water Quality Control Board (RWQCB), USFWS, and California Department of Fish and Wildlife (CDFW) to provide an overview of the Proposed Project and discuss the PEA findings regarding the potential impacts to aquatic resources. On January 26, 2016, the Applicants met with representatives of the CDFW and USFWS to provide an overview of the Proposed Project and discuss the PEA findings regarding the potential impacts to biological resources. A copy of the sign-in sheets with contact information was included as Exhibit GG: Response to 1.1-14. Coordination with the USFWS will continue throughout the CEQA process.
1.1-15	Agency Involvement: Project Description / CDFW	p. 1-4, 1-5	**Deficiency Request #1:** PEA Section 1.4 does not indicate that CDFW has been contacted. Please explain. If CDFW has been contacted, provide a contact list of the CDFW representative(s) contacted by SDG&E/SoCalGas and Insignia regarding the proposed project and contact dates. Update PEA Section 1.4 with and a discussion of these contacts. **Deficiency Request #2:** No consultation letters submitted or comments received to date.	10/30/15 12/30/15	2/12/16	Marked complete but will continue throughout the CEQA process.	On January 12, 2016, the Applicants met with representatives of USACE, RWQCB, USFWS, and CDFW to provide an overview of the Proposed Project and discuss the PEA findings regarding the potential impacts to aquatic resources. Additionally, on January 26, 2016, Applicants met with the CDFW and USFWS to discuss the PEA findings regarding the potential impacts to biological resources. The CDFW representatives

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
Deficiency #3							
							were David Mayer, Eric Hollenbeck, and Elyse Levy. A copy of the sign-in sheets with contact information was included as Exhibit GG: Response to 1.1-14. Coordination with the CDFW will continue through the CEQA process.
1.1-16	Agency Involvement: Project Description, Hydrology / USACE, CDFW	p. 1-4, 1-5, Ch. 4, Ch. 5, Table 4.9-2.	**Deficiency Request #1:** Which of the 11 water features identified in Table 4.9-2 are expected to be (1) federal jurisdictional or (2) state jurisdictional? Update Table 4.9-2 with this information. **Deficiency Request #2:** Applicant will provide formal wetland delineation report and data once available.	10/30/15 12/30/15	2/12/16	Applicants to submit results of formal wetland delineation in Spring 2016.	Results of the formal wetland delineation will be submitted to the CPUC once the fieldwork is complete and the report is finalized. Fieldwork began in Spring 2016.
1.1-18	Agency Involvement: Project Description / USACE	p. 1-4, 1-5	**Deficiency Request #1:** Provide a contact list of the USACE representative(s) contacted by SDG&E/SoCalGas and Insignia. Provide the contact letters or point to the location in the PEA where these are located. **Deficiency Request #2:** No consultation to date.	10/30/15 12/30/15	2/12/16	Marked complete but will continue throughout the CEQA process.	On January 12, 2016, the Applicants met with representatives of the USACE, RWQCB, USFWS, and CDFW to provide an overview of the Proposed Project and discuss the PEA findings regarding potential impacts to aquatic resources. A copy of the sign-in sheet with contact information was included as Exhibit GG: Response to 1.1-14. Coordination with the USACE will continue throughout the CEQA and permitting processes.
1.1-19	Agency Involvement: Project Description / SWRCB, RWQCB	p. 1-4, 1-5	**Deficiency Request #1:** Provide a contact list of the SWRCB and RWQCB representative(s) contacted by SDG&E/SoCalGas and Insignia. Provide the contact letters or point to the location in the PEA where these are located.	10/30/15	2/12/16	Complete	On January 12, 2016, the Applicants met with representatives of the USACE, RWQCB, USFWS, and CDFW to provide an overview of the Proposed Project and discuss the PEA findings

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Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
			Deficiency #3				
			Deficiency Request #2: No consultation to date.	12/30/15			regarding potential impacts to aquatic resources. The SWRCB has not been contacted and is not anticipated to be involved in the Proposed Project until immediately prior to the construction phase, when a Notice of Intent (NOI) for the General Construction Storm Water Permit (Water Quality Order 99-08-DWQ) will be submitted. The SWRCB's involvement was discussed briefly with RWQCB staff at the January 12, 2016 meeting, and the RWQCB confirmed that because the Proposed Project is entirely within RWQCB Region 7, SWRCB participation will not be required. The RWQCB representative is listed in Exhibit GG: Response to 1.1-14.
1.1-22	Public Outreach	p. 1-42	**Deficiency Request #2:** – Provide all 49 polling questions asked. – Provide the complete report prepared by Competitive Edge Research & Communication and submitted to SDG&E/SoCalGas/Sempra.	12/30/15	2/12/16	Complete	
1.1-23	Public Outreach	p. 1-42	**Deficiency Request #1:** Provide a mailing list in Excel that contains all land owners within 300 feet of the proposed pipeline right-of-way, all federal, state, and local agency contacts (both contacts already made and those anticipated), and updates from returned postcards and additions from the SDG&E open houses and other stakeholder outreach efforts. Group the mailing list by color code or some other clear identifier (e.g., a new column) to identify where the address originated. **Deficiency Request #2:** Addresses were redacted so we will not be able to mail scoping notices to the stakeholders on your mailing list. Suggest sharing mailing list or SDGE can do the mailing to open house attendees.	10/30/15 12/30/15	2/12/15	Complete	
1.2	**Project Purpose and Need**						
1.2-1	Purpose and Need	Ch. 2 / New	**Deficiency Request #1:** The CPUC continues to discuss the parameters for a **cost-benefit analysis** (economic	10/30/15	3/21/16	Under review	A cost analysis was submitted as

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Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
			Deficiency #3				
		Appendix	analysis) for the proposed project. It is not clear at this time to what extent all or part of such an analysis may be required as part of the PEA. This is a placeholder for a deficiency item. **Deficiency Request #2:** The Applicants state that this is more appropriately addressed in the CPUC's regulatory proceeding. The Applicants expect the CPUC will vet and determine the purpose and need and the project as part of the regulatory proceeding through summer 2016. The Applicants state that after the regulatory proceeding, the alternatives analysis can be more effectively completed, and be included in a DEIR issuance in November 2016. In essence, Applicants claim that the purpose and need and systems alternatives are out of scope of the CEQA/NEPA review. However, the CPUC independently formulates the project objectives used in its CEQA analyses. The CPUC must independently evaluate the applicant-proposed objectives in order to ensure that the EIR reflects the lead agency's independent judgment and analysis, and must select objectives that allow for analysis of a reasonable range of alternatives. The lead federal agency will also need to develop a purpose and need under NEPA. Waiting for the regulatory proceeding's determination of purpose and need could result in: – Additional rounds of data requests focusing on alternatives after the regulatory proceeding, – Alternatives analyzed in the CEQA/NEPA document that should have been dismissed and/or not analyzed, and – The proposed schedule for the DEIR in November 2016 would no longer be realistic.	12/30/15			Volume 3 of the amended application. ALJ to review.
1.2-1.1	Purpose and Need	Ch. 2 ; New Appendix	We received your Cost-Effectiveness Analysis (Volume III) on 3/21/16. Please provide all the data files that support Price Waterhouse Coopers' cost-effectiveness calculations. These could include data files, electronic spreadsheets, and work-papers, in live format, that were used to produce Tables 2, 6, 7, 8, 9, and 40 in the Cost-Effectiveness Analysis. This information is necessary to verify the conclusions in the report. These will be large files and likely be confidential so please post to a password protected ftp site.	03/30/16	4/04/16	Complete	Received April 4, 2016
1.2-2	Purpose and Need	Ch. 2	**Deficiency Request #1:** **Past Discussions with the CPUC:** – Provide a comprehensive discussion that cites specific CPUC proceedings, rulings, gas capacity filings, other documents, and ex parte communications regarding SDG&E/SoCalGas's dialogue with the CPUC since the 1990s (or longer if applicable) regarding SDG&E/SoCalGas's redundancy concerns associated with lines 3010 and 1600 and gas supply to SDG&E service area. Include in the discussion any reference to gas	10/30/15	11/30/15	Incomplete. No further request at this time.	As noted in Response to Item 1.2-1, the Applicants anticipate that the Proposed Project's purpose and need will be carefully scrutinized in the regulatory proceeding. The analysis to be carried out in the regulatory proceeding may or may not require a comprehensive discussion of historical

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Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
			Deficiency #3				
			supply to SDG&E's service area from Otay Mesa. – Provide a copy of all SDG&E Gas Capacity Planning filings filed pursuant to OII .I-11-002 since CPUC Decision 02-11-073. **Deficiency Request #2:** The Applicants response to Deficiency Request #1 was still under review under Deficiency #2	12/30/15			CPUC proceedings, rulings, gas capacity filings, other documents, and ex parte communications spanning more than a quarter-century, some of which may not be retained by or available to the Applicants. For these reasons, the requested information was considered by the Applicants as premature and unduly burdensome at this time. To the extent such inquiry may be relevant to the EIR/EA, the following are examples of proceedings that discuss capacity or reliability concerns: – R.04-01-025, Order Instituting Rulemaking to Establish Policies and Rules to Ensure Reliable, Long-Term Supplies of Natural Gas to Californians; – A.04-12-004, Authority to Integrate Gas Transmission Rates, Establish Firm Access Rights, and Provide Off-System Gas Transportation Services; – A.06-10-034, Authorization to Support Reliable Deliveries at Otay Mesa; – A.10-03-028, Firm Access Rights (FAR) Update; • A.11-11-002, 2013 Triennial Cost Allocation Proceeding (TCAP); and – R.11-02-019, Pipeline Safety Enhancement Plan (PSEP).

