Decision **PROPOSED DECISION OF ALJ KERSTEN (Mailed 9/12/2019)**

BEFORE THE PUBLIC UTILITIES COMMISSION OF THE STATE OF CALIFORNIA

In The Matter of the Application of San Diego Gas & Electric Company (U902G) and Southern California Gas Company (U904G) for a Certificate of Public Convenience and Necessity for the Pipeline Safety & Reliability Project.	Application 15-09-013

DECISION APPROVING MODIFICATIONS TO DECISION 18-06-028

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DECISION APPROVING MODIFICATIONS TO DECISION 18-06-018

Summary

The Joint Petition for Modification of Decision (D.) 18-06-028 by Protect Our Communities Foundation, Sierra Club, Southern California Generation Coalition, and The Utility Reform Network (Petitioners) is approved. In this decision, we grant the Petitioners' request that a second phase of this proceeding be opened to consider a cost forecast pertaining to Southern California Gas Company and San Diego Gas & Electric Company's (Applicants') Line 1600 Pipeline Safety Enhancement Plan (PSEP) Design Alternative 1 (Replace in High Consequence Areas and Hydrotest in Non-High Consequence Areas), which the Commission's Safety and Enforcement Division (SED) formally approved on January 15, 2019, and Design Alternative 2 (Full Hydrotest), consistent with the two specific alternatives the Applicants were instructed to evaluate in D.18-06-028; *and* the Applicants' proposed Design Alternative 3 (Full Replacement in Nearby Streets alternative) and Design Alternative 4 (Full Replacement Along Highway 395 alternative), or some variation of these. A more thorough evaluation of these alternatives will help determine the best approach for bringing Line 1600 into compliance with Section 958 of the California Public Utilities Code. Review of the Applicants' Line 1600 PSEP cost forecast through a public process will enable the Commission to provide appropriate guidance regarding the reasonableness of the Applicants' proposed alternatives, cost estimates, cost containment strategies, ratemaking and accounting treatment, and overall assumptions

We disagree with Petitioners that the Applicants' PSEP Plan is out of compliance with Ordering Paragraph (OP) 1 of D.18-06-028. OP 1 specifies that a

potential replacement of specific segments of the 16-inch Line 1600 shall not exceed 16 inches in diameter or increase demand-forecast capacity above the current capacity of 595 million cubic feet per day (D.18-06-028 Finding of Fact 10), without specific and detailed justification. The burden is on the Applicants to provide a specific and detailed justification to the Commission if these requirements are not met in the future.

During the second phase of this proceeding, the following issues are out of scope, as discussed in Section 8: 1) Applicants' compliance with OP 1 of D.18-06-028; and 2) Evaluation of "need" for Line 1600 and "Reliability Criterion" that were either delegated to SED for review and approval and/or previously litigated in the Decision and other prior Commission decisions. In this decision, we determine that the potential future deration of Line 1600 from 512 pounds per square inch gauge (psig) to 320 psig is in scope. Because SED's Line 1600 transmission study is so far non-conclusive and is still evolving, and the Line 1600 Pipeline Audit posted on the Commission's website on December 23, 2019, has not been vetted among parties, we maintain the option to consider Line 1600 pipeline deration as one option to enhance Line 1600 safety objectives while ensuring reliability and adherence to Transmission Integrity Management Standards (TIMP) to minimize time-dependent threats.

In this decision, we determine that the Applicants' PSEP Plan is incomplete and an inadequate platform for full Commission authorization of this project and its costs. Final approval of the Applicants' PSEP Plan by the Commission will not occur until the Commission receives missing cost information and considers all options and alternatives to bring Line 1600 into full compliance with Section 958 of the California Public Utilities Code in the second phase of this proceeding. In this decision, the Applicants are directed to halt any

construction of the Line 1600 non-hydrotest segments until the Commission provides further direction.

In this decision, we also escalate the schedule to hydrotest in Non-HCAs including Sections 2 (Rice Canyon-3.2 miles), Section 3 (Couser Canyon North Hydrotest-2.6 miles), Section 4 (Couser Canyon South Hydrotest-2.6 miles), Section 6 (Moosa Creek Hydrotest-0.9 miles) and Section 7 (Daley Ranch-3.5 miles) currently scheduled for 2023 and 2024. By permitting these replacements and requiring SoCalGas/SDG&E to move forward with pressure testing in non-HCAs segments during 2020, the Commission will provide immediate safety benefits and provide critical cost and safety data in consideration of hydrotesting in other HCA segments.

This proceeding remains open. In this decision, we recommend an expedited second phase of the proceeding assuming that the Applicants' timely comply with the directives in this decision.

1. Petition for Modification

On May 31, 2019, Protect Our Communities (POC), Sierra Club, Southern California Generation Coalition (SCGC) and The Utility Reform Network (TURN) (jointly, Petitioners) filed a joint petition for modification (PFM) of Decision (D.) 18-06-028 (*Decision Denying San Diego Gas and Electric Company (SDG&E) and Southern California Gas Company's (SoCalGas) Proposed Certificate of Public Convenience and Necessity (CPCN) for the Proposed Gas Pipeline 3602, Reclassification of Gas Pipeline 1600 from Transmission Service to Distribution Service, and Redefinition of the Existing CPUC Reliability Criterion*) (Decision) dated June 21, 2018.

Petitioners request that D.18-06-028 be modified as follows:[1]

> 1) To conform OP 7 to provisions in the text of D.18-06-028 about what the Applicants must include in the hydrostatic test or replacement plan that is required by OP 7, 2) to expand Conclusion of Law (COL) 19 and OP 7 to require the Applicants to submit the hydrostatic test or replacement plan in this proceeding with supporting documentation including direct testimony so that there can be a thorough review by the Commission and the public in a transparent process, 3) to revise Finding of Fact (FOF) 72 to accommodate the submission of the hydrostatic test and replacement plan that would be required by the modified OP 7, and 4) to revise OP 19 to keep Application (A.) 15-09-013 open for consideration of the hydrostatic test and replacement plan.

The Petitioners also state that an alternative to modifying OP 7 and the Related COL 19 would be to require Applicants to submit their Plan as a new application.

In essence, the Petitioners state that "the primary purpose of the modification is to establish a process for transparent and effective public review through the hearing process of the hydrostatic test or replacement plan the Commission required in OP 7 of D.18-06-028 and to provide the public with an opportunity to review more effective alternatives."[2] Petitioners claim that "the Applicants have ignored the Commission's requirement in OP 1 of the Decision that the SDG&E transmission pipelines that extend south from the Rainbow Metering Station have a combined capacity that is no more than the current 595 million cubic feet per day (MMcfd)."[3] Further, Petitioners believe that the Applicants ignored the Commission's intent that in the long-term Line 1600

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[1] PFM at 3-4. *See* Appendix A "Petitioners' Proposed Modifications."

[2] PFM at 30.

[3] *Ibid.* at 30.

should be derated to a Maximum Allowable Operating Pressure (MAOP) of 320 pounds per square inch gauge (psig). Derating the line to 320 psig would decrease the possibility of rupture so that the pipeline could remain in service indefinitely.[4]

2. Procedural History

In their September 30, 2015 A.15-09-013, the Applicants requested a CPCN to construct approximately 47 miles of a 36-inch diameter transmission pipeline, Line 3602, in San Diego County at a loaded[5] and escalated cost of $528.5 million.[6] Among other things, the Applicants stated that construction of the new line would enable them to derate the existing line from transmission service at 512 psig to distribution service at 320 psig, which would remove Line 1600 from the scope of the Applicants' PSEP.[7]

On August 18, 2016, the Commission approved *Resolution No. SED-1* that lowered the MAOP of Line 1600 from 640 psig to 512 psig.

On June 21, 2018, the Commission denied: 1) the CPCN for the proposed "Pipeline Safety and Reliability Project" (also known as Line 3602 Pipeline) at a projected loaded and escalated cost of $528.5 million; 2) the reclassification of Gas Pipeline 1600 from transmission service to distribution service and associated reduction of pipeline operating pressure from 512 psig to 320 psig at a projected loaded and escalated cost of $29.5 million;[8] and 3) redefinition of the

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[4] *Ibid*. at 30.

[5] "Loaded costs" include direct and overhead costs.

[6] A.15-09-016 at 6; Exh.SDGE-9 at 5. According to the Proponent's Environmental Assessment (PEA) Supplement, March 2016, Table 2-5 at 2-22, construction cost was defined at $639 million. *See* D.18-06-028 at 3.

[7] A.15-09-013 at 4.

[8] A.15-09-013, Exh. SDGE-8-R at 24 (Table 8).

Commission's existing Reliability Criterion consistent with D.06-09-039. The second outcome was denied "without prejudice" because it was considered premature to endorse new definitions of transmission or distribution service, without the benefit of further review.

In this same decision, the Commission directed the Applicants to submit to the Safety and Enforcement Division (SED), a California Public Utilities (Pub. Util.) Code Section (§) 958[9] hydrostatic test or replace plan pertaining to the existing 49.7 mile Line 1600 corridor; a study of California pipeline operators' definitions of transmission and distribution pipelines to determine whether there is a need for the Commission to provide further definitions than those provided under 49 Code of Federal Regulations, Part 92, §192.3;[10] and a requirement for an independent audit of Line 1600 records to ensure that they are "complete and verifiable."

The Commission directed that hydrostatic test or replace plan discuss two options:

1. Hydrotest the entire 49.7 miles of line and replace those segments that fail the test; and
2. Replace all pipeline segments in High Consequence Areas (HCAs)[11] along Line 1600, thus ensuring a new pipeline without vintage pipeline characteristics that are perceived to increase the risk of Line 1600. Hydrotest in solely

[9] Unless otherwise noted, all code section references are to the Pub. Util. Code.

[10] Transportation of Natural and Other Gas By Pipeline: Minimum Federal Safety Standards.

[11] HCA's are defined in 49 CFR 192.903. Generally, an HCA is defined to include Class 3 and 4 locations, as well as any area in a Class 1 or 2 location where the potential impact radius is greater than 660 feet and the area within the potential impact radium include 20 or more buildings intended for human occupancy or a site identified as occupied by 20 or more persons on at least 50 days in any 12 month period.

> non-HCA segments would ensure less impact if there was a failure during testing.[12]

The purpose of the mandates was to ensure that the Applicants submitted a Line 1600 hydrostatic test or replace plan as directed by D.11-06-017, and as required by other federal and state regulations; to explore whether different definitions of transmission and distribution pipelines could result in placing Line 1600 (currently classified as a transmission line) into distribution service at a reduced pressure, thereby avoiding the need to pressure test or replace;[13] and to determine the status of Line 1600 pipeline records, which in turn, informs a number of Line 1600 safety initiatives,[14] and impacts whether the utilities can recover through rates costs associated with future hydrotesting or, alternatively, whether these costs should be borne by shareholders.[15]

Applicants previously stated that if they pressure tested Line 1600 to meet "pressure test or replace requirements, of § 958, instead of constructing Line 3602 and derating Line 1600, the direct cost of pressure testing would be $112.9 million."[16] As the Petitioners point out in their PFM, although the pressure testing cost was not loaded and escalated, it appeared that pressure testing Line 1600 would cost much less, at approximately $112.9 million, than the

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[12] D.18-06-028 at 92.

[13] If Line 1600 becomes an official distribution line according to Pipeline and Hazardous Materials Safety Administration (PHMSA) standards, the line would not be subject to the scope of PSEP or § 958. (D.18-06-028 COL 8 at 124.)

[14] D.14-06-007 COLs 7, 13, 14, and 15 at 56-7 and D.15-02-020 OP 1 at 24. Also *see* D.18-06-023 at 97-102.

[15] D.14-06-007 COL 13 at 56-57.

[16] Exh. SDGE-8-R at 24 (Table 8).

combined cost of constructing Line 3602 and derating Line 1600 to distribution service at a total cost of $558 million.[17]

On September 26, 2018, pursuant to the Decision, Applicants timely submitted the proposed hydrostatic test or replacement plan (Plan) pertaining to the existing 49.7 miles of Line 1600 to SED. Applicants evaluated four potential design alternatives for the pressure test or replacement of 49.7 miles of Line 1600 in its present corridor: 1) replacing 37 miles of Line 1600 pipeline in HCAs and hydrotesting 13 miles of Line 1600 pipeline in non-HCAs (Replace in HCA/Test in Non-HCA alternative) at $677 million;[18] 2) hydrostatic strength testing (hydrotest or test) the entire length of Line 1600 (Full Hydrotest alternative) at $325 million; 3) full replacement of Line 1600, routing in nearby streets in the north (Full Replacement in Nearby Streets alternative) at $778 million; and 4) full replacement of Line 1600, routing along Highway 395 in the north (Full Replacement Along Highway 395 alternative) at $725 million.[19]

Applicants evaluated the design alternatives consistent with the requirements detailed in the Decision, Applicants' PSEP Decision Tree, and the overarching objectives of PSEP to: 1) comply with the Commission's directives (subsequently codified in § 958); enhance public safety; 3) minimize customer impacts; and 4) maximize the cost effectiveness of safety investments.[20] As required by the Decision, Applicants coordinated with SED in developing and

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[17] PFM at 4. These numbers are conservative because they assume that all pressure tests would be successful, and no segments of pipe would need to be replaced.

[18] *See* PFM Attachment 3 for a copy of the Applicants' "Line 1600 Test or Replacement Plan" dated September 26, 2018. Costs are loaded and escalated.

[19] SoCalGas and SDG&E Line 1600 Test or Replacement Plan (PSEP Plan) at 1.

[20] *Ibid*. at 3.

evaluating this Plan and alternative designs.[21] Of the total estimated $677 million cost, Applicants anticipate recording approximately $630 million as capital expenditure and approximately $47 million as an operating expense.[22]

According to the Applicants, work will commence during the first quarter of 2020 with an initial focus on HCAs. Construction and testing is anticipated to span approximately four years. They also state that "[i]n addition, the PSEP Plan is comprised of 19 groupings of 19 independent project sections that can be completed independently to efficiently address safety, operational, community, environmental, constructability, and cost considerations associated with each distinct portion of Line 1600. The scope of work consists of 14 replacement sections and five hydrotests."[23] In non-HCAs, hydrotesting is not expected to be completed until 2023 and 2024.[24]

In addition to providing detailed information as required by the Decision,[25] Applicants prepared preliminary cost estimates for each of the design alternatives considered in the preparation of the Plan, in accordance with the Commission's directive in the Decision to "include the best available expense and capital cost projections for each prioritized segment and test year."[26] Applicants state that because the scope of work is preliminary, and detailed engineering and project planning will not be completed until after the Plan is

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[21] *Ibid*. at 3.

[22] *Ibid*. at 3.

[23] SoCalGas and SDG&E Line 1600 Test or Replacement Plan (PSEP Plan) at at 22.

[24] *Ibid.* at 18-19.

[25] *Ibid*. at 5 quoting D.18-06-028 at 90-92.

[26] *Ibid.* at 60 quoting D.18-06-028 at 91.

submitted, the available information only enables development of a Class 4 level estimate.[27]

On January 15, 2019, the Deputy Director of SED sent a letter to the Senior Vice President of SoCalGas Gas Operations and System Integrity approving Design Alternative 1 as described above.[28] In the SED letter approving the design alternative, "SED requests that it be apprised of any changes to the proposed plan, along with the Management of Change record."[29] Also, among other things, "SED directs that SoCalGas and SDG&E submit to SED all the required PSEP construction notifications, scope of work, engineering design data, welding and fabrication information no less than 60 days prior to construction, for SED's safety assurance review and inspections."[30] The January 15, 2019 SED letter was served on the A.15-09-013 service list.

On January 15, 2019, upon receipt of SED's approval of the Plan, the Applicants immediately moved forward to begin detailed engineering design and specifications, development, construction planning and preliminary permitting work.

On March 4, 2019, POC submitted a Public Records Act request for the Applicants' September 26, 2018 hydrostatic test or replacement plan. POC received the Applicants' Line 1600 Test or Replacement plan on March 4, 2019

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[27] *Ibid.* at 61, 63-64. The definition of "Class 4 level estimates" are generally prepared based on limited information and subsequently have fairly wide accuracy ranges. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval. Typical accuracy ranges for Class 4 estimates are -15% to -30% on the low side, and +20% to +50% on the high side..."

[28] SED PSEP Plan Acceptance Letter at 2. (For a copy of the SED acceptance letter, *see* PFM Attachment 2.)

[29] *Ibid.* at 2.

[30] *Ibid.* at 2.

which confirmed the loaded and escalated costs for the four design alternatives referred to above.

