

## Session 1: Q & A

### Worker Safety Related SOMs & Modifications to SPMs

Table 1-A. SOMs

Number Index	Staff Proposed SOMs	Definition	Staff Proposed Modification or Additional SPMs
<b>1</b>	<b>SIF related SOMs</b>		
1.1	Rate of SIF Actual (Employee)	The SIF-Actual <sup>1</sup> Rate is calculated using the formula: Number of SIF-Actual (employee count) x 200,000/employee hours worked Where SIF Actual refers to Cal OSHA reportable serious injuries or fatalities.	√ <i>SPM 17</i>
1.2	Rate of SIF Actual (Contractor)	The SIF-Actual Rate is calculated using the formula: Number of SIF-Actual (contractor count) x 200,000/contractor hours worked Where SIF Actual refers to Cal OSHA reportable serious injuries or fatalities.	√ <i>SPM 18</i>
1.3	Rate of SIF Potential (Employee)	Potential SIF incidents identified using the Edison Electric Institute Safety Classification and Learning (SCL) Model. <sup>2</sup> Where a SIF incident, in this case would be events that could have led to a reportable SIF. Number of Potential SIF (employee incidents) x 200,000/employee hours worked.	N/A
1.4	Rate of SIF Potential (Contractor)	Potential SIF incidents identified using the Edison Electric Institute Safety Classification and Learning (SCL) Model. Where a SIF incident, in this case would be events that could have led to a reportable SIF. Number of Potential SIF (contractor incidents) x 200,000/contractor hours worked.	N/A

<sup>1</sup> SIF Actual is consistent with the Labor Code §6409.1 definition of Serious Injury and Illness and Reporting required by Cal OSHA. More information available at: <https://www.dir.ca.gov/dosh/Serious-injury-FAQ.html>

<sup>2</sup> Edison Electric Institute Safety Classification and Learning Model by Dr. Matthew Hallowell  
<https://esafetyline.net/eei/docs/eeiSCLmodel.pdf>

Table 1-B. Staff Proposed Modifications and Additions to SPMs

Number Index	Staff Proposed SPMs	Definition	IOUs Required to Report
14	Employee Serious Injuries and Fatalities	<p><del>A work-related injury or illness that results in a fatality, inpatient hospitalization for more than 24 hours (other than for observation purposes), a loss of any member of the body, or any serious degree of permanent disfigurement.</del></p> <p><u>SIF Actual refers to Cal OSHA reportable serious injuries or fatalities.</u></p>	PG&E, SCE, SDG&E, SoCalGas
20.	Contractor Serious Injuries and Fatalities	<p><del>A work-related injury or illness that results in a fatality, inpatient hospitalization for more than 24 hours (other than for observation purposes), a loss of any member of the body, or any serious degree of permanent disfigurement.</del></p> <p>SIF Actual refers to Cal OSHA reportable serious injuries or fatalities.</p>	PG&E, SCE, SDG&E, SoCalGas

## Session 2: Q & A

### Natural Gas System Related SOMs & Modifications to SPMs

Table 2-A. Staff Proposed SOMs

Number Index	Staff Proposed SOMs	Definition	Staff Proposed Modification or Additional SPMs
4	<b>Natural Gas Related SOMs</b>		
4.1	Number of Gas Dig-Ins per 1000 USA tickets on Transmission pipelines	Number of Excavation Damages per 1000 Underground Service Alert (USA) tickets by any party.	√ <i>SPM #5</i>
4.2	Number of Gas Dig-Ins per 1000 USA tickets on Distribution pipelines	Number of Excavation Damages per 1000 Underground Service Alert (USA) tickets by any party.	√ <i>SPM #5</i>
4.3	Number of Overpressure (OP) Events	Overpressure events as reportable under GO112-F 122.2(d)(5).	.√ <i>(SPM #43)</i>
4.4	Normalized Overpressure Events	Number of Large Overpressure Events for each unit of 50,000 miles (PG&E system miles). (Overpressure events as reportable under GO112-F 122.2(d)(5)).	N/A
4.5	Gas Emergency Response Time <sup>1</sup>	Average time to arrive on site.	√ <i>(Except that SPM #11 is worded slightly different)</i>
4.6	Gas Shut-In Time, Mains	Average time in minutes to shut-in the flow of gas for the reporting period.	√ <i>(SPM #9)</i>
4.7	Gas Shut-In Time, Services	Average time in minutes to shut-in the flow of gas for the reporting period.	√ <i>(SPM #9)</i>
4.8	Uncontrolled Release of Gas on Transmission Pipelines	The number of leaks, ruptures, or other loss of containment on transmission lines for the reporting period.	N/A
4.9	Gas Emergency Response Time	Gas Emergency Response Time is: “Measured from the time PG&E is notified to the time a Gas Service Representative (or a qualified first responder)	N/A

Number Index	Staff Proposed SOMs	Definition	Staff Proposed Modification or Additional SPMs
		arrives onsite to the emergency location (including Business Hours and After Hours).	

Table 2-B. Staff Proposed Modifications and Additions to SPMs

Number Index	Staff Proposed SPMs	Definition	IOUs Required to Report
5.	Transmission Pipeline Failure - Rupture with Ignition Distribution Pipeline Rupture with Ignition (non-Cross Bore) Catastrophic Damage involving Gas Infrastructure (Dig-Ins)	The number of <del>3rd party</del> gas dig-ins per 1,000 Underground Service Alert (USA) tags/tickets for gas. Excludes fiber and Electric tickets. A gas dig-in refers to any damage (impact or exposure) that results in a repair or replacement of underground gas facility as a result of an excavation. A <del>third party dig-in is damage caused by someone other than the utility or a utility contractor.</del>	PG&E, SDG&E, SoCalGas
6.	Catastrophic Damage Involving High-Pressure Pipeline Failure	<del>Total miles of transmission pipe inspected by inline inspection.</del> <u>Total miles of transmission pipelines inspected annually by inline inspection (ILI) and percentage of transmission pipelines inspected by inline inspection annually.</u>	PG&E, SDG&E, SoCalGas
7.	Gas in-Line Inspection Upgrade	Miles upgraded to permit inline inspections.	PG&E
12.	Natural Gas Storage Baseline Inspections Performed	<u>Tracks the progress of completing baseline and reassessment inspections that were required to be completed within a given year</u>	PG&E, SDG&E, SoCalGas
13.	Gas System Internal Inspection Status	<del>The ratio of transmission pipe miles that can be inspected internally to all transmission pipe miles.</del> <u>The percentage of pipeline miles that were made internally inspectable compared to the miles <i>expected</i> to be made inspectable in the reporting period.</u>	PG&E, SDG&E, SoCalGas
40.	<u>Work Order Backlog</u>	<u>Total number of overdue work orders that exceeded the maximum allowable/allotted time frame to complete the work order divided by the total number of closed or still-open work orders in past calendar year, evaluated at the end of the year.</u> <u>Separate metrics are provided for electric overhead distribution, electric overhead transmission, electric</u>	<u>PG&amp;E</u> <u>SCE</u> <u>SDG&amp;E</u> <u>SoCalGas</u>