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Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
Deficiency #3							
							Electronic or hard copies can be provided at a future date. The Gas System Expansion Study: Receipt Point Expansion can be found at the following web addresses: – https://socalgas.com/regulatory/documents/2014-gas-system-expansion-study.pdf – http://www.sdge.com/sites/default/files/documents/1830424206/SoCalGas-SDGE-SystemExpansion-Study-2014-Web-version.pdf?nid=2646.
1.2-3	Purpose and Need	p.2-1	**Deficiency Request #1:** Add the Marine Corps' purpose and need for the project under NEPA. **Deficiency Request #2:** CPUC to coordinate with Marine Corps. Need the lead federal agency's purpose and need.	10/30/15 12/30/15	3/21/16	Not presented; CPUC to develop in coordination with the Marine Corps.	This is not presented in the Amended Application. CPUC will work with the Marine Corps to develop their purpose and need.
1.2-4	Purpose and Need	p.2-1	**Deficiency Request #1:** The growth of renewable energy in California is projected to be 50% by 2030 along with reduction of greenhouse gas emissions as required under SB 350. In addition, projections of natural gas use have not increased but have remained flat or decreased (CEC). Please explain how the proposed project would be needed with the increase in use of renewable energy. In addition, on December 15, 2015, the City of San Diego committed to 100% renewable energy by 2035. Describe how this project will be consistent with that goal (see 1.2-4.1 below). **Deficiency Request #2:** The Applicants response to Deficiency Request #1 was still under review under Deficiency #2	10/30/15 12/30/15	11/30/15	Complete	Response indicated that natural gas is used for purposes beyond electric generation and the population of the state is expected to increase by more than 10 million people by 2050.
1.2.4-1	Purpose and Need and Land Use		On December 15, 2015, the San Diego City Council unanimously approved the Climate Action Plan that would move the city to 100% renewables by 2035. Please explain how the proposed project would be affected by the city	4/29/16		NEW	

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			Deficiency #3				
			of San Diego's mandated shift to renewable energy.				
1.2-5	Purpose and Need	p.2-1	**Deficiency Request #1:** The Secretary of the Navy established renewable energy goals for the Navy and Marine Corp's shore-based installations to be met by 2020. In addition, the federal government has renewable energy policies contained in the following: - Executive Order (EO) 13514, Federal Leadership in Environmental, Energy, and Economic Performance (2009) - Energy Policy Act of 2005 (EPAct) (42 United States Code [U.S.C.] 15852 - Title 10 U.S.C. 2911(e) In December 2013, President Obama signed a presidential memorandum that requires federal agencies to produce or procure from renewable sources 20 percent of electricity consumed by facilities by FY 2020 and each FY thereafter, an amount that represents a more aggressive goal than under the EPAct or 10 U.S.C. 2911(e). The memorandum also establishes interim goals of 10 percent by 2015, 15 percent by 2016, and 17.5 percent by 2018. In support of the EPAct and 10 U.S.C. 2911(e) renewable energy goals, the Secretary of the Navy created the 1 Gigawatt (GW) Initiative—named for the amount of renewable energy generation capacity to be deployed by 2020 (Navy 2012), either on or near Navy and/or Marine Corps installations. Please explain how the proposed project would be consistent with these renewable energy goals. **Deficiency Request #2:** The Applicants response to Deficiency Request #1 was still under review under Deficiency #2	10/30/15 12/30/15	11/30/15	Incomplete. No further request at this time.	Response referred to the role that natural gas peaker plants play in grid-stabilization due to the intermittent nature of electric generation from renewable sources.
1.2-6	Purpose and Need (Project Objectives) / Alternatives	Ch. 2, 5	**Deficiency Request #1:** The CPUC proposes the following revisions to clarify Objectives 1, 2, and 3 as unique project objectives. If SDG&E/SoCalGas objects to any of the following revisions, provide a reasoned explanation. See also Deficiency Items 1.2-7 and 1.2-8 regarding redundancy and operational flexibility/capacity. 1. ***Implement Pipeline Safety Requirements for Existing Line 1600*** ~~and Modernize the System with State-of-the-Art Materials~~: ~~Enable the Applicants to~~ comply with the CPUC approved PSEP ~~by replacing Line 1600 with a new gas transmission pipeline~~ as soon as ~~is~~ practicable by either hydrotesting and repairing Line 1600, replacing Line 1600 without hydrotesting, abandoning Line 1600 in place, or permanently lowering the pressure of Line 1600 for use as a distribution line instead of a transmission line. ~~Construction of the new line will enable the use of Line 1600 for distribution while operating at a lower pressure. This replacement will not~~	10/30/15	11/30/15	Incomplete but no further request at this time.	The CPUC will define the basic project objectives for use in the Alternatives Screening Report.

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Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
			Deficiency #3				
			~~only comply with the PSEP, but it will also add a greater margin of safety by replacing Line 1600's transmission function with a new pipeline by using modern, state-of-the-art materials. In addition, replacement would avoid any potential customer impacts associated with pressure testing Line 1600.~~ 2. ***Improve System Reliability*** ~~and Resiliency~~ ***~~by~~*** ~~Minimizing~~ ***<u>Reducing</u> Dependence on a Single Pipeline:*** ~~Simultaneously~~ Improve the reliability ~~and resiliency~~ of the integrated SDG&E and SoCalGas natural gas transmission system (Gas System) by replacing Line 1600 ~~with a 36-inch-diameter gas transmission pipeline~~ so that core and noncore customers will continue to receive gas service in San Diego in the event of a planned or unplanned service reduction ~~or outage~~ of the existing 30-inch-diameter Line 3010 or the Moreno Compressor Station. San Diego County ~~is essentially completely reliant~~ <u>relies</u> on the compressor station in the City of Moreno Valley and Line 3010 <u>to</u>~~, which together~~ provide approximately 90 percent of SDG&E's capacity. ~~The Applicants are not aware of any other major metropolitan area that is so dependent on a single pipeline. A system outage on Line 3010 or the Moreno Compressor Station would constrain available capacity in San Diego, which may lead to gas curtailments. This would be alleviated with the new 36-inch-diameter line providing resiliency for both Line 3010 and the Moreno Compressor Station.~~ 3. ***Enhance Operational Flexibility to Manage Stress Conditions by Increasing System Capacity:*** ~~Simultaneously~~ Increase ~~the transmission~~ capacity of the Gas System in San ~~Diego County by approximately 200 million cubic feet per day (MMcfd) as a result of the PSEP compliance replacement line being 36 inches in diameter so that~~ <u>to enable the management of</u> ~~the Applicants can reliably manage the~~ fluctuating peak demand ~~of core and noncore customers, including electric generation and clean transportation. The new line would provide incremental Increased pipeline capacity that would give flexibility to operate the SDG&E system by expanding the options available to handle stress conditions on a daily and hourly basis that put system integrity and customer service at risk~~. **Deficiency Request #2**: Applicant stated that the CPUC must independently evaluate the applicant-proposed objectives in order to ensure that the EIR reflects the lead agency's independent judgment and analysis, and must select objectives that allow for analysis of a reasonable range of alternatives. Waiting for the regulatory proceeding's determination of purpose and need to guide the definition of project objectives will likely make the Applicants' proposed November 2016 DEIR circulation unrealistic. No additional response was provided.	12/30/15			
1.2-7	Purpose and Need (Project Objectives) /	Ch. 2, 5	**Deficiency Request #1: Redundancy:** If providing system redundancy is an objective of the proposed project, please state this as an objective separate from the reliability objective. Reliability and redundancy as objectives have very different implied costs, and there are alternatives to the proposed project that would likely meet the	10/30/15	11/30/15	Incomplete. No further request	

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			Deficiency #3				
	Alternatives		reliability objective but would not meet a redundancy objective. **Deficiency Request #2**: Applicant referred to the notes for 1.2-6 above.	 12/30/15		at this time.	
1.2-8	Purpose and Need (Project Objectives) / Alternatives	Ch. 2, 5	**Deficiency Request #1: Operational Flexibility/Capacity:** Discuss the potential for separating the Operational Flexibility objective from the Capacity Increase objective. To what extent and in what ways can the proposed project provide operational flexibility separate from the provision for increased capacity? **Deficiency Request #2**: Applicant referred to the notes for 1.2-6 above.	10/30/15 12/30/15	11/30/15	Incomplete. No further request at this time.	
1.2-9	Purpose and Need (Project Objectives) / Alternatives	Ch. 2, 5	**Deficiency Request #1: Cost of Gas to Ratepayers:** To what extent would the project, as proposed, reduce the cost of natural gas to ratepayers in SDG&E's service area? If the project would increase access to inexpensive natural gas, provide a discussion that considers this as an objective to the proposed project. **Deficiency Request #2**: Applicant referred to the notes for 1.2-6 above.	10/30/15 12/30/15	11/30/15	Incomplete. No further request at this time.	
1.2-10	Purpose and Need (Project Objectives) / Alternatives	Ch. 2, 5	**Deficiency Request #1: Underlying Project Purpose/Objectives:** To what extent does any one of the three objectives presented in the PEA reflect the underlying purpose of the proposed project? The CPUC understands, for example, that the project would not have been proposed but for the need for Line 1600 to comply with *PSEP*—Pipeline Safety Enhancement Plan (A.11-11-002, D.14-06-007)—as required by the CPUC. **Deficiency Request #2**: Applicant referred to the notes for 1.2-6 above.	10/30/15 12/30/15	11/30/15	Incomplete. No further request at this time.	
1.2-11	Purpose and Need (Project Objectives) / Alternatives	Ch. 2, 5 / Response from Neil Navin on 9/29/15 (proposed 200 MMcfd capacity increase)	**Deficiency Request #1: System Capacity:** – With regard to the response on 9/29/15 (see attached image in the notes column), explain whether the capacities shown on the table assume that the North-South pipeline project, including increased compression, is operating. If the table capacities are calculated assuming that no North-South project would exist, including added compression, please provide revised capacity numbers including the North-South project and associated compression. – With regard to the "hard limit" of the pipeline capacities shown on the table, please explain in more detail why this hard limit exists. – Please also explain whether increased compression capacity at Rainbow (or elsewhere on the	10/30/15	11/30/15	Incomplete. No further request at this time.	

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			Deficiency #3				
			SoCalGas/SDG&E system) would increase the pipeline capacities shown on the table. – Please explain in greater detail why additional capacity would not be available from Line 1600 even though it is de-rated. Assuming some capacity would be provided, regardless of how small the additional capacity may be, provide an estimate for the additional capacity for (1) de-rated Line 1600; and (2) distribution Line 1026. In prior presentations to the CPUC, for example, SDG&E/SoCalGas indicated that less than 1% of the gas supply to SDG&D's service area comes from Line 1026. What is this amount in MMcfd? – Your response indicates that each pipeline individually has a larger capacity alone than when operating as part of the system. There is no "lost" capacity on Line 3010 if Line 3602 is installed. Provide the maximum design delivery capacities individually of Lines 1026, 1600, 3010, and the proposed 3602. **Deficiency Request #2**: Applicant referred to the notes for 1.2-6 above.	12/30/15			
1.2-12	Purpose and Need (Project Objectives) / Alternatives	Ch. 2, 5	**Deficiency Request #1: Recorded and Forecast Peak Gas Demand.** Complete the attached Table 2-1, which was originally sent to SDG&E/SoCalGas for completion and inclusion in the PEA on 8/10/15. **Deficiency Request #2**: Applicant referred to the notes for 1.2-6 above.	10/30/15 12/30/15	11/30/15	Incomplete. No further request at this time.	
1.2-13	Purpose and Need (Project Objectives) / Alternatives	Ch. 2, 5	**Deficiency Request #1:** Provide an explanation of the increase (spike) in natural **gas demand for electric generation on July 2, 2015**. Also provide a thorough discussion of this type of event with estimates of how often it has, and is expected to, occur. Include historical data of actual events and the resultant power loss to various types of customers as well as forecast data used to estimate the probability of reoccurrences. See attached slide presented to CPUC Energy Division management on 8/20/15. **Deficiency Request #2**: Applicant referred to the notes for 1.2-6 above.	10/30/15 12/30/15	2/12/16	Complete	
1.2-14	Purpose and Need (Project Objectives) / Alternatives	Ch. 2, 5	**Deficiency Request #1:** Address the following points based on the latest Gas Capacity Forecast (October 2015) filing to the CPUC: – The filing states that "despite predicted declines in natural gas demand on an annual basis," SDG&E/SoCalGas is not forecasting declines on a peak-day design standard as shown in Table 1. Table 1 identifies Peak Daily Demand forecasts pursuant to the adopted Peak Day design standard. o However, Table 1 indicates that daily peak gas demand will decline from the forecast for 2015/16 of 607 MMcfd to 589 MMcfd in 2024/2025. The table does not forecast that any day in the next 10 years will experience total gas demand exceeding 590 MMcfd. Total demand is then shown to	10/30/15	11/30/15	Incomplete. No further request at this time.	