On May 31, 2019 Petitioners filed a PFM of D.18-06-028.

On July 1, 2019, Applicants provided a response to the Petitioners' PFM.

3. Background

3.1 Mandate to Perform PSEP Work as Soon as Practicable

Following the San Bruno gas transmission pipeline gas explosion incident the Commission opened Rulemaking (R.) 11-02-019 which conducted a "forward-looking effort to establish a new model of natural gas pipeline safety regulation applicable to all California pipelines."[31] In D.11-06-017, the Commission determined that "natural gas transmission pipelines in service in California must be brought into compliance with model standards for safety," and ordered all California natural gas transmission operators "to prepare and file a comprehensive Implementation Plan to replace or pressure test all natural gas transmission pipeline in California that has not been tested or for which reliable records are not available."[32] The Commission required the submitted plans to provide for testing and replacing all such pipelines "as soon as practicable."[33] It also required the utilities to "address retrofitting pipelines to allow for in-line inspection tools and, where appropriate, automated or remote controlled shut off valves."[34] In addition, the Commission directed utilities to address all natural gas transmission pipeline including low priority segments, while "obtaining the greatest amount of safety value, *i.e.*, reducing safety risk, for ratepayer

[31] R.11-02-019 at 1.

[32] R.11-02-019 at 18.

[33] D.11-06-017 at 19.

[34] D.11-06-017 at 21.

expenditures."[35] Many of the requirements of D.11-06-017 have been codified in §§ 957 and 958 of California's Public Utilities Code.

In approving the Applicants' PSEP, and in D.14-06-007 and D.15-12-020, the Commission determined that certain costs associated with PSEP should not be recovered in rates including the cost of pressure testing pipelines installed after 1955 that do not have a record of a pressure test to then-applicable standards, executive incentive compensation, and costs associated with searching for pipeline testing records.[36] Also, as D.15-12-020 (OP 1 at 24) prescribed,

> ...where such [post 1955] pipeline segment is replaced rather than pressure tested, the utility must absorb an amount equal to the average cost of pressure testing a similar segment or where such pipeline segment is abandoned, the utility must absorb the undepreciated plan in service balance.

3.2 Applicants' Pipeline Safety Enhancement Plan (PSEP or "Implementation Plan") and Subsequent Decisions

On August 26, 2011, as amended on December 2, 2011, in compliance with the Commission's mandate, the Applicants filed their PSEP. Among other things, the PSEP included a prioritization schedule for the Commission-ordered work and a proposed Decision Tree to guide whether individual segments should be pressure tested, replaced, de-rated, or abandoned. To prioritize PSEP work, the Applicants divided projects into PSEP Phase 1 and Phase 2. The scope of Phase 1A "is to pressure test or replace transmission pipelines in Class 3 or 4 locations and Class 1 and 2 locations in high consequence areas that do not have sufficient documentation of a pressure test to at least 1.25 MAOP." Phase 1B focuses on the "replacement of non-piggable pipelines that were installed prior

[35] D.11-06-017 at 22.

[36] D.14-06-007 at 39, 56-57 (COL 13 through 16).

to 1946." PSEP Phase 2 is also sub-divided into Phase 2A and Phase 2B. According to the Applicants, Phase 2A consists of pressure testing or replacement of about 760 miles of pipeline in Class 1 and 2 locations in non-high consequence areas that do not have sufficient documentation of a pressure test to at least 1.25 times the MAOP.

In D.14-06-007, the Commission approved the Applicants' proposed PSEP, concepts embodied in the Decision Tree, and scope of work.[37] The Applicants removed from Phase 1 their proposal to construct a new 36-inch line, Line 3602 and were instructed to address this either in a new application for the project or in the Phase 2 application. The new application became A.15-09-013.[38] On June 21, 2018, the Commission denied the Applicants' request for a new 36-inch line that would replace the existing 16-inch Line 1600, so Applicants were instructed to initiate PSEP for the existing Line 1600.

3.3 Current Processes to Support SoCalGas/SDG&E PSEPs

Currently, any costs associated with PSEP work are proposed and managed through PSEP and rate case proceedings according to already existing CPUC institutionalized processes. D.16-08-003 (*Interim Decision Authorizing Memorandum Accounts and Interim Rate Increase Subject to Refund)* states that Applicants are "authorized to include in their 2019 General Rate Case (GRC) application all Pipeline Safety Enhancement Plan costs not the subject of prior applications … Future GRC applications could include Pipeline Safety Enhancement Plan costs until implementation of the Plan is complete."[39]

[37] D.14-06-007 at 59 (OP 1).

[38] D.14-06-007 at 17.

[39] D.16-08-003 OP 5 at 16.

Further, "[w]ith the 2019 GRC, all Pipeline Safety Enhancement Plan projects will be incorporated into the General Rate Case schedule and will not be subject to special applications."[40] D.18-06-028 FOF 72 supports this process stating "the unknowns of test and/or replace plans such as actual costs and right of way (ROW) issues, should be addressed in the existing Commission PSEP and companion GRC processes."

Since PSEP was implemented, the Applicants have filed three reasonableness review applications including A.14-12-016, A.16-09-005, and A.18-11-010.[41] According to Applicants, they consider A.18-11-010 "the last standalone application for after-the fact reasonableness review of costs incurred to execute PSEP"[42] consistent with the Commission's order to transition PSEP into Applicants' GRCs. As Applicants point out, in addition to after-the-fact reasonableness review applications, a "forecast" application is another type of application used to support PSEP processes. An example of a forecast application is A.17-03-021[43] which addressed Phase 2 project costs forecast to be incurred in 2017 and 2018.

Pursuant to D.16-08-003, Applicants are currently tracking the associated Line 1600 costs in the Safety Enhancement Capital Cost Balancing account (SECCBA) and the Safety Expense Balancing account (SEEBA). Project execution

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[40] D. 16-08-003 at 11.

[41] *See* A.18-11-010 "Reply of Southern California Gas Company and San Diego Gas & Electric Company to Protests," dated December 27, 2018 at 5.

[42] *See* A.18-11-010 at 6.

[43] *See* D.19-03-025 "Decision Granting the Application of Southern California Gas Company and San Diego Gas & Electric Company for Approval of Forecasted Revenue Requirements Associated with Certain Pipeline Safety Enhancement Plan Projects and Associated Rate Recovery; and Authority to Modify and/or Create Certain Balancing Accounts" issued April 5, 2019.

is expected to be staggered due to the large length/scope of work associated with 19 segments. Applicants are authorized 50% interim cost recovery of the costs booked to the balancing accounts, subject to refund, pending reasonableness review. According to the Applicants' Plan, "SDG&E and SoCalGas intend to present costs incurred for [PSEP] projects completed prior to 2022 for reasonableness review in a General Rate Case (GRC) application and to include forecasts of testing and replacement cost for years 2022 and beyond in GRC applications, consistent with D.16-08-003."[44]

3.4 Regulatory Context

Review of Line 1600 hydrostatic test and replacement costs is not a re-litigation of what was adopted in D.18-06-028. From a policy perspective, the proposed 36-inch Line 3602, which the Commission denied in D.18-06-028, was separate from PSEP remediation of an existing Line 1600 pipeline. While Line 1600 compliance with federal and state mandates was listed in the original scoping memo as an issue to address in this proceeding,[45] evaluation of competing Line 1600 test and replace options, whether through pressure testing, replacing in whole or in part, derating, or abandoning,[46] was not. The two hydrotest and replace options presented in D.18-06-018 first appeared in the proposed decision mailed on May 2, 2018. Because consideration of these alternatives was delegated to SED, parties did not have an opportunity to litigate these two options or the two additional design alternatives the Applicants proposed in their PSEP Plan.

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[44] *See* SoCalGas and SDG&E Line 1600 Test or Replacement Plan (Plan) at 5.

[45] Scoping Memo at 17.

[46] D.18-06-028 at 107.

When the Commission issued D.18-06-028, it was not aware of the fully loaded costs of each of the two options, or some potential combination thereof. In D.18-06-028, the Commission observed that hydrotesting would be much less costly than building the replacement Line 3602 because "hydrotesting a transmission line at a cost of $112.9 million is 1/6 the cost of proposed Line 3602 installation at a cost of $623 million."[47] The estimated cost of the current Line 1600 PSEP Plan ($677 million) is more than double the loaded and escalated hydrotest option ($325 million).

Similarly, because Options 1 and 2 were not addressed in the prior proceeding, there has not been an opportunity to "test" the balance of "capital" versus "operations and maintenance" (O & M) costs. This balancing is important because large capital investments are amortized over a long period of time and have an impact on future ratepayers, especially in an era of declining gas demand (*See* Section 7.3), while O & M costs are expensed and have a short-term impact on current ratepayers. As the Sierra Club, SCGC, and TURN point out, the "Applicants' preliminary cost forecast for D.18-06-028 Option 2 capital cost is $630 million, 13 times the D.18-06-028 Option 2 O & M expense of $47 million."[48]

According to Petitioners, they did not file an application for rehearing of the D.18-06-028 requirement for the Utilities to submit a "plan" because the "plan" was defined as being a hydrostatic pressure testing plan consistent with Commission precedent and direction provided in D.14-06-007.[49]

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[47] D.18-06-028 at 81.

[48] Sierra Club/SCGC/TURN Reply Comments on Proposed Decision at 8 quoting PFM at 68.

[49] Sierra Club/SCGC/TURN Reply Comments on Alternate Proposed Decision at 1-2.

4. Jurisdiction and Standard of Review

Pursuant to § 451 "every public utility shall furnish and maintain such adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities,… as are necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the public," and all rates and charges collected by a public utility must be "just and reasonable." Per § 454, a public utility may not change any rate "except upon a showing before the commission and a finding by the commission that the new rate is justified."

To enforce the above requirements, the Commission requires public utilities to demonstrate with admissible evidence that the costs they seek to include in their revenue requirements are reasonable and prudent. Accordingly, Applicants bear the burden of affirmatively establishing the reasonableness of all aspects of their requests herein.[50] That is, Applicants must demonstrate that the forecast costs and associated revenue requirements proposed for executing the 19 segment projects on Line 1600 are just and reasonable, in light of the Commission's requirements that Applicants furnish and maintain adequate, efficient, just, and reasonable service, instrumentalities, equipment, and facilities as "necessary to promote the safety, health, comfort, and convenience of its patrons, employees, and the California public."

As this is a ratesetting proceeding, the applicable standard of proof in this proceeding is that of a preponderance of evidence. Preponderance of the evidence is typically defined "in terms of probability of truth, *e.g.*, such evidence as, when weighed with that opposed to it, has more convincing force and the

[50] *See* D.14-06-007 at 12, 55 (COL 3).

greater probability of truth."[51]

Applicants have the burden of affirmatively establishing the reasonableness of all aspects of their requests, and Applicants must meet the burden of proving that they are entitled to the relief sought. In order to meet their burden of proof, Applicants must present stronger evidence in support of the requested results than the evidence that would support an alternative outcome. In order to succeed in their requested relief, Applicants need to show that their proposal, and/or revenue requirements are just and reasonable, and that the requested relief is supported by admissible evidence that outweighs other evidence in this record that would have supported an alternative outcome.

We observe that here, in order for Applicants to meet their burden of proof, Applicants do not have to show that the other parties' position is unreasonable, untenable or impossible to accept as persuasive, but simply that Applicants' evidence is more convincing.[52] That is, the Applicants' evidence must be more convincing than other evidence that would support an alternative outcome.

This standard of review is consistent with that adopted in D.19-03-025, which is the most recent Commission decision approving a PSEP forecast application (A.17-03-021).

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[51] *See Witkin*, Calif. Evidence, 4th Edition, Vol. 1, 184; also, *see* also D.12-12-030, at 44 (*Decision Mandating Pipeline Safety Implementation Plan, Disallowing Costs, Allocating Risk of Inefficient Construction Management to Shareholders, and Requiring Ongoing Improvement in Safety Engineering)*; and D.14-07-007 at 13.

[52] "The claim must be proved not only by evidence but also by the greater weight of the evidence. This is known as the **preponderance of the evidence**. **Preponderance of the evidence** does not **mean** the greater number of witnesses but the greater weight and the convincing character of the evidence that is introduced. * * * .' [*Southern Pacific Co. v. Raish*, 205 F.2d 389, 394, 1953 U.S. App. LEXIS 2590, *10.]

5. Authority and Roles

As stated in the Decision, SED is authorized to oversee the Applicants' compliance with § 958 and PSEP consistent with directives in prior decisions and OP 15 of the Decision.[53] Specifically, the Decision requires:

The Director of the SED, or designee, is delegated the following authority to:

a) Review all activities of any kind related to the hydrotesting of Line 1600;
b) Inspect, inquire, review, examine and participate in all activities related to Line 1600;
c) Order SoCalGas/SDG&E to take any actions necessary to protect public safety.[54]

Within this authority, when evaluating a PSEP project, SED typically applies engineering principles and typically asks the following questions including but not limited to: whether the pipeline is a transmission line; does the pipeline have traceable, verifiable, and correct records; is the pipeline in compliance with § 958; does the proposed PSEP project enhance pipeline structural integrity; does it yield the best possible safety margin; does the pipeline provide service and reliability; and is it in compliance with regulatory requirements and best practices standards (apply a Quality Assurance/Quality Control Plan).

The Commission has discretion to determine whether existing processes established by prior PSEP decisions should be enhanced to promote due process,

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[53] *See* D.18-06-028 FOF 46 and 47 at 120. "SED is the designated agent that interprets and enforces PHMSA regulations as they apply to California Intrastate Gas Operators (49 USC Section 60105)."

[54] D.18-06-028 OP 15 at 130.

transparency, and ensure timely protection of ratepayer interests. While it is true that the unknowns of test and/or replace plans such as actual costs and ROW (right of way) issues should be addressed in the existing Commission PSEP and companion GRC processes,[55] the Commission can direct otherwise.[56] In D.14-06-007, the Commission emphasized that there shall be "procedural opportunities" for "a review of any action" issued by SED as may be feasible under the specific circumstances whenever SED exercises its delegated authority.[57]

6. Positions of Parties

6.1 Petitioners

Petitioners provide a limited series of impactful modifications to one FOF, one COL, and one OP of the Decision and a brief rationale to support.[58]

6.1.1 Revise Ordering Paragraph 7 to Insert the Requirements for PSEP Compliance Documentation that the Commission Found to Be Necessary in Response to Comments

Petitioners refer to a directive in the Decision that was in the *dicta* of the Decision[59] but was omitted in OP 7:

> Applicants shall provide a detailed rationale that explains which segments of Line 1600 it proposes to hydrotest, and which segments it proposes to replace. Applicants shall also

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[55] D.18-06-028 at 107.

[56] Cal. Const. art. 12, Pub. Util. Code § 701.

[57] *See* D.14-06-007 at 30: "The Commission's Executive Director, and the Chief Administrative Law Judge, together shall ensure that SDG&E and SoCalGas, and all other parties to the proceeding, shall have timely procedural opportunities for a review of any action or stop work orders issued by Safety Div. as may be feasible under the specific circumstances whenever Safety exercises its delegated authority." *See* also COL 11 at 56.

[58] PFM at 31-36. For the sake of brevity, actual proposed language related to FOF 72, COL 19, and OP 7 is covered in Section 9.

[59] D.18-06-028 at 111, 129.

> provide a detailed summary of existing commercial and residential structures that directly abut the edge of easement (and any possible encroachments that lie within the easement) on Line 1600, including GPS coordinates. Based on this analysis, Applicants shall also identify proposed rerouting of the line in specific segments and/or removal or moving of specific physical structures, known at the time, due to safety compliance reasons.

6.1.2 Modify Ordering Paragraph 7 and the Related Conclusion of Law to Require that Applicants File their Hydrostatic Test or Replacement Plan in this Proceeding for Public Review by Parties and the Commission.

In short, Petitioners provide several reasons why the Plan that the Applicants submitted to SED, and which SED approved, should be exposed to public review:[60]

> First, the Applicants' proposal to increase the MAOP of Line 1600 to 800 psig under three of their alternatives and to 640 psig under the "Full Hydrotest" alternative would result in increasing the overall capacity of Line 1600 and Line 3010 operating together above the current capacity of 595 MMcfd in violation of Ordering Paragraph 1 of D.18-06-028. Second, the Applicants make it clear that none of their four alternatives for Line 1600 would lead to derating Line 1600 "as soon as practical while maintaining reliability" as intended by the Commission.[61]...Third, all of the four alternatives presented by the Applicants are vastly more expensive than envisioned by the Commission in D.18-06-028.

