



**Final Security Plan Report**

**Public**

**July 9, 2021**

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# 1.0 Document Control

## Revision Log

Date of Changes	Section(s) with changes	Summary of Changes	Changes Made by
07/09/2021	All	Initial Release	Will Sauntry, Corporate Security

## Review Log

Date of Review	Name of Reviewer	Summary of Findings

## 2.0 Introduction & Background

Ordering Paragraph (OP) 1 of D.19-01-018 requires that within 30 months of this decision being adopted, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison, PacifiCorp, Bear Valley Electric Service, and Liberty CalPeco shall submit each utility's Final Security Plan Report (Security Plan).

California utilities created a technical working group and created a Joint Utility Proposal describing how a utility should establish a Distribution Substation and Distribution Control Center Security Program (Distribution Security Program). The Distribution Security Program consists of the following: 1) Identification of distribution facilities, 2) Assessment of physical security risk on distribution facilities, 3) Development and implementation of security plans, 4) Verification, 5) Record keeping, 6) Timelines and 7) Cost recovery.

The following outlines the utility working group's Joint Utility Proposal process for identification and assessment of distribution facilities and provides the results of each Ordering Paragraph.

## 3.0 Requirements and Structure

The following table describes the requirements identified in the Ordering Paragraphs of D.19-01-018 and where detail can be found in this document to meet the specific requirement outlined

**Table 1:** Decision Requirements and Corresponding Plan References

#	Ordering Paragraph	Corresponding Section in Plan
1	Within 18 months of this decision being adopted, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison, PacifiCorp, Bear Valley Electric Service, and Liberty CalPeco shall prepare and submit to the Commission a preliminary assessment.	Submitted July 2020 Updated submission September 2020
2	Within 30 months of this decision being adopted, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison, PacifiCorp, Bear Valley Electric Service, and Liberty CalPeco shall submit each utility's Final Security Plan Report.	Entire Document
3	Within 30 months of this decision being adopted, the Publicly Owned Utilities shall provide the Commission with notice of final plan adoption	N/A for SDG&E

#	Ordering Paragraph	Corresponding Section in Plan
4	The Publicly Owned Utilities' notice of final plan adoption may consist of a copy of a signed resolution, ordinance or letter by a responsible elected- or appointed official, or utility director.	N/A for SDG&E
5	All California Electric Utility Distribution Asset Physical Security Plans shall conform to the requirements outlined within the Joint Utility Proposal, as modified by this decision (rules and requirements collectively known as "security plan requirements").	Section 4.0 - Distribution Security Program
6	The Investor Owned Utilities and Publicly Owned Utilities shall adhere to the Safety and Enforcement Division's Six-step Security Plan Process.	Section 4.0 - Distribution Security Program
7	The Six-step Plan Process consists of the following: Assessment; Independent Review and Utility Response to Recommendations; Safety and Enforcement Division Review (for Investor Owned Utilities); Local Plan Review (for Publicly Owned Utilities); Maintenance and Plan overhaul/new review.	Section 4.0 - Distribution Security Program
8	Subsequent changes to the security plan requirements deemed beneficial and necessary, shall be enabled by one of the following: 1) Commission Resolution or Decision; 2) Ministerially, by Safety and Enforcement Division (or successor entity) director letter.	Section 3.1 - Plan Management and Ownership
9	In carrying out any future changes to the security plan requirements, Safety and Enforcement Division shall confer with utilities about any recommended modifications to the plan requirements.	Section 3.1 - Plan Management and Ownership
10	Prior to the submittal of the Security Plan, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison, PacifiCorp, Bear Valley Electric Service, and Liberty CalPeco shall each have their respective plan reviewed by an unaffiliated third-party entity.	Section 4.4 - Verification
11	The unaffiliated third-party reviewer shall have demonstrated appropriate physical security expertise.	Section 4.4 - Verification
12	California electric utilities shall, within any new or renovated distribution substation, design their facilities to incorporate reasonable security features.	Section 5.0 – New or Renovated Substations
13	Utility security plans shall include a detailed narrative explaining how the utility is taking steps to implement an asset management program to promote optimization, and quality assurance for tracking and locating spare parts stock, ensuring availability, and the rapid dispatch of available spare parts.	Section 6.0 – Asset Management
14	Utility security plans shall include a detailed narrative explaining how the utility is taking steps to implement a robust workforce training and retention program to employ a full roster of highly-qualified service technicians able to respond to make repairs in short order throughout a utility's service territory using spare parts stockpiles and inventory.	Section 7.0 – Training and Retention
15	Utility security plans shall include a detailed narrative explaining how the utility is taking steps to implement a preventative maintenance plan for security equipment to ensure that mitigation measures are functional and performing adequately.	Section 8.0 – Preventative Maintenance