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
			Deficiency #3				
			increase after 10 years, starting in 2025/26 (591 MMcfd). ○ Explain why the forecast shows an increase that begins 10 years from 2015 and reaches 617 MMcfd in 2035/36. Note that natural gas demand for Electrical Generation (EG) is expected to consistently decrease from 199 MMcfd in 2015/16 to 174 MMcfd in 2035/36. The only increase through the planning period is in Core demand, which jumps from 354 MMcfd to 382 MMcfd in the 10-year period after 2025 that leads to 2035/36. Please explain and include supporting data. – The filing states that sudden changes in an operating day are not typically considered in the development of a formal demand forecast but that this consideration is anticipated to become more common. Who anticipates this? When would this become more common? Discuss when and how SDG&E/SoCalGas plans to file requests with the CPUC for such additional considerations in formal forecasts. If a proceeding(s) is already underway, identify the proceeding(s). **Deficiency Request #2**: Applicant referred to the notes for 1.2-6 above.	12/30/15			
1.3	**Project Description**						
1.3-1	Design	p. 3-10	Deficiency #1: Explain why 800 psig is the designated Maximum Allowable Operating Pressure? Modern natural gas pipeline design standards allow for much larger pressures to be achieved (i.e., greater than 1000 psig). Deficiency #2: Response to Deficiency #1 was still under review during Deficiency Request #2.	10/30/15 12/30/15	11/30/15	Complete	
1.3-2	Design	p. 3-10	**Deficiency #1**: Explain the rationale for determining that a 36-inch pipeline (precisely this diameter) is needed. Provide the engineering analyses and calculations that support the Applicants' selection of a new, 36-inch transmission line. **Deficiency #2:** Response to Deficiency #1 was still under review during Deficiency Request #2.	10/30/15 12/30/15	11/30/15	Incomplete. No further request at this time.	An engineering analysis and calculations were not provided. If the CPUC determines that this information is needed at a later date, it will be submitted as a data gap request.
1.3-4	Project Description	p. 3-42	**Deficiency #1**: Provide a draft blasting plan that describes: - the types of blasting that may be used during construction of the proposed project - methods to be used to minimize hole-to-hole propagation - types of explosives/initiation system that may be used - anticipated drill and blast pattern - charge weights and delays	10/30/15	2/12/16	Complete but will be updated	A blasting plan was submitted on 1/11/2016.

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

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			Deficiency #3				
			- methods for controlling flyrock - selection of blasting products and methods - monitoring, reporting, and controlling ground cracking and displacement - explosives storage and transportation procedures - peak particle velocity monitoring and control - fire prevention - methods and protocols to protect human health and safety and - APMs to minimize impacts on sensitive receptors, wildlife, aquatic features, and paleontological resources **Deficiency #2:** Preliminary blasting plan to be submitted to CPUC in 6 weeks. Final plan developed in accordance with APM NOI-02, will include conformance to state and local laws related to blasting, including noticing of potentially affected residents and other sensitive receptors. The plan will include a description of the planned blasting methods, an inventory of receptors potentially affected by the planned blasting, a schedule, and requirements for noticing and measures to minimize noise related to blasting, and safety precautions to be implemented.	12/30/15			
1.3-12	Design		Discuss the impact on the proposed project and the alternatives if the North-South Project were to be denied.	4/29/16		NEW	
1.3-14	Schedule		Since Line 3602 would be a new pipeline, please explain why the construction is expected to take 1.5 years, and whether this schedule includes the simultaneous building of multiple spreads.	4/29/16		NEW	
1.4	**Environmental Impact Assessment**						
1.4.1	**Aesthetics**						
1.4.1-1	Aesthetics	Maps 1-5	**Deficiency #1:** Show and label the locations of the visual character photos on project maps at the scale of maps provided as Attachment 3-A (Detailed Route Map). In addition, show and label on these maps the following: – County Scenic Highways and other eligible or designated scenic roads; – Scenic vistas identified in the PEA and other scenic features identified in local plans or related documents; – Municipal, county, and other administrative boundaries; – Any trails, parks, or other recreation or open space facilities within 0.5 mile of the proposed ROW; – All locations where mature trees and/or large shrubs will be removed for construction; and all project features for construction or operation. **Deficiency #2:** County Scenic Highways and other eligible or designated scenic roads are shown with the same symbol and not distinguished clearly from one another on the maps (Exhibit K). Clarify the various designations for	10/30/15 12/30/15	2/12/16	Complete	

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

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			Deficiency #3				
			scenic roads (i.e., distinguish the various levels of state and county designations) and show these clearly on the maps. Provide a table that shows all of the roads and highways with scenic designations within 3 miles of the proposed project and identify the status of each. It appears that at least some trails, parks, or other recreation or open space facilities within 0.5 mile of the proposed ROW are not shown and labeled on the maps in Exhibit K. Some of the maps do not extend out 0.5 mile from the proposed project. Show and label on the maps the extent of the 0.5-mile buffer and all trails, parks, or other recreation or open space facilities within 0.5 mile of the proposed ROW, work areas, and construction laydown areas. Some of the areas identified as parks on the maps In Exhibit K are not clearly identified (i.e., it's not clear whether these are public parks, public open space areas, or other types of facilities [e.g., SLC on Map 9, Reidy Canyon Creek on Map 20, and Poway Holding and Meadowbrook ER on Map 33]). Clarify the status of all areas identified as parks on the maps In Exhibit K in a table that also references the map number(s) on which the parks or other facilities are shown. Label all major landscape features on the maps in Exhibit K (e.g., San Luis Rey River on Map 8 and various golf courses and other areas of various maps). Provide a key map or maps that show the location and extent of each map in Exhibit K. Need to check with the local jurisdictions to verify that no specific vistas are identified in their general plans.				
1.4.1-2	Visual Simulations	Figure 4.1-1	**Deficiency #1:** Provide additional visual simulations showing the appearance of the ROW and any other project features 1) immediately following construction and 2) 3-5 years after construction. These additional visual simulations are to be prepared as panoramas to show the context of the views and are to be prepared for the following locations identified below where the grading and vegetation removal would be required. If, for any of these locations, the proposed pipeline would be placed within an existing paved roadway and no existing vegetation removed, an additional visual simulation would not be required for that location. – View from Mission Road (a County-designated Scenic Highway) in the vicinity of Photo Location 5 showing the proposed ROW with grading and vegetation removal. – Views from I-15 (a County-designated Scenic Highway and Eligible State Scenic Highway) in the vicinity of Photo Locations 3, 4, 6, and 13 showing the proposed ROW with grading and vegetation removal in locations where views of the ROW would not be screened by existing vegetation or terrain. – View from the vicinity of the trailhead at Highland Valley Road and Pomerado Road showing the proposed ROW with grading and vegetation removal. View looking south toward MLV 7 from the vicinity of the trail and parkway showing the proposed MLV and ROW with grading and vegetation removal. **Deficiency #2:** Key observation point (KOP) character photographs document, which provide photographs and a description of each KOP based on field-gathered observations, were submitted on 12/21/15. A corresponding KOP locations map and kmz files containing points of each photograph location were also provided. These photographs	10/30/15 12/30/15	2/12/16 4/14/16	Visual simulations to be provided by the Applicants. No additional request at this time.	Visual simulations not yet provided but Applicant has agreed to provide. Photo locations of planned visual simulations are appropriate (see response to 4.1-2).

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

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			Deficiency #3				
			and documents are under review. New visual photographs will be submitted to CPUC. Locations of any additional simulations will be provided in 12 to 14 weeks.				
1.4.1-3	Aesthetics	p. 4.1-8	**Deficiency #1:** Under the heading "Potentially Affected Public Views", the PEA states: "Because the Proposed Project is predominantly located underground, only the aboveground facility locations will be visible to the public." In addition to describing and assessing aesthetic impacts for above-ground project elements, describe the appearance and assess the aesthetic impacts of the proposed ROW for all locations where grading and vegetation removal and reclamation would occur and the ROW may be visible to viewers from parks, trails, roadways, residential areas, open space areas, and other areas accessible to the general public. **Deficiency #2:** The Applicants state that the visual impact will only be temporary because the ROW restoration will be successful in 5 years. That goal is rarely achieved in arid climates. Visual simulations are required for the DEIR illustrating the view at construction, 1 year, 5 years, and 15 years. This was clarified in a phone conversation on January 21, 2016 and changed to 1 year and 3 to 5 years following construction. **Deficiency #3:** CPUC has not received kmz files containing all KOP locations and points of each photograph location; provide the kmz files described. Three additional visual simulations were requested during a teleconference held January 21, 2016. The visual simulations were requested for the following locations : 1) Location #3, Photograph #6; 2) Location #9, Photograph #27; and 3) Location #14, Photograph #36. Simulations were requested for views from these locations showing the appearance of the proposed project at 1 year and 3 to 5 years following construction. In addition, the CPUC's consulting aesthetic resources specialist requested that the three additional visual simulations be prepared as panorama photos to show the surrounding area as context for the proposed project. Provide the additional panorama visual simulations to the CPUC when available.	10/30/15 12/30/15 4/29/16	2/12/16 4/14/16 – photo locations provided.	Incomplete	Three additional visual simulations locations are acceptable.
1.4.3	**Air Resources**						
1.4.3-4	Air Resources	p. 4.3-16	**Deficiency Request #1:** Construction emissions of PM10, CO, and NOx would exceed the applicable SDAPCD thresholds even after applying the proposed mitigation measures. Other forms of mitigation beyond those already	10/30/15	11/30/15	Complete	The Applicants are proposing to include the following additional APMs to further reduce particulate matter

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			Deficiency #3				
			proposed or available in CalEEMod should be considered.				emissions during construction. - APM-AIR-06: Rock aprons or rattle plates will be installed, as needed, at the intersection of dirt access roads and paved public roadways to clean the tires of equipment prior to leaving the site. - APM-AIR-07: All public streets will be swept or cleaned with mechanical sweepers if visible soil is carried onto them by construction activities or vehicles. Cleaning will occur at the end of each workday or as soon as possible if the track out extends for a cumulative distance of greater than 50 feet in either direction. - APM-AIR-08: Exposed stockpiles (e.g., spoil, sand, etc.) will be covered and/or watered or stabilized with non-toxic soil binders as needed to control fugitive dust. - APM-AIR-09: Soil or other bulk material will be stabilized prior to handling or at the point of transfer with the application of sufficient water, chemical stabilizers, or by sheltering from the wind. During soil or bulk material movement or transfer, drop heights will be minimized to the extent feasible while maintaining safe operating

