SDG&E
Attachment Q1

Related Proposed Mandatory Best Practice(s)	Title	Emission Source	Question 1: A summary of changes to utility leak and emission management practices from January 1st, 2018 to December 31st, 2018.
1	2018 – 2019 Compliance Plan Implementation	All	• SDG&E received approval on its 2018-2019 Leak Abatement Compliance in October 2018 and developed a program management office to oversee the implementation of the approved best practice activities.
2	Methane GHG Policy	All	• In 2018 SDG&E updated its Environmental Excellence Policy to reflect that methane is a potent Greenhouse Gas (GHG) that must be prevented from escaping to atmosphere.
3	Pressure Reduction Policy	Blowdown from high pressure Transmission , Distribution, and Storage Pipelines	• In 2018 SDG&E prepared and circulated draft policies with internal stakeholders stating that pressure reduction to the lowest operationally feasible level in order to minimize methane emissions is required before non-emergency venting of high-pressure facilities.
4	Project Scheduling Policy		• In 2018 SDG&E prepared and circulated draft policies with internal stakeholders stating that projects must have time built in to minimize methane emissions, which is required before non-emergency venting of high-pressure facilities. These updated policies were subsequently published in 2019.
5	Methane Evacuation Procedures		• In 2018 SDG&E prepared and circulated draft policies with internal stakeholders outlining the procedures approved for evacuating methane before non-emergency venting of high-pressure facilities.
6	Methane Evacuation Work Orders Policy	Blowdown from high pressure Transmission	• In 2018 SDG&E prepared and circulated draft policies and procedures with internal stakeholders outlining requirements for documenting in procedures the steps to reduce pressure before non-emergency venting of high-pressure facilities.

SDG&E
Attachment Q1

Related Proposed Mandatory Best Practice(s)	Title	Emission Source	Question 1: A summary of changes to utility leak and emission management practices from January 1st, 2018 to December 31st, 2018.
		, Distribution, and Storage Pipelines	
7	Bundling Work Policy	Blowdown from high pressure Transmission , Distribution, and Storage Pipelines	• In 2018 SDG&E prepared and circulated draft policies and procedures with internal stakeholders outlining requirements for bundling projects to reduce venting methane to atmosphere.
9	Recordkeeping	All	• In 2018 SDG&E began work on developing a centralized database to incorporate SB 1371 records to enable automation of reporting. A project manager is working with the data owners to understand how to better gather the data in improved mobile forms, as well as system architects to outline how to house the data. This project is expected to extend through 2020.
11	Methane Emissions Minimization Training	All	• In 2018 SDG&E began developing a training module that provides employees with an overview of what GHGs are, how they impact the environment, the impacts of methane, and how employees can help reduce methane emissions. This module is expected to be finalized in 2019 and will be a mandatory training requirement for all SDG&E employees. SDG&E also began updating internal training materials for operational trainings, so they reflect policy updates regarding implementations of the 26 mandatory best practices.

SDG&E
Attachment Q1

Related Proposed Mandatory Best Practice(s)	Title	Emission Source	Question 1: A summary of changes to utility leak and emission management practices from January 1st, 2018 to December 31st, 2018.
12	Knowledge Continuity Training Programs	All	• SDG&E will be implementing the training program developed to meet the requirements of Best Practice 11 into the new employee training bundle so all new employees are trained on the importance of minimizing methane emissions.
15	Gas Distribution Leak Surveys	Distribution Pipelines	• In 2018 SDG&E began preparing to transition state-of-the-art plastic pipe and high performing protected steel pipe from a five-year leak survey interval to a three-year interval, beginning in January 2020. This preparation includes hiring and training incremental employees, purchasing tools, vehicles, and instrumentation, coordinating facility requirements, and updating compliance systems.
16	Increased Survey on Vintage Steel	Vintage Steel Pipe	• In 2018 SDG&E began preparing to transition vintage steel pipe from a five-year leak survey interval to annual, beginning in January 2020. This preparation includes hiring and training incremental employees, purchasing tools, vehicles, and instrumentation, coordinating facility requirements, and updating compliance systems.
16	Distribution Integrity Management Program Replacement of Vintage Plastic Pipe	Underground Distribution Pipelines	• In 2018, SDG&E replaced approximately 40 miles of non-state of the art early vintage plastic pipe. These replacements are estimated to provide a reduction of 38 MCF of annual emissions. • SDG&E has a GRC-funded Vintage Integrity Plastic Plan (VIPP) that focuses on the replacement of poor performing early vintage plastic for all pre-1986 plastic pipe. SDG&E plans to target 41 miles of mains and associated services annually above and beyond routine replacements in accordance with Distribution Integrity Management Program (DIMP) regulations.
16	Leverage eGIS to Prioritize Non-State-of-	Distribution Pipelines	• SDG&E continues to leverage eGIS to enhance prioritization and optimization of non-state-of-the-art pipeline replacement programs. Leveraging eGIS to more efficiently address the leakiest portions of the