To support the proposed modifications to D.18-06-028, the Petitioners explain that "an opportunity for public review through the hearing process is also necessary in the interest of containing the cost of the short-term plan for Line 1600 to assure that costs that the Applicants will seek to recover from

[60] PFM at 31-31.

[61] PFM at 32 quoting D.18-06-028 at 111.

ratepayers are kept within reasonable limits."[62] "Requiring the Applicants to file their proposal in this proceeding with supporting documentation including testimony and forecasted costs will permit interested parties, the Public Advocates Office, and the Commission an opportunity to conduct discovery, to examine the workpapers underlining the projections in the Line 1600 Test or Replacement Plan, to submit testimony that provides recommendations for the Commission's consideration, and to test witnesses through the hearing process."[63]

6.1.3 An Alternative to Modifying Ordering Paragraph 7 and the Related Conclusion of Law 19 Would Be to Require the Applicants to Submit Their Plan as a New Application.

Petitioners explain the pros and cons of initiating a second phase of the proceeding versus requiring the Applicants to submit their plan as a new application. According to the Applicants, the alternative approach would have the benefit of starting anew rather than relying on a four-year old A.15-09-013. They contend that "if the Applicants were to submit their Plan in a new application, the Commission could lose the potential benefits that could flow from reopening A.15-09-013."[64] For example, they assert that a copious record was developed in A.15-09-013 that could be more easily accessed in a second phase of the proceeding in order to support a decision. They also observe that having an assigned ALJ who is familiar with the existing proceeding and record may accelerate the ability to reach a proposed decision than if a new ALJ were assigned to a new proceeding.

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[62] PFM at 30.

[63] PFM at 33.

[64] PFM at 35.

6.1.4 Modify Finding of Fact 72 to Be Consistent with the Modification to Ordering Paragraph 7.

Petitioners believe that FOF 72 should be modified to be consistent with the modification of OP 7 requiring the Applicants to submit their hydrostatic Test or Replacement Plan after review by SED. Currently, FOF 72 reads as follows:

> 72. The unknowns of test and/or replace plans such as actual costs and ROW issues, should be addressed in the existing Commission PSEP and companion GRC processes.[65]

Petitioners assert that FOF 72 should be replaced with:

> SDG&E and SoCalGas should submit a Line 1600 hydrostatic test or replacement plan to the Safety and Enforcement Division within three months from the date of the issuance of this decision and, upon Safety and Enforcement Division review, should submit the hydrostatic test or replacement plan to the Commission with supporting documentation including direct testimony and forecasted costs for consideration by the Commission in this proceeding.[66]

6.1.5 Revise Ordering Paragraph 19 to Keep this Proceeding Open so that the Commission Can Receive the Hydrostatic Testing and Replacement Plan the Applicants Submit to the Commission in Accordance with Ordering Paragraph 7, as Modified.

OP 19 of the Decision closed the proceeding. Petitioners believe that this language should be revised so that the proceeding remains open in accordance with a modified OP 7.

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[65] PFM at 35 quoting D.18-06-028 at 122.

[66] PFM at 35-36.

For a brief summary of Petitioners' comments on the Commissions intent to potentially derate Line 1600 to 312 psig in the future, see Section 8.2 "Future Deration of Line 1600."

6.2 SoCalGas/SDG&E (Applicants)

In response to the PFM, the Applicants state that it should be denied in its entirety primarily based on legal/procedural grounds. They claim, "[n]ot only does the PFM not meet the Commission's procedural requirements to modify a decision under Pub. Util. Code §1708 and Rule 16.4, it is inconsistent with the Commission's overarching safety objectives, against the public interest and wasteful of the Commission's and parties' resources."[67] They further point out that "the Petitioners did not submit any declaration supporting a claim of 'new or changed facts,' ...other than SED's approval of the Utilities' Plan to implement the Decision Option 2—an outcome expressly contemplated by the Commission's inclusion of Option 2 in the Decision."[68]

The Applicants also state that the Petitioners "never explain how the Commission's inclusion of Option 2 and closing the proceeding constituted an error of fact or law."[69] If Petitioners had such claims, they should have initiated an Application for Rehearing, which they did not do. They believe that "Petitioners are simply seeking to re-litigate the Commission's previous decision."[70] Applicants state that if the Petitioners believe that the Utilities' Plan violates the Decision, despite SED approval of the Utilities' Plan, then the Petitioners should have filed a complaint pursuant to Rule 4.1(a)(1), and not a

[67] Applicants' Response at 4.

[68] Applicants' Response at 4.

[69] Applicants' Response to PFM at 4.

[70] Applicants' Response to PFM at 5.

PFM that would seek to stop planned work, challenge SED's recommendations, and recommend other alternatives.[71]

In response to the Petitioners' proposals that deal with the need for more public review, Applicants argue that it is not necessary to initiate a new application process or reopen the proceeding because the Decision directed that "[t]he unknowns of test and/or replace plans such as actual costs and ROW issues, should be addressed in the existing Commission PSEP and companion GRC processes."[72] They emphasize that "[a]s previously expressed, however, the Utilities' Plan implements an option expressly laid out in the Decision (Option 2), and SED, acting pursuant to its delegated authority, approved the Plan."[73]

In response to the Petitioners' proposal that OP 7 should be revised to insert the requirements for PSEP compliance documentation, Applicants claim that "Petitioners misread the Decision, however, because the requirement to provide such information was already included in D.18-06-028 at 92."[74] They point out that the Utilities' Plan has been publicly available on the Utilities website since January 2019 and attached to the Petitioner's PFM.

In response to the Petitioners' question about the Applicants' compliance with D.18-06-082 OP 1, Applicants opine that "Petitioners allege, without foundation or evidentiary support that the Utilities' Plan 'would raise the Maximum Allowable Operating Pressure of Line 1600 from 512 psig to 800 psig,"

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[71] Applicants' Response to PFM at 6

[72] PFM at 5 quoting D.18-06-024 at 122 (FOF 72).

[73] Applicants' Response to PFM at 6.

[74] PFM at 7.

and increase system capacity above 595 MMcfd."[75] Applicants challenge the Petitioners claim when they assert that "[t[he Utilities' Plan does not determine the MAOP for Line 1600, which currently is limited to 512 psig by Resolution No. SED-1.[76] Unless and until the Commission orders a different MAOP, Line 1600's MAOP will remain at 512 psig."[77] The Applicants point out that increased pressures above 512 psig are required to perform hydrostatic tests of existing and new pipe and also to provide flexibility should the Commission choose to raise MAOP in the future to ensure reliability of service.

Finally, in response to the Petitioners' question about the Applicants' lack of regard for the long-term intention to derate Line 1600, the Applicants assert that "claims regarding the intent of the Decision" are not supported by a plain reading."[78] The Applicants further explain that "the Decision does not mandate further derating of Line 1600."[79] They opine that their plan responds to a hybrid replace/hydrotest Option 2 that the Commission expressly laid out in the D.18-06-028.

7. Discussion

In this section we address the legal, procedural, policy, and technical issues the Applicants and the Petitioners raise in their respective comments.

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[75] PFM at 6-7 quoting PFM at 6.

[76] *See* SED Resolution SED-1 issued August 18, 2016. Reducing the operating pressure on Line 1600 to 512 psig, represents a 20% reduction from design-based maximum allowable operating pressure (MAOP).

[77] Applicants' Response to PFM at 7.

[78] Applicants' Response to PFM at 6.

[79] Applicants' Response to PFM at 6.

7.1 Ordering Paragraph 7 Revision to Insert Requirements for PSEP Compliance Documentation

In this decision, we acknowledge that the subject paragraph, to insert requirements for PSEP Compliance Documentation, as referred to in Petitioners' comments, was contained in the text of the decision but not OPs. Even though it was omitted from OPs, it is enforceable based on § 2107.[80] Because the Applicants already complied with this requirement, this issue is moot and is no longer an issue to address.

7.2 Reopen Existing Proceeding or Initiate New Proceeding and Associated Timing

As stated in the Decision, there were several valid reasons why Phase Two did not occur in this proceeding. Most importantly, in the initial and "final" phase of the proceeding, the Commission determined that the "all-new" proposed 200 MMcfd 36-inch Line 3602 was not needed to meet any short-term supply deficit, so it was not necessary to reach conclusions on Phase Two issues.[81]

Since the Commission denied the CPCN for Line 3602, the Commission considered it appropriate to narrow the focus to ensure the safety of Line 1600, in compliance with § 958 and other mandates, while ensuring delivery of adequate gas supply to SDG&E customers. With the narrower focus on Line 1600 in mind, in the Commission's view, the proposed Line 3602 was a separate project from PSEP remediation of an existing pipeline, regardless of whether remediation is through pressure testing, replacing in whole or in part, derating, or abandoning.

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[80] *See* § 2107 that states "any part or provision of any order, decision, decree, rule, direction or requirement of the commission, is enforceable."

[81] D.18-0-6-028 at 13.

Finally, the Decision authorized SED to oversee the Applicants' compliance with § 958 and PSEP consistent with directives in prior decisions including OP 3 in D.14-06-007 and OP 15 in D.18-06-028. Any costs associated with PSEP work would be proposed and managed through PSEP and rate case proceedings according to already existing CPUC institutionalized processes. Typically, future PSEP projects will be addressed in the GRC. (*See* Section 1.3 for a more thorough discussion of existing PSEP processes.)

The Decision did not preclude an application process in the future if the Applicants or the Commission wanted to initiate it.[82] However, the Decision made it clear that relitigating various options could take years of further evidentiary hearings and deliberations since the PSEP process was mandated eight years ago. The Decision stated, "it is imperative that planning for this critical safety work begin immediately. In weighing the tradeoffs between the purported benefits of different procedural venues and relative importance of issue areas, the commitment to the Commission's overarching 'safety' objectives should be prioritized."[83]

In this decision, we acknowledge that safety work should commence "as soon as practicable," keeping in mind that "hydrotesting" generally takes considerably less time than actual "replacement" of a gas pipeline. When D.18-06-028 was issued, "18 months" was the known "continuous" construction scenario for hydrotesting gas pipeline. Now this same scenario for hydrotesting

[82] D.18-06-028 at 126.

[83] *See* D.16-08-018, COL 36: "Prioritizing the reduction of safety risks should be geared toward safety risk, and should not include shareholder financial risks."

has significantly increased to 60 months.[84] The current construction timeline for the Applicants preferred Design Alternative 1 (D.18-06-028 Option 2) is four years.

At the same time, we agree with the Petitioners that the admonition to Applicants to pressure test or replace "as soon as practicable" should not be used as justification to preclude evaluation of the hydrotest and other replacement options. Applicants have been responsible for delays in whole or in part, through: 1) the filing of the proposed Line 3602 Project/Line 1600 deration ($558 million) that the Commission disapproved in 2018; and 2) consistent lack of adherence to Commission directives in providing information necessary to aid CPUC decision making. These activities have diverted SoCalGas/SDG&E and CPUC resources and contributed to delays associated with the Applicants' Line 1600 compliance with § 958. For example, on June 22, 2016, the assigned Commissioner and ALJ issued a ruling deeming the A.15-09-0213 Application deficient under the law and Commission rules and requiring an amended application and seeking protests, responses and replies. On June 17, 2016, the Public Advocates Office (then the Office of Ratepayer Advocates or ORA) filed a motion to dismiss the application for similar reasons.[85] Lack of the Applicants' compliance with Rule 3.1 of the Commission's Rules of Practice and Procedure and Sections 1001 and 1003(d) of the Pub. Util. Code resulted in several months

[84] POC Opening Comments on PD at 11 quoting Exh.SDGE-8-R (Kohls Direct Testimony), Attachment B-Line 1600 Hydrotest Study and Cost Estimate (March 21, 2016) at 3.

[85] On July 1, 2016, SCGC, TURN, and UCAN filed a response supporting ORA's motion.

delay to the proceeding before a PHC could be scheduled and a Scoping Memo could be issued.[86]

With the above context, we find it is appropriate to open a second phase of the proceeding for the reasons described below:

When SED approved the Plan, they considered safety, technical, and reliability factors but did not consider costs. This represents a gap that must be addressed through some existing and/or new procedural venue. While these costs can be managed through already existing institutionalized GRC processes as explained in Section 3.3, the high financial exposure warrants additional Commission scrutiny and review in a separate phase of this proceeding. Costs of the planned hydrotest and replacement of the 16-inch Line 1600 at a proposed fully loaded and escalated $677 million (30% higher than the cost of the all-new proposed 36-inch Line 3602) have not yet been litigated; therefore, it is appropriate to consider a separate process consistent with forecast applications for similar type of work (*e.g.*, A.17-03-021) and recent PSEP reasonableness review applications (*e.g.*, A.14-12-016, A.16-09-005, A.18-11-010).

Further, the SED Distribution Study and Audit of Pipeline Records that were directed by D.18-06-028 in June 2018 could provide needed information to support the direction in the second phase of this proceeding. Even though studies are ongoing, it is appropriate to retain Line 1600 in transmission service subject to PSEP and § 958 hydrotest and/or replace regulations. The Audit of Pipeline Records will both inform a safe Line 1600 MAOP and enable the

[86] *See* D.18-06-028 COL 73 at 122: "Line 1600 pipeline data has not been readily available to intervenors conducting discovery throughout the proceeding and data provided by the Applicants was either incomplete, inaccurate, unverifiable, or untimely."

Commission to better assess who will bear the costs of pipeline replacement/hydrotesting consistent with D.14-06-007 and D.15-02-020.

We do not consider it prudent to conduct our review through a new proceeding since it would likely take a longer period of time to resolve. Although the Line 3602 and Line 1600 PSEP Plans are discrete and separate projects, it makes sense to consider the latter in a second phase of this proceeding so that the extensive definitions of terms and copious record can be accessed as necessary in order to provide a big picture context and make appropriate judgments pertaining to the more limited cost aspects of the Line 1600 PSEP Plan.

7.3 Consistency with D.18-06-028 and the Decision Tree

As Sierra Club/SCGC/TURN point out, after denying the CPCN for Line 3602, the Commission did address the status of Line 1600 in light of § 958. On a conceptual level, the Commission opined on how to treat Line 1600 in both the short-term and long-term based on reliability, feasibility and cost concerns.[87] "From a reliability standpoint, if Line 1600 is maintained at 512 psig, then there would be no short-term capacity issue due to the approximately 25 MMcfd capacity reduction on Line 1600 that would occur if the MAOP were reduced."[88] Likewise, "[f]rom a feasibility standpoint, if Line 1600 remains a transmission line with a MAOP of 512 psig, Applicants have confirmed that hydrotesting is feasible."[89] D.18-06-028 emphasized that hydrotesting is less costly than pipeline replacement alternatives.

[87] D.18-06-028 at 78-82.

[88] D.18-06-028 at 80.

[89] D.18-06-028 at 80.

After two weeks of hearings with extensive expert testimony, the Commission concluded: "It is reasonable to assume that Line 1600's recent reductions in pressure from 800 psig, to 640 psig, to 512 psig, provide adequate safety margins in the short-term."[90] Further, "[i]f the line's MAOP is reduced to 320 psig, we agree with experts that the line could operate indefinitely with the required maintenance"[91] Assuming a current 2019-2020 current demand forecast at 589 MMcfd and projected 2023-2024 demand forecast at 563 MMcfd, a potential reduction in Line 1600 operating pressure in 2023-2024, when SDG&E's peak gas demand is expected to decrease by 26 MMcfd, could meet the current capacity shortfall referred to above.[92] Under one potential scenario, by the time the Line 1600-related construction approved by SED is completed in 2024 or beyond, Line 3010 could ensure reliability on its own and Line 1600 could then be derated to 320 psig as originally proposed by SoCalGas/SDG&E without building a new pipeline at all.[93] The Applicants' forecasted natural gas demand number, although declining, may be optimistically high given that they do not fully quantify the impact of California's decarbonization laws (*e.g.*, SB 32, SB 350 and timing of compliance) or greater reliance on renewable generation (*e.g.*, SB 100).[94] Further, if there is a shortfall or deration is necessary for safety

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[90] D.18-06-028 at 121. Reducing the Line 1600 MAOP from 800 psig to 512 psig is the de facto equivalent of a pressure test. An MAOP of 800 psig is more than 1.5 times the current MAOP of 512 psig.

[91] D.18-06-028 at 85.

[92] *See* Exh. SDGE-12 at 84 and 159.

[93] *See* D.18-06-028 COL at 124: "Before making a final determination regarding if and when the Commission should lower the pressure of Line 1600 to 320 psig, replacing the projected 25 MMcfd capacity reduction should be explored via an RFO..."