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			Deficiency #3				
							conditions to reduce fugitive dust. - APM-AIR-10: During high-wind episodes (where wind speeds are deemed to be in excess of 25 miles per hour [mph]), water application will be increased as a contingency measure. If the further application of water is unable to control dust plumes, clearing and earthmoving activities will be halted until the dust plumes can be controlled or wind speeds drop below 25 mph. Mitigation strategies available from the California Emissions Estimator Model (CalEEMod) that were considered are provided in Exhibit O: Response to 1.4.3-4.
1.4.3-4	Air Resources	p. 4.3-16	**Deficiency Request #2:** Applicability of the General Conformity Rule, as adopted by the SDAPCD in Rule 1501 (Conformity of General Federal Actions) needs to be evaluated. Present the comparison of estimated emissions with the applicable de minimis thresholds.	12/30/15	2/12/16	Complete	The Applicants have provided the required calculations and comparisons in Exhibit KK, showing that the emissions will not exceed the thresholds. Their response was: San Diego County Air Pollution Control District's (SDAPCD) Rule 1501 only applies to Volatile Organic Compounds (VOC) and nitrogen oxide (NOx) emissions. The Proposed Project's construction and operation and maintenance emissions were compared to the applicable thresholds identified in SDAPCD's Rule 1501. As indicated in Exhibit KK: Response to 1.4.3-4, the anticipated

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			Deficiency #3				
							emissions from the Proposed Project will conform to the limits indicated in Rule 1501. As shown in Table 2: VOC and NOx Construction Emissions of Exhibit KK: Response to 1.4.3- 4, controlled construction emissions for VOCs and NOx will be below the applicable 100-ton-per-year threshold. Therefore, with the implementation of the Applicants'-proposed measures (APMs) from the PEA, the Proposed Project will conform to Rule 1501. In addition, only 5.53 percent of the Proposed Project will be located on federal lands; therefore, the proportional emission on federal lands will be far below the threshold.
1.4.4	**Biological Resources**						
1.4.4-2	Survey updates	p. 4.4-10	**Deficiency Request #1:** Please provide updated survey results for the arroyo toad at Sites 2 and Site 7. **Deficiency Request #2:** Please provide updated survey results for the arroyo toad at Sites 2 and Site 7 upon completion of surveys between March 1 and July 1, 2016.	10/30/15 12/30/15	2/12/16	Incomplete but will be submitted to CPUC	Updated arroyo toad survey results from Sites 2 and 7 will be provided to the CPUC following completion of the surveys in July 2016.
1.4.4-3	Survey updates	p. 4.4-8	**Deficiency Request #1:** Please provide survey results for the QCB at the Elliot Field Station. **Deficiency Request #2:** Please provide survey results for the QCB at the Elliot Field Station upon completion of surveys between February 1 and through the second Saturday in May 2016.	10/30/15 12/30/15	2/12/16	Incomplete but will be submitted to CPUC	Quino checkerspot butterfly (QCB) survey results at the Elliot Field Station will be submitted to the CPUC following completion of the surveys in May 2016.
1.4.4-4	USFWS	p. 4,4-11	**Deficiency Request #1:** Please provide a summary of communication with the USFWS regarding concurrence of T&E survey results, and pending areas to be surveyed.	10/30/15	2/12/16	Incomplete Limited consultation	The Applicants provided USFWS with an overview of the survey approaches and results on January 12 and 26, 2016. Communication with the USFWS regarding concurrence of

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
			Deficiency #3				
			Deficiency Request #2: Additional surveys may be required upon consultation with USFWS. Please provide a summary of communication with the USFWS regarding concurrence of T&E survey results, and pending areas to be surveyed.	12/30/15			threatened and endangered species survey results and pending areas to be surveyed will continue in the coming months.
1.4.4-5	Marine Corps Air Station Miramar	p. 4.4-9	**Deficiency Request #1:** Are additional surveys for the least Bell's vireo and the southwestern willow flycatcher proposed? Will the USFWS accept the 2011 survey results? **Deficiency Request #2:** Additional surveys may be required upon consultation with USFWS. Are additional surveys for the least Bell's vireo and the southwestern willow flycatcher proposed? Will the USFWS accept the 2011 survey results?	10/30/15 12/30/15	2/12/16	Incomplete Limited consultation	Additional surveys for least Bell's vireo and southwestern willow flycatcher on MCAS Miramar are not proposed at this time. The Applicants provided USFWS with an overview of the survey approaches and results on January 12 and 26, 2016. Further communication with MCAS Miramar staff and the USFWS will determine if additional protocol-level surveys on MCAS Miramar for least Bell's vireo and southwestern willow flycatcher are needed, or if inventory surveys conducted by MCAS Miramar for its Integrated Natural Resources Management Plan will be sufficient.
1.4.4-7	Wetlands and Waterbodies	p. 4.4-32	**Deficiency Request #1:** Provide formal wetland delineation report and data once available. Provide a copy of the Wetland Delineation and supporting documentation (i.e., data sheets). If verified, provide supporting documentation. Additionally, GIS data of the wetland features should be provided. **Deficiency Request #2:** Data will be submitted by early summer 2016.	10/30/15 12/30/15	2/12/16	Incomplete but applicant will submit formal wetland delineation report following spring 2016 surveys.	Please see the response to Item 1.1-16 above.
1.4.4-8	Wetlands and Waterbodies	p. 4.4-65	**Deficiency Request #1:** Provide additional detail on conceptual mitigation and restoration of temporary impacts to wetlands and waterbodies. **Deficiency Request #2:** Need to consult with USACE and develop mitigation plan. Provide additional detail on	10/30/15	2/12/16	Applicant will send additional information per permit	The Applicants met with USACE staff to provide an initial high level overview of the Proposed Project and potential impacts to aquatic resources on January 12, 2016.

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			Deficiency #3				
			conceptual mitigation and restoration of temporary impacts to wetlands and waterbodies upon consultation with USACE.	12/30/15		requirements from the USACE.	Communications with USACE will continue throughout the review process and conceptual mitigation and/or restoration requirements will be determined once a Nationwide 12 Preconstruction Notification package is submitted to the USACE.
1.4.4-9	Wetlands and Waterbodies	p. 4.4-32	**Deficiency Request #1:** Discuss construction and restoration methods proposed for crossing wetlands. **Deficiency Request #2:** Discuss construction and restoration methods proposed for crossing wetlands once consultation with USFWS begins.	10/30/15 12/30/15	2/12/16	Applicant will send additional information per permit requirements from the USACE.	Applicants will provide additional information on mitigation and restoration as communications continue with the USACE regarding the Nationwide 12 Preconstruction Notification package.
1.4.4-11	Wetlands and Waterbodies	p. 4.4-32	**Deficiency Request #1:** Provide a table identifying all wetlands, by milepost and length, crossed by the project and the total acreage and acreage of each wetland type that would be affected by construction. **Deficiency Request #2:** Upon completion of a formal wetland delineation, provide a table identifying all wetlands, by milepost and length, crossed by the project and the total acreage and acreage of each wetland type that would be affected by construction.	10/30/15 12/30/15	2/12/16	Incomplete but no further request at this time.	The Applicants will update the information and provide it to the CPUC upon completion of the formal wetland delineations.
1.4.5	**Cultural, Tribal, and Paleontological Resources**						
1.4.5-1	Historic Properties	Section 4.5, Attachment 4.5-A	**Deficiency Request #1:** Recommendation for eligibility to NRHP and CRHR were not made for all of the resources. Guidance by CA SHPO indicates that this is a first step in determining the potential for impacts under CEQA. For instance, if an archaeological site, building, structure, etc. is not considered an historical resource, effects would not be considered significant. This methodology (i.e., lack of identification of historic properties) also would not satisfy the requirements of Section 106. – APE does not consider indirect effects (visual, auditory, etc.). – Potential for listing not evaluated. – The APE was not explained with sufficient detail to understand where evaluation was conducted and why the APE was depicted as being smaller than the surveyed areas. Maps in Appendix A are not entirely clear,	10/30/15	2/12/16	Incomplete	As indicated by the Applicants, new information regarding correspondence (including that with regard to the APE) will be provided at a later date.

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			Deficiency #3				
			although APE is depicted on it. – Field methodology is not specific and pertains only to archaeological remains; nothing done to evaluate potential historic structures. – Methodology is missing information on collection/evaluation of artifacts, how sites were delineated, how recording accomplished, etc. – A map with mileposts showing the boundaries of all survey areas was not provided. – Results of the literature search were provided as tables within Appendix B. Table B2; while indicating the location of all sites, the table does not indicate eligibility or importance of the site locations. – Table B3 indicates if outside the survey corridor, but does not indicate location in reference to the APE. To address these deficiencies: – Explain why a survey for architectural/built/aboveground resources was not conducted concurrent with the archaeological survey. – Provide information for the NRHP-eligibility of each resource (e.g., NRHP-listed, including NR number and date listed; previously determined NRHP-eligible; previously evaluated and determined not NRHP-eligible; further evaluation or information necessary to determine NRHP-eligibility; unknown; etc.). Without this information for NRHP-eligibility, it will not be possible to suggest management options for these resources under Section 106, NEPA or CEQA. Similarly information for CRHR-eligibility and any local or civic designations (i.e., City of Escondido or City of San Diego) should also be provided. - Confirm that NPS's databases for NRHP-listed historic properties and National Historic Landmarks have been consulted for the project. Include the relevant information for NRHP-listed historic properties and/or properties designated National Historic Landmarks, such as NR numbers and dates listed and/or designated NHLs for management and treatment purposes under Section 106, NEPA and CEQA. For example, the second paragraph of Section 2.5.4 of the CR report suggested that the Luiseno Ancestral Origin Landscape TCP is an NRHP-listed property. A search of National Park Service's (NPS) database confirmed that it was listed in the NRHP on October 30, 2014 (NR # 14000851). Therefore, while this is a Native American resource, it is also a historic property that will need to be addressed for management and treatment purposes under Section 106, NEPA and CEQA. - Provide revised maps that indicate the APE, the survey area, MPs, areas of prior disturbance, etc. - Recognizing that the Applicants are not a federal agency, provide documentation (correspondence, meeting minutes, etc.) that the APE was defined in consultation with the CA SHPO, such that the definition of the APE would be consistent with 36 CFR 800.4(a) (1). **Deficiency Request #2:** This comment has not been fully addressed – per the Applicants, some information is missing, as full surveys will not be completed until a preferred alternative is selected, and government-to-				

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			Deficiency #3				
			government consultation has begun. In order to be complete, the following still will need to be provided: – Description of the agreed upon APE (both for evaluating direct and indirect effects) by the SHPO, tribes, and other consulting parties. If agreed to, this will need to show the 1-parcel boundary and the radius, as well as all other areas identified for blasting at minimum. The APE was also inconsistent between information provided to respond to the deficiency request – one document indicated 70 feet and the other 75 feet for the indirect APE radius. Please reconcile difference. – Description of field methodology, including both archaeological and historic structures (see below regarding the historic structures report). – Description of methodology for archaeological field collections and evaluation of artifacts. – References to location of resources within the APE (not just within the survey corridor) for Tables B2 and B3. This will also apply to Table B1 (although this was not provided as a revision). NRHP eligibility information was provided as part of the updated Appendix B. However, this appendix will still need to show which resources are located within the APE (direct/indirect) and not just the survey corridor. The survey corridor still is not adequately explained. Table B2 should be double-checked to confirm correct information was included. Some discrepancies were noted in the explanation of resources. (i.e., in final report – P-37-014275 was noted as military property, in revision of Table B2 – noted as trash scatter). Need to know more details about the sites and not just what artifacts were found, such as size of site, potential for listing, condition/state of site, etc. Please make clear that National Historic Landmarks (NHLs) were also evaluated. Make sure to note locations of traditional cultural properties (TCPs) on maps (already marked confidential). May also consider providing any NRHP forms or other documentation for previously identified TCPs. On tables – please include header for each page. The attachment provided as the historic structures survey report needs additional information to document the survey, including photographs, background research, research methodology, clear definitions for the contents of Table 1, findings, recommendations, etc.	12/30/15			

