

**THE UTILITY REFORM NETWORK DATA REQUEST**  
**TURN-DR-011**  
**SDG&E/SOCALGAS 2021 RAMP REPORTS- A.21-05-011/014**  
**DATE RECEIVED: AUGUST 13, 2021**  
**DATE RESPONDED: AUGUST 27, 2021**

**Question 1:**

SCG's RAMP report states on page 3-24: "Within DIMP, the DREAMS tool is used to prioritize risk mitigation on early vintage plastic and steel pipe segments. The risk algorithm includes pipe attributes, operational conditions and potential impact on population. Results of the analysis determine appropriate action to address risk for each segment and prioritize replacement investments based on a failure analysis."

- a. Please provide the "results of the analysis" of the DREAMS tool referenced in the quote above.
- b. With specific reference to the information provided in response to "a", please explain how those "results of the analysis" determine appropriate action to address risk for each segment and prioritize replacement investments based on a failure analysis.
- c. Please explain how SCG determined the number of miles of the Vintage Integrity Plastic Plan that is proposed in this RAMP and explain how, if at all, the DREAMS tool contributed to that determination. Please provide a table showing how the annual number of miles proposed for replacement in this program compare to the annual number of miles for each year of SCG's plastic pipe replacement program (whether called VIPP or a different name) since its inception.
- d. Please provide a table showing the current mileage for plastic pipe broken down as follows: manufactured pre-1973, 1973-1985, and 1986 and after. (Those dates are based on pages 3-24 to 3-25 of SCG's report.)
- e. Please explain how SCG determined the number of miles of the Bare Steel Replacement Program that is proposed in this RAMP and explain how, if at all, the DREAMS tool contributed to that determination. Please provide a table showing how the annual number of miles proposed for replacement in this program compare to the annual number of miles for each year of SCG's bare steel pipe replacement program (whether called BSRP or a different name) since its inception.
- f. What is the current number of miles of bare steel pipe in SCG's medium pressure system.
- g. Provide any current ranking of medium pressure pipe segments by relative risk that is a result or output of the DREAMS tool, including any risk scores and components of those scores (such as likelihood or consequence scores), and the basis for those scores, such as pipe attributes, operational conditions and potential impact on population.

**THE UTILITY REFORM NETWORK DATA REQUEST**  
**TURN-DR-011Q1a,d,g**  
**SDG&E/SOCALGAS 2021 RAMP REPORTS- A.21-05-011/014**  
**DATE RECEIVED: AUGUST 13, 2021**  
**DATE RESPONDED: AUGUST 27, 2021**  
**FIRST SUPPLEMENTAL RESPONSE: SEPTEMBER 3, 2021**

**Question 1.a:**

SCG's RAMP report states on page 3-24: "Within DIMP, the DREAMS tool is used to prioritize risk mitigation on early vintage plastic and steel pipe segments. The risk algorithm includes pipe attributes, operational conditions and potential impact on population. Results of the analysis determine appropriate action to address risk for each segment and prioritize replacement investments based on a failure analysis."

Please provide the "results of the analysis" of the DREAMS tool referenced in the quote above.

**SDG&E/SoCalGas Response 1.a:**

SoCalGas objects to this data request under Rule 10.1 of the Commission's Rules of Practice and Procedure on the grounds that the requested data goes beyond the scope of SoCalGas's and SDG&E's RAMP reports. SoCalGas objects on the ground that the request is unduly burdensome to respond in the time requested.

August 27 Response: Per email communications, SoCalGas informed TURN that additional time would be required to provide a response to this question, and that aspects of that reply may be classified as confidential. SoCalGas plans to provide a supplemental response on Friday, September 3, including information marked for confidentiality.