[94] Sierra Club Joint Opening Comments on the Alternate Proposed Decision and Revised Proposed Decision at 4-5 quoting D.18-06-028 FOF 40 at 119.

reasons, the Applicants have the capability to pursue additional supplies through Otay Mesa or Request for Offer tools.[95]

Even more importantly, "with the known material properties for Line 1600, operating pressure of 320 psig results in hoop stress less than 20% of SMYS (Specified Minimum Yield Strength) and it is generally accepted that pipelines operating at a sufficiently low hoop stress, below 20% of SMYS, are unlikely to fail in a rupture mode and can only fail in a leak mode."[96] "As Applicants point out, their Witnesses "Mr. Sera, Mr. Rosenfeld, and Mr. Sawaya all agreed that reducing pressure on Line 1600 significantly reduces risk."[97]

Under the SoCalGas PSEP Decision Tree that the Commission approved in D.14-06-007, if a Phase 1 pipeline could be hydrotested with manageable customer impacts, the pipeline would be hydrotested. Phase 1 pipelines would be replaced only if the pipeline could not be hydrotested with manageable customer impacts.[98] The issue regarding what constitutes "manageable customer impacts" has not been fully resolved in this or other proceeding.

7.4 Consideration of Hydrotesting Alternatives

Both D.14-06-007, the decision to implement SoCalGas/SDG&E's PSEP Plan and approval process, and D.18-06-028 delegate authority to SED to implement PSEP plans. We appreciate the expertise and knowledge SED provided in its

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[95] *See* D.18-06-028 FOF 30 at 118 and COL 7 at 124.

[96] D.18-06-028 at 79. *See* D.18-06-028 FOF 9 at 116: "At 512 psig, the capacity of Line 1600 is approximately 65 MMcfd, or approximately 11% of the 595 MMcfd of system capacity with Line 3010 in service. At 320 psig, the capacity of Line 1600 would be approximately 40 MMcfd or approximately 7% of the 570 MMcfd of system capacity with Line 3010 in service.

[97] D.18-06-028 at 79 referring to SDG&E/SoCalGas Opening Brief at 88.

[98] *See* D.14-06-007 Attachment 1 or

http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M096/K599/96599589.pdf

review of the Applicants' Design Alternative 1 and D.18-06-028 Option 2. However, upon further review, given the current estimated costs of the proposed project (as compared to cost forecasts in D.18-06-028), incomplete cost data provided by the Applicants in the submission of its PSEP Plan as required by D.18-06-028 (*See* Section 9.4), and resulting inability of the Commission and its staff to complete a detailed analysis of the proposed PSEP Plan, we believe that all options, including less costly alternatives to a more than half-billion dollar pipeline replacement project, must be more fully evaluated, in a public process. This is especially true if material facts are either unknown or in dispute, which is the current case. No one can dispute that replacement of gas pipe rather than hydrotesting may be the lowest risk solution to address safety concerns, but it must be considered *in tandem with* other factors, including cost, feasibility, decreasing gas demands, reliability/service, impact to customers, etc. in both the short- and long-term.

We agree with POC, SCGC, Sierra Club and TURN that hydrotesting should begin in 2020 without further delay rather than 2023 and 2024 as originally planned. The Applicants should begin remediation of Line 1600 to the five segments that will be pressure tested under either Design Alternative 1 (Replace in HCAs/Hydrotest in Non-HCAs) or Design Alternative 2 (Full Hydrotest) to avoid prejudicing the choice between either of these alternatives in the second phase of this proceeding. The five segments represent 12.8 miles or approximately 26% of the total 19 projects.[99] Developing a record of hydrotest costs for Line 1600 in Non-HCAs will help inform potential hydrotest options in other HCAs.

[99] PSEP Plan at 18-19.

We are also sympathetic to POC's desire to review per mile hydrotesting "benchmark" pressure test or replace status and costs associated with six A.O Smith pipelines in the Applicants' transmission system.[100] According to POC, "[i]f Applicants have been certifying EFW pipelines as safe and fit-for-service based on a pressure test—with no plans to replace other sections of these EFW in HCAs-there is no safety or technical reason for replacing those sections of Line 1600 with new pipe."[101] There is no credible reason why the Applicants should withhold this information as hydrotesting is scheduled to occur in at least five of the 19 Line 1600 pipeline segments.

In response to parties' suggestions to escalate hydrotesting that would apply to either Design Alternative 1 or 2, Applicants complain that "Utilities would need to develop detailed designs, perform any necessary environmental reviews, develop detailed construction and testing plans, secure adequate workspace along the narrow right of way, purchase necessary materials and secure necessary permits." [102] We acknowledge that an expedited hydrotesting schedule may be challenging to Applicants, but note that this planning should have commenced as soon as the Applicants observed that hydrotesting could occur on Line 1600 with manageable customer impacts.

As POC and SCGC point out, "the actual costs for work completed on any segments that might be hydrotested before a decision in this proceeding can be recorded, as appropriate in the Applicants' Safety Enhancement Balancing Expense Balancing Account and Safety Enhancement Capital Cost Balancing

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[100] POC Reply Comments on Alternate Proposed Decision at 2.

[101] POC Opening Comments on Alternate Proposed Decision at 9.

[102] SoCalGas/SDG&E Reply Comments on Alternate Proposed Decision and Revised Proposed Decision at 5.

Account and submitted for recovery in the Applicants' Test Year 2022 General Rate Case in accordance with the requirements of D.14-06-007."[103]

There is no safety, cost, or construction timeline justification for excluding the Full Hydrotest alternative from Phase 2.

7.5 Forecast Application and/or Reasonableness Review

We believe that forecast applications (or their equivalent as directed in the second phase of this proceeding) are the preferred means to review large projects, such as the cost aspects of the approved Line 1600 PSEP. Based on preliminary "Class 4" cost figures provided in the PSEP Plan, the Line 1600 PSEP Project is one of the largest single PSEP project ever proposed; therefore it makes sense to further review its proposed costs. Solely relying on "after the fact" reasonableness reviews places accountability on the Applicants for controlling costs for a half-billion dollar project too far into the future (*e.g.*, 2022 and 2025 GRCs). Litigation of the cost forecast for the SED-approved Design Alternative 1 (D.18-06-028 Option 2), and Design Alternatives 2 (D.18-06-028 Option 1), 3, and 4 in a second phase of the instant proceeding will make the related GRC review and evaluation processes more productive and efficient. In addition, consistent with D.14-06-007, "it is only fair that ratepayers should have the benefit of detailed plans for the Commission to consider before authorizing or preapproving the expenditure of many hundreds of millions of dollars."[104]

We therefore modify the following FOF, COLs and OPs of D.18-06-028. (For the sake of reference, the Petitioners' proposed modifications to FOF, COLs,

[103] POC/SCGC Opening Comments on Revised Proposed Decision at iv.

[104] D.14-06-007 at 23.

and OPs are introduced first. Please note operative words pertaining to "retain," "strike," "replace with," "add.")

FOF 72:

Strike (Petitioners):

The unknowns of test and/or replace plans such as actual costs and ROW issues, should be addressed in the existing Commission PSEP and companion GRC processes.

Replace with (Petitioners):

SDG&E and SoCalGas should submit a Line 1600 hydrostatic test or replacement plan to the Safety and Enforcement Division within three months from the date of the issuance of this decision and, upon Safety and Enforcement Division review, should submit the hydrostatic test or replacement plan to the Commission with supporting documentation including direct testimony and forecasted costs for consideration by the Commission in this proceeding.

In this decision, we retain a version of this FOF as follows:

Based on an assessment of existing Commission processes to support SoCalGas/SDG&E PSEPs, the unknowns of test and/or replace plans such as actual costs and ROW issues should typically be addressed in the existing Commission PSEP and companion GRC processes, unless the Commission directs otherwise.

In this decision, we believe that the Petitioners' proposed FOF is not necessary since it is already addressed in COL 19.

COL 19:

Retain existing language (Petitioners):

It is reasonable that no later than three months from the date of the issuance of this decision, consistent with General Order 112-F Reference, Title 49 Code of Federal Regulations, Part 192—Subpart J and National Transportation Safety Board recommendations, Section 958 of the Public Utilities Code and D.11-06-017, Applicants should submit to SED a hydrostatic test or replacement plan pertaining to the existing 49.7 miles of Line 1600 corridor.

Add (Petitioners):

After review of the hydrostatic test or replacement plan by the Safety and Enforcement Division, SDG&E and SoCalGas should submit their hydrostatic test or replacement plan in this proceeding with supporting documentation including direct testimony and forecasted costs.

In this decision, we retain existing COL 19 language and add the following:

Within six months of the issuance of the Decision Approving Modifications to Decision 18-06-028, to supplement the above, it is reasonable for Applicants to file the cost forecast, cost methodology, proposed accounting treatment, proposed schedule for cost recovery, supported by direct testimony and work papers, of the work to implement the D.18-06-028 Option 1 (hydrostatic test) and D.18-06-028 Option 2 (replacement and hydrotest plan); and the Applicants' proposed Design Alternatives 3 (Full Replacement in Nearby Streets alternative) and 4 (Full Replacement Along Highway 395 alternative) to the Commission for review, with service to the parties to this proceeding.

OP 7:

Retain existing language (Petitioners):

No later than three months from the date of the issuance of this decision, consistent with General Order 112-F Reference, Title 49 Code of Federal Regulations, Part 192—Subpart J and the National Transportation Safety Board recommendations, Pub. Util. Code § 958 and Decision 11-06-017, San Diego Gas & Electric Company and Southern California Gas Company [Applicants] shall submit to Safety and Enforcement Division a hydrostatic test or replacement plan pertaining to the existing 49.7 miles of Line 1600 in its present corridor.

Add: (Petitioners)

After review of the hydrostatic test or replacement plan by the Safety and Enforcement Division, SDG&E and SoCalGas shall submit their hydrostatic test or replacement plan in this proceeding with supporting documentation including direct testimony and forecasted costs.

In this decision, we retain the existing OP 7 language and add the following:

Within six months of the issuance of the Decision Approving Modifications to Decision 18-06-028, to supplement the above, Applicants shall submit the cost forecast, proposed accounting treatment and proposed schedule for cost recovery, supported by direct testimony and workpapers, of the work to implement the hydrostatic test or replacement plan to the Commission for review, with service to the parties in the proceeding.

7.6 Confidentiality

As directed in an October 13, 2017 ALJ ruling that preceded the Decision, Applicants "shall continue to provide confidential information to the Commission and staff according to D.16-08-04 and under the protection of General Order (GO) 66-D as recently updated by D.17-09-023 'Phase 2A Decision Adopting GO 66-D and Administrative Processes for Submission and Release of Potentially Confidential Information' issued October 2, 2017, and any successor decisions approved by the Commission."[105]

On September 26, 2018, the Applicants submitted their "Line 1600 Test or Replace Plan" with certain information designated as confidential. On July 1, 2019, in the Applicants' response to the PFM, at Attachment 1 of the Kohls Declaration, pages 33-34 of the Plan are presented in unredacted form. The unredacted pages disclose certain test pressures and pressure ranges, and certain percentages of SMYS (Specified Minimum Yield Strength). The unredacted pages also disclose the diameter, wall thickness and grade of the proposed pipe, as well as the wall thickness and grade of existing pipe.

[105] D.18-06-023. *See* October 13, 2017 "Administrative Law Judge Ruling Denying in Part, Modifying and Granting in Part, the Amended Motion of San Diego Gas & Electric Company and Southern California Gas Company for Leave to Submit Confidential Materials Under Seal; and Providing Guidance on Related Confidentiality Issues Raised during Evidentiary Hearings" at 18.

"[A] matter that is already public or that has previously become part of the public domain is not private." [106] The disclosed information is no longer subject to Applicants' claims of confidentiality, and is relevant to the current phase of this proceeding.

Thus, in this proceeding, within thirty days of the issuance of this decision, it is reasonable for the Applicants to post a public version of the September 26, 2018 "Line 1600 Test or Replacement Plan" on their websites that discloses throughout the document the data that has already been disclosed by Applicants. This would include, for example, diameter values. The Applicants may also increase the information they make public.

8.1 Future Deration of Line 1600 to 320 Psig

SED is authorized to *reduce* the operating pressure of Line 1600, to another safe MAOP, to address known safety anomalies over time.[107] In this decision, despite the significant reduction of risk that can be achieved from derating Line 1600, we maintain the previous finding that it is reasonable to maintain Line 1600 in transmission service at 512 psig subject to the PSEP Decision Tree and § 958 until the Commission determines otherwise.[108] Continuous monitoring, including the use of multiple assessment methods including internal inspection tools, pressure tests, direct assessment and other technology tests according to 49 CFR, Part 192, Subpart O, Section 192.937 (c) for HCAs will

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[106] *Moreno v. Hartford Sentinel, Inc.* (2009) 172 Cal.App.4th 1125, 1130; *see* also, *e.g.*, *Hurvitz v. Hoefflin* (2000) 84 Cal.App.4th 1232, 1245 ("[O]nce…information is released, unlike a physical object, it cannot be recaptured and sealed."); *Black Panther Party v. Kehoe* (1974) 42 Cal.App.3d 645, 656 ("[R]ecords are completely public or completely confidential.").

[107] *See* D.18-06-028 FOF 12 and 13 at 124.

[108] *See* D.18-06-028 COL 12 at 124.

promote the integrity of Line 1600 while it remains in transmission service.[109] We provide a brief recap why derating Line 1600 was denied in D.18-06-028.

As stated in the Decision, the Commission recognized that the primary safety benefit of derating Line 1600 from 512 psig to 320 psig with a hoop stress of less than 20% of SMYS is that a pipeline failure would more likely result in a leak rather than a rupture.

However, as pointed out by Petitioners, there were three counter-considerations.[110] First, at an MAOP of 512 psig, Line 1600 can be pigged with in-line inspection technology which has safety benefits that can be attributed to compliance with more stringent TIMP (Transmission Integrity Management Planning) standards. Second, there was a reliability issue. If the pressure of Line 1600 was lowered to 320 psig and it remains a transmission line, then its capacity would drop from 65 MMcfd to 40 MMcfd. In the absence of market studies or a well-designed RFO to test the market, there was no clear-cut solution to make up the 25 MMcfd capacity deficit. Third, there was a question about the adequacy of the Applicants' Line 1600 records. As the Public Advocates Office (then the Office of Ratepayer Advocates or ORA) claimed, "SoCalGas/SDG&E do not have the requisite reliability safety records to continue to operate Line 1600 at or below 512 psig without performing required pressure testing" and that "SoCalGas did not retain proper records to allow them to establish the MAOP" for Line 1600. The Commission determined that the

[109] *See* D.18-06-028 FOF 62 at 121.

[110] PFM at 15-16.

status of Line 1600 pipeline records as "traceable, verifiable, and complete," should be decided before reducing Line 1600 below 512 psig.[111]

Another consideration not mentioned by Petitioners in the PFM was that the appropriate status of Line 1600 as a transmission line (subject to PSEP or § 958 requiring replacing/hydrotesting at significant expense) or distribution line (not subject to the same) was in dispute during the proceeding and was not fully resolved. Although the Commission expressed a potential interest in extending the life of Line 1600 by derating Line 1600 to distribution service, it did not mandate this action and delegated responsibility to SED to interpret PHMSA definitions and take appropriate action pertaining to the status of the line consistent within their delegated authority.

In compliance with OP 5, SED conducted a study pertaining to operators' definitions of transmission and distribution lines to clarify how definition applies under various circumstances and at what costs, surveyed other states for similar data, and conducted a workshop with utilities and other interested parties. However, according to SED staff, the results of its ongoing study are so far non-conclusive and evolving. In addition, PHMSA is also conducting a rulemaking that is studying and making recommendations regarding these same definitions.[112]

In this decision, we maintain the option to consider deration as one option to enhance Line 1600 safety objectives moving forward. It is reasonable for

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[111] As Petitioners point out in PFM Footnote 93 at 16, "[p]roper records of Line 1600 are required under 49 CFR Section 192.105 to calculate the design pressure of the weakest element in a pipeline segment, one of the four values that MAOP of Line 1600 cannot exceed pursuant to 49 CFR Section 192.619(a)."