#	Ordering Paragraph	Corresponding Section in Plan
16	Utility security plans shall include a detailed narrative explaining how the utility is taking steps to implement a description of Distribution Control Center and Security Control Center roles and actions related to distribution system physical security.	Section 9.0 - Distribution Control Center and Security Control
17	Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison, PacifiCorp, Bear Valley Electric Service, and Liberty CalPeco shall each document all third-party reviewer recommendations, and specify recommendations that were accepted or declined by the utility.	Section 4.4 - Verification
18	Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison, PacifiCorp, Bear Valley Electric Service, and Liberty CalPeco shall each provide justification supporting its decision to accept or decline any third-party recommendations.	Section 4.4 - Verification
19	Physical Security-related information is bifurcated into two categories. Recurring and routine utility compliance work products and ongoing utility updates required by this decision are not subject to the Reading Room approach but shall be transmitted to the Commission. All other physical security data requested by Commission staff on an ad hoc basis shall be made available to the Commission on utility property in a manner agreed to by the Safety and Enforcement Division, or its successor, until such time that the Commission finalizes its rules for the handling, sharing, and inspection of confidential information.	N/A for this document
20	If a Publicly Owned Utility has an existing blanket Security Plan that has been adopted by its Board of Directors or City Council within three years prior to the date of this decision, the requirement to have a plan adopted may be waived by the Commission.	N/A for SDG&E
21	In the event that a Publicly Owned Utility's (POU) Security Plan has not been adopted in time as required by this decision, the POU shall provide the Director of the Commission's Safety and Enforcement Division with a notice [30] days prior to the deadline with information on the nature of the delay and an estimated date for adoption.	N/A for SDG&E
22	Prior to Security Plan adoption, Publicly Owned Utilities in California shall have their plan reviewed by a third party.	Section 4.4 - Verification
23	Such third-party reviewer may be another governmental entity within the same political subdivision, so long as the entity can demonstrate appropriate expertise, and is not a division of the publicly owned utility that operates as a functional unit ( <i>i.e.</i> , a municipality could use its police department if it has the appropriate expertise).	Section 4.4 - Verification

#	Ordering Paragraph	Corresponding Section in Plan
24	Publicly Owned Utilities shall conduct a program review of their Security Plan and associated physical security program every five years after initial approval of the Security Plan by their Board of Directors or City Council. Notice of such approval action shall be provided to the Commission’s Safety and Enforcement Division within 30 days of Plan adoption by way of copy of signed resolution or letter by a responsible elected- or appointed official, or utility director.	N/A for SDG&E
25	Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison, PacifiCorp, Bear Valley Electric Service, and Liberty CalPeco shall conduct a program review of their Security Plan and associated physical security program every five years after Commission review of the first iteration of the Security Plan.	Section 3.1 - Plan Management and Ownership
26	A summary of the program review shall be submitted to the Safety and Enforcement Division within 30 days of review completion.	Section 3.1 - Plan Management and Ownership
27	In the event of a major physical security event that impacts public safety or results in major sustained outages, all utilities shall preserve records and evidence associated with such event and shall provide the Commission full unfettered access to information associated with its physical security program and the circumstances surrounding such event.	N/A for this document
28	An Exemption Request Process shall be available to utilities whose compliance would be clearly inappropriate or inapplicable or whose participation would result in an undue burden and hardship.	N/A for this document
29	Utilities shall provide to the Director of the Safety and Enforcement Division and Energy Division copies of OE-417 reports submitted to the United States Department of Energy (U.S. DOE) within two weeks of filing with U.S. DOE.	N/A for this document
30	Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison, PacifiCorp, Bear Valley Electric Service, and Liberty CalPeco (collectively, IOUs) shall seek recovery of costs associated with their respective Distribution Security Programs in each IOU’s general rate case.	N/A for this document
31	The utilities shall submit an annual report by March 31 each year beginning 2020, reporting physical incidents that result in any utility insurance claims, providing information on incident, location, impact on infrastructure and amount of claim. The insurance claim disclosure reporting, as described in this decision, should be included within a utility’s broader annual Physical Security Report to the Commission due every March 31, beginning in 2020.	Submitted March 31 2021