September 3 Response: SoCalGas maintains the objections included in the prior response. As explained in email communications, SoCalGas requires additional time to provide the information in response to this request:

*SoCalGas has been working diligently on providing replies by today (Friday, September 3) to sub-questions 1.a, 1.d, and 1.g to TURN DR#11, but due to team resource constraints resulting from the recent CPUC audit of our DIMP, we need additional time to finalize the replies to 1.a and 1.g.*

*SoCalGas interprets this request to mean results reflecting the current risk modeling of all segments of pipe on the medium pressure system. In response, SoCalGas will provide*

**THE UTILITY REFORM NETWORK DATA REQUEST**

**TURN-DR-011Q1a,d,g**

**SDG&E/SOCALGAS 2021 RAMP REPORTS- A.21-05-011/014**

**DATE RECEIVED: AUGUST 13, 2021**

**DATE RESPONDED: AUGUST 27, 2021**

**FIRST SUPPLEMENTAL RESPONSE: SEPTEMBER 3, 2021**

**SDG&E/SoCalGas Response 1.a: Continued**

*our 2021 DREAMS model output by quantitative risk, and the associated inputs to those risk calculations. Final review is anticipated next week, and we are striving to provide the response by September 10<sup>th</sup>.*

**THE UTILITY REFORM NETWORK DATA REQUEST**  
**TURN-DR-011**  
**SDG&E/SOCALGAS 2021 RAMP REPORTS- A.21-05-011/014**  
**DATE RECEIVED: AUGUST 13, 2021**  
**DATE RESPONDED: AUGUST 27, 2021**

**Question 1.b:**

With specific reference to the information provided in response to “a”, please explain how those “results of the analysis” determine appropriate action to address risk for each segment and prioritize replacement investments based on a failure analysis.

**SDG&E/SoCalGas Response 1.b:**

The results of the DREAMS relative risk assessment for non-state-of-the-art (NSOTA) medium pressure distribution mains are used as a driver for prioritization of medium pressure pipeline replacement. Leak rates, material threats, and construction threats are primary factors informing the relative risk results for polyethylene (PE) pipe, as are leak rates and corrosion threat for bare steel pipe. The DREAMS risk model generates a risk score for pipeline segments and the risk results are then aggregated to 1x1 mile grids. Higher priority areas are identified using the aggregated risk scores for each grid, and these grids are referred to operational teams for action.

The model was developed to inform a risk-based prioritization of mitigative actions and, based on risk factors, SoCalGas has determined that replacement of pipeline segments is the most appropriate action to reliably improve the safety of identified areas. SoCalGas takes additional measures to mitigate risk across its service territory that include increased frequency of leak surveys and sample failure analyses ahead of replacement to inform prioritization of replacements and provide feedback as SoCalGas evaluates and enhances the DREAMS risk assessment model as part of continuous improvement efforts.

**THE UTILITY REFORM NETWORK DATA REQUEST**  
**TURN-DR-011**  
**SDG&E/SOCALGAS 2021 RAMP REPORTS- A.21-05-011/014**  
**DATE RECEIVED: AUGUST 13, 2021**  
**DATE RESPONDED: AUGUST 27, 2021**

**Question 1.c:**

Please explain how SCG determined the number of miles of the Vintage Integrity Plastic Plan that is proposed in this RAMP and explain how, if at all, the DREAMS tool contributed to that determination. Please provide a table showing how the annual number of miles proposed for replacement in this program compare to the annual number of miles for each year of SCG's plastic pipe replacement program (whether called VIPP or a different name) since its inception.

**SDG&E/SoCalGas Response 1.c:**

SoCalGas implements a Vintage Integrity Plastic Plan (VIPP), which is based on a foundation of safety and system risk reduction, to address the threat associated with the operation of approximately 24,000 miles (SDG&E and SoCalGas) of early vintage plastic mains and services manufactured by Dupont and installed prior to 1986 (commonly referred to as "Aldyl-A"). In 2007, as an update to previous advisory bulletins on the subject of Aldyl-A, PHMSA issued Advisory Bulletin 26 ADB-99-02, which states that "the number and similarity of plastic pipe accident and non-accident failures indicate past standards used to rate the long-term strength of plastic pipe may have overrated the strength and resistance to brittle-like cracking for much of the plastic pipe manufactured and used for gas service from the 1960s through the early 1980s." Within this advisory bulletin, PHMSA specifically identifies the Aldyl-A polyethylene pipe as one of the materials susceptible to brittle-like cracking. Further, the CPUC expressed similar concerns with this material and vintage in a report issued in 2014 titled "Hazard Analysis & Mitigation Report on Aldyl-A Polyethylene Gas Pipelines in California, June 2014."