[112] *See* PHMSA Docket 2011-0023, "Definitions § 192.3."

parties to review the: 1) latest version of SED's transmission study to review Line 1600 pipeline status as it may impact hydrotest and/or replace options in this proceeding, and 2) Line 1600 Pipeline Audit to determine if Line 1600 records were adequate to show that 320 psig would be <20% SMYS or whether another MAOP is more appropriate for specific segments. Pending public review, the outcome of the independent Line 1600 Pipeline Audit and SED transmission study will help inform a safe MAOP and various interim, short-term, and long-term goals and activities.[113]

As Sierra Club points out "[d]erating Line 1600 to avoid hydrotesting was part of the Sempra's Utilities' original proposal. As the Sempra Utilities' stated in their sworn testimony, derating enhances safety:"

> De-rating Line 1600 to a MAOP of 320 psig reduces the overall risk exposure to a level that is as low as reasonably practicable. Although no gas pipeline is certain to never leak or rupture, 320 psig promotes the continued safe operation of Line 1600. Further reduction in pressure below the 20% SMYS threshold creates diminishing returns in terms of risk reduction, and will not achieve materially greater safety. Reduction of Line 1600's MAOP to 320 psig will enhance its safety in the near term, and promote its safety into the future. [114]

As stated previously, D.18-06-028 reached a similar conclusion.[115]

Sierra Club observes that "derating is by far the most cost-effective option to enhance safety of Line 1600."[116] The Applicants estimate that the cost of

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[113] *See* D.18-06-028 COL 9 at 124.

[114] Sierra Club Joint Opening Comments on the Alternate Proposed Decision and Revised Proposed Decision at 5 quoting Exh. SDGE-12 at 98:10-15 (Suppl. Testimony of SDG&E and SoCalGas).

[115] *See* D.18-06-028 COL 12 at 124.

derating is approximately $15 million or approximately "two percent' of the cost of the proposed $677 million alternative the alternative proposed decision (APD) supports. In an era of not only declining demand but also decarbonization, it makes sense to avoid new and costly capital investments in the gas system. With the cost of pressure testing significantly increasing and the potential for even more costly alternatives on the table, it is appropriate to consider derating as a low cost and effective means of ensuring safety. We agree that all costs should be on the table that best balances safety, cost and reliability.

TURN sponsored the testimony of one witness Mr. David Berger, an expert in pipeline safety who has consulted extensively for PHMSA and the Commission. According to TURN, "Mr. Berger testified that Line 1600 would be entirely safe to operate at a de-rated pressure of 320 pounds per square inch ("psig") without any further testing or replacement as long as certain transmission integrity management practices were applied to the de-rated pipeline."[117] TURN further observes that Mr. Berger did not testify about the relative benefits of replacement versus hydrotesting as the issue was not scoped in the initial phase of the proceeding.

8.2 Line 1600 Fitness for Service With Stable Manufacturing Defects and Other Anomalies

TURN points out that "[in] their original application, the Applicants repeatedly stated that pressure testing Line 1600 would 'temporarily extend its use at transmission pressure,' but emphasized that due to hook cracks and other

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[116] Sierra Club Joint Comments on the Alternate Proposed Decision and Revised Proposed Decision at 5.

[117] TURN Opening Comments on the Alternate Proposed Decision at 2 quoting Exh. TURN-01, at 5-6.

anomalies, the pipeline would need to be 'looked at again' later."[118] Subsequently, in the Plan they submitted to SED, the Applicants allege that hydrotesting is not as safe as replacement due to these same issues. TURN observes that "[t]hese conclusions are not entirely consistent with the Applicants' expert testimonies."[119] TURN points out that "their primary internal safety expert concluded that known manufacturing defects such as hook cracks should be monitored for degradation or for interaction with non-stable threats, such as corrosion, third party damage or earth movement, while their primary outside expert on pipeline mechanics and safety testified in the proceeding that hook cracks are anomalies due to manufacturing with high sulfur steel, and that '[s]uch features in that orientation usually have no impact on the integrity of the pipe.'"[120] TURN observes that these expert testimonies are consistent with the conclusions Mr. Berger reached "who agreed that hook cracks are a stable manufacturing defect that could impact the pipe only if pressures increased due to factors such as earth movement, landslides or third party excavation damage."[121] TURN concludes that "there is nothing unsafe in continuing TIMP inspections to monitor of threats such as third party damage or earth movement, which could affect any pipeline irrespective of its condition. One of the other

[118] TURN Opening Comments on the Alternate Proposed Decision at 3 quoting Ex. SDG&E-12 at 65-66. "Hook cracks" is an informal term for "stable manufacturing defects."

[119] TURN Opening Comments on Alternate Proposed Decision at 3.

[120] TURN Opening Comments on Alternate Proposed Decision at 3 quoting SDGE-12 at 13.

[121] TURN Opening Comments on Alternate Proposed Decision at 3 quoting Exh. TURN-01 at 12-15.

primary threats that can interact with pipeline manufacturing defects is selective seam corrosion, which has never been found to be an issue on Line 1600."[122]

Through extensive commentary, POC alleges that none of the "safety reasons" cited in the APD to justify restricting review in Phase 2 to Applicants' Design Alternative 1 are supported by the record in A.15-09-013.[123] It believes that the APD mischaracterizes why SED-1 reduced the pressure of Line 1600 from 640 psig presumably due to hook cracks rather than the existence of inconsistent records for design MAOP of various segments. POC cites D.18-06-028 which states that "these manufacturing defects do not present an immediate threat unless they interact with other known risks such as corrosion or other integrity threats."[124] It points out that D.18-06-028 is explicit that there is no evidence of seam corrosion or other defects that would warrant replacement of Line 1600: "In response to ORA data requests, the Applicants stated that the Line was safe to operate at 800 psig. According to ORA, based on ongoing maintenance so far, SDG&E has not identified or observed any seam flaws or other defects that warrant replacement of the entire line."[125] The Applicants reinforce this view in its testimony: "SDG&E has so far not reported the occurrence of selective seam weld corrosion on Line 1600."[126]

As POC points out, the only other threats relevant to Line 1600 mentioned by the Applicants in A.15-09-013 include "1) pipeline age, 2) the potential for

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[122] TURN Opening Comments on Alternate Proposed Decision at 4 quoting Exh. SDGE-02 at 4-5.

[123] POC Opening Comments on Alternate Proposed Decision at 2.

[124] POC Opening Comments on Alternate Proposed Decision at 2 quote D.18-06-028 at 86.

[125] POC Opening Comments on Alternate Proposed Decision at 3 quoting D.18-06-028 at 10. *See* relevant discussion in June 17, 2016 ORA motion at 2-3.

[126] POC Opening Comments on Alternate Proposed Decision at 3 quoting Exh. SDGE-12 at 16.

A.O. Smith electric flash-weld (EFW) pipe to exhibit "low fracture control" when rupture occurs, and 3) externally-caused mechanical damage."[127] POC emphasizes that the record shows that age of Line 1600 is not necessarily a safety threat. Finding of Fact 67 of D.18-06-028 states that "Pipeline vintage or alone should not be the deciding factor of determining how long a pipeline should remain in service."[128] The Applicants' witness Mr. Rosenfeld stated that "The fitness of a pipeline for service does not necessarily expire at some point in time…A well-maintained and periodically assessed pipeline can safely transport natural gas indefinitely." Similarly, POC opines that the record does not suggest any fracture control threats. It observes that the fracture control strength of Line 1600 is an inherent characteristic of EFW pipe. It notes that there are six other EFW pipelines in the Applicants' transmission system and concludes "[a] fracture control concern with Line 1600 would necessarily be a concern for all EFW pipelines in the Applicants' system."[129] Finally, POC observes that externally-caused mechanical damage is a threat that can happen to any pipeline at any time when the owners or third parties dig in the pipeline right-of-way.

POC also contends that the APD implications that passive anomalies in Line 1600 represent safety threats has no basis in fact. POC questions the APD's statement that hydrotesting would not "cure the hook cracks known to be present along Line 1600 by responding that [t]his statement implies that there is a need to be cure hook cracks, but there is not."[130] POC observes that the

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[127] POC Opening Comments on Alternate Proposed Decision at 4.

[128] POC Opening Comments on Alternate Proposed Decision at 4 quoting D.18-08-028 at 122.

[129] POC Opening Comments on Alternate Proposed Decision at 4 referring to Exh. SDGE-2, Table 3 at 10.

[130] POC Opening Comments on Alternate Proposed Decision at 5.

Applicants' witness Mr. Sera explained that all anomalies are found in engineering materials.

The Applicants' witness Mr. Rosenfeld explained the origin and significance of hook cracks in EFW pipe:[131]

> Hook cracks result from the use of steel having high sulfur content, which was common at the time Line 1600 was constructed…sulfur combines with other elements…to form inclusions…such features (in that orientation) usually have no impacts on the integrity of the pipe…shortest (hook crack) predicted time to failure (in Line 1600) is 171 years.

POC concludes that hook cracks are in fact the "mark of Mercedes" and do not compromise the safety of Line 1600 in any way.[132]

In response to POC, as Sierra Club/SCGC/TURN point out, the Applicants present *new* extra-record evidence that may appear to be inconsistent with previous testimony and which identifies time dependent threats that would be addressed by replacing rather than hydrotesting Line 1600 such as coating failure, and selective seam corrosion. The Applicants also contend that replacement would assure time independent threats such as mechanical damage from excavators or natural events. The Applicants emphasize that "Line 1600 has no fracture control" in the event of a time independent threat such as mechanical damage from excavators.[133]

Sierra Club/SCGC/TURN contend that given the new extra-record information provided by Applicants, including reference to a gas pipeline explosion in Kentucky associated with A.O. Smith EFW pipe, the Commission

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[131] POC Opening Comments on Alternate Proposed Decision at 5 quoting Exh. SDGE-12 at 13-14.

[132] POC Opening Comments on Alternate Proposed Decision at 5.

[133] Sierra Club/SCGC/TURN Reply Comments on Revised Proposed Decision at 3.

should take immediate steps to reduce the MAOP of Line 1600 from the current 512 psig to 320 psig to eliminate the potential for a catastrophic event.[134]

Based on the Applicants' and Intervenor Testimony, and as discussed in Section 7.3 of this decision, the Commission did find that D.18-06-028 is safe in its present condition. The PSEP Plan itself refers to the integrity of the Line:

> Assessment data from both in-line inspection technologies demonstrate that for the remaining anomalies in Line 1600, adequate safety margins exist for operation at both its current MAOP of 512 psig and its previous MAOP of 640 psig...[135]

However, we are concerned that Applicants have presented untested extra-record evidence that appears inconsistent with the Applicants' own testimony and record in A.15-09-013 and mischaracterizes the condition of Line 1600 in a manner to shed doubt regarding the integrity of the line.[136] Further, the unvetted SED Line 1600 Pipeline Audit published December 23, 2019 and evolving SED Transmission Study may shed new material facts about how Line 1600 should be managed in the future. For this reason, we believe that all options should be on the table for consideration including four design alternatives and deration options. We should keep in mind that if the Commission proceeds to replace Line 1600 solely due to the presence of stable manufacturing defects or other known anomalies, this could prompt the Applicants to seek replacement of other gas pipelines that are constructed of EFW material.

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[134] Sierra Club/SCGC/TURN Reply Comments on Revised Proposed Decision at 3.

[135] PSEP Plan at 52.

[136] Please refer to the January 9, 2020 "ALJ Ruling Striking Extra-Record Material from Comments."

8. Issues out of Scope

In this proceeding, based on the rationales below, the following issues are out of scope:

8.3 Compliance with D.18-06-028 Ordering Paragraph One

PSEP Option 2 involves an "in kind" replacement of the 16-inch diameter Line 1600, which is consistent with the Decision's OP 1. Further, as directed by SED-1, we agree with the Applicants that the current MAOP is 512 psig and will remain so in the foreseeable future, which is also consistent with the Decision's OP 1. Therefore, we disagree with Petitioners that the Applicants are out of compliance with OP 1 of the Decision that denies not only the CPCN to construct the proposed Line 3602 but "any proposal that is greater than 16 inches in diameter or involves installing a pipeline to replace Line 1600 that increases demand-forecast capacity above the current capacity of 595 million cubic feet per day (D.18-06-028) Finding of Fact 10), without specific and detailed justification."[137]

However, according to existing regulations, increased pressures above 512 psig are required to perform hydrostatic tests of existing and new pipe and also to provide flexibility should the Commission choose to raise MAOP in the future to ensure reliability of service. It is a regulatory and industry standard, at a minimum, to pressure test a new and existing pipeline that will operate in Class 3 and Class 4 locations at a level of 1.5 times its MAOP. Therefore, for limited testing and operational purposes, the MAOP may exceed 512 psig.

However, if installing this same 16-inch diameter pipeline increases the capacity above the current demand-forecast combined capacity of 595 MMcfd for

[137] D.18-06-028 OP 1 at 127.

both Line 3010 and Line 1600, the burden is on the Applicant to provide a detailed justification to the Commission, especially if additional facilities costs must be incurred. Currently, we find that existing lines 3010 (530 MMcfd) and 1600 (65 MMcfd at 512 psig) with a combined capacity of 595 MMcfd, have sufficient pipeline capacity to meet the Utilities' own peak forecasts. (*See* Section 7.5 regarding confidentiality assumptions for this proceeding.)

In the short-term, it is conceivable that the results of the Line 1600 pipeline records audit directed in the Decision[138] may inform a different MAOP than 512 psig (65 MMcfd). As stated in the Decision, "[t]hrough this process the independent auditor will verify whether Line 1600 records are "traceable, verifiable, and complete," as required to validate the MAOP of Line 1600, consistent with Directives of D.11-06-017 prescribed for PG&E, who experienced a similar audit process for older PG&E pipelines."[139] The Decision directed that "the results of the audit, including the methodology for conducting the audit, will be provided to SED and served on all parties on the service list of this proceeding to ensure transparency in the process of checking required MAOP safety data on Line 1600."[140]

The Decision required that the Line 1600 audit be completed within six months from the time a contract for the work is executed by the Applicants and the auditor selected by the process adopted in the Decision. The contract was executed on May 2, 2019 so the Line 1600 audit was due on November 2, 2019. On December 23, 2019, SED posted the subject audit on its website and informed

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138 *See* D.18-06-028 OPs 9 through 13 at 128 through 130.

139 D.18-06-028 at 101-102.

140 D.18-06-028 at 101.

the service list. The subject audit is currently being reviewed by parties. As stated in the Decision, "[w]here pipeline segment values on Line 1600 are not traceable, verifiable, and complete, the source documents to demonstrate that the values are used in compliance with federal state requirements, should be readily available and auditable."[141]

8.4 Evaluation of Need and Reliability Criterion

In the second phase of this proceeding, we will not address the concept of "need" to test and/or replace 19 Line 1600 segments. D.02-11-003 and D.06-09-039 establish reliability standards and require Applicants to plan their systems to provide service to core customers during a 1-in-35 year cold day (one curtailment in 35 years) and service to non-core customers during a 1-in-10 year cold day (one curtailment in 10 years). In the review of any pending cost forecasts in the second phase of this proceeding, the Commission upholds this reliability standard that was extensively litigated in D.18-06-028.

9. Cost-Related and Procedural Issues to Be Determined

Given the unique and exceptional history of Line 1600 PSEP-related applications and the magnitude of capital forecast costs (including contingency factors), it is reasonable to require the Applicants to file a formal cost forecast consistent with the Commission's best practices. Reviewing a Line 1600 PSEP cost forecast via a public process will enable the Commission to provide appropriate guidance regarding the reasonableness of the various alternatives, cost estimates, cost containment strategies, ratemaking and accounting treatment, and overall assumptions. This should be accomplished before considering any final approval of capital and operations and maintenance costs

[141] D.18-06-028 FOF 24 at 126.

in after-the-fact reasonableness reviews in GRCs and companion memorandum account proceedings.

9.1 Cost Forecasts

The cost forecast should include detailed workpapers supporting each of the 19 segments on Line 1600 to be executed as separate discrete projects. The workpapers should include a project description, discussion of alternatives considered, the forecast methodology and cost estimates, assumptions in deriving the estimates, and detailed diagrams and photographs (where available) to "bring life" to the projects.[142] The intent of the workpapers is to provide information necessary for Petitioners and other Intervenors to examine the reasonableness of the projects as it relates to associated forecast costs.

Based on previous PSEP cost forecast applications (*e.g.,* A.17-03-021), the following issues should be addressed in the review and evaluation of the Applicants' cost forecast for SED's approved Design Alternative 1 (Replace in HCAs and Hydrotest in Non-HCA's) and alternative Design Alternative 2 (Full Hydrotest) consistent with two specific alternatives the Applicants were instructed to evaluate in D.18-06-028; and Design Alternatives 3 (Full Replacement in Nearby Streets alternative) and 4 (Full Replacement Along Highway 395 alternative) in the second phase of this proceeding:

I. Whether Applicants' forecast of capital and operations and maintenance costs associated with the completion of the 19 Line 1600 pipeline segments are reasonable;

[142] *See* A.17-03-021 "Reply of Southern California Gas Company and San Diego Gas & Electric Company to the Protests of the Indicated Shippers, Office of Ratepayer Advocates, The Utility Reform Network, Southern California Generation Coalition, and Shell Energy North America, L.P." at 2 dated May 22, 2017.