Number Index	Staff Proposed SPMs	Definition	IOUs Required to Report
		<p><u>underground distribution, electric underground transmission, gas distribution, and gas transmission.</u></p> <p><u>For each type of patrol, inspection, maintenance, or risk mitigation program, this metric will report on the number of occurrences of overdue work orders in the prior calendar year. Overdue work orders are those for which the originally established time frame for completion of the work order was exceeded.</u></p>	
43.	<u>Gas Overpressure Events</u>	<p><u>CPUC-reportable overpressure events are those that meet the conditions specified in GO112-F, 122.2(d)(5)</u></p> <p><u>Separate metrics are provided for distribution and transmission systems.</u></p> <p><u>The metric measures both gas operational performance and the integrity of gas pipelines.</u></p>	<u>PG&amp;E</u> <u>SDG&amp;E</u> <u>SoCalGas</u>
44.	<u>Gas In-Line Inspection Interval</u>	<p><u>Mile-weighted median interval since the last inline inspections on pipelines where inline inspections are feasible.</u></p> <p><u>The metric measures both gas operational performance and the integrity of gas pipelines.</u></p>	<u>PG&amp;E</u> <u>SDG&amp;E</u> <u>SoCalGas</u>

## Session 3: Q & A

### Electric System Related SOMs & Modifications to SPMs: Wires-Down & Ignitions

Table 3-A. Staff Proposed SOMs

Number Index	Staff Proposed SOMs	Definition	Staff Proposed Modification or Additional SPMs
<b>3</b>	<b>Electricity Related SOMs</b>		
3.1	Wires Down (Major Event Days)	Number of Wires Down events involving either overhead primary distribution or overhead transmission circuits divided by (Total circuit miles of overhead primary distribution and transmission lines) x 1,000 on Major Event Days, in a calendar year. <sup>3</sup> Primary distribution and transmission circuit miles are counted separately and then added together even if they are found on the same spans.	↓ <i>(Except that SPM #2 includes secondary conductors and reported as number instead of rate of Wire-Down events)</i>
3.2	Wires Down in HFTD (Red Flag Warning Days)	Number of Wires Down events involving either overhead primary distribution or overhead transmission circuits divided by total circuit miles of overhead primary distribution and transmission lines x 1,000, in HFTD, on Red Flag Warning Dates, in a calendar year.	N/A
3.9	Number of CPUC-Reportable Ignitions in HFTD Areas (Distribution)	Number of CPUC-Reportable Ignitions involving overhead distribution circuits in HFTD Areas <sup>4</sup>	↓ <i>(Except that SPM #4 includes all areas)</i>

<sup>3</sup> A “wires down event” is defined as an event that satisfies one or more of these conditions: 1) a conductor or splice becomes broken due to mechanical failure, whether or not it comes in contact with the ground, 2) a conductor is dislodged from its intended design position due to either malfunction of its attachment points and/or supporting structures or contact with foreign objects (including vegetation), regardless of whether the conductor is broken or whether it comes in contact with the ground, or 3) a conductor’s distance from the ground, structures, or objects (not including vegetation) falls below applicable minimum clearances specified in General Order 95. This wires down definition excludes vegetation growth-related clearance violations in which the conductor does not otherwise violate the three conditions listed above.

<sup>4</sup> CPUC-Reportable Ignitions in HFTD Areas are: Ignition events in HFTD reported to the Commission pursuant to D.14-02-015, whether or not the utility’s infrastructures were preliminarily or ultimately determined by either the utility or the Authorities Having Jurisdiction (AHJs) to have played a role in either initiating or propagating the ignitions.

Number Index	Staff Proposed SOMs	Definition	Staff Proposed Modification or Additional SPMs
3.10	Percentage of CPUC-Reportable Ignitions in HFTD (Distribution)	(Number of CPUC-Reportable Ignitions involving overhead distribution circuits in HFTD) divided by (total circuit miles of overhead distribution circuits in HFTD)	N/A
3.11	Number of CPUC-Reportable Ignitions in HFTD (Transmission)	Same as 3.5, except for Transmission instead of Distribution	N/A
3.12	Percentage of CPUC-Reportable Ignitions in HFTD (Transmission)	Same as 3.5, except for Transmission instead of Distribution	√ <i>(Except that SPM #4 includes all areas)</i>

Table 3-B. Staff Proposed Modifications and Additions to SPMs

Number Index	Staff Proposed SPMs	Definition	IOUs Required to Report
1.	<b>Transmission &amp; Distribution (T&amp;D) Overhead Wires Down</b>	<p><del>Number of instances where an electric transmission or primary distribution conductor is broken and falls from its intended position to rest on the ground or a foreign object; excludes down secondary distribution wires and “Major Event Days” (typically due to severe storm events) as defined by the IEEE.</del></p> <p>Number of instances where an electric transmission or primary distribution conductor suffers from a wires-down event. Excludes down secondary distribution wires and “Major Event Days” (typically due to severe storm events) as defined by the IEEE.</p> <p>A wire down event is defined as an event that satisfies one or more of these conditions: 1) a conductor or splice becomes broken due to mechanical failure, whether or not it comes in contact with the ground, 2) a conductor is dislodged from its intended design position due to either malfunction of its attachment points and/or supporting structures or contact with foreign objects (including vegetation), regardless of whether the conductor is broken or whether it comes in contact with the ground, or 3) a conductor’s distance from the ground, structures, or objects (not including</p>	PG&E, SCE, SDG&E