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			Deficiency #3				
			Maps will need to be revised as new information is acquired by SHPO, tribes, and other consulting parties. New maps will need to be provided to the tribes as part of the consultation packages to show the APE, as well. As indicated by Applicant, new information regarding correspondence will be provided in subsequent versions. As an updated cultural resource report was not provided, no comments can be made as to the recommendations for site eligibility or management options. This will need to be included in subsequent submittals to CPUC. **Deficiency #3:** Per the Applicants, recommendations for eligibility to the NRHP and the CRHR will be made once all surveys are complete. The lead federal agency will conduct government-to-government consultation. Applicants provided field methodologies and updates for both archaeological and historic structures. CPUC is assuming that standard guidelines were followed. Some clarification is needed: **Archaeology** –for the pedestrian survey, provide examples of where the contours were used instead of 15m intervals. Were artifacts collected, photographed, or otherwise documented in the field? **Architectural history** –need additional information on field methodology. For example, only an overview photograph was taken. Were views to and from project area taken? Were coordinates recorded? Details on the size and eligibility of the sites have been added to the report. If the condition of the site is known, please add this information, as well. In Table B2, verify that the eligibility status refers both to the state register and to the NRHP. **Artifacts** – Need the description of methodology for archaeological field collections and evaluation of artifacts (to be provided to CPUC at a later date). **Indirect survey report** – please refer to indirect APE and not indirect impact APE. Table 2 should list only the parcels with the buildings. If no buildings are extant on the other parcels simply state that X number were evaluated based on X research that showed the potential for a structure. Indicate that field reconnaissance confirmed that no structure was present. Please clarify if any of these structures are recommended as potentially eligible or that the evaluation will be provided at a later date.	4/29/16			
1.4.5-2	APE	Section 4.5	**Deficiency Request #1:** The APE was not correctly defined. As stated on page 29 of the Draft CR report, "The Proposed Project's APE was delineated to ensure the identification of significant cultural resources and historic properties that may be directly or indirectly affected by the Proposed Project and that are listed in or eligible for	10/30/15	2/12/16	Incomplete	

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
			Deficiency #3				
			inclusion in the NRHP, the CRHR, or any local ordinances." However, as stated later on page 29 of the Draft CR report, the APE is defined as "areas that could be affected by the maximum extent of the Proposed Project-related ground disturbance, including all construction, all staging areas, and any temporary construction easements." This appears to suggest that the APE has been defined as the areas within which physical impacts and effects as a result of construction are expected, but does not appear to address areas outside the construction footprint, within which visual or auditory impacts and effects as a result of construction or operation may occur; and does not appear to address areas within which indirect and cumulative impacts and effects may occur.[1, 2] **Deficiency Request #2:** The Applicants will need to make clear what the direct and indirect APEs are. Typically, when this terminology is used, the direct APE is the survey corridor. Additional information will be needed as the consultation continues and is formalized. The APE must be clearly defined as part of the Section 106 proceedings. If a separate survey corridor is used, this must be clearly defined and documented both within the text and within the maps. **Deficiency Request #3:** Changes have been made to the APE; however, the APE should only include those areas where direct or indirect effects are anticipated or have the potential to occur. The area of direct impacts generally is smaller than that associated with the indirect. If it was agreed by SHPO that indirect impacts could occur within 150 feet of the areas where ground disturbance will occur, this should be the outer limit of the APE (and form the indirect APE). The 75-feet and the one-parcel boundary would not then be needed, unless the one parcel exceeded the 150 feet. The text and maps will need to be adjusted to more accurately show the APE. For any changes made as a result of consultation, the maps will need to be updated accordingly and provided to CPUC.	12/30/15 4/29/16			

[1] 36 CFR 800.2(c) is the regulatory citation that identifies the parties that have consultative roles in the Section 106 process. This is not relevant to the APE. 36 CFR 800.16(d) is the correct regulatory citation that defines "area of potential effects:" "*Area of potential effects* means the geographic area or areas within which an undertaking may directly or indirectly cause alterations in the character or use of historic properties, if any such properties exist. The area of potential effects is influenced by the scale and nature of an undertaking and may be different for different kinds of effects caused by the undertaking.

[2] While "cumulative effects" are not well defined in the regulations for implementing Section 106, 800.5(a)(1) states that "Adverse effects may include reasonably foreseeable effects caused by the undertaking that may occur later in time, be farther removed in distance or be cumulative." Additionally, the ACHP's 2013 handbook for integrating NEPA and NHPA compliance requirements indicates that the CEQ regulation definition of cumulative impact is "analogous and instructive."

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
			Deficiency #3				
1.4.5-3	Surveys	Section 4.5 and Attachment 4.5-A	**Deficiency Request #1:** This comment recognizes that the Proposed Project consists of a buried pipeline primarily located within or immediately adjacent to existing linear corridors, and that aboveground appurtenant facilities are relatively small and generally in locations with similar existing facilities. However, for the purposes of management and treatment of cultural resources and historic properties under Section 106, NEPA and CEQA there is no explanation for how the appropriate level of effort to identify and evaluate cultural resources and historic properties was determined and why additional investigations, such as an architectural survey or a traditional cultural property survey, were not conducted or needed. To address this deficiency: - Provide documentation (correspondence, meeting minutes, etc.) for consultation with the CA SHPO and federally recognized Indian tribes, regarding the type of surveys needed for the Proposed Project, and as appropriate under CEQA, local governments that maintain their own registers of locally significant historic resources. - Clarify whether the CA SHPO was consulted regarding the need for a survey or inventory to identify architectural/built/aboveground resources that may be affected by the Proposed Project, such that identification and evaluation efforts would be consistent with 36 CFR 800.4(b) and (c). - Clarify whether federally recognized Indian tribes, including but not limited to the Pechanga Band of the Luiseño Indians, were consulted regarding the need for a survey or inventory to identify additional TCPs that may be affected by the Proposed Project, such that identification and evaluation efforts would be consistent with 36 CFR 800.4(b) and (c) - Whether such consultation did/did not occur, explain why surveys to identify historic architectural/built/aboveground resources and TCPs that may be visually or auditorily affected by construction or operation of the Proposed Project were not conducted. **Deficiency Request #2:** As noted in the Applicant's response, additional information will be included as the consultation formally begins. This information will need to be provided to support survey work and findings. Documentation (when received) may consist of formal letters, records for phone calls, emails, etc.	10/30/15 12/30/15	2/12/16	Incomplete but will be submitted to CPUC.	As noted in the Applicant's response, additional information will be included as the consultation formally begins. Provide CPUC with documentation (when received) which may consist of formal letters, records of phone calls, emails, etc. In addition, SHPO/tribal consultation will be conducted by the CPUC and DOD.
1.4.5-4	Correspondence	Attachment 4.5-A	**Deficiency Request #1:** Letters and documentation of Native American consultation were provided as Appendix C. Please provide the following: - Do not see "areas of concern" from Pechanga on Pages 1-7 (see page 45 of Report/Attachment of 4.5) or any meeting notes. - Emails noted in report, but letters are provided – are some forms missing? (e.g., Pala Band of Missouri Indian, Viejas Band of Kumeyaay, and Pauma Band of Luiseno). - No documentation of phone calls with Pechanga Band of Luiseno Indians.	10/30/15	2/12/16	Incomplete	

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
			Deficiency #3				
			Deficiency Request #2: Per Applicants, notes were added for the Pechanga. However, as the report itself was not provided as an update, cannot confirm if the discrepancy of what was written and what was provided in the appendix has been revised. As noted by Applicants, additional information will be provided when formal consultations are started. **Deficiency Request #3:** Per Applicants, notes were added for the Pechanga. Verify the date of the meeting (text indicates the meeting was held on June 24, 2015 and the table in Appendix C indicates June 23, 2015). Additionally, it is still not clear which 7 pages of maps contain the areas of concern. The text reference indicates it is on Pages 1-7 of the proposed route maps in Appendix C, but these areas were not located.	12/30/15 4/29/16			

1.4.5-5	Distribution Systems Modifications – Cultural and Tribal Resources	Chapter 3 – Environmental Impact Assessment Supplement; Section 3.5	Full Cultural Resources Letter Report was not provided; letter report (dated March 10, 2016) for record search was provided.
			- Will need to include description of planned field methodology, correspondence with agencies/tribes, discussion of previously identified resources, findings, etc.
			- Will need to include graphics/maps to account for the APE (and the Project area), resources, etc.
			  o maps within the provided letter report are difficult to understand; the APE is only depicted with regard to the indirect APE
			  o additional description will be needed to account for the indirect APE – as it is stated, it seems that the indirect APE is only around known above-ground features, but it is not clear what these are referring to (historic, non-historic, components of the project, etc.).
			- Current section (3.5) does not account for a historic structures survey or indirect impacts.
				3/21/16		Incomplete. No further request at this time.	A Cultural Resources Letter Report has been prepared. APM-CUL-06 commits the Applicants to conducting cultural resources surveys and associated consultation for the Line 1600 derating.

1.4.6	**Geology, Soils, and Seismicity Regulatory Setting**						
1.4.7	**Greenhouse Gas Emissions**						
1.4.7-2	Greenhouse Gas Emissions	p. 4.7-8, 4.7-9 Attachment 4.3-A	**Deficiency Request #1:** Tables 4.7-3 and 4.7-4 include GHG emissions estimates for Cold Tie-In and Blowdown operations, respectively. The calculation methods and assumptions for these emissions are not included in Attachment 4.3-A. Provide the methodology, assumptions, and calculations made to estimate GHG emissions from Cold Tie-In construction and blowdown operations. **Deficiency Request #2:** Provide reference for Table 1: Natural Gas Compound Constants, provided in Exhibit T:	10/30/15	2/12/16	Complete	