II. Whether the forecasted revenue requirements associated with the 19 Line 1600 pipeline segments are just and reasonable and may be recovered by Applicants in rates;[143]

III. Whether management decisions regarding the scope, order, and pace of "segment" work to be recovered, including amortization schedules, are reasonable;

IV. Whether the Applicants' proposals pertaining to different routing, different pipe diameters, different pipe thickness, different pipe grade, and different segment lengths, etc. are reasonable;[144]

V. Whether Applicants have made the proper determination of ratepayer versus shareholder funding as defined by D.14-06-007 and D.15-12-020;

VI. Whether disallowances are properly identified and calculated;

VII. Whether Applicants' proposed regulatory accounting treatment of forecasted and actual costs on an aggregate basis, associated with the 19 projects in the pending cost proposal is appropriate;

VIII. If applicable, whether the information provided by Applicants adequately supports the inclusion of accelerated and incidental miles in the forecast;

IX. Whether specific cost information, inputs and outputs of estimated tools, assumptions including contingency factors, and other methods of forecasting costs, in support of requested funding and/or forecasted costs for its projects, are reasonable;

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[143] SoCalGas Opening Comments on the Proposed Decision at 10. *See* D.19-03-025 *Decision Granting the Application of Southern California Gas Company and San Diego Gas Company for Approval of Forecasted Revenue Requirements Associated with Certain Pipeline Safety Enhancement Plan Projects and Associated Rate Recovery; and Authority to Modify and/or Create Certain Balancing Accounts,* issued April 5, 2019, at 20.

[144] Sierra Club/SCGC/TURN Reply Comments on Proposed Decision at 2.

X. Whether risk models and risk-based decisions for projects are reasonable;

XI. Whether cost comparisons of similar or previous work done by Applicants or other utilities, in order to determine the Applicants based cost estimates for the PSEP projects upon similar work in the industry are reasonable;

XII. Whether cost containment (*e.g.*, one-way balancing account) or cost avoidance strategies are reasonable; and

XIII. How Applicants should recover a to-be-determined amount in capital-related and operations and maintenance costs in customer rates in future GRCs.

9.2 Class Four versus Class Three Cost Estimates

Advancement of Cost Engineering (AACC) Class Three Project estimates (with a typical accuracy range of -10% to -20% on the low side and +10% to -20% on the high side), rather than Class Four estimates, shall be used to evaluate forecast costs and revenue requirements. In general, Class 4 estimates are used for "study or feasibility" of projects while Class 3 estimates are used for "budget authorization and control" of projects.

In response to Applicants' comments, we understand that six months may be necessary to finalize Class 3 estimates for all 19 Line 1600 segments. For this reason, we allow this added time to refine the original Class 4 estimates, with a typical accuracy range of -15% to -30% on the low side and +20% to +50% on the high side, that were submitted approximately a year ago. However, since construction work has been put on hold beginning First Quarter 2020, we encourage Applicants to step up this schedule. It has almost been a full year since the Applicants submitted Class 4 estimates, and the project development phase for the PSEP Plan is expected to conclude at the end of First Quarter

2020.[145] Therefore, with this foundational work accomplished, the Applicants should be well positioned to provide Class 3 estimates on an expedited basis.

Developing Class 3 estimates for 22 separate hydrotest projects in the Full Hydrotest Alternative should not be as burdensome as the Applicants suggest since they have access to actual data associated with numerous hydrotests that the Commission has already approved and implemented in their utility territory. More importantly, Applicants are already preparing Class Three estimates for 13 miles of Line 1600 insofar as those miles will be pressure tested under D.18-06-028 Option 1 (hydrotest) and D.18-06-028 Option 2 (replace in HCAs). So there will be no duplication of effort in this regard. Similarly, Applicants are preparing Class Three estimates for 27 miles of Line 1600 insofar as those miles will be replaced under D.18-06-028 Option 2 (replace in HCAs), so determining similar replacement costs in non-HCAs should not be too burdensome. This information is particularly valuable if specific segments fail the hydrotest and must be replaced.

9.3 Line 1600 PSEP Plan

In SED's approval of the Applicants' Line 1600 PSEP Plan it considered safety, technical, and reliability factors but did not consider detailed cost projections. SED did not make an explicit finding that the PSEP Plan was complete. We observe that the Applicants' original PSEP Plan submitted September 2018 does not appear to provide "the best available expense and capital cost projections for each prioritized segment and each test year" as directed by D.18-06-028.[146] Without this information, the CPUC was unable to

[145] PSEP Plan at 70.

[146] D.18-06-028 at 91. In its PSEP Plan at 25 and 60, Applicants refer to the Commission's specific directive, but they do not provide any cost-effectiveness analysis or detail to support different

evaluate the cost-effective analyses the Applicants referred to in its PSEP Plan that would allow it to balance the tradeoffs between safety, reliability and service, and cost-effectiveness goals among alternative options. Without this information, the CPUC is unable to evaluate the "financial exposure" related to the Applicants' stated intentions to direct the first five projects or more to the Applicants' Test Year 2022 GRC. Without this information, the CPUC is unable to evaluate any financial liabilities associated with delayed construction in order to more thoroughly review design alternatives in the coming year.

The $677 million estimated cost of the PSEP Plan was based on Class 4 estimates, which may include up to 50% contingency reserves. This amount far exceeds the $112 million estimate (not fully loaded cost) of the hydrotest alternative that was identified as the preliminary forecast in D.18-06-028. This gap must be addressed through some existing and/or new procedural venue as the Commission has done with other PSEP Projects (*e.g.,* D.19-03-025).

A more comprehensive review of costs might have resulted in significant cost savings associated with the PSEP Plan. For example, it is conceivable that hydrotesting, a less expensive alternative, could feasibly occur in more than five segments out of 19 segments.[147] Further, if Line 1600, at a now reduced pressure of 512 psig, is considered safe in the foreseeable future, it is not clear why hydrotesting for five segments is delayed until 2023 and 2024, nearly a decade after PSEP Plans were first mandated by the Commission.

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outcomes among the different priority 19 segments. Also see D.11-06-007 that directs: "Specific capital and expense amount for each component of the [PSEP Implementation] plans shall be stated."

[147] PSEP Plan at 18-19.

9.1 Impact of Class Three Estimates on Schedule

Following the completion of the "project development" phase of the Applicants' PSEP Plan, we acknowledge that the Applicant's compliance with additional information requirements cited above will delay startup of the PSEP Plan currently projected to commence First Quarter 2020. It is reasonable to halt construction plans for all Line 1600 19 segments until the Commission has an opportunity to consider missing cost data by segment and more fully evaluate all options, including hydrotest alternatives, during the second phase of this proceeding.

In the meantime, as discussed at length in D.18-06-028, Line 1600 is safe to operate at the reduced pressure of 512 psig until the Commission determines otherwise. We do not consider it advantageous to have a staggered schedule to review these various Class Three costs by segment since they should be reviewed in their entirety in order to enhance the Commission's ability to evaluate plans at both at an aggregate and more granular pipeline segment level. In other words, we categorically reject a piecemeal approach to considering options to bring Line 1600 into compliance with § 958 of the Public Utilities Code. Applicants should file forecasts for all segments of Line 1600 in this proceeding.

9.2 Next Steps

Following the receipt of parties' comments on the Applicants' filed cost forecast, proposed accounting treatment and proposed schedule for cost recovery, supported by direct testimony and workpapers, the assigned Commissioner and Administrative Law Judge (ALJ) will determine next steps including the scheduling of a prehearing conference (PHC) and issuance of a scoping memo and expedited schedule to consider the best approach to bring Line 1600 into compliance with § 958. Given the issue with an incomplete

application filed in the first phase of this proceeding,[148] parties are encouraged to meet and confer after the cost forecast is filed and before the PHC is scheduled, in order to jointly submit several follow-up items:

1) A matrix regarding information Petitioners believe is missing from the Applicants' initial showing. Intervenors are to list the information they believe is missing; Applicants are to indicate whether that information is included in their cost forecast and, if so where.
2) If Petitioners are not satisfied the information is sufficient for the Applicants to make their *prima facie* case, they are to explain why.
3) If possible, stipulation of facts that will not be subject to testimony and evidentiary hearings.
4) Timetable to resolve hearing goals and objectives.

10. Comments on Proposed Decision

The proposed decision (PD) of ALJ Colette E. Kersten in this matter was mailed to the parties in accordance with Section 311 of the Pub. Util. Code and comments were allowed under Rule 14.3. SoCalGas/SDG&E, Sierra Club/SCGC/TURN, and POC filed comments on October 2, 2019, and SoCalGas/SDG&E, Sierra Club/SCGC/TURN, and POC filed reply comments on October 7, 2019.

In general, SoCalGas/SDG&E support the proposed decision's preliminary determination to focus narrowly on SED's approved alternative Option 2 (replace in HCAs, pressure test in non-HCAs.) However, Petitioners (Sierra Club, SCGC, TURN, POC) sharply disagree with the Applicants about what should be in the scope of Phase 2. In opening comments, Petitioners stated

[148] *See* "Joint Assigned Commissioner and Administrative Law Judge Ruling Requiring an Amended Application and Seeking Protests, Responses, and Replies," dated January 22, 2016.

that the Commission should revise the PD to permit examination of both D.18-06-028 Option 1 (hydrotest) *and* D.18-06-028 Option 2 (replace in HCAs, pressure test in non-HCAs) in determining the best option for bringing Line 1600 into compliance with § 958.

The Applicants seek to restrict the scope further not only to D.18-06-028 Option 2 so that "the scope of Phase 2 would not include proposals for different routing, different pipe diameters, different pipe thickness, different pipe grade, different segments length, etc."[149] Sierra Club/SCGC/TURN believe that the Commission should reject this proposal since "Petitioners have not had an opportunity to review the Applicants' detailed plans for the Line 1600. There may be savings by, for example, combining or, conversely, further dividing hydrotest segments."[150]

POC asserts that "the evidentiary record for the Applicant's Alternative 1 is woefully insufficient to justify the exclusion of the full hydrotest alternative from the Applicant's application."[151] It further observes that this issue was not teed up until the May 2, 2018 distribution of the proposed decision that preceded Commission approval of D.18-06-028. POC claims that "SED simply ignores the pressure test alternative in its January 15, 2019 approval of the Applicants preferred Alternative 1."[152] POC questions the presumptive dismissal of the hydrotest alternative since the "Applicants have already completed at least 27 successful pressure tests of transmission pipelines at the time SED wrote its

[149] Applicants' Opening Comments on Proposed Decision at 4.

[150] Sierra Club/SCGC/TURN Reply Comments on Proposed Decision at 2.

[151] POC Reply Comments on Proposed Decision at 1.

[152] POC Reply Comments on Proposed Decision at 1, 4.

December 15, 2017 Advisory Opinion."[153] It further notes that the Applicants considered Alternatives 3 and 4, two variations of full replacement of Line 1600, as having the "maximum safety margin safety margin and reliability," but that the Applicants did not adequately explain why these alternatives were not seriously considered.[154]

Petitioners opine that Applicants should provide Class 3 rather than Class 4 estimates for both alternative options.[155] In response, SoCalGas/SDG&E agree with Petitioners' views but state that it would take approximately six months to refine the preliminary cost forecast for all 19 projects to a Class 3 level estimating accuracy.[156]

In response to parties' comments, and in addition to some minor clarifications, corrections, and non-substantive edits, the following summarizes changes to the PD:

1. The PD now emphasizes that in D.14-06-007, the Commission made clear that there shall be "procedural opportunities" for "a review of any action" issued by SED as may be feasible under the specific circumstances whenever SED exercises its delegated authority;[157]

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[153] POC Opening Comments on Proposed Decision at 14, Reply Comments on Proposed Decision at 4. During A.15.-09-013, POC issued data requests to Applicants' seeking details on pressure tests listed on the SoCalGas PSEP webpage and details on pressure testing and in-line inspections that has been conducted on pipelines with flash welded seams that the Applicants had identified in testimony. In response to this data request, the Applicants stated that the information sought was not "relevant" to the proceeding. POC now contends that with the re-opening of A.15-09-013, the information sought is now directly relevant to the proceeding.

[154] POC Opening Comments on Proposed Decision at 5-6.

[155] Petitioners' Opening Comments on Proposed Decision at 11-13.

[156] SoCalGas/SDG&E Reply Comments on Proposed Decision at 5.

[157] *See* Cal. Const. Art. 12, Cal. Pub Util. Code § 701.

2. The PD now grants Petitioners' request to provide parties and the public the opportunity to consider Design Alternative 1 (Replace in High Consequence Areas (HCAs) and Hydrotest in Non-High Consequence Areas (Non-HCAs)), which the Commission's Safety and Enforcement Division (SED) formally approved on January 15, 2019, and Design Alternative 2 (Full Hydrotest), consistent with the two specific alternatives that Applicants were instructed to evaluate in D.18-06-028;[158] and the Applicants' proposed Design Alternatives 3 (Full Replacement in Nearby Streets) and Design Alternative 4 (Full Replacement along Highway 395 alternative), in determining the best option for bringing Line 1600 into compliance with § 958 of the Public Utilities Code;
3. The PD categorically rejects a piecemeal approach to considering options to bring Line 1600 into compliance with § 958 of the Pub. Util. Code. Directs Applicants to file forecasts for *all* segments of Line 1600;
4. The PD now requires the Applicants to provide Class Three instead of Class Four cost estimates in its cost forecast for *all* 19 segments of Line 1600 pertaining to both Option 1 and Option 2 and Design Alternatives 3 and 4;
5. Given the additional time it takes to develop Class Three cost estimates, the PD provides the Applicants six months from the date of the issuance of the decision to submit a cost forecast for Commission review;
6. The PD now observes that Applicants have complied with *most* PSEP Compliance Documentation requirements. However, in the PSEP Plan submitted September 2018, it appears that the Applicants did not provide "the best available expense and capital cost projections for each prioritized segment and each test year" as directed by

[158] In D.18-06-028, Option 1 is identified as the full hydrotest option (Applicants' Design Alternative 2) while Option 2 is identified as the replace in HCAs and hydrotest in Non-HCAs areas option (Applicants' Design Alternative 1).

D.18-06-028, so the PD now requires Applicants to include any "missing cost data" as required by D.18-06-028 in the posting of a public version of the September 26, 2018, "Line 1600 Test or Replacement Plan;"

7. Consistent with the process followed in A.17-03-021 and D.19-03-025, the PD now adds the following items to the list of issues that should be addressed in review and evaluation of the Applicants' cost forecast:
   - "*Whether the forecasted revenue requirements associated with the 19 projects in the Application are just and reasonable, and may be recovered by Applicants in rates*."
   - *"Whether the Applicants' proposal pertaining to different routing, different pipe diameters, different pipe thickness, and different pipe grade, and different segment lengths are reasonable."*
8. The PD now directs that "final approval" of the PSEP Plan will not occur until the Commission receives missing cost information by segment and more fully evaluates all options, including less costly hydrotest alternatives, during the second phase of this proceeding;
9. The PD now determines that the Applicants' PSEP Plan is incomplete and an inadequate platform for full Commission authorization of this project and its costs;
10. The PD directs Applicants to halt any construction of the Line 1600 19 segments anticipated to begin First Quarter 2020 until the Commission provides further direction; and
11. The PD promotes an expedited second phase of the proceeding assuming that the Applicants timely comply with the directives in this decision.

11. Comments on the Revised Proposed Decision

The revised proposed decision (RPD) of ALJ Colette E. Kersten was mailed to the parties in accordance with Section 311 of the Pub. Util. Code and comments were allowed under Rule 14.3.

On December 16, 2019, SoCalGas/SDG&E, Sierra Club, POC/SCGC and TURN filed opening comments on the RPD (Revision 1). SoCalGas/SDG&E, Sierra Club, SCGC, POC, and TURN filed opening comments on Commissioner Randolph's APD on this same date. On December 23, 2019, SoCalGas/SDG&E, Sierra Club/SCGC/TURN, and POC filed reply comments on the RPD (Revision 1). SoCalGas/SDG&E, Sierra Club/SCGC/TURN, POC, and PAO filed reply comments on the APD on this same date. (Note: In opening comments, Sierra Club filed joint opening comments on both the RPD and APD in the same document. Similarly, in reply comments, SoCalGas/SDG&E filed joint reply comments on both the RPD and APD.)