Number Index	Staff Proposed SPMs	Definition	IOUs Required to Report
		<p><u>vegetation) falls below applicable minimum clearances specified in General Order 95.</u></p> <p><u>This wires down definition excludes vegetation growth-related clearance violations in which the conductor does not otherwise violate any of the three conditions listed above.</u></p>	
2.	Transmission & Distribution (T&D) Overhead Wires Down - Major Event Days	<p><del>Number of instances where an electric transmission or primary distribution conductor is broken and falls from its intended position to rest on the ground or a foreign object; includes down secondary distribution wires. Includes "Major Event Days" (typically due to severe storm events) as defined by the IEEE.</del></p> <p><u>Number of instances where an electric transmission or primary distribution conductor suffers from a wires-down event. Includes down secondary distribution wires and "Major Event Days" (typically due to severe storm events) as defined by the IEEE.</u></p> <p><u>A wire down event is defined as an event that satisfies one or more of these conditions: 1) a conductor or splice becomes broken due to mechanical failure, whether or not it comes in contact with the ground, 2) a conductor is dislodged from its intended design position due to either malfunction of its attachment points and/or supporting structures or contact with foreign objects (including vegetation), regardless of whether the conductor is broken or whether it comes in contact with the ground, or 3) a conductor's distance from the ground, structures, or objects (not including vegetation) falls below applicable minimum clearances specified in General Order 95.</u></p> <p><u>This wires down definition excludes vegetation growth-related clearance violations in which the conductor does not otherwise violate any of the three conditions listed above.</u></p>	PG&E, SCE, SDG&E
30.	<u>Wires Down Remaining Energized</u>	<p><u>This metric is limited to only wire down events that involved ground fault or phase-to-phase fault. The metric only counts those downed conductors that remain energized when the utility crew arrived.</u></p> <p><u>The metric is reported as a percentage of all wire down events in the past calendar year that involved ground fault or phase-to-phase fault.</u></p> <p><u>Separate metrics are provided for transmission and distribution systems.</u></p>	PG&E SCE SDG&E



Number Index	Staff Proposed SPMs	Definition	IOUs Required to Report
		<u>This metric measures how effective circuit protection devices are in de-energizing downed conductors circuits.</u>	
31.	<u>Wires Down Root Cause Analysis</u>	<u>This metric is expressed as percentage of all wire down events in the past calendar year.</u>	PG&E SCE SDG&E
32.	<u>Wires Down by Cause</u>	<u>This lagging metric shows the leading drivers for wire down events and the effectiveness of a utility vegetation management. This will show if utilities are acting imprudently, by highlighting if they have a large percent of wires down due to maintenance issues. Report metrics separately for distribution and transmission. Report metric using the same cause categories listed in the reporting template for Wildfire Safety Plans. "Cause" may need to be further defined.</u>	PG&E SCE SDG&E

## Session 4: Q & A

### Electric System Related SOMs & Modifications to SPMs: Inspections & Compliance

Table 4-A. Staff Proposed SOMs

Number Index	Staff Proposed SOMs	Definition	Staff Proposed Modification or Additional SPMs
<b>3</b>	<b>Electricity Related SOMs</b>		
3.3	Overhead Distribution Patrols Compliance in HFTD Areas,	<p><i>Patrols Compliance in HFTD:</i></p> <p><i>Total circuit miles of detailed patrols that fell below the minimum detailed patrol frequency requirements divided by the total circuit miles of required detailed patrols, in HFTD area in past calendar year.</i></p> <p><i>where,</i></p> <p><i>“Minimum detailed patrol frequency requirements” refer to the frequency requirements for detailed patrols as specified in General Order 165.</i></p>	<p>√</p> <p><i>(Except that SPM #33 includes all areas)</i></p>
3.4	Overhead Distribution Detailed Inspections Compliance in HFTD Areas,	<p><i>Inspections Compliance in HFTD:</i></p> <p><i>Total circuit miles of detailed inspections that fell below the minimum detailed inspection frequency requirements divided by the total circuit miles of required detailed inspections, in HFTD area in past calendar year.</i></p> <p><i>“Minimum detailed inspection frequency requirements” refer to the frequency requirements for detailed inspections as specified in General Order 165.</i></p>	<p>√</p> <p><i>(Except that SPM #33 includes all areas)</i></p>
3.5	Overhead Transmission Patrols Compliance in HFTD Areas,	Same as 3.3, except for Transmission instead of Distribution	<p>√</p> <p><i>(Except that SPM #33 includes all areas)</i></p>
3.6	Overhead Transmission Detailed Inspections Compliance in HFTD Areas	Same as 3.4, except for Transmission instead of Distribution	<p>√</p> <p><i>(Except that SPM #33 includes all areas)</i></p>

Number Index	Staff Proposed SOMs	Definition	Staff Proposed Modification or Additional SPMs
3.7	Backlog Compliance Metrics in HFTD	Total number of overdue electric work orders that exceeded the maximum allowable/allotted time frame to complete the work order divided by the total number of closed or still-open electric work orders in HFTD areas in past calendar year, evaluated at the end of the year.  “Work Orders” include risk mitigation, maintenance, and corrective work orders (including those generated as a result of patrols and inspections), electric system hardening, and Enhanced Vegetation Management programs.	√ (SPM #41)
3.8	Electric Emergency Response Time <sup>1</sup>	Percentage of time that utility personnel respond (are on site) within 60 minutes after receiving a 911 call (electric related), with onsite defined as arriving at the premises to which the call relates.	√ (Except that SPM #3 is worded slightly different)

Table 4-B. Staff Proposed Modifications and Additions to SPMs

Number Index	Staff Proposed SPMs	Definition	IOUs Required to Report
<u>27.</u>	<u>Median number of days to correct.</u>	<u>This metric measures the median number of days it takes after the discovery or realization of a flaw, a finding, or a deficiency during patrol, regular maintenance, or inspections for overhead conductors and poles, until the time when the corresponding corrective actions are competed.</u>  <b><u>Separate metrics are provided for each tier (or grade) of priority. Separate metrics are provided for distribution and transmission. For the purposes of this metric, inspections are an umbrella term that includes patrols.</u></b>	<u>PG&amp;E</u> <u>SCE</u> <u>SDG&amp;E</u> <u>SoCalGas</u>
<u>28.</u>	<u>Median Time to Correct Inspection Findings, no Segregation by Tiers or Grades</u>	<u>This metric measures the median number of days it takes after the discovery or realization of a flaw, a finding, or a deficiency during patrol, regular maintenance, or inspections for overhead conductors and poles, until the time when the corresponding corrective actions are competed.</u>  <b><u>There are no segregations into tiers or grades. Separate metrics are provided for distribution and</u></b>	<u>PG&amp;E</u> <u>SCE</u> <u>SDG&amp;E</u> <u>SoCalGas</u>