Related Proposed Mandatory Best Practice(s)	Title	Emission Source	Question 1: A summary of changes to utility leak and emission management practices from January 1st, 2018 to December 31st, 2018.
	the-Art Pipeline Replacement Programs		system increases the effectiveness of modernization programs and supports greater natural gas reductions.
16	Move Pre-1986 Aldyl-A Mains and Associated Services on 5-Year Leak Survey Cycle to Annual Leak Survey	Distribution Pipelines	• In 2018, SDG&E began performing annual leak surveys on pre-1986 Aldyl-A mains and associated services, compared with the previous 5-year leak survey cycles. The emissions reductions expected for this activity are detailed in the 2018-2019 Leak Abatement Compliance Plan.
17	Enhanced Methane Detection	Transmission and Distribution Pipelines	• SDG&E is expanding their methane speciation program to a mobile format to respond to requests from Operations for leak speciation where a methane source is in question. In 2018 SDG&E began the procurement of a new speciation van, including a vehicle and gas speciation equipment. These are long lead time items, which are expected to arrive in 2019.
18	Synergies with Pipeline Safety Enhancement Plan (PSEP) Technology Plan	Distribution and Transmission Pipeline Leaks	• SDG&E requested funding in the TY 2019 GRC Application to install approximately 2100 methane sensors that link to the Advanced Meter network. Theses sensor support early warning of a leak for schools, hospitals, or hard to evacuate facilities (e.g. nursing homes). SDG&E installed fifteen sensors as a pilot to integrate with the network, back office systems, and associated processes. If this program is funded, SDG&E would like to expand the program beyond a pilot. Deployment is on hold pending a GRC decision. • SDG&E requested in the TY 2019 GRC application to begin installing fiber optics above high-pressure lines that can sense leaks and potential encroachments near the pipeline. In 2016, SoCalGas installed as a pilot and for training a fiber optic line in their Situation Training facility at Pico

Related Proposed Mandatory Best Practice(s)	Title	Emission Source	Question 1: A summary of changes to utility leak and emission management practices from January 1st, 2018 to December 31st, 2018.
			Rivera. To further this effort, SDG&E changed their procedures to require any Transmission pipeline projects 12" or greater in diameter for a mile or longer to install a fiber optic sensing line. This program is expected to be implemented at SDG&E in 2022.
18	Stationary Methane Detector Pilot	Above Ground High Pressure Facilities	• SDG&E proposed piloting stationary methane sensors for high pressure regulator stations to determine emission reduction capabilities and cost effectiveness of these systems. In 2018, SoCalGas began developing the pilot scope, determining data needs, evaluating technologies to be piloted, and evaluating various locations to install pilot sensors to have a diverse and statistically significant data set. Equipment was ordered in early 2019 and preliminary results are expected by the end of 2019.
19	Above Ground Leak Surveys	Above Ground Transmission and High-Pressure Distribution Facilities	• SDG&E is working to provide Measurement and Regulation (M&R) Technicians with leak detection instrumentation to begin performing and recording instrumented leak surveys. In 2018 SDG&E began evaluating instrumentation options to use for above ground survey on high pressure M&R facilities.
20b	Electronically Track Verified Gas Leaks	Transmission and Distribution Pipelines - Leak Survey	• SDG&E worked on development of an IT system to replace existing leak survey/patrol processes involving paper maps with a mobile application that provides electronic maps and captures breadcrumb data. Complete integration is expected to be completed by the end of 2020. Once fully integrated with eGIS and work management systems, this enhancement should: o Provide electronic maps in the field and collect breadcrumb data along survey path o Improve geographic evaluation and tracking of leaks with auto-population of GIS coordinates for leak location