In opening comments on the RPD, the Applicants recommend that the SED-approved Design Alternative 1 should proceed consistent with the position of the APD. They claim that Design Alternative 1 will enhance safety and achieve more benefits than hydrotesting Line 1600. Among other things, the Applicants allege that the hydrotesting option would not take less time to implement and that providing Class 3 Cost Estimates require time and resources. The Applicants conclude that at the end, the Commission will face the same decision that it delegated to SED's safety expertise.

In contrast, POC, SCGC, Sierra Club, and TURN support the RPD. POC and SCGC recommend that the Commission permit the Commission to commence PSEP work on Line 1600 but suggest that the work immediately focus on hydrotesting the five segments that the Applicants would hydrotest under Design Alternative 1 and Design Alternative 2 while review of Stage 3 cost estimates for Design Alternatives are being examined in Phase 2. Second, POC and SCGC urge SED to post the Applicants' Line 1600 Pipeline Audit on the Commission's website with notice to the service list. Sierra Club recommends a

revision to the RPD that includes derating of Line 1600 as an option to consider that will enhance safety and avoid the "significant asset consequences" of replacement alternatives. In its opening comments, TURN agrees with POC, SCGC and Sierra Club's views as stated above. It also opines that based on inconsistent conclusions with Applicants' and Intervenors' expert testimonies about the safety of Line 1600, it is reasonable and desirable to evaluate whether the hydrotest alternative is sufficient to ensure the safe operation of Line 1600. Based on its own experience in other PSEP proceedings, TURN sees little benefit in reviewing the forecast costs of the Applicants preferred option (only).

In reply comments, Sierra Club/SCGC/TURN refer to the Applicants' newly introduced "extra-record" safety information that paints a "grim picture" of the status of Line 1600 and urge the Commission to take immediate action to reduce the MAOP of Line 1600 from the current 512 psig to 320 psig.[159] According to Petitioners, this action would help eliminate the potential for "catastrophic rupture and explosion" of Line 1600. It argues that reducing the pressure on Line 1600 to 320 psig will not result in a reliability issue and the related cost would be minimal. TURN observes that Line 1600 will remain a transmission line subject to 49 CFR Part 192, but recommends that the reclassification of Line 1600 as a transmission line be included in the scope of Phase 2. POC believes that the Commission should disregard the Applicants' "misleading" references to extra-record evidence and the Applicants' SED references that are not part of the record in this proceeding. POC defends its

[159] In this decision, we contend that Applicants have presented untested extra-record evidence that appears inconsistent with the Applicants' own testimony and record in A.15-09-013. We therefore give this extra-record evidence no weight.

observation that that hydrotesting would take approximately 18 months based on the Applicants' own direct testimony.

The Public Advocates Office (Cal Advocates) did not provide opening comments. However, in reply comments, it states that it agrees with SCGC's recommendation to expand the scope for safety reasons. This would be accomplished by reviewing the Applicants' Design Alternatives #3 and #4 replacement alternatives that were scored as having the maximum safety margin reliability and testing the non-HCA portions of Line 1600 in 2020 rather than 2023 and 2024. Since construction plans have been in place for some time, Cal Advocates believes that the Commission should allow the Applicants permission to replace four segments with construction expected to commence in HCAs in early 2020. Cal Advocates also believes that Phase 2 should be expanded to meet California Environmental Quality Act Guidelines.

In response to parties' comments on the RPD, and in addition to some minor enhancements and clarifications, the following summarizes changes to the RPD:

In the interest of meeting short- and long-term safety objectives:

1. In compliance with § 958, the RPD escalates the schedule to hydrotest in Non-HCAs including Sections 2 (Rice Canyon-3.2 miles), Section 3 (Couser Canyon North Hydrotest-2.6 miles), Section 4 (Couser Canyon South Hydrotest-2.6 miles), Section 6 (Moosa Creek Hydrotest-0.9 miles) and Section 7 (Daley Ranch-3.5 miles) that equates to 12.8 miles or approximately 26% of the total 19 projects currently scheduled for 2023 and 2024. By permitting these replacements and requiring SoCalGas/SDG&E to move forward with permitting and pressure testing in non-HCAs segments during First Quarter 2020, the Commission will provide immediate safety benefits and provide critical cost and safety data in consideration of hydrotesting in other

HCA segments. (*See* Section 7.4 "Consideration of Hydrotesting Alternatives" for more detail.)

2. The RPD emphasizes consideration of the Applicants' Design Alternatives #3 and #4 replacement alternatives that were scored as having the maximum safety margin. These alternatives are not part of the SED-approved Applicants' PSEP Plan. If the Commission determines that A.O. Smith pipe is not generally safe, then A.O Smith pipe should be replaced in both HCAs and non-HCAs.
3. The RPD determines that the potential action of derating Line 1600 from 512 psig to 320 psig or other safe MAOP is in the scope of the second phase of this proceeding. Because SED's transmission study is so far non-conclusive and is still evolving, and the Line 1600 Pipeline Audit posted on the Commission's website on December 23, 2019, has not been vetted among parties, we maintain the option to consider Line 1600 pipeline deration as one option to enhance Line 1600 safety objectives while ensuring reliability and ongoing adherence to TIMP standards to minimize time-dependent pipeline threats. (*See* Section 8.1 "Future Deration of Line 1600 to 320 Psig" for more detail.)

Together, these actions will address immediate safety concerns pertaining to 26% of the 49.7 miles of the hydrotest/replacement plan while allowing time for the Commission to explore the full range of safe and cost-effective options for bringing Line 1600 into compliance with § 958.

As referenced in Ordering Paragraphs 4, 5, and 6 of Decision 18-06-028, this decision enters the Line 1600 Records Independent Audit emailed to the service list on December 23, 2019 into the record of this proceeding.

As referenced in Ordering Paragraphs 14 of Decision 18-06-028, within 30 days of the issuance of this decision, this decision directs the Commission's Safety and Enforcement Division to post the final version of its Line 1600 Transmission Study on its website and inform the service list.

In this decision, we also observe that Applicants have presented untested extra-record evidence that appears inconsistent with the Applicants' own testimony and record in A.15-09-013. (*See* Section 8.2 "Line 1600 Fitness for Service with Stable Manufacturing Defects and Other Anomalies" for more detail.) In this decision, we rely on the record in this proceeding and not on extra-record evidence or informal staff opinions that have not been vetted or tested in the public domain. In this regard, we observe that the RPD assumes that Line 1600 is in good operating condition as extensively discussed in D.18-06-028. In contrast, the APD assumes that Line 1600 is *not* in good operating condition; however, the APD does not provide any supporting analysis to support this conclusion or its apparent deviation from Commission conclusions reached in D.18-06-028.

SED did not provide a comprehensive analysis in its approval of the Applicants' PSEP Plan and instead more narrowly relied on the Applicants "to make determinations about which sections to replace and which to test, considering the best interest of safety related to existing Line 1600, as well as aspects of any re-route of the replacement sections."[160] In an era of declining gas demand, increasing capital infrastructure costs, changing regulatory landscape, and mounting ratepayer burdens, it is in the best interest of the Commission to have a broader perspective and more carefully and aggressively weigh a wider range of Line 1600 hydrotest versus replacement options, using not only safety, technical, and reliability criteria, but also costs that SED did not consider in its approval of the Applicants' PSEP Plan. The Commission should also pay attention to wider implications that replacing Line 1600 has on the potential

[160] PSEP Plan at 12.

future replacement of six other A.O. Smith gas pipelines located elsewhere in the southern system.

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12. Assignment of Proceeding

Liane M. Randolph is the assigned Commissioner and Colette E. Kersten is the assigned ALJ in this proceeding.

Findings of Fact

1. In their September 30, 2015 Application, A.15-09-013, the Applicants requested a CPCN to construct approximately 47 miles of a 36-inch diameter transmission pipeline, Line 3602, in San Diego County at a loaded and escalated cost of $528.5 million.

2. The Applicants stated that construction of the new line would enable them to derate the existing line from transmission service at 512 psig to distribution service at 320 psig, which would remove Line 1600 from the scope of the Applicants' PSEP.

3. On June 21, 2018, the Commission, in D.18-06-028, denied the 1) CPCN for the proposed Line 3602 Pipeline at a projected loaded and escalated cost of $528.5 million; 2) reclassification of Gas Pipeline 1600 from transmission service to distribution service and associated reduction of pipeline operating pressure from 512 pounds psig to 320 psig at a projected loaded and escalated cost of $29.5 million; and 3) redefinition of the CPUC's existing Reliability Criterion consistent with D.06-09-039.

4. The second outcome above was denied "without prejudice" because it was considered premature to endorse new definitions of transmission or distribution service, without the benefit of further review.

5. In D.18-06-028, the Commission directed the Applicants to submit to SED a § 958 hydrostatic test or replace plan pertaining to the existing 49.7 mile Line 1600 corridor and a study of California pipeline operator's definitions of transmission and distribution pipelines to determine whether there is a need for the Commission to provide further definitions than those provided under 49 Code of Federal Regulations, Part 92, § 192.3; the Commission also required an independent audit of Line 1600 records to ensure that they are "complete and verifiable."

6. The Commission directed that the Applicants' hydrostatic test or replace plan discuss two options:

   a. Hydrotest the entire 49.7 miles of line and replace those segments that fail the test; and
   b. Replace all pipeline segments in HCAs along Line 1600, thus ensuring a new pipeline without vintage pipeline characteristics that are perceived to increase the risk of Line 1600. Hydrotest in solely non-HCA segments would ensure less impact if there was a failure during testing.

7. The purpose of the mandates in D.18-06-028 was to ensure that the Applicants submitted a Line 1600 hydrostatic test or replace plan as directed by D.11-06-017 and required by other federal and state regulations; to explore whether different definitions of transmission and distribution pipelines could result in placing Line 1600 (currently classified as a transmission line) into distribution service at a reduced pressure, thereby avoiding the need to pressure test or replace; and determine the status of Line 1600 pipeline records, which in turn, impacts whether the utilities can recover through rates costs associated with future hydrotesting or, alternatively, whether these costs should be borne by shareholders.

8. At the time of the issuance of D.18-06-028, Applicants estimated the direct cost of pressure testing Line 1600 to meet pressure test or replace requirements of § 958, would be $112.9 million.

9. Although the pressure testing cost estimate was not loaded and escalated, it appeared that pressure testing Line 1600 would cost much less, at approximately $112.9 million, than the combined cost of constructing Line 3602 and derating Line 1600 to distribution service at a total cost of $558 million.

10. On September 26, 2018, pursuant to the Decision, Applicants timely submitted the proposed hydrostatic test or replacement plan (Plan) pertaining to the existing 49.7 miles of Line 1600 to SED. Applicants evaluated four potential design alternatives for the pressure test or replacement of 49.7 miles of Line 1600 in its present corridor: 1) replacing 37 miles of Line 1600 pipeline in HCAs and hydrotesting 13 miles of Line 1600 pipeline in non-HCAs (Replace in HCA/Test in Non-HCA alternative) at $677 million; 2) hydrostatic strength testing (hydrotest or test) the entire length of Line 1600 (Full Hydrotest alternative) at $325 million; 3) full replacement of Line 1600, routing in nearby streets in the north (Full Replacement in Nearby Streets alternative) at $778 million; and 4) full replacement of Line 1600, routing along Highway 395 in the north (Full Replacement Along Highway 395 alternative) at $725 million.[161]

11. Applicants evaluated the design alternatives consistent with the requirements detailed in the Decision, Applicants' PSEP Decision Tree, and the overarching objectives of PSEP to: 1) comply with the Commission's directives (subsequently codified in § 958); 2) enhance public safety; 3) minimize customer impacts; and 4) maximize the cost effectiveness of safety investments.

[161] *See* PSEP Plan at 1.

12. As required by the Decision, Applicants coordinated with SED in developing and evaluating this Plan and alternative designs.

13. Applicants recommended the first design alternative at a fully loaded cost of approximately $677 million. Of the total estimated cost, Applicants anticipate recording approximately $630 million as capital expenditure and approximately $47 million as an operating expense.

14. According to the Applicants, work will commence during the first quarter of 2020 with an initial focus on HCAs. Construction and testing is anticipated to span approximately four years.

15. In non-HCAs, hydrotesting is not expected to be completed until 2023 and 2024.

16. If instead, permits and hydrotesting work commences during the first quarter 2020 on Line 1600 segments that the Applicants propose to hydrotest under D.18-06-028 Option 2 (Design Alternative 1), work would commence on segments that would also be hydrotested under D.18-06-028 Option 1 (Design Alternative 1).

17. Hydrotesting in non-HCAs sooner will provide immediate safety benefits and provide critical cost and safety data in consideration of hydrotesting in other HCA segments.

18. "Class 4 level estimates" used to provide cost estimates are generally prepared based on limited information and subsequently have fairly wide accuracy ranges. They are typically used for project screening, determination of feasibility, concept evaluation, and preliminary budget approval; typical accuracy ranges for Class 4 estimates are -15% to -30% on the low side, and +20% to +50% on the high side.

19. "Class 3 level estimates" used to provide cost estimates are generally used for budget authorization and control; typical accuracy ranges for Class 3 estimates are -10% to -20% on the low side and +10% to -20% on the high side.

20. The Applicants' Plan is comprised of 19 groupings of 19 independent project sections that can be completed independently to address safety, operational, community, environmental, constructability, and cost considerations associated with each distinct portion of Line 1600. The scope of work consists of 14 replacement sections and five hydrotests.

21. On January 15, 2019, the Deputy Director of SED sent a letter to the Senior Vice President of SoCalGas Operations and System Integrity approving Design Alternative 1.

22. On May 31, 2019, POC, Sierra Club, SCGC, and TURN (jointly, Petitioners) filed a Joint PFM of D.18-06-028, proposing changes in FOF 72, COL 19, and OP 7 that would open up a phase two of this proceeding (or alternatively, a new proceeding) to establish a process for transparent and effective public review through the hearing process of the hydrostatic test or replacement plan the Commission required in OP 7 of D.18-06-028 and to provide the public with an opportunity to review more effective alternatives.

23. Currently, any costs associated with PSEP work are proposed and managed through PSEP and rate case proceedings according to already existing CPUC institutionalized processes.

24. According to the Applicants' Plan, they intend to present costs incurred for [PSEP] projects completed prior to 2022 for reasonableness review in a General Rate Case application and to include forecasts of testing and replacement costs for years 2022 and beyond in General Rate Case applications, consistent with D.16-08-003.

25. SED is authorized to oversee the Applicants' compliance with § 958 and PSEP consistent with directives in prior decisions and OP 15 of the Decision.

26. The Commission has discretion to determine whether existing processes established by prior PSEP decisions should be enhanced to promote due process, transparency, and ensure timely protection of ratepayer interests.

27. Applicants have complied with most PSEP Compliance Documentation requirements. However, the Applicants' original PSEP Plan submitted September 2018 was incomplete because it appears they did not provide "the best available expense and capital cost projections for each prioritized segment and each test year" as directed by D.18-06-028.

28. Without this cost information, the CPUC was unable to evaluate the cost-effective analyses the Applicants referred to in is PSEP Plan that would allow it to balance the tradeoffs between safety, reliability and service, and cost-effectiveness goals among alternative options.

29. The proposed Line 3602 was a separate project from PSEP remediation of an existing pipeline, regardless of whether remediation is through pressure testing, replacing in whole or in part, derating, or abandoning.

30. The Decision did not preclude an application process in the future if the Applicants or the Commission considered it appropriate.

31. The Decision made it clear that relitigating various options could take years of further evidentiary hearings and deliberations since the PSEP process was mandated eight years ago.

32. When SED approved the Plan, they considered safety, technical, and reliability factors but did not consider costs; therefore, this represents a gap that must be addressed through an existing and/or new procedural venue.

33. Costs of the planned hydrotest and replacement of the 16-inch Line 1600 at a proposed fully loaded and escalated $677 million (30% higher than the cost of the all-new proposed 36-inch Line 3602) have not yet been litigated; therefore, it is appropriate to consider a separate process consistent with forecast applications for similar type of work (*e.g.,* A.17-03-021) and recent PSEP reasonableness review applications (*e.g.,* A.14-12-016, A.16-09-005, A.18-11-010).

34. Given the Commission's safety priorities, it is not prudent to initiate an application through a new proceeding since it would likely take a longer period of time to resolve than a process through the existing proceeding.