In alignment with the guidance from PHMSA and the CPUC, SoCalGas has completed 264 miles of replacement of Aldyl-A pipe (2015-2020) and anticipates replacing approximately 350 miles of additional Aldyl-A pipe through 2024. Additionally, in the TY 2019 GRC Decision, the CPUC suggests that SoCalGas, "include an outlook of its long-term assessment and replacement plan...as it appears that its current replacement rate is not on pace with its original assessment."<sup>1</sup> In response to this directive, SoCalGas reviewed its rate of replacement of Aldyl-A and is implementing a plan to accelerate the rate of remediation of Aldyl-A pipe. The RAMP forecast represents the approximate number of miles per year that SoCalGas believes may feasibly be replaced, as informed by historical replacement rates and available resources, and includes a modest increase year-over-year to take into account continuous improvements in replacement practices and accelerate the pace of replacement, as encouraged by the CPUC in the TY 2019 GRC decision. In other words, while operational prioritization of the work is influenced by the DREAMS model, the development of the RAMP miles-per-year replacement forecast is not. The miles-per-year replacement forecast is based upon historical replacement rates, operator judgment, and instruction from the CPUC and other authorities.

---

<sup>1</sup> D.19-09-051 at p. 192

**THE UTILITY REFORM NETWORK DATA REQUEST  
TURN-DR-011  
SDG&E/SOCALGAS 2021 RAMP REPORTS- A.21-05-011/014  
DATE RECEIVED: AUGUST 13, 2021  
DATE RESPONDED: AUGUST 27, 2021**

**SDG&E/SoCalGas Response 1.c:-CONTINUED**

The following table provides the number of miles identified in the 2021 RAMP as currently planned to be replaced during the Test Year 2024 GRC forecast period as well as the number of miles replaced since the inception of the Aldyl-A replacement program:<sup>2</sup>

	Historical						Forecast			
	2015	2016	2017	2018	2019	2020	2021*	2022	2023	2024
SoCal Gas	5	21	34	75	46	83	80	84 - 101	90 - 109	96 - 116

\*2021 total is a projection of miles to be replaced by year-end

---

<sup>2</sup> Numbers for 2016-2020 and 2022-2024 align with those for mitigation Control ID C21-T1 on page SCG-Risk-3-WP-6 in the workpaper “SCG-Risk-3-WP Incident Related to the Medium Pressure System ” posted to SoCalGas’s 2021 RAMP website: <https://www.socalgas.com/regulatory/2021-ramp-report>.

**THE UTILITY REFORM NETWORK DATA REQUEST**

**TURN-DR-011Q1a,d,g**

**SDG&E/SOCALGAS 2021 RAMP REPORTS- A.21-05-011/014**

**DATE RECEIVED: AUGUST 13, 2021**

**DATE RESPONDED: AUGUST 27, 2021**

**FIRST SUPPLEMENTAL RESPONSE: SEPTEMBER 3, 2021**

**Question 1.d:**

Please provide a table showing the current mileage for plastic pipe broken down as follows: manufactured pre-1973, 1973-1985, and 1986 and after. (Those dates are based on pages 3-24 to 3-25 of SCG's report.)

**SDG&E/SoCalGas Response 1.d:**

August 27 Response: See response to Question 1.a.

September 3 Response:

The data provided in the following table breaks down the mileage of plastic pipe in the SoCalGas gas distribution system by year of installation as of December 31, 2020. SoCalGas does not have the year of manufacture for every plastic pipe segment and primarily tracks the year of installation.

<b>Install Year of PE</b>	<b>1969-1972 PE</b>	<b>1973-1985 PE</b>	<b>Post -1986 PE</b>
<b>Service Miles</b>	533	11,754	19,841
<b>Main Miles</b>	381	7,732	17,265
<b>Total Miles</b>	<b>914</b>	<b>19,486</b>	<b>37,106</b>

**THE UTILITY REFORM NETWORK DATA REQUEST  
TURN-DR-011  
SDG&E/SOCALGAS 2021 RAMP REPORTS- A.21-05-011/014  
DATE RECEIVED: AUGUST 13, 2021  
DATE RESPONDED: AUGUST 27, 2021**

**Question 1.e:**

Please explain how SCG determined the number of miles of the Bare Steel Replacement Program that is proposed in this RAMP and explain how, if at all, the DREAMS tool contributed to that determination. Please provide a table showing how the annual number of miles proposed for replacement in this program compare to the annual number of miles for each year of SCG’s bare steel pipe replacement program (whether called BSRP or a different name) since its inception.