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
			Deficiency #3				
			GHG Emissions from Natural Gas Releases. Following the methodology explained in Exhibit T: GHG Emissions from Natural Gas Releases, CO2 emissions from pre-lay activities result is ten times lower than the reported value in Table 2 of Exhibit T. Clarify this discrepancy.	12/30/15			
1.4.7-3	Greenhouse Gas Emissions	p. 4.7-6, 4.7-9	**Deficiency Request #1:** Provide source for the following statement included in page 4.7-6 of the PEA: "SDG&E's overall methane emissions rate, the key component of natural gas, was approximately 0.04 percent of the total delivered through the system in 2013." Clarify if these operational emissions are included in Table 4.7-4. Justify assumptions made for operational GHG emissions. **Deficiency Request #2:** Provide reference of the report used for "the mileage data and metering/regulatory station count data that were previously reported to the California Air Resources Board (CARB) for the 2013 reporting year."	10/30/15 12/30/15	2/12/16	Complete	
1.4.7-7	Greenhouse Gas Emissions	PEA Supplement, p. 3.7-1	Footnote 1 on page 3.7-1 of the PEA Supplement explains the calculation assumptions made to estimate GHG emissions for construction of the proposed Distribution System Modifications included in Tables 3.7-1 and Table 3.7-2. Although the methods are conservative and valid, a detailed appendix is required for final verification. Provide the calculation appendix used for estimating construction and operations GHG emissions associated with the project with Distribution System Modifications provided in Tables 3.7-1 and Table 3.7-2.	4/29/16		NEW	
1.4.7-8	Landslides / Alternatives	Amendment to the Application, p. 21	In V, B, 5 - Subpart G of the Amendment to the Application, the Applicants describe two potential landslide areas that may require reroutes or other mitigation. Provide the locations of the landslide areas and describe typical mitigation methods that a geologic investigation may recommend. Also, provide routes around the landslide areas if the investigation were to reveal that the pipeline could not be placed in these areas.	4/29/16		NEW	
1.4.8	**Hazards and Hazardous Materials**						
1.4.8-1	Hazards and Hazardous Materials	4.8-30 4.8a	**Deficiency Request #1:** PEA indicates temporary storage sites will be utilized for hazardous materials. Please provide a list of the substances, quantities of each, and largest container size that will be present and the locations of those storage sites. This information is needed to assess the potential impacts of transportation, use, and disposal as well as to evaluate reasonably foreseeable accident and upset conditions. **Deficiency Request #2:** Applicants will prepare and submit a Preliminary Draft Hazardous Materials Business Plan and provide to the CPUC. Applicant to provide volumes and container sizes for hazardous wastes estimated from previous projects. Estimates from the construction contractor will be provided too late in the CEQA/NEPA process.	10/30/15 12/30/15	2/12/16	Complete	Applicants submitted a sufficient response with Exhibit NN: Response to 1.4.8-1, which lists substances, example quantities, and uses of hazardous materials to be used and/or stored on site during construction of the Proposed Project.

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

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			Deficiency #3				
1.4.8-2	Hazards and Hazardous Materials	4.8-31 Table 4.8-3	**Deficiency Request #1:** Please provide the quantities of hazardous materials that will be used in the project area during construction and the maximum container size that will be used to store each substance in the project area. This information is needed to evaluate reasonably foreseeable accident and upset conditions. **Deficiency Request #2:** Applicants will prepare and submit a Preliminary Draft Hazardous Materials Business Plan and provide to the CPUC. Applicant to provide volumes and container sizes for hazardous wastes estimated from previous projects. Estimates from the construction contractor will be provided too late in the CEQA/NEPA process.	10/30/15 12/30/15	2/12/16	Complete	Exhibit NN provided a sufficient response. The applicant stated the maximum container size that will be used to store hazardous substances in the Proposed Project Area is anticipated to be bottled oxygen tanks with 200 cubic feet of capacity.
1.4.16	**Transportation and Traffic**						
1.4.16-1	Traffic and Transportation	p. 4.16-21	**Deficiency Request #1:** Impact discussion does not adequately address impacts from construction traffic. Please provide a traffic analysis that determines level of service (LOS) for roadway segments and intersections that are likely to be impacted by construction workers and construction vehicles traveling to and from laydown sites. This analysis should compare changes in LOS to significance thresholds from County of San Diego Guidelines for Determining Significance and Report and Content Requirements; City of San Diego Traffic Impact Manual; and City of Escondido Traffic Impact Analysis Guideline. (i.e., measurable increases in vehicle delay reductions in road speed, changes in volumes/capacity). Please provide methodology for how traffic impacts were analyzed. For example, how was "Potential Temporary LOS Change…" in Table 4.16-5 determined? **Deficiency Request #2:** The request was for a Level of Service (LOS) analysis of segments and intersections and details showing how the analysis was completed. This is a standard analysis in any traffic study. The traffic analysis prepared by Kimley Horn (9/15/15) contains no LOS analysis for roadway segment or intersections. The only LOS analysis is contained in Table 4.16.5 of the PEA. It is only for segments and it is not clear if it covers all segments where construction will occur. For instance, Section 2.1 of the Kimley Horn traffic study states Champagne Boulevard, Rainbow Glen Road, and Highland Valley Road would have construction along them. They are not analyzed in Table 4.16.5. In addition, Table 4.16.5 does not show the roadway capacity and with and without construction traffic levels of service, standard components of a LOS analysis table. The attached table shows a typical street segment table that is necessary.	10/30/15 12/30/15	2/12/16	Complete	Exhibit OO: Response to 1.4.16-1 provided the requested LOS analysis.
1.4.16-2	Traffic and Transportation	p. 4.16-23	**Deficiency Request #1:** Table 4.16-5 footnote states that peak ADT was calculated assuming all 600 personnel would drive their own personnel vehicles to and from proposed project for an aggregate total of 600 personal vehicle trips. Please clarify if this is 600 round trips (to and from), or if this should be 1,200 personal vehicle trips (one-way). Please provide a trip generation table showing how increase of 254 ADT was calculated. Please provide types of trucks that would be used and clarify if truck trips use a passenger car equivalent factor to account for slower speed and larger	10/30/15	2/12/16	Complete	Applicant clarified the Average Daily Traffic (ADT) increase was calculated assuming 600 round trips. All vehicle trip calculations were assumed to be round trips (i.e. one outbound leg

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			Deficiency #3				
			size? **Deficiency Request #2:** Table 4.16-5 adds 254 ADT of traffic to the road system. The only way this can be accurate is if there are 300 personal vehicle inbound trips for a total of 600 personal vehicle trips (300 in and 300 out) and 52 inbound truck trips for a total of 104 truck trips. Are the 300 inbound and 52 inbound amounts accurate? Footnote 1 of Exhibit W states "600 total personnel", not 300 personnel. If there are 600 personnel, that equals to 1,200 ADT (600 personnel in / 600 personnel out). If 600 is a round trip amount, Footnote 1 of Exhibit W should state 75 personnel per crew, not 150.	12/30/15			and one inbound leg). For example, one construction worker driving from his/her home to the Proposed Project site and then driving home from the Proposed Project site is one trip. The methodology was used to be consistent with the air quality analysis and model, which uses the term "trips" to mean a round trip (in terms of miles). However, for the purposes of the traffic analysis and in response to this request, additional information using one-way trips has been provided. Please see the response to Item 1.4.16-4 below for an updated average volume and LOS analysis for the construction phase of the Proposed Project.
1.4.16-4	Traffic and Transportation	p. 16	**Deficiency Request #1:** Please clarify how lane capacities were estimated (i.e., using standards from Highway Capacity Manual, or municipal traffic manuals?), and if estimated capacity considers likely need for lower speed through construction zones. **Deficiency Request #2:** The applicant's response correctly identified the County of San Diego and San Diego Traffic Engineers Council as the source for capacities. But there is no LOS analysis showing what capacities were used for each roadway. See the attached Table for a typical roadway analysis table, clearly showing the utilized roadway capacity.	10/30/15 12/30/15	2/12/16	Complete	Exhibit OO: Response to 1.4.16-1 provided the requested LOS analysis.
1.4.16-5	Traffic and Transportation	p. 15	**Deficiency Request #1:** Please provide clarification on which roads would have lanes closed or would be closed completely and an additional discussion of vehicle capacity of identified detour routes. **Deficiency Request #2:** It is understood that identification of roads that will have lane closures is not available at this stage of the design. Absent that data, the traffic section of the environmental document will need to assume lane closures on each roadway where the pipeline is being constructed. Please provide updates on roadway lane	10/30/15 12/30/15	2/12/16	Complete	The applicant updated their analysis to assume that one travel lane would be closed for each segment along the pipeline alignment.

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

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			Deficiency #3				
			closures as they become available.				
1.4.18	**Cumulative Analysis**						
1.4.18-1	Cumulative Analysis – Federal Projects	Table 4.18-1: Planned and Proposed Projects within one Mile of the Proposed Project	**Deficiency Request #1:** Please add the potential Marine Corps projects occurring at MCAS Miramar that could pose cumulative impacts. **Deficiency Request #2:** The Applicants spoke with the Asset Management Director at MCAS Miramar and indicated that there is no planned development at MCAS Miramar. The Applicants anticipate that MCAS Miramar will update this information as necessary during the environmental review process.	10/30/15 12/30/15	11/30/15	Incomplete but no further request at this time.	CPUC to work with the Marine Corps or other federal agency to update.
1.4.18-2	Cumulative Analysis – Sycamore - Penasquitos	Note 3 on Table 4.18-1	**Deficiency Request #1:** Note 3 on Table 4.18-1 discusses the CPUC environmentally preferred alternative for the Sycamore –Penasquitos Transmission Line. Provide findings of the analysis currently being undertaken to determine if both projects can be constructed or an appropriate alternative to address cumulative impacts. **Deficiency Request #2:** The Applicants submitted comments to CPUC on 11/16/15 regarding the environmentally preferred alternative for the Sycamore-Penasquitos Transmission Line. The preliminary constructability review suggests that both projects can be accommodated. The Applicants' pipeline and electrical engineers continue to assess the constraints associated with installing two utilities within Pomerardo Road.	10/30/15 12/30/15	11/30/15	May be incomplete depending on alternatives carried forward under NEPA.	If the transmission line is the environmentally preferred alternative going forward, CPUC will prepare a data request for a quantitative assessment of cumulative impacts.
1.4.18-3	Pardee Parcels	p. 1-42	**Deficiency Request #1:** Public comments indicated potential single family home development planned for the Pardee parcels in Bonsall, CA. These residential developments would impact an alternative route. Address these potential cumulative projects as well as Identify other potential cumulative projects in the vicinity of other route alternatives/deviations. **Deficiency Request #2:** Under NEPA, "cumulative effects must be evaluated along with the direct effects and indirect effects (those that occur later in time or farther removed in distance) of each alternative".	10/30/15 12/30/15	2/12/16	May be incomplete depending on alternatives carried forward under NEPA.	CPUC will prepare a data request for a quantitative assessment of cumulative impacts for alternatives carried forward.
1.5	**Significant Impacts and Alternatives**						
1.5-1	Alternatives - Deviations	Ch. 5	**Deficiency Request #1:** Provide a discussion of issues associated with the proposed route along Pomerado Road and the Sycamore Penasquitos Project's Environmentally Superior Alternatives alignment identified by the CPUC. In addition, Verify whether it would be feasible to construct both projects along Pomerado Road.	10/30/15	3/21/16	May be incomplete depending on alternatives	If the transmission line is the environmentally preferred alternative going forward, CPUC will prepare a data request for a quantitative