35. Forecast applications (or their equivalents in the second phase of this proceeding) are the preferred means to review large projects, such as the cost aspects of the proposed Line 1600 PSEP replacement and hydrotest alternatives.

36. Under the SoCalGas PSEP Decision Tree that the Commission approved in D.14-06-007, what constitutes "manageable customer impacts" has not been resolved in this proceeding.

37. Solely relying on "existing processes" or "after the fact" reasonableness reviews places accountability on the Applicants for controlling costs for a half-billion dollar project too far into the future (*e.g.,* 2022 and 2025 GRCs).

38. Litigation of the cost forecast for D.18-06-028 Options 1 and 2 and Design Alternatives 3 and 4 in a second phase of the instant proceeding will make the related GRC review and evaluation processes more productive and efficient.

39. In compliance with D.18-06-028 OP 5, SED conducted a study pertaining to operators' definitions of transmission and distribution lines to clarify how the definitions apply under various circumstances and at what costs, surveyed other states for similar data, and conducted a workshop with utilities and other interested parties.

40. The results of SED's ongoing transmission/distribution study are so far non-conclusive and still evolving.

41. Pending public review, the outcome of the independent Line 1600 Pipeline Audit and SED Transmission Study will help inform a safe MAOP and various interim, short-term, and long-term goals and activities.

42. Applicants have presented untested extra-record evidence that appears inconsistent with the Applicants' own testimony and record in A.15-09-013.

43. The primary safety benefit of derating Line 1600 from 512 psig to 320 psig, with a hoop stress of less than 20% of SMYS, is that a pipeline failure would more likely result in a leak rather than a rupture.

44. PSEP Option 2 involves an "in kind" replacement of the 16-inch diameter Line 1600, which is consistent with the Decision's OP 1.

45. As directed by SED-1, the current MAOP of Line 1600 is 512 psig and will remain so until the Commission determines otherwise, which is also consistent with the Decision's OP 1.

46. According to existing regulations, increased pressures above 512 psig are required to perform hydrostatic tests of existing and new pipe and also to provide flexibility should the Commission choose to raise MAOP in the future to ensure reliability of service.

47. The existing lines 3010 (530 MMcfd) and 1600 (65 MMcfd at 512 psig), with a combined capacity of 595 MMcfd, have sufficient pipeline capacity to meet the Applicants' own peak forecasts.

48. Consistent with OP 1 of the D.18-06-028, if installing this same 16-inch diameter pipeline increases the demand-forecast capacity above the current combined capacity of 595 MMcfd for both Line 3010 and Line 1600, the burden is

on the Applicants to provide a detailed justification to the Commission, especially if additional facilities costs must be incurred.

49. Given the unique and exceptional history of Line 1600 PSEP-related applications and the magnitude of capital forecast costs, it is reasonable to require the Applicants to file a cost forecast consistent with the Commission's best practices for PSEP review.

50. Reviewing a Line 1600 PSEP cost forecast via a public process will enable the Commission to provide appropriate guidance regarding the reasonableness of the cost estimates, cost containment strategies, ratemaking and accounting treatment, and overall assumptions.

51. On July 1, 2019, in the Applicants' response to the PFM, at Attachment 1 of the Kohls Declaration, pages 33-34 of the Plan are presented in unredacted form. The unredacted pages disclose certain test pressures and pressure ranges, and certain percentages of SMYS. The unredacted pages also disclose the diameter, wall thickness and grade of the proposed pipe, as well as the wall thickness and grade of existing pipe.

Conclusions of Law

1. As provided by § 451 all rates and charges by a public utility must be "just and reasonable," and a public utility may not change a rate "except upon a showing before the commission and a finding by the commission that the new rate is justified," as provided in § 454.

2. The burden of proof is on the Applicants to demonstrate that it is entitled to the relief sought in this proceeding, including affirmatively establishing the reasonableness of all aspects of the cost forecast.

3. The standard of proof that the Applicants must meet is that of a preponderance of evidence, which means such evidence as, when weighed with that opposed to it, has more convincing force and the greater probability of truth.

4. The PFM of D.18-06-028 should be granted in part in accordance with the paragraphs below.

5. It is reasonable to modify FOF 72 as follows:

> *Based on an assessment of existing Commission processes to support SoCalGas/SDG&E PSEPs, the unknowns of test and/or replace plans such as actual costs and ROW issues should typically be addressed in the existing Commission PSEP and companion GRC processes, unless the Commission directs otherwise.*

6. It is reasonable to modify COL 19 as follows:

> It is reasonable that no later than three months from the date of the issuance of this decision [D.18-06-028], consistent with General Order 112-F Reference, Title 49 Code of Federal Regulations, Part 192—Subpart J and National Transportation Safety Board recommendations, Section 958 of the Public Utilities Code and D.11-06-017, Applicants should submit to SED a hydrostatic test or replacement plan pertaining to the existing 49.7 miles of Line 1600 corridor. *Within six months of the Decision Approving Limited Modifications To Decision 18-06-028,* i*t is reasonable for Applicants to file the Class Three cost forecast, cost methodology, proposed accounting treatment, proposed schedule for cost recovery, supported by direct testimony and work papers, of the work to implement the D.18-06-028 Option 1 (hydrostatic test) and D.18-06-028 Option 2 (replacement and hydrotest plan) and Design Alternatives 3 (Full Replacement in Nearby Streets alternative) and 4 (Full replacement Along Highway 95 alternative) to the Commission for review, with service to the parties to this proceeding.*

7. It is reasonable to modify OP 7 as follows:

> No later than three months from the date of the issuance of this decision [D.18-0-028}, consistent with General Order 112-F Reference, Title 49 Code of Federal Regulations, Part 192—Subpart J and the National Transportation Safety Board recommendations, Pub. Util. Code § 958 and Decision 11-06-017, San Diego Gas &

Electric Company and Southern California Gas Company (Applicants) shall submit to Safety and Enforcement Division a hydrostatic test or replacement plan pertaining to the existing 49.7 miles of Line 1600 in its present corridor.

Within six months of the issuance of the Decision Approving Modifications To Decision 18-06-028, to supplement the above, Applicants shall file the Class Three cost forecast, proposed accounting treatment and proposed schedule for cost recovery, supported by direct testimony and workpapers, of the work to implement the D.18-06-028 Option 1 (hydrostatic test) and D.18-06-028 Option 2 (replacement and hydrotest plan) and Design Alternatives 3 (Full Replacement in Nearby Streets alternative) and 4 (Full Replacement Along Highway 395 alternative) to the Commission for review, with service to the parties in the proceeding.

8. It is reasonable to modify COL 34 as follows:

Application 15-09-013 should remain open to address Class Three costs related to D.18-06-028 Option 1, the Line 1600 hydrostatic test, and D.18-06-028 Option 2, the replacement and hydrotest plan; and Design Alternatives 3 (Full Replacement in Nearby Streets alternative) and 4 (Full Replacement Along Highway 395 Alternative).

9. It is reasonable to modify OP 19 as follows:

Application 15-09-013 remains open to address Class Three costs related to the Line 1600 hydrostatic test plan and the Line 1600 replacement and hydrotest plans.

10. The information that Applicants have already disclosed regarding the Plan is no longer subject to Applicants' claims of confidentiality, and is relevant to the current phase of this proceeding.

11. Consistent with guidance provided in Section 7.5 "Confidentiality" of this decision, within thirty days of the issuance of this decision, it is reasonable for the Applicants to post a public version of the September 26, 2018 "Line 1600 Test or Replacement Plan" (Plan) on their websites that discloses throughout the document the data that has already been disclosed by Applicants. This would include, for example, diameter values. Consistent with D.18-06-028, it is

reasonable that this reposted Plan include missing data including "best available expense and capital cost projections for each prioritized segment and each test year." After posting the public Plan, the Applicants should inform the service list.

12. It is reasonable to require parties' comments on the Applicants' Line 1600 hydrostatic test or replacement plan cost forecast, proposed accounting treatment and proposed schedule for cost recovery reasonableness review, supported by direct testimony and workpapers.

13. It is reasonable to halt construction of the Line 1600 non-hydrotest segments until the Commission has an opportunity to consider missing cost data by segment and more fully evaluate all options, including hydrotest and deration alternatives, during the second phase of this proceeding.

14. It is reasonable to escalate the 2023-2024 schedule for hydrotesting Segments 2, 3, 4, 6, and 7 in non-HCAs in order to provide immediate safety benefits and provide cost data necessary to evaluate hydrotesting alternatives in other segments.

15. It is reasonable for the Commission to consider Line 1600 deration options while ensuring reliability and TIMP standards as more information becomes available during the second phase of this proceeding.

O R D E R

IT IS ORDERED that:

1. The Petition for Modification of Decision 18-06-028, filed by Protect Our Communities, Sierra Club, Southern California Generation Coalition and The Utility Reform Network (jointly, Petitioners) is hereby granted in part and denied in part in accordance with the ordering paragraphs of this Decision.

2. Decision 18-06-028 is modified to replace Finding of Fact 72 with:

   Based on an assessment of existing Commission processes to support SoCalGas/SDG&E PSEPs, the unknowns of test and/or replace plans such as actual costs and ROW issues should typically be addressed in the existing Commission PSEP and companion GRC processes, unless the Commission directs otherwise.

3. Decision (D.) 18-06-028 is modified to replace Conclusion of Law 19 with:

   It is reasonable that no later than three months from the date of the issuance of this decision [D.18-06-028], consistent with General Order 112-F Reference, Title 49 Code of Federal Regulations, Part 192—Subpart J and National Transportation Safety Board recommendations, Section 958 of the Public Utilities Code and D.11-06-017, Applicants should submit to SED a hydrostatic test or replacement plan pertaining to the existing 49.7 miles of Line 1600 corridor.

   Within six months of the issuance of the Decision Approving Modification To Decision 18-06-028, to supplement the above, it is reasonable for Applicants to file the Class Three cost forecast, cost methodology, proposed accounting treatment, proposed schedule for cost recovery, supported by direct testimony and work papers, of the work to implement the D.18-06-028 Option 1 (hydrostatic test) and Option 2 (replacement and hydrotest plan); and Design Alternatives 3 (Full Replacement in Nearby Streets alternative) and 4 (Full Replacement Along Highway 395 alternative) to the Commission for review, with service to the parties to this proceeding.

4. Decision (D.) 18-06-028 is modified to replace Ordering Paragraph 7 with:

   No later than three months from the date of the issuance of this decision [D.18-06-028], consistent with General Order 112-F Reference, Title 49 Code of Federal Regulations, Part 192—Subpart J and the National Transportation Safety Board recommendations, Pub. Util. Code § 958 and Decision 11-06-017, San Diego Gas & Electric Company and Southern California Gas Company (Applicants) shall submit to Safety and Enforcement Division a hydrostatic test or replacement plan pertaining to the existing 49.7 miles of Line 1600 in its present corridor.

Within six months of the issuance of the Decision Approving Modifications To Decision 18-06-028, to supplement the above, Applicants shall file the Class Three cost forecast, proposed accounting treatment and proposed schedule for cost recovery, supported by direct testimony and workpapers, of the work to implement the D.18-06-028 Option 1 (hydrostatic test) and D.18-06-028 Option 2 (replacement and hydrotest plan); and Design Alternatives 3 (Full Replacement in Nearby Streets Alternative) and 4 (Full Replacement Along Highway 395 alternative) to the Commission for review, with service to the parties in the proceeding.

5. Decision (D.) 18-06-028 is modified to replace Conclusion of Law 34 with:

Application 15-09-013 should remain open to address Class Three costs related to D.18-06-028 Option 1, the Line 1600 hydrostatic test, and D.18-06-028 Option 2, the replacement and hydrotest plan; and Design Alternatives 3 (Full Replacement in Nearby Streets alternative) and 4 (Full Replacement Along Highway 395 Alternative).

6. Decision 18-06-028 is modified to replace Ordering Paragraph 19 with:

Application 15-09-013 remains open to address Class Three costs related to the Line 1600 hydrostatic test plan and replacement and hydrotest plans.

7. Within 30 days of the issuance of this decision, the Applicants shall post a public version of the September 26, 2018 "Line 1600 Test or Replacement Plan" (Plan) on their websites that discloses throughout the document the data that has already been disclosed by Applicants. This includes, for example, diameter values. Consistent with D.18-06-028, the reposted Plan shall include "best available expense and capital cost projections for each prioritized segment and each test year." After posting the public Plan, the Applicants shall inform the service list.

8. The Applicants may also remove additional redactions.

9. Within 30 days of the filing of Southern California Gas Company and San Diego Gas and Electric Company's Line 1600 hydrostatic test or replacement plan cost forecast as referred to Ordering Paragraph 4 above, parties in this reopened proceeding shall file comments.

10. Southern California Gas Company and San Diego Gas & Electric Company shall halt construction for Line 1600 non-hydrotest segments until the Commission has an opportunity to consider missing cost data by segment and more fully evaluate all options, including hydrotest and deration alternatives, during the second phase of this proceeding.

11. In compliance with Section 958 of the California Public Utilities Code, Southern California Gas Company and San Diego Gas & Electric Company shall immediately commence permitting and hydrotesting in Non-HCAs including Sections 2 (Rice Canyon-3.2 miles), Section 3 (Couser Canyon North Hydrotest-2.6 miles), Section 4 (Couser Canyon South Hydrotest-2.6 miles), Section 6 (Moosa Creek Hydrotest-0.9 miles) and Section 7 (Daley Ranch-3.5 miles) that equates to 12.8 miles or approximately 26% of the total 19 projects currently scheduled for 2023 and 2024. Applicants shall reflect progress of this work in ongoing Gantt charts provided to the Commission's Safety and Enforcement Division.

12. As referenced in Ordering Paragraphs 4, 5, and 6 of Decision 18-06-028, the Line 1600 Records Independent Audit the Commission's Safety Enforcement Division served to the service list on December 23, 2019 is entered into the record of this proceeding.

13. As referenced in Ordering Paragraphs 14 of Decision 18-06-028, within 30 days of the issuance of this decision, the Commission's Safety and

Enforcement Division shall post the final version of its Line 1600 Transmission Study on its website and inform the service list.

14. This proceeding remains open.

This order is effective today.

Dated _____, at San Francisco, California.

APPENDIX A

APPENDIX A

(Source: D.18-06-028 Attachment B)

(Definitions)

Hoop Stress (from Gas Pipeline Technology Committee)
Hoop stress is the stress in a pipe wall acting circumferentially in a plane perpendicular to the longitudinal axis of the pipe and produced by the pressure of the fluid or gas in the pipe. Hoop stress is a critical factor in determining a pipe's pressure holding capabilities. Hoop stress is calculated using Barlow's Equation.

Grandfather Clause
Merriam Webster's dictionary defines the "grandfather clause" as a clause creating an exemption based on circumstances previously existing. In the context of natural gas pipeline safety regulations, 49 CFR (Code of Federal Regulations), Part 192 §192.619(C) is commonly referred to the "grandfather clause" and allows the MAOP for pipelines that were in operation before July 1, 1970 to be set based on their highest recorded operating pressure over the period 1965-1970.

Longitudinal Joint Factor
LJF ("Longitudinal Joint Factor") refers to the term "E" (determined in accordance with 49 CFR, Part 192, § 192.113), in the Design Formula (See 49 CFR, Part 192 § 192.105). It is used in calculating the design pressure for steel pipe, and represents a level of confidence in the overall strength of a longitudinal seam weld.

PSIG
Pound per square inch gauge (psig) is a unit of pressure which is determined relative to atmospheric pressure. Gauge pressure is positive for pressures above atmospheric pressure, and negative for pressure below it. If we measure a pressure in an open container at sea level, the gauge pressure reads zero. However, there is a pressure of one atmosphere (14.7 psia) inside and outside of the container. Hence the absolute pressure inside and outside of the container is 14.7 psia (pounds per square inch absolute).
$P_{absolute} = P_{gauge} + P_{atmospheric}$

For example, a bicycle tire pumped up to 35 psig in a local atmospheric pressure at sea level (14.7 psia) will have an absolute pressure of 49.7 psia (14.7 psi + 35 psi).

MAOP
Maximum allowable operating pressure (MAOP) means the maximum pressure at which a pipeline or segment of a pipeline may be operated under 49 CFR, Part 192.

SMYS
SMYS means specified minimum yield strength:

(1) For steel pipe manufactured in accordance with a listed specification, the yield strength specified as a minimum in that specification; or

(2) For steel pipe manufactured in accordance with an unknown or unlisted specification, the yield strength determined in accordance with 49 CFR, Part 192 §192.107(b).

(END OF APPENDIX A)