Number Index	Staff Proposed SPMs	Definition	IOUs Required to Report
		transmission. For the purposes of this metric, inspections are an umbrella term that includes patrols.	
29.	<u>CPUC-Reportable Overhead Conductor Failure Incidents Excluding Media Attention</u>	This metrics measures the number of CPUC-reportable incidents in the past calendar year involving overhead conductor failures.  This metric shows the frequency of overhead conductor failures which cause moderately severe consequences.	<u>PG&amp;E</u> <u>SCE</u> <u>SDG&amp;E</u> <u>SoCalGas</u>
33.	<u>Missed Inspections and Patrols for Electric Circuits</u>	Metrics are calculated as total circuit miles that did not comply with the inspection frequency requirements as stated in General Order 165 divided by total circuit miles with inspections due in the past calendar year.  Separate metrics are provided for patrols, detailed inspections, vegetation management inspections.	<u>PG&amp;E</u> <u>SCE</u> <u>SDG&amp;E</u>
34.	<u>Overhead Conductor Wire Size Compliance in HFTD</u>	Percentage of overhead conductors that no longer meet current standards of conductor size requirements for HFTD.	<u>PG&amp;E</u> <u>SCE</u> <u>SDG&amp;E</u>
35.	<u>Overhead Conductor Wire Size Compliance in non-HFTD</u>	Percentage of overhead conductors that no longer meet current standards of conductor size requirements for non-HFTD.	<u>PG&amp;E</u> <u>SCE</u> <u>SDG&amp;E</u>
36.	<u>Infrared Inspections on Electric Distribution Circuits in HFTD</u>	Metric measures how extensively infrared inspection is used to inspect distribution circuits in HFTD.  Metric is reported as the Percentage of circuit miles of electric distribution infrared inspections completed in HFTD in the past calendar year.	
37.	<u>System Hardening in HFTD Areas</u>	Metric measures hardening of overhead circuits to current standards in HFTD areas.	<u>PG&amp;E</u> <u>SCE</u> <u>SDG&amp;E</u>
38.	<u>System Undergrounding in HFTD Areas</u>	Metric measures undergrounding of overhead circuits in HFTD areas.	<u>PG&amp;E</u> <u>SCE</u> <u>SDG&amp;E</u>
39.	<u>Enhanced Vegetation Management (EVM) Work Completed</u>	Defined as completed distribution circuit miles of vegetation cleared under the EVM Program scope within high-fire risk areas to reduce wildfire risk through (1) overhang clearing 4 feet vertical from conductor and (2) high-risk tree species mitigation.	<u>PG&amp;E</u> <u>SCE</u> <u>SDG&amp;E</u>

Number Index	Staff Proposed SPMs	Definition	IOUs Required to Report
40.	<u>Work Order Backlog</u>	<p>Total number of overdue work orders that exceeded the maximum allowable/allotted time frame to complete the work order divided by the total number of closed or still-open work orders in past calendar year, evaluated at the end of the year.</p> <p>Separate metrics are provided for electric overhead distribution, electric overhead transmission, electric underground distribution, electric underground transmission, gas distribution, and gas transmission.</p> <p>For each type of patrol, inspection, maintenance, or risk mitigation program, this metric will report on the number of occurrences of overdue work orders in the prior calendar year. Overdue work orders are those for which the originally established time frame for completion of the work order was exceeded.</p>	<u>PG&amp;E</u> <u>SCE</u> <u>SDG&amp;E</u> <u>SoCalGas</u>
41.	<u>Electric Work Order Backlog in HFTD</u>	<p>Total number of overdue electric work orders that exceeded the maximum allowable/allotted time frame to complete the work order divided by the total number of closed or still-open electric work orders in HFTD areas in the past calendar year, evaluated at the end of the year.</p> <p>Separate metrics are provided for overhead distribution and overhead transmission systems.</p> <p>“Work Orders” include risk mitigation, maintenance, and corrective work orders (including those generated as a result of patrols and inspections), electric system hardening, and Enhanced Vegetation Management programs.</p>	<u>PG&amp;E</u> <u>SCE</u> <u>SDG&amp;E</u>
42.	<u>GO-95 Corrective Actions in HFTDs</u>	<p>This metric is calculated as the percentage of corrective actions completed in the past calendar year divided by the total number of corrective actions identified in the past calendar year in patrols and detailed inspections per GO95 in HFTD.</p> <p>Separate metrics are provided for patrols and detailed inspections.</p> <p>Separate metrics are provided for distribution and transmission systems.</p> <p>This metric measures how quickly the utilities correct GO 95 deficiencies in HFTDs.</p>	<u>PG&amp;E,</u> <u>SCE,</u> <u>SDG&amp;E</u>

## Session 5: Q & A

### Reliability Related SOMs

Number Index	Staff Proposed SOMs	Definition	Staff Proposed Modification or Additional SPMs
2	<b>Reliability Related SOMs</b>		
2.1	System Average Interruption Duration (SAIDI) (Unplanned) <sup>1</sup>	The number of minutes associated with unplanned sustained outages that the average customer experiences in a year. It measures all T&D outages and excludes Major Event Days. <sup>5</sup>	N/A
2.2	System Average Interruption Duration (SAIDI) (All Outages)	<p><i>SAIDI (All Outages) = average duration of interruptions or outages lasting more than or equal to five minutes per metered customer, including unplanned outages, planned outages, outages due to PSPS, and outages due to Major Event Days, in a calendar year.</i></p> <p>“Average duration” is defined as: <i>Sum of duration of interruption (minutes) * (number of customer interrupted / total number of customers served)</i></p> <p>“all outages” is defined as: <i>all transmission and distribution interruptions or outages lasting more than or equal to five minutes per metered customer, including unplanned outages, planned outages, outages due to PSPS, and outages due to Major Event Days.</i></p>	N/A
2.3	System Average Interruption Frequency (SAIFI) (Unplanned)	<i>SAIFI (Unplanned) = average frequency of interruptions due to all unplanned outages lasting more than five minutes per metered customer, except on Major Event Days, in a calendar year. “Average frequency” is defined as: Number of Customer Interrupted / Total Number of Customers Served.</i>	N/A
2.4	System Average Interruption Frequency (SAIFI) (All Outages)	<i>SAIFI (All Outages) = average frequency of all interruptions or outages lasting for more than or equal to five minutes per metered customer, including unplanned outages, planned outages, outages due to PSPS, and outages due to MEDs, in a calendar year.</i>	N/A
2.5	Customer Average Interruption Duration Index (CAIDI) (Unplanned)	<p>average duration of interruptions due to all unplanned outages lasting more than five minutes per affected metered customer, excluding on Major Event Days, in a calendar year.</p> <p>where, “average duration” is defined as: Total customer minutes interrupted due to a sustained outage(s) / Total number of affected customers.</p>	N/A

<sup>5</sup> January 15, 2021 Response of Pacific Gas and Electric Company to Assigned Commissioner’s Ruling Regarding Development of Safety and Operational Metrics available here:

<https://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M359/K864/359864708.PDF>