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			Deficiency #3				
			Deficiency Request #2: If the transmission line is the environmentally preferred alternative going forward, CPUC will prepare a data request for a quantitative assessment of cumulative impacts.	12/30/15		carried forward under NEPA.	assessment of cumulative impacts.
1.5-2	Alternatives Initially Considered But Not Carried Forward	p. 5-6	**Deficiency Request #1:** Provide a map or maps of suitable scale that include all of the alternative alignments and sites initially considered but not carried forward as well as the proposed route. In addition, provide applicable GIS data layers for these routes and sites. **Deficiency Request #2:** The Applicants' response to Item 1.5-2 is not sufficient. For the alternatives that were not developed to a point of identifying specific location, illustrate the general alignment. **Deficiency Request #3**: Provide GIS data for the alternatives analyzed in the PEA, including conceptual centerlines and locations of any associated infrastructure.	10/30/15 12/30/15 4/28/2016	3/21/16	Incomplete	
1.5-3	Offshore Route Alternative	p. 5-6	**Deficiency Request #1:** Provide a discussion of the Offshore Alternative that identifies the following: 1) the beginning and end points; 2) the total length of the alternative; 3) the length of each onshore portion of the alternative - at both the north and south ends; 4) the length of offshore portion of the alternative; and, 5) any sensitive environmental features crossed by the onshore portion of the alternative. Provide a table similar to Table 5-1 that presents the quantitative estimate of impacts on the environmental features crossed by this alternative. **Deficiency Request #2:** The Applicants' response to Item 1.5-3 is not sufficient. The information requested is necessary to support the Applicants' determination to not carry this alternative forward.	10/30/15 12/30/15	3/21/16	Under review	The Applicants' Cost-Effectiveness Analysis includes a conceptualized route map, high-level cost estimate, and compares the offshore alternative to the proposed project and other alternatives. If the ALJ agrees this information supports a finding that this alternative does not meet the project purpose and need and should not be carried forward in the CEQA document, no further environmental information is necessary.
1.5-3.1	Offshore Route Alternative		Provide a GIS shapefile of the route that includes attributes for the mileage for on-shore and off-shore segments of this route.	4/29/16		NEW	
1.5-4	Existing Line 1600 Alignment Alternatives	p. 5-8	**Deficiency Request #1:** Provide a map showing the probable locations of the numerous temporary lateral pipelines necessary to maintain service to the customers served by Line 1600 in the event one of the existing alignment	10/30/15	2/12/16	Incomplete	

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			Deficiency #3				
			alternatives is selected. Provide a table similar to Table 5-1 presenting data on the temporary laterals including the number and length of the laterals and the quantitative estimate of impacts on the environmental features crossed. **Deficiency Request #2:** Responses to Deficiency Request #1 were still under review. **Deficiency Request #3:** While temporary lateral pipelines may be placed within the Applicant's existing ROW, a figure showing the locations of these laterals as well as a table similar to Table 5-1 is still needed to compare environmental impacts across all alternatives. Provide a map and table.	12/30/15 04/29/16			
1.5-5	Existing Line 1600 Alignment Alternatives	p. 5-8	**Deficiency Request #1:** Provide a map of Line 1600 that identifies the locations of constraints along the existing right-of-way. The map should also show where expansion of the existing right-of-way for a new pipeline could address each constraint and where the constraint is severe enough to require a route deviation from the existing right-of-way. Include a table similar to Table 5-1 that presents the quantitative estimate of impacts on the environmental features crossed by the expanded right-of-way and by the route deviations. **Deficiency Request #2:** The Applicants' response to Item 1.5-5 is only partly complete. Provide a table similar to PEA Table 5-1 that presents the quantitative estimate of impacts on the environmental features crossed by the expanded right-of-way and by the route deviations. This information presents a full estimate of the potential impacts of constructing on the existing Line 1600 right-of-way. CPUC will comply with the California disclosure law to not show specific parcels in a public document.	10/30/15 12/30/15	2/12/16	Incomplete	
1.5-6-1	Existing Line 1600 Alignment, Safety, and Integrity Management	p. 5-8, Section 4.8	**Deficiency Request #2** a. Energy Division management requests a discussion about whether sections of Line 1600 would be rerouted after being de-rated to a distribution-line pressure to reduce potential safety concerns or to be in compliance with distribution-line ROW requirements. Identify applicable distribution-line ROW-width and ROW-maintenance requirements in the discussion. b. If the proposed project is not approved and Line 1600 remains in operation at a transmission pressure, discuss sections of Line 1600 that would be rerouted to reduce potential safety concerns or to be in compliance with	12/30/15	3/21/16	Incomplete	

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			Deficiency #3				
			transmission-line ROW requirements. Identify applicable transmission-line ROW-width and ROW-maintenance requirements in the discussion. c. Discuss other applicable safety programs, e.g., Gas Transmission and Distribution Integrity Management programs that would ensure the safe operation of Line 1600 at any approved operating pressure. Discuss the status and implementation schedule for programs that are still in development. **Deficiency Request #3:** The Applicants' Cost-effectiveness Analysis includes a brief description of the complexities of hydrotesting Line 1600; however, the Applicants did not provide the specific information requested in Deficiency Request #2.	4/29/16			
1.5-7	LNG Alternatives	p. 5-13	**Deficiency Request #1:** The PEA includes an LNG alternative that would entail constructing a liquefaction facility in a highly urbanized area. Provide an LNG alternative that considers constructing an LNG facility in a more appropriate location (i.e., rural area) and include the lengths of pipeline necessary to connect the existing pipeline system to the facility. **Deficiency Request #2:** The Applicants' response to Item 1.5-7 is not sufficient. It is necessary to consider the scale of the additional potential impacts associated with building an LNG facility in a rural area. Although the Applicants have not selected a specific location for such a facility, provide the parameters/characteristics of a suitable location and an estimate of the length of pipeline necessary to interconnect with the existing infrastructure.	10/30/15 12/30/15	2/12/16	Complete	The Applicants provided additional data (including a map of a proposed location, approximate distances for pipelines, etc.) for the LNG alternative in a rural area.
1.5-8	LNG Storage (Peak-Shaver) Alternative	p. 5-13	**Deficiency Request #1:** Describe the viability of an LNG alternative that would consist of a LNG peak-shaving facility that would include LNG storage tanks supplied by truck from existing LNG plants. See also Def. Item 1-5.9. **Deficiency Request #2:** The Applicants refer to the regulatory proceeding for the North-South Project where this alternative was considered. They also refer to the response at Item 1.2-1, stating that this is more appropriately addressed in the CPUC's regulatory proceeding. This response was still under review under Deficiency #2.	10/30/15 12/30/15	3/21/16	Under Review	This alternative was not carried forward in the PEA or the supplement. The Cost-effectiveness Analysis provided with the Amended Application includes a brief description of this LNG alternative and concludes, based on high-level cost estimate, that it is considered in the "categories of Alternatives [that] far exceed the net costs of the Proposed Project" at a net cost greater than $2.6b. (p. 3 and 33). As previously stated, Applicants indicate that this is more appropriately addressed in the CPUC's regulatory

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Def #	Resource Area / Topic	Source / PEA Page	Deficiency Item / Data Gap Question	Request Date	Reply Date	Status	Notes
Deficiency #3							
							proceeding. If the ALJ agrees this information supports a finding that this alternative does not meet the project purpose and need and should not be carried forward in the CEQA document, no further environmental information is necessary.
1.5-9	LNG Alternative / Storage Facilities Near Load	p. 5-13	**Deficiency Request #1:** a. Provide a thorough discussion of an alternative that would site aboveground (LNG) natural gas storage at or near one or more major natural gas generation facilities or peaker facilities. Discuss other high-demand facilities/load centers (if any) for which aboveground storage may be appropriate to address sudden changes in gas demand. b. Provide the name and location of all major natural gas generation and peaker facilities in SDG&E's service area on a map of suitable scale (e.g., Pio Pico, Carlsbad, Encina, Otay Mesa, Palomar, Escondido-Pala area, Miramar area, South Bay area, El Cajon area, Kearny Mesa area, others). Also provide the status of these facilities (e.g., operational, scheduled to close in 20XX, total MW, proposed, etc.). Identify the cutoff for the term "major" (e.g., facility groups by area above 90 MW). Include proposed facilities (if publically known) and those under construction. c. Identify all Natural Gas Generators and their capacity in MW that are seen by SDG&E/SoCalGas as high-demand users (or potential high-demand users) that are expected to put the system at risk of curtailment during peak periods. If the facilities are only proposed, already have a firm construction schedule, or already have an online date scheduled, provide this information. d. Identify natural gas generation facilities that could best accommodate aboveground natural gas storage based on available land, their overall location, and other relevant siting criteria. Address the CPUC's assumption that a few large gas containment facilities would be more desirable than many small facilities. **Deficiency Request #2:** The Applicants refer to the regulatory proceeding for the North-South Project where this alternative was considered. They also refer to the response at Item 1.2-1, stating that this is more appropriately addressed in the CPUC's regulatory proceeding. This response was still under review under Deficiency #2.	10/30/15 12/30/15	3/21/16	Under Review	This alternative was not carried forward in the PEA or the supplement. As previously stated, Applicants indicate that this is more appropriately addressed in the CPUC's regulatory proceeding. The Applicants' Cost-Effectiveness Analysis includes high-level cost estimate LNG Peak-Shaver Alternative and compares it to the proposed project and other alternatives. If the ALJ agrees this information supports a finding that this alternative does not meet the project purpose and need and should not be carried forward in the CEQA document, no further environmental information is necessary.

Table 1: Rainbow–San Diego (Line 3602) 36-inch Natural Gas Pipeline Project Application Deficiencies (April 29, 2016)

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Deficiency #3							
1.5-12	Northern Baja Alternative	p. 5-15	**Deficiency Request #1:** The PEA states that the Northern Baja Alternative would not meet the project objectives of system reliability and resiliency or operational flexibility unless SDG&E or its customers were able to enter in to a long-term contract for the necessary capacity with all four pipeline systems (North Baja, Baja Norte, Gasoducto Rosarito, and TGN). Discuss the potential for such a long-term contract with these for pipelines. **Deficiency Request #2:** Response to Deficiency #1 was still under review during Deficiency Request #2.	10/30/15 12/30/15	3/21/16	Incomplete	Long-term contracts are not sufficiently addressed.
1.5-13	Northern Baja Alternative	p. 5-15	**Deficiency Request #1:** Are there any additional permits required to move gas across the international border using the Northern Baja Alternative? **Deficiency Request #2:** Response to Deficiency #1 was still under review during Deficiency Request #2.	10/30/15 12/30/15	3/21/16	Incomplete	Need to identify if a Presidential Permit is required and any additional infrastructure construction would be needed.
1.5-14	Northern Baja Alternative	Ch. 5, p. 5-15	**Deficiency Request #1:** Provide substantial evidence that supports SDG&E's claim that pipeline capacity is not available on the pipelines in Mexico that are operated by Sempra or its subsidiaries to supply sufficient natural gas to the Otay Mesa receipt point and serve as a feasible alternative to the proposed project. If SDG&E and SoCalGas do not have access to the required data, provide a contact at the parent company, Sempra, who could assist with this deficiency item. **Deficiency Request #2:** Response to Deficiency #1 was still under review during Deficiency Request #2. **Deficiency Request #3:** A point of contact at the parent company, Sempra, was not provided.	10/30/15 12/30/15 4/29/16	3/21/16	Incomplete	
1.5-14.1	Northern Baja Alternative	p. 5-15	**Deficiency Request #2:** For the following deficiency item, if SDG&E and SoCalGas do not have access to the required information or expertise due to affiliate rules, provide a contact at the parent company, Sempra/Sempra International, or at Sempra LNG/IEnova LNG or the appropriate Sempra affiliate who can respond. **Deficiency Request #3:** It is the CPUC's understanding that the regulations in Mexico regarding the release of subscribed capacity to the secondary market changed in 2015 per COMISION REGULADORA DE ENERGIA	12/30/15	3/21/16	Incomplete	

