

Attachment A¹

Safety Performance Metrics

Metric	Purpose	Metric Formula
Employee Safety		
Total Case Rate (TCR)	Indicator of employee injuries, fatalities, and productivity losses due to work-related incidents	(Number of work-related deaths, days away from work, job transfers or restrictions, and other recordable injuries and illnesses times 200,000) / Employee hours worked ²
Days Away, Restricted, and Transfer (DART) case rate	Indicator of employee injuries, restrictions, and productivity losses due to work-related incidents	(Number of work-related days away from work and job transfers or restrictions due to work accidents times 200,000) / Employee hours worked
Days Away from Work (DAFWII) case rate	Indicator of employee injuries and productivity losses due to work-related incidents	(Number of work-related days away from work due to work accidents times 200,000) / Employee hours worked
Public Safety		
Incidents, injuries, and fatalities (electric) <i>(may also include wildfire risk mitigation)</i>	Indicator of incidents, injuries, and fatalities associated contact with the electric system by members of the public	Number of incidents per year, by severity of outcome (non-injury, minor, severe, and fatal) and by type of activity
Emergency response time (electric)	Indicator of speed of response to emergency situations involving the electric system	Percent of electric emergency responses within 60 minutes each year
Incidents, injuries, and fatalities (gas)	Indicator of incidents, injuries, and fatalities associated with the gas system by members of the public	Number of incidents per year, by severity of outcome (non-injury, minor, severe, and fatal) and by apparent cause
Emergency response time (gas)	Indicator of speed of response to emergency situations involving the gas system	Average minutes for gas emergency response
Leak repair performance (gas)	Indicator of speed of response to non-emergency situations involving the gas system	Average days for repair of minor and non-hazardous leaks

¹ This list of performance metrics, with modifications indicated in italics, is reproduced from the 2015 Synapse Energy Economics, Inc. publication, *Utility Performance Incentive Mechanisms: A Handbook for Regulators*, by Melissa Whited, Tim Woolf, and Alice Napoleon.

² 200,000 represents the number of working hours per year for 100 full-time equivalent employees

Reliability Performance Metrics

Metric	Purpose	Metric Formula
System Average Interruption Duration Index (SAIDI)	Indicator of sustained interruptions experienced by customers	Total customer minutes of sustained interruptions / total number of customers
System Average Interruption Frequency Index (SAIFI)	Indication of how many interruptions are experienced by customers	Total number of customer interruptions / total number of customers
Customer Average Interruption Duration Index (CAIDI)	Indicator of the length of interruptions experienced by customers	Total minutes of sustained customer interruptions / total number of interruptions
Momentary Average Interruption Frequency Index (MAIFI)	Indicator of momentary interruptions experienced by customers	Total number of momentary customer interruptions per year / total number of customers
Power quality	Indicator of voltage changes, which can cause damage to end use equipment and frequency deviations	Numerous metrics indicating changes in voltage including transient change, sag, surge, undervoltage, harmonic distortion, noise, stability, and flicker; CPS 1 and 2 that measure frequency excursions

Customer Satisfaction Performance Metrics

Metric	Purpose	Metric Formula
Call center answer speed <i>Also may include first call resolution rate, abandonment rate, call blockage rate</i>	Indicator of customer ease of contacting utility	Percentage of calls answered within 30 seconds
Transaction surveys	Indicator of how well the utility is meeting customer needs based on recent contact with utility	Percentage of customers satisfied with their recent transaction with the utility
Customer complaints	Indicator of how well the utility is meeting customer needs	Formal complaints to commission (per 1,000 customers) over a set period. May also track complaints resolved.
Order fulfillment	Indicator of response time to service requests and outages	Speed with which orders for service installation and termination, outage responses, and meter re-reading are fulfilled
Missed appointments	Indicator of how well the utility is meeting customer needs	Percentage of appointments not met for meter replacements, inspections, or any other appointments in which the customer is required to be on the premises
Avoided shutoffs and reconnections	Indicator of efficient provision of services to low income customers	Disconnects and reconnections avoided by customer percentage of income payment plans or other means
Residential customer satisfaction	Indicator of how well the utility is meeting the needs of residential customers	Electric Utility Residential Customer Satisfaction index, Gas Utility Residential Customer Satisfaction index
Business customer satisfaction	Indicator of how well the utility is meeting the needs of business customers	Electric Utility Business Customer Satisfaction index, Gas Utility Business Customer Satisfaction index