2.6	Customer Average Interruption Duration Index (CAIDI) (All Outages)	average duration of interruptions or outages lasting more than or equal to five minutes per affected metered customer, including unplanned outages, planned outages, outages due to PSPS, and outages due to Major Event Days, in a calendar year.	N/A
2.7	System Average Customers Impacted by All Outages	System Average Customers Impacted (All Outages) = average metered customers experiencing interruptions or outages lasting more than or equal to five minutes per metered customer, including unplanned outages, planned outages, outages due to PSPS, and outages due to Major Event Days, in a calendar year; where the term “average customers” is defined as: Number of customers impacted / total number of customers served	N/A
2.8	System Average PSPS Duration	<i>System Average Duration of PSPS Events = average duration of all PSPS events per 100 Circuit Miles, per metered customer, regardless if de-energization actually occurred.</i> “Average duration” is defined as: <i>Sum of duration of impaction (minutes) * (number of customer impacted / total number of customers served)</i> <i>Where “PSPS event” is defined as: The time from the first public safety partner notified of a planned public safety de-energization to the final customer re-energized.</i> <sup>6</sup>	N/A
2.9	System Average PSPS Frequency	<i>System Average PSPS Frequency = Average number of all PSPS events per 100 circuit miles, per metered customer, in a calendar year, regardless if de-energization actually occurred.</i> “Average frequency” is defined as: <i>Sum of number of interruptions * (number of customers impacted / total number of customers served)</i>	N/A
2.10	System Average Customers Impacted by PSPS	<i>Average Customer Hours Impacted by PSPS Events per 100 Circuit Miles = average of the quantity in parentheses (number of metered customers impacted by PSPS times PSPS outage duration in a calendar year) divided by total system circuit miles times 100, regardless if de-energization actually occurred.</i>	N/A
2.11	Outages due to Vegetation and Equipment Damage in HFTD Areas	System Average Outages due to Vegetation and Equipment Damage in HFTD Areas = Average number of outages per 100 circuit miles in HFTD, lasting for more than or equal to five minutes per metered customer, in a calendar year. “Average outages” is defined as: Sum of number of interruptions (or outages) * (number of customers interrupted / total number of customers Served)	N/A

<sup>6</sup> CPUC Wildfire Safety Division, Attachment 2.2: 2021 Wildfire Mitigation Plan (WMP) Guidelines Template, November 2020, Page 12 available here: [https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/About\\_Us/Organization/Divisions/WSD/Attachment%202.2%20to%20WSD-011%20-%202021%20WMP%20Guidelines%20Template.pdf](https://www.cpuc.ca.gov/uploadedFiles/CPUCWebsite/Content/About_Us/Organization/Divisions/WSD/Attachment%202.2%20to%20WSD-011%20-%202021%20WMP%20Guidelines%20Template.pdf)





## Reference Table

Table 3: Staff Recommended Modification/Additions to SPMs, developed pursuant to D.19-04-020.

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
1. Transmission & Distribution (T&D) Overhead Wires Down	Wildfire Transmission Overhead Conductor Distribution Overhead Conductor Primary	Electric	Number of wire-down events	<p><del>Number of instances where an electric transmission or primary distribution conductor is broken and falls from its intended position to rest on the ground or a foreign object; excludes down secondary distribution wires and “Major Event Days” (typically due to severe storm events) as defined by the IEEE.</del></p> <p>Number of instances where an electric transmission or primary distribution conductor suffers from a wires-down event. Excludes down secondary distribution wires and “Major Event Days” (typically due to severe storm events) as defined by the IEEE.</p> <p>A wire down event is defined as an event that satisfies one or more of these conditions: 1) a conductor or splice becomes broken due to mechanical failure, whether or not it comes in contact with the ground, 2) a conductor is dislodged from its intended design position due to either malfunction of its attachment points and/or supporting structures or contact with foreign objects (including vegetation), regardless of whether the conductor is broken or whether it comes in contact with the ground, or 3) a conductor’s distance from the ground, structures, or objects (not including vegetation) falls below applicable minimum clearances specified in General Order 95.</p>	Lagging	PG&E, SCE, SDG&E

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
				<u>This wires down definition excludes vegetation growth-related clearance violations in which the conductor does not otherwise violate any of the three conditions listed above.</u>		
2. Transmission & Distribution (T&D) Overhead Wires Down - Major Event Days	Wildfire Transmission Overhead Conductor Distribution Overhead Conductor Primary	Electric	Number of wire down events	<p><del>Number of instances where an electric transmission or primary distribution conductor is broken and falls from its intended position to rest on the ground or a foreign object; includes down secondary distribution wires. Includes "Major Event Days" (typically due to severe storm events) as defined by the IEEE.</del></p> <p><u>Number of instances where an electric transmission or primary distribution conductor suffers from a wires-down event. Includes down secondary distribution wires and "Major Event Days" (typically due to severe storm events) as defined by the IEEE.</u></p> <p><u>A wire down event is defined as an event that satisfies one or more of these conditions: 1) a conductor or splice becomes broken due to mechanical failure, whether or not it comes in contact with the ground, 2) a conductor is dislodged from its intended design position due to either malfunction of its attachment points and/or supporting structures or contact with foreign objects (including vegetation), regardless of whether the conductor is broken or whether it comes in contact with the ground, or 3) a conductor's distance from the ground, structures, or objects (not including vegetation) falls below</u></p>	Lagging	PG&E, SCE, SDG&E

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
				<p><u>applicable minimum clearances specified in General Order 95.</u></p> <p><u>This wires down definition excludes vegetation growth-related clearance violations in which the conductor does not otherwise violate any of the three conditions listed above.</u></p>		
3. Electric Emergency Response	Wildfire Overhead Conductor Public Safety Worker Safety	Electric	Percentage of time response is within 60 mins	The percent of time utility personnel respond (are on-site) within one hour after receiving a 911 (electric related) call, with on-site defined as arriving at the premises to which the 911 call relates.	Lagging	PG&E, SCE, SDG&E
4. Fire Ignitions	Overhead Conductor Wildfire Public Safety Worker Safety Catastrophic Event Preparedness	Electric	Number of ignitions	The number of powerline-involved fire incidents annually reportable to the CPUC per Decision 14-02-015. A reportable fire incident includes all of the following: 1) Ignition is associated with a utility's powerlines and 2) something other than the utility's facilities burned and 3) the resulting fire traveled more than one meter from the ignition point.	Lagging	PG&E, SCE, SDG&E
5. Gas Dig-in	Transmission Pipeline Failure - Rupture with Ignition  Distribution Pipeline Rupture with Ignition (non-Cross Bore)  Catastrophic Damage	Gas	<p><del>The number of 3rd party gas dig-ins per 1,000 USA tags/tickets</del></p> <p>The number of gas dig-ins by any party per 1,000 USA tags/tickets</p>	<p><del>The number of 3rd party gas dig-ins per 1,000 Underground Service Alert (USA) tags/tickets for gas. Excludes fiber and Electric tickets. A gas dig-in refers to any damage (impact or exposure) that results in a repair or replacement of underground gas facility as a result of an excavation. A third party dig-in is damage caused by someone other than the utility or a utility contractor.</del></p>	Lagging	PG&E, SDG&E, SoCalGas