**SDG&E/SoCalGas Response to 1.e:**

The Bare Steel Replacement Plan (BSRP) focuses on the replacement of non-state-of-the-art (NSOTA) steel pipe. NSOTA steel pipe lacks modern corrosion protection, which results in these pipelines being more susceptible to corrosion failure. As a result, this category of pipe is higher-risk. It is SoCalGas’s objective to accelerate the replacement of this higher-risk population of pipelines while first prioritizing those pipeline segment with a history of corrosion leaks. Similar to VIPP, SoCalGas reviewed the rate of its replacement of NSTOTA steel pipe and is implementing a plan to accelerate the replacement of NSOTA pipe, in alignment with the CPUC’s guidance in the TY 2019 GRC Decision.<sup>3</sup> The RAMP forecast represents the approximate number of miles per year that SoCalGas believes may feasibly be replaced, as informed by historical replacement rates and available resources, and includes a modest increase year-over-year to take into account continuous improvements in replacement practices and accelerate the pace of replacement, as encouraged by the CPUC in the TY 2019 GRC decision. In other words, while operational prioritization of the work is influenced by the DREAMS model, the development of the RAMP miles-per-year replacement forecast is not. The miles-per-year replacement forecast is based upon historical replacement rates, operator judgment, and instruction from the CPUC and other authorities.

The following table provides the number of miles identified in the 2021 RAMP as currently planned to be replaced during the Test Year 2024 GRC forecast period as well as the number of miles replaced since the inception of a bare steel replacement program:<sup>4</sup>

	Historical						Forecast			
	2015	2016	2017	2018	2019	2020	2021*	2022	2023	2024
SoCalGas	14	25	30	29	28	33	38	36 - 44	38 - 46	41 - 49

\*2021 total is a projection of miles to be replaced by year-end

<sup>3</sup> D.19-09-051 at p. 192.

<sup>4</sup> Numbers for 2016-2020 and 2022-2024 align with those for mitigation Control ID 21-T2 on page SCG-Risk-3-WP-6 in the workpaper “SCG-Risk-3-WP Incident Related to the Medium Pressure System” posted to SoCalGas’s 2021 RAMP website: <https://www.socalgas.com/regulatory/2021-ramp-report>.

**THE UTILITY REFORM NETWORK DATA REQUEST  
TURN-DR-011  
SDG&E/SOCALGAS 2021 RAMP REPORTS- A.21-05-011/014  
DATE RECEIVED: AUGUST 13, 2021  
DATE RESPONDED: AUGUST 27, 2021**

**Question 1.f:**

What is the current number of miles of bare steel pipe in SCG's medium pressure system.

**SDG&E/SoCalGas Response to 1.f:**

As of year-end 2020, SoCalGas reported to PHMSA: 3,435 miles of medium pressure distribution mains and 304 miles of distribution services that are bare and do not have cathodic protection.

**THE UTILITY REFORM NETWORK DATA REQUEST**

**TURN-DR-011Q1a,d,g**

**SDG&E/SOCALGAS 2021 RAMP REPORTS- A.21-05-011/014**

**DATE RECEIVED: AUGUST 13, 2021**

**DATE RESPONDED: AUGUST 27, 2021**

**FIRST SUPPLEMENTAL RESPONSE: SEPTEMBER 3, 2021**

**Question 1.g:**

Provide any current ranking of medium pressure pipe segments by relative risk that is a result or output of the DREAMS tool, including any risk scores and components of those scores (such as likelihood or consequence scores), and the basis for those scores, such as pipe attributes, operational conditions and potential impact on population.

**SDG&E/SoCalGas Response 1.g:**

August 27 Response: See response to Question 1.a.

September 3 Response: See response to Question 1.a.