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Deficiency #3							
			RESOLUCIÓN Núm. RES/684/2015. The change allows available capacity to be assigned to other users on a temporary basis or on a permanent basis through an open-season process. Please discuss the accuracy of this finding and to what extent this change in regulation would make the Northern Baja Alternative feasible.	4/29/16			
1.5-15	Northern Baja Alternative	Ch. 5, p. 5-15	**Deficiency Request #1:** Provide evidence that supports SDG&E/SoCalGas's claim that "existing capacity on the Gasoducto Rosarito pipeline "appears" to be under contract until at least 2022." **Deficiency Request #2:** Response to Deficiency #1 was still under review during Deficiency Request #2.	10/30/15 12/30/15	3/21/16	Incomplete. No further request at this time.	
1.5-15.1	Northern Baja Alternative	p. 5-15	**Deficiency Request #2:** In the attached Gasoducto Rosarito (GR) pipeline example for 11/29/2015 (11/30/15), how much of the available capacity (268,836 MMbtu per day / Dth per day) was under contract to Sempra Energy LNG Marketing Mexico? If SDG&E and SoCalGas do not have access to the required data due to affiliate rules, provide a contact at the parent company, Sempra, or at Sempra LNG/IEnova LNG or the appropriate Sempra affiliate who could assist with this deficiency item. In addition, identify the specific affiliate rules by number and provide the regulatory document or documents that establish the affiliate rules that prevent SDG&E and SoCalGas access to the data needed to respond. In this response, make note of all exceptions to the affiliate rules that allow for CPUC access to this data given the nature and cost of the Proposed Project and the critical relevance of Sempra's capacity data with respect to the feasibility of the PEA's Northern Baja Alternative.	12/30/15	3/21/16	Incomplete. No further request at this time.	
1.5-15.2	Northern Baja Alternative	p. 5-15	**Deficiency Request #2:** The data available from IEnova's GR pipeline website indicate that Sempra LNG/IEnova LNG acquired an additional 190,000 Decatherms (Dth) in April/May 2014 of capacity on the GR pipeline. The acquisition occurred just two quarters prior to its subsidiaries (SDG&E/SoCalGas) began pre-filing discussions with Energy Division for the Proposed Project. This acquisition brought Sempra's capacity holdings to 400,000 Dth through 2022. As shown in Deficiency Item, 1.5-15.1, as of 11/29/15, 268,836 Dth of capacity remained unused on the GR pipeline. Sempra (IEnova LNG) already owned 540,000 Dth of capacity on the TGN line through 2022 according to data available from IEnova's TGN pipeline website at the time of the April/May 2014 GR pipeline capacity acquisition. On 11/29/15, 462,596 Dth of capacity remained unused on the TGN pipeline. Data retrieved from TransCanada's North Baja Pipeline website on 12/10/15 show that 185,200 Dth of unsubscribed firm capacity is available. Hence, the only limitation to the capacity required for the Northern Baja Alternative to be feasible appears to be on the GR pipeline and that limitation appears to be in place because a	12/30/15	3/21/16	Incomplete	

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			Deficiency #3				
			Sempra affiliate company is holding the required capacity. **Deficiency Request #3:** To what extent and in what way could the additional 190,000 Dth of capacity Sempra acquired in April/May 2014 help ensure supply is available to SDG&E via Otay Mesa should SDG&E/SoCalGas obtain access to this capacity? Provide a discussion that includes the process or processes that SDG&E/SoCalGas could follow to propose to acquire this capacity from an affiliate of their parent company if ordered by the CPUC.	4/29/16			
1.5-15.3	Northern Baja Alternative	p. 5-15	**Deficiency Request #2:** Provide a detailed discussion of changes to valves (e.g., upgrade from manual to automatic valve systems) or other facilities that would be necessary (if any) to allow supply to flow north from the Otay Mesa receipt point north into SDG&E's service area.	12/30/15	3/21/16	Incomplete. No further request at this time.	
1.5-16	No Project Alternative	p. 5-35	**Deficiency Request #1:** Provide an expanded description of the No Project/ No Action Alternative that includes the following: 1) a discussion of the hazards of a hydrostatic pressure test; 2) the potential for a high pressure release of test water and the effects of such a release; 3) a typical plan that pipeline companies implement when hydrostatically testing an existing pipeline near residences (e.g., are temporary evacuations or relocations necessary); and 4) a typical plan that pipeline companies implement when hydrostatically testing an existing pipeline that is in the roadway in an urban area. **Deficiency Request #2:** A Hydrostatic Test Failure Mitigation Plan for Line 1600 will be developed by the Applicants and submitted to the CPUC in the event that the proposed project is not approved.	10/30/15 12/30/15	3/21/16	Complete	
1.5-16.1	No Project Alternative	p. 5-35	**Deficiency Request #2:** Provide further discussion about the extent or range of a potential high-pressure release during hydrostatic testing of (a) water; and (b) pipeline components or other materials. Within what distance would the evacuation of nearby residences and businesses typically be required? What minimum distance must typically be maintained between facilities being tested and personnel conducting the test? **Deficiency Request #3:** Provide further discussion about the extent or range of a potential high-pressure release during hydrostatic testing of (a) water; and (b) pipeline components or other materials. Within what distance would the evacuation of nearby residences and businesses typically be required? What minimum distance must typically be maintained between facilities being tested and personnel conducting the test?	12/30/15 4/29/16	3/21/16	Incomplete	
1.5-18	Alternative Energy Alternatives	p. 5-29	**Deficiency Request #1:** Provide a description of how the predicted energy demand in the project service area could be met by alternative fuels or energy sources.	10/30/15	3/21/16	Under Review	The Applicants' Cost-effectiveness Analysis includes a high-level cost estimate of the Alternative Energy Alternatives and compares them to the

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Deficiency #3							
			Deficiency Request #2: Response to Deficiency #1 was still under review during Deficiency Request #2.	12/30/15			proposed project and other alternatives. If the ALJ agrees this information supports a finding that this alternative does not meet the project purpose and need and should not be carried forward in the CEQA document, no further environmental information is necessary
1.5-21	CEC 2008 Alternatives	Ch. 5	**Deficiency Request #1:** Provide the alignments on maps of suitable scale, brief project descriptions, and brief discussions of the merits of the following two potential alternatives to the proposed project in the attached CEC report on pg. 36: (1) a new 25-mile line (36 inch) identified by SDG&E; and (2) a new line from Moreno Station to Rainbow Station. *"In R.04-01-025, SoCalGas and SDG&E identified that the capacity of the SDG&E system could be expanded by 50 MMcfd year-round by installing 25 miles of 36-inch-diameter pipe between Rainbow Station and Escondido. A preliminary estimate of the cost of this upgrade was $115 million. In addition, it may also be possible to construct an additional pipeline between Moreno Station and Rainbow Station. This option, however, will require additional rights-of-way and would likely be more expensive than a pipeline from Rainbow Station to Escondido."* **Deficiency Request #2:** Response to Deficiency #1 was still under review during Deficiency Request #2.	10/30/15 12/30/15	3/21/16	Incomplete no further request at this time.	These alternatives were not included in the January 22, 2016 order.
1.5-23	Energy Conservation (CEQA Appendix F, Section 15126.4, Section 21100(b)(3)) / Growth Inducement	Ch. 5	**Deficiency Request #1:** Growth Inducement: The potential for a substantial increase in natural gas supply must be discussed with respect to the potential for inducing future growth in residential, industrial, and other sectors. SDG&E staff and the PEA indicate that the need for additional capacity, on its own, is not sufficient justification for the proposed 36-inch diameter pipeline. Indeed, the CEC's final July 2014 gas demand outlooks report does not indicate gas demand will increase on an annual basis in the next 10 years. The demand shown is relatively flat. CEC data since the 1990s indicates that gas demand has dropped considerably through 2013 in SDG&E's service area. See Attachment 3. See also SDG&E's Gas Capacity Planning filings to the CPUC in 2014 and 2015 (attached). Because of the CEC data, which were provided to SDG&E/SoCalGas by the CPUC, the respective project objective was adjusted between the draft and final PEA submittals to indicate that the increase of 200 MMcfd would be a product of a new 36-inch pipeline's installation and that the specific increase of 200 MMcfd is not in itself a project objective. The draft objective was stated as, "Increase the capacity of SDG&E's natural gas transmission system by	10/30/15	3/21/16	Incomplete	

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			Deficiency #3				
			approximately 200 MMcfd. The final objective now reads, "Simultaneously increase the transmission capacity of the Gas System in San Diego County by approximately 200 million cubic feet per day (MMcfd) as a result of the PSEP replacement line being 36 inches in diameter." One justification for such a large, new gas pipeline in terms of increased capacity explained by SDG&E staff is the ability to pack the line and store natural gas. This explanation, however, fails to take into account possible future adjustments to the compression system to make full use of the additional pipeline capacity rather than for simply packing the line. **Deficiency Request #2:** Response to Deficiency #1 was still under review during Deficiency Request #2. **Deficiency Request #3:** The California Public Utilities Code Section 1002.5 states that the Commission (i.e., the CPUC) in its review of a certificate of convenience and necessity for construction of additional pipeline capacity, "...shall consider the state's need to provide sufficient and competitively priced natural gas supplies for both present and anticipated future residential, industrial, commercial, and utility demand." SDG&E and SoCalGas state in the March 21, 2016 Amended Application at pp. 4-6, that the replacement of Line 1600 with Line 3602 is to: enhance safety, improve reliability and resiliency, and to enhance operational flexibility. The Applicants state that Lines 1600 and 3010 provide the capacity to meet customer demand of 630 MMcfd in the winter and 590 MMcfd in the summer. The Applicants have stated that Line 1600 provides 10 percent of the system capacity which would constitute volumes between 59 MMcfd and 63 MMcfd of the SDG&E system capacity. Proposed Line 3602 will, according to the Applicants, raise the system transmission capacity by 200 MMcfd. Presumably, there are adequate and competitively priced gas supplies to support the current level and types of demand. However, the Applicants have not satisfied the requirements of CPUC Section 1002.5 in that they have not provided support for the quantity of gas supplies necessary to meet the anticipated demand to be created by Line 3602. Provide the quantity of gas supplies needed to meet the future residential, industrial, commercial, and utility demand that would be provided by Line 3602, and discuss the nature of the increased demand. That is, will this increased demand be baseload, seasonal, peak day, or peak hour?	12/30/15 4/29/16			
1.5-24.1	Otay Mesa		The Applicants stated that sufficient firm pipeline capacity may not be available on the North Baja System to reliably deliver gas to Otay Mesa. In order to understand how Otay Mesa is different from other pipeline receipt points on the Applicants' Southern System, please identify the firm transportation capacity (MMBtu/day) under	4/29/16		NEW	

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Deficiency #3							
			contract by interstate pipeline and Applicants' receipt point.				
1.5-24.2	Otay Mesa		What is the typical range in pressures and minimum contract pressure for gas delivered to each of the SoCalGas receipt points (including Otay Mesa), by pipeline?	4/29/16		NEW	