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
	involving Gas Infrastructure (Dig-Ins)					
6. Gas In-Line Inspection	Catastrophic Damage Involving High-Pressure Pipeline Failure	Gas	<del>Total number of inspections scheduled/</del> <del>Total number of targeted inspections</del> <u>Total number of miles of inspections performed and percentage inspected by ILI.</u>	<del>Total miles of transmission pipe inspected by inline inspection.</del> <u>Total miles of transmission pipelines inspected annually by inline inspection (ILI) and percentage of transmission pipelines inspected by inline inspection annually.</u>	Leading	PG&E, SDG&E, SoCalGas
7. Gas in-Line Inspection Upgrade	Catastrophic Damage Involving High-Pressure Pipeline Failure	Gas	Miles	Miles upgraded <u>to permit inline inspections.</u>	Leading	PG&E

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
8. Shut In The Gas Average Time - Mains	Distribution Pipeline Rupture with Ignition (non-Cross Bore)	Gas	Average (median) time in minutes required to stop the flow of gas	The average time (in minutes) required for the utility to stop the flow of gas during incidents involving mains when responding to any unplanned/uncontrolled release of gas. The timing for the response starts when the utility first receives the report and ends when the utility's qualified representative determines, per the utility's emergency standards, that the reported leak is not hazardous or the utility's representative completes actions to mitigate a hazardous leak and render it as being non-hazardous (i.e., by shutting-off gas supply, eliminating subsurface leak migration, repair, etc.) per the utility's standards.	Lagging	PG&E, SDG&E, SoCalGas
9. Shut-In The Gas Average Time - Services	Distribution Pipeline Rupture with Ignition (non-Cross Bore)	Gas	Average (median) response time in minutes	The average time (minutes) that a Gas Service Representative (GSR) or qualified first responder (Gas Crew, Leak Surveyor, etc.) takes to respond and stop gas flow during incidents involving services. The timing for the response starts when the utility first receives the report and ends when the utility's qualified representative determines, per the utility's emergency standards, that the reported leak is not hazardous or the utility's representative completes actions to mitigate a hazardous leak and render it as being non-hazardous (i.e., by shutting-off gas supply, eliminating subsurface leak migration, repair, etc.) per the utility's standards.	Lagging	PG&E, SDG&E, SoCalGas

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
10. Cross Bore Intrusions	Catastrophic Damage Involving Medium Pressure Pipeline Failure	Gas	Number of cross bore intrusions per 1,000 inspections	Cross bore intrusions found per 1,000 inspections	Leading	PG&E, SDG&E, SoCalGas
11. Gas Emergency Response	Distribution Pipeline Rupture with Ignition	Gas	Average response time in minutes, additionally: response times in five-minute intervals, segregated first by business hours (0800 – 1700 hours), after business hours and weekends/legal state holidays. The intervals start with 0-5 minutes, all the way to 40-45 minutes, an interval of 45-60 minutes and then all response times greater than 60 minutes.	The average time that a Gas Service Representative or a qualified first responder takes to respond after receiving a call which results in an emergency order.	Lagging	PG&E, SDG&E, SoCalGas
12. Natural Gas Storage Baseline Inspections Performed	Gas storage	Gas	<del>Number of Inspections</del> <u>Number of Inspections completed/Number required to be completed.</u>	<u>Tracks the progress of completing baseline and reassessment inspections that were required to be completed within a given year</u>	Lagging	PG&E, SDG&E, SoCalGas

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
13. Gas System Internal Inspection Status	Catastrophic Damage Involving High-Pressure Pipeline Failure	Gas	Percentage of pipeline miles which can be internally inspected.	<del>The ratio of transmission pipe miles that can be inspected internally to all transmission pipe miles.</del> <u>The percentage of pipeline miles that were made internally inspectable compared to the miles expected to be made inspectable in the reporting period.</u>	Leading	PG&E SDG&E, SoCalGas
14. Employee Serious Injuries and Fatalities	Employee Safety	<del>Injuries</del> Injuries and Fatalities	<del>Number of Serious Injuries and Fatalities</del> Employee SIF Actual Number.	<del>A work-related injury or illness that results in a fatality, inpatient hospitalization for more than 24 hours (other than for observation purposes), a loss of any member of the body, or any serious degree of permanent disfigurement.</del> <u>SIF Actual refers to Cal OSHA reportable serious injuries or fatalities.</u>	Lagging	PG&E, SCE, SDG&E, SoCalGas
15. Employee Days Away, Restricted and Transfer (DART) Rate	Employee Safety	Injuries	DART Cases times 200,000 divided by employee hours worked	DART Rate is calculated based on number of OSHA-recordable injuries resulting in Days Away from work and/or Days on Restricted Duty or Job Transfer, and hours worked.	Lagging	PG&E, SCE, SDG&E, SoCalGas

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
16. Employee Lost Workday Case Rate	Employee Safety	Injuries	Number of LWD Cases / productive hours worked x 200,000.	This measures the number of LWD cases incurred for employees and staff augmentation (excluding contractors) per 200,000 hours worked, or for approximately every 100 employees. A LWD Case is a current year OSHA Recordable incident that has resulted in at least one lost workday. An OSHA Recordable incident is an occupational (job related) injury or illness that requires medical treatment beyond first aid, or results in work restrictions, death or loss of consciousness. The formula is: LWD Case Rate = Number of LWD Cases / productive hours worked x 200,000.	Lagging	PG&E
17. Employee OSHA Recordables Rate	Employee Safety	Injuries	<del>OSHA recordable times 200,000 divided by employee hours worked associated with work for the reporting utility.</del> <u>OSHA Employee Recordables Rate.</u>	An OSHA recordable incident is an occupational (job-related) injury or illness that requires medical treatment beyond first aid, or results in work restrictions, death or loss of consciousness. OSHA recordable rate is calculated as OSHA recordable times 200,000 divided by employee hours worked.	Lagging	PG&E



Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
18. Contractor OSHA Recordables Rate	Contractor Safety	Injuries	<del>OSHA recordable times 200,000 divided by contractor hours worked associated with work for the reporting utility.</del> OSHA Contractor Recordables Rate	An OSHA recordable incident is an occupational (job-related) injury or illness that requires medical treatment beyond first aid, or results in work restrictions, death or loss of consciousness. OSHA recordable rate is calculated as OSHA recordable times 200,000 divided by contractor hours worked.	Lagging	PG&E, SCE, SDG&E, SoCalGas
19. Contractor Days Away, Restricted Transfer (DART)	Contractor Safety	Injuries	<del>OSHA recordable times 200,000 divided by contractor hours worked associated with work for the reporting utility.</del> OSHA DART Rate.	DART Rate: Days Away, Restricted and Transfer (DART) Cases include OSHA-recordable Lost Work Day Cases and injuries that involve job transfer or restricted work activity. DART Rate is calculated as DART Cases times 200,000 divided by contractor hours worked.	Lagging	PG&E
20. Contractor Serious Injuries and Fatalities	Contractor Safety	Injuries	<del>Number of work related injuries or illnesses associated with work for the reporting utility.</del> Contractor SIF Actual Number.	<del>A work related injury or illness that results in a fatality, inpatient hospitalization for more than 24 hours (other than for observation purposes), a loss of any member of the body, or any serious degree of permanent disfigurement.</del> SIF Actual refers to Cal OSHA reportable serious injuries or fatalities.	Lagging	PG&E, SCE, SDG&E, SoCalGas
21. Contractor Lost Work Day Case Rate	Contractor Safety	Injuries	Number of Lost Workday (LWD) cases incurred for contractors per 200,000 hours worked associated with work for the reporting utility.	This measures the number of Lost Workday (LWD) cases incurred for contractors per 200,000 hours worked (for approximately every 100 contractors). A Lost Workday Case is a current year OSHA Recordable incident that has resulted in at least one lost workday.  An OSHA Recordable incident is an occupational (job related) injury or illness that requires medical treatment beyond first aid, or results in work	Lagging	PG&E, SCE, SDG&E, SoCalGas