Related Proposed Mandatory Best Practice(s)	Title	Emission Source	Question 1: A summary of changes to utility leak and emission management practices from January 1st, 2018 to December 31st, 2018.
			○ Ensure all pipeline assets have been leak-surveyed and all leak indications are captured ○ Improve recordkeeping of survey activities ○ Reduce paperwork and data entry labor ○ Reduce data entry errors and missed records
22	Pipe Fitting Specifications	Threaded Fittings	• In 2018 SDG&E engaged in a research project on the quality of threaded fittings on our system. SDG&E also began designing the scope of an internal study to determine if more stringent quality control processes need to be implemented to reduce emissions through threaded fittings.
23	Replacement of High Bleed Pneumatic Devices	High Bleed Pneumatics	• A 2018 field verification confirmed there are no high-bleed pneumatic devices on the SDG&E system, they have all been proactively replaced.
23	Reduce Venting During Blowdowns and Improve Data Collection	Transmission Pipeline Blowdowns	• SDG&E Transmission Pipelines routinely require maintenance to maintain system integrity and safety. The gas must be evacuated from the pipelines to a safe level prior to maintenance work. As a best practice, SDG&E lowers the pipeline pressure where feasible to reduce the potential volume of methane emissions. In 2018, SDG&E avoided 88.7MCF of methane emissions by reducing line pressure prior to blowdowns.
24 - 26	Excavation Damage Prevention	Distribution and Transmission Pipeline Damages	• SDG&E continues to conduct damage prevention programs that address the nine damage prevention elements found within the PIPES Act listed in legislation, Title 49 U.S.C. (United States Code) §60134(b). Reduction of damages to the system can support public safety, integrity of the system as well as environmental methane reduction goals. • SDG&E continues to promote other damage prevention measures such as protection of gas facilities from outside force damage, monitoring of third-party excavation activities near high pressure lines, and proactive monitoring of Company facilities.

SDG&E
Attachment Q1

Related Proposed Mandatory Best Practice(s)	Title	Emission Source	Question 1: A summary of changes to utility leak and emission management practices from January 1st, 2018 to December 31st, 2018.
			• SDG&E is a member of the EPA Methane Challenge Program and has been implementing the Excavation Damages Best Management Practices. A report of the company's 2017 Excavation Damages Best Management Practices activities was submitted in late 2018 after Program Approval by the Office of Management & Budget.
25	Dig Ins and Company Standby Monitors	Underground Pipes	• In 2018 SDG&E worked on the development of an algorithm that would prioritize USA tickets for expanded standby. This is expected to be completed in 2019 and go to a pilot phase to evaluate if the expanded standby reduces damages and emissions in a cost effective manner.
26	Dig Ins and Repeat Offenders	Underground Pipes	• In 2018 SDG&E began developing the project scope and system requirements to develop system improvements so damage data can be better analyzed and aggregated for reporting. SoCalGas also began initial work in developing improved mobile forms for gathering data and submitting it into the system to reduce manual entry error.
N/A	Refinement of Emission Factors	Various Sources (e.g. Customer Meters and Meter and Regulator Stations etc.)	• This work is being done in collaboration with California Air Resources Board (CARB) and the California Public Utilities Commission. SDG&E cooperated and participated in studies and supported CARB to revise emission factors. SDG&E is hopeful CARB will provide a report with revised factors as discussed in the Workshop in January 2018, and SDG&E will be supporting technical review with CARB going forward.