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
				restrictions, death or loss of consciousness. The formula is: LWD Case Rate = Number of LWD Cases / productive hours worked x 200,000.		
22. Public Serious Injuries and Fatalities	Public Safety	Injuries	Number of Serious Injuries and Fatalities	A fatality or personal injury requiring in-patient hospitalization involving utility facilities or equipment. Equipment includes utility vehicles used during the course of business.	Lagging	PG&E, SCE, SDG&E, SoCalGas
23. Helicopter/ Flight Accident or Incident	Aviation Safety Helicopter Operations Public Safety Worker Safety Employee Safety	Vehicle	Number of accidents or incidents (as defined in 49 CFR Section 830.5 "Immediate Notification") per 100,000 flight hours.	Defined by Federal Aviation Regulations (FARs), reportable to FAA per 49-CFR-830.	Lagging	PG&E, SCE, SDG&E, SoCalGas
24. Serious Injury and Fatality Corrective Actions Completed on Time.	Employee Safety Contractor Safety Public Safety	Injuries	Total number of SIF corrective actions completed on time (as measured by the due date accepted by Line of Business Corrective Action Review Boards (CARB)) divided by the total number of SIF corrective actions past due or completed.	The percentage of SIF corrective actions completed on time. A SIF corrective action is one that is tied to a SIF actual or potential injury or near hit.	Leading	PG&E
25. Hard Brake Rate	Motor Vehicle Safety	Vehicle	Total number of hard braking events per thousand miles driven in a given period	The total number of hard braking events (>=8 mph per second decrease in speed) per thousand miles driven in a given period.	Leading	PG&E

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
26. Driver's Check Rate	Motor Vehicle Safety	Vehicle	Total number of Driver Check complaint calls received per 1 million miles driven	This measures the total number of Driver Check complaint calls received per 1 million miles driven by vehicles included in the Driver Check program.	Leading	PG&E

### Recommended Additional SPMs

<u>27. Median Time to Correct Inspection Findings, by Tiers or Grades</u>	<u>Electric, Gas, Dam Safety</u>	<u>Electric, Gas, Dam Safety</u>	<u>Median number of days to correct.</u>	<p><u>This metric measures the median number of days it takes after the discovery or realization of a flaw, a finding, or a deficiency during patrol, regular maintenance, or inspections for overhead conductors and poles, until the time when the corresponding corrective actions are competed.</u></p> <p><b><u>Separate metrics are provided for each tier (or grade) of priority. Separate metrics are provided for distribution and transmission. For the purposes of this metric, inspections are an umbrella term that includes patrols.</u></b></p>	<u>Leading</u>	<u>PG&amp;E SCE SDG&amp;E SoCalGas</u>
<u>28. Median Time to Correct Inspection Findings, no Segregation by Tiers or Grades</u>	<u>Electric, Gas, Dam Safety</u>	<u>Electric, Gas, Dam Safety</u>	<u>Median number of days to correct.</u>	<p><u>This metric measures the median number of days it takes after the discovery or realization of a flaw, a finding, or a deficiency during patrol, regular maintenance, or inspections for overhead conductors and poles, until the time when the corresponding corrective actions are competed.</u></p> <p><b><u>There are no segregations into tiers or grades. Separate metrics are provided for distribution and transmission. For the purposes of this</u></b></p>	<u>Leading</u>	<u>PG&amp;E SCE SDG&amp;E SoCalGas</u>

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
				<u>metric, inspections are an umbrella term that includes patrols.</u>		
<u>29. CPUC-Reportable Overhead Conductor Failure Incidents Excluding Media Attention</u>	<u>Electric, Gas, Generation, Dam Safety</u>	<u>Electric, Gas, Generation, Dam Safety</u>	<u>Number of reportable incidents except those due to media attention.</u>	<p><u>This metrics measures the number of CPUC-reportable incidents in the past calendar year involving overhead conductor failures.</u></p> <p><u>This metric shows the frequency of overhead conductor failures which cause moderately severe consequences.</u></p>	<u>Lagging</u>	<u>PG&amp;E SCE SDG&amp;E SoCalGas</u>
<u>30. Wires Down Remaining Energized</u>	<u>Electric Overhead, wildfire</u>	<u>Electric</u>	<u>Percentage of wires down occurrences that remain energized.</u>	<p><u>This metric is limited to only wire down events that involved ground fault or phase-to-phase fault. The metric only counts those downed conductors that remain energized when the utility crew arrived.</u></p> <p><u>The metric is reported as a percentage of all wire down events in the past calendar year that involved ground fault or phase-to-phase fault.</u></p> <p><u>Separate metrics are provided for transmission and distribution systems.</u></p> <p><u>This metric measures how effective circuit protection devices are in de-energizing downed conductors circuits.</u></p>	<u>Lagging</u>	<u>PG&amp;E SCE SDG&amp;E</u>
<u>31. Wires Down Root Cause Analysis</u>	<u>Electric Overhead, wildfire</u>	<u>Electric</u>	<u>Percentage of root cause analyses performed.</u>	<u>This metric is expressed as percentage of all wire down events in the past calendar year.</u>	<u>Leading</u>	<u>PG&amp;E SCE SDG&amp;E</u>
<u>32. Wires Down by Cause</u>	<u>Electric Overhead, wildfire</u>	<u>Electric</u>	<u>Percentage of wires down occurrences</u>	<u>This lagging metric shows the leading drivers for wire down events and the effectiveness of a utility vegetation management. This will show if</u>	<u>Lagging</u>	<u>PG&amp;E SCE SDG&amp;E</u>

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
				<p>utilities are acting imprudently, by highlighting if they have a large percent of wires down due to maintenance issues.</p> <p>Report metrics separately for distribution and transmission.</p> <p>Report metric using the same cause categories listed in the reporting template for Wildfire Safety Plans. "Cause" may need to be further defined.</p>		
<u>33. Missed Inspections and Patrols for Electric Circuits</u>	<u>Electric Overhead, wildfire</u>	<u>Electric</u>	<u>Percentage of missed inspection miles relative to required circuit miles.</u>	<p><u>Metrics are calculated as total circuit miles that did not comply with the inspection frequency requirements as stated in General Order 165 divided by total circuit miles with inspections due in the past calendar year.</u></p> <p><u>Separate metrics are provided for patrols, detailed inspections, vegetation management inspections.</u></p>	<u>Lagging and Leading</u>	<u>PG&amp;E SCE SDG&amp;E</u>
<u>34. Overhead Conductor Wire Size Compliance in HFTD</u>	<u>Electric Overhead, wildfire</u>	<u>Electric</u>	<u>Percentage non-compliant relative to total circuit miles</u>	<u>Percentage of overhead conductors that no longer meet current standards of conductor size requirements for HFTD.</u>	<u>Leading</u>	<u>PG&amp;E SCE SDG&amp;E</u>
<u>35. Overhead Conductor Wire Size Compliance in non-HFTD</u>	<u>Electric Overhead, wildfire</u>	<u>Electric</u>	<u>Percentage non-compliant relative to total circuit miles</u>	<u>Percentage of overhead conductors that no longer meet current standards of conductor size requirements for non-HFTD.</u>	<u>Leading</u>	<u>PG&amp;E SCE SDG&amp;E</u>
<u>36. Infrared Inspections on Electric Distribution Circuits in HFTD</u>	<u>Electric Overhead, wildfire</u>	<u>Electric</u>	<u>Percentage relative to total circuit miles</u>	<p><u>Metric measures how extensively infrared inspection is used to inspect distribution circuits in HFTD.</u></p> <p><u>Metric is reported as the Percentage of circuit miles of electric distribution infrared inspections completed in HFTD in the past calendar year.</u></p>	<u>Leading</u>	<u>PG&amp;E SCE SDG&amp;E</u>

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
<u>37. System Hardening in HFTD Areas</u>	<u>Electric Overhead, wildfire</u>	<u>Electric</u>	<u>Circuit miles</u>	<u>Metric measures hardening of overhead circuits to current standards in HFTD areas.</u>	<u>Leading</u>	<u>PG&amp;E SCE SDG&amp;E</u>
<u>38. System Undergrounding in HFTD Areas</u>	<u>Electric</u>	<u>Electric</u>	<u>Circuit miles</u>	<u>Metric measures undergrounding of overhead circuits in HFTD areas.</u>	<u>Leading</u>	<u>PG&amp;E SCE SDG&amp;E</u>
<u>39. Enhanced Vegetation Management (EVM) Work Completed</u>	<u>Electric</u>	<u>Electric</u>	<u>Circuit miles</u>	<u>Defined as completed distribution circuit miles of vegetation cleared under the EVM Program scope within high-fire risk areas to reduce wildfire risk through (1) overhang clearing 4 feet vertical from conductor and (2) high-risk tree species mitigation.</u>	<u>Leading</u>	<u>PG&amp;E SCE SDG&amp;E</u>
<u>40. Work Order Backlog</u>	<u>Electric and Gas safety risk</u>	<u>Electric and Gas</u>	<u>Percentage of work orders past due for completion in the past calendar year</u>	<p><u>Total number of overdue work orders that exceeded the maximum allowable/allotted time frame to complete the work order divided by the total number of closed or still-open work orders in past calendar year, evaluated at the end of the year.</u></p> <p><u>Separate metrics are provided for electric overhead distribution, electric overhead transmission, electric underground distribution, electric underground transmission, gas distribution, and gas transmission.</u></p> <p><u>For each type of patrol, inspection, maintenance, or risk mitigation program, this metric will report on the number of occurrences of overdue work orders in the prior calendar year. Overdue work orders are those for which the originally</u></p>	<u>Lagging and Leading</u>	<u>PG&amp;E SCE SDG&amp;E SoCalGas</u>

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
				<u>established time frame for completion of the work order was exceeded.</u>		
<u>41. Electric Work Order Backlog in HFTD</u>	<u>Electric Overhead</u>	<u>Electric</u>	<u>Percentage of work orders past due for completion in the past calendar year</u>	<p><u>Total number of overdue electric work orders that exceeded the maximum allowable/allotted time frame to complete the work order divided by the total number of closed or still-open electric work orders in HFTD areas in the past calendar year, evaluated at the end of the year.</u></p> <p><u>Separate metrics are provided for overhead distribution and overhead transmission systems.</u></p> <p><u>“Work Orders” include risk mitigation, maintenance, and corrective work orders (including those generated as a result of patrols and inspections), electric system hardening, and Enhanced Vegetation Management programs.</u></p>	<u>Lagging and Leading</u>	<u>PG&amp;E SCE SDG&amp;E</u>

Metric Name	Risks	Category	Units	Metric Description	Leading or lagging indicator?	IOUs Required to Report
<u>42. GO-95 Corrective Actions in HFTDs</u>	<u>Electric safety and wildfire</u>	<u>Electric</u>	<u>Percentage of corrective actions completed</u>	<p>This metric is calculated as the percentage of corrective actions completed in the past calendar year divided by the total number of corrective actions identified in the past calendar year in patrols and detailed inspections per GO95 in HFTD.</p> <p><u>Separate metrics are provided for patrols and detailed inspections.</u></p> <p><u>Separate metrics are provided for distribution and transmission systems.</u></p> <p><u>This metric measures how quickly the utilities correct GO 95 deficiencies in HFTDs.</u></p>	<u>Lagging and Leading</u>	<u>PG&amp;E SCE SDG&amp;E</u>
<u>43. Gas Overpressure Events</u>	<u>Gas Transmission and Distribution</u>	<u>Gas</u>	<u>Number of occurrences</u>	<p><u>CPUC-reportable overpressure events are those that met the conditions specified in GO112-F, 122.2(d)(5)</u></p> <p><u>Separate metrics are provided for distribution and transmission systems.</u></p> <p><u>The metric measures both gas operational performance and the integrity of gas pipelines.</u></p>	<u>Lagging and Leading</u>	<u>PG&amp;E SDG&amp;E SoCalGas</u>
<u>44. Gas In-Line Inspection Interval</u>	<u>Gas Transmission</u>	<u>Gas</u>	<u>Years between inspections</u>	<p><u>Mile-weighted median interval since the last inline inspections on pipelines where inline inspections are feasible.</u></p> <p><u>The metric measures both gas operational performance and the integrity of gas pipelines.</u></p>	<u>Leading</u>	<u>PG&amp;E SDG&amp;E SoCalGas</u>