#	Ordering Paragraph	Corresponding Section in Plan
32	<p>As appropriate, the requirements set forth in Phase I of this proceeding shall apply to Alameda Municipal Power, City of Anaheim Public Utilities Department, Azusa Light and Water, City of Banning Electric Department, Biggs Municipal Utilities, Burbank Water and Power, Cerritos Electric Utility, City and County of San Francisco, City of Industry, Colton Public Utilities, City of Corona, Eastside Power Authority, Glendale Water and Power, Gridley Electric Utility, City of Healdsburg Electric Department, Imperial Irrigation District, Kirkwood Meadows Public Utility District, Lathrop Irrigation District, Lassen Municipal Utility District, Lodi Electric Utility, City of Lompoc, Los Angeles Department of Water &amp; Power, Merced Irrigation District, Modesto Irrigation District, Moreno Valley Electric Utility, City of Needles, City of Palo Alto, Pasadena Water and Power, City of Pittsburg, Port of Oakland, Port of Stockton, Power and Water Resources Pooling Authority, Rancho Cucamonga Municipal Utility, Redding Electric Utility, City of Riverside, Roseville Electric, Sacramento Municipal Utility District, City of Shasta Lake, Shelter Cove Resort Improvement District, Silicon Valley Power, Trinity Public Utility District, Truckee Donner Public Utilities District, Turlock Irrigation District, City of Ukiah, City of Vernon, Victorville Municipal Utilities Services, Anza Electric Cooperative, Plumas-Sierra Rural Electric Cooperative, Surprise Valley Electrification Corporation, and Valley Electric Association.</p>	N/A for this document
33	<p>This proceeding shall remain open so that the Commission may address the issues presented in Phase II of this proceeding.</p>	N/A for this document



### **3.1 Plan Management and Ownership**

*Ordering Paragraph 8. "Subsequent changes to the security plan requirements deemed beneficial and necessary, shall be enabled by one of the following: 1) Commission Resolution or Decision; 2) Ministerially, by Safety and Enforcement Division (or successor entity) director letter."*

*Ordering Paragraph 9. "In carrying out any future changes to the security plan requirements, Safety and Enforcement Division shall confer with utilities about any recommended modifications to the plan requirements."*

*Ordering Paragraph 25. "Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison, PacifiCorp, Bear Valley Electric Service, and Liberty CalPeco shall conduct a program review of their Security Plan and associated physical security program every five years after Commission review of the first iteration of the Security Plan. "*

*Ordering Paragraph 26: A summary of the program review shall be submitted to the Safety and Enforcement Division within 30 days of review completion.*

SDG&E Corporate Security is responsible for the Security Plan including future reviews and updates. Each review will be documented in Section 1 – Document Control. Currently, SDG&E Corporate Security is approved to make changes to the Security Plan. A summary of the program review will be submitted to the CPUC within 30 days and a program review will occur at least every five years after the Commission reviews the first integration of the Security Plan.

### **4.0 Distribution Security Program**

*Ordering Paragraph 5: "All California Electric Utility Distribution Asset Physical Security Plans shall conform to the requirements outlined within the Joint Utility Proposal, as modified by this decision (rules and requirements collectively known as "security plan requirements").*

*Ordering Paragraph 6: "The Investor Owned Utilities and Publicly Owned Utilities shall adhere to the Safety and Enforcement Division's Six-step Security Plan Process."*

*Ordering Paragraph 7: “The Six-step Plan Process consists of the following: Assessment; Independent Review and Utility Response to Recommendations; Safety and Enforcement Division Review (for Investor Owned Utilities); Local Plan Review (for Publicly Owned Utilities); Maintenance and Plan overhaul/new review.”*

The following process outlines the Distribution Security Program as described in the Joint Utility Proposal within the Decision and aligns with CPUC’s SED Six Step Security Plan Process. These were modeled after NERC Reliability Standard CIP-014 processes which were referred to in the Decision.

1. Identification of Distribution Facilities – process to identify distribution facilities and that serve customers meeting any of the seven listed criteria listed in the Joint Utilities Proposal Section 4.1.
2. Assessment – evaluation of the potential risk associated with a successful physical attack and whether existing grid resiliency, requirements for customer-owned back-up generation and / or physical security measures appropriately mitigate identified risks.
3. Mitigation Plan - assessment to identify and recommend appropriate risk based mitigation plans for the high-risk distribution facilities identified in in the Identification and Assessment phase.
4. Verification – Third-Party Review by an unaffiliated third-party entity who has demonstrated appropriate physical security expertise, as defined in the Decision. The Third-Party Review will provide verification of acceptable mitigations and make recommendations of additional mitigations as needed.
5. Record Keeping – outlines the parameters of retaining records. Electronic copies of this Distribution Security Program Implementation will be retained for not less than five (5) years.
6. Timelines and Frequency – outlines the milestone dates and deadlines for submission of completed documents.
7. Costs – cost estimates for potential security mitigations.

## 4.1 Identification

The Joint Utility Proposal suggests criteria to provide Operators with guidance needed to identify Distribution Facilities requiring further assessment. Specifically, the Joint Utility Proposal sets forth the following criteria to identify potential distribution facilities which may require further assessment:

1. Distribution Facility necessary for crank path, black start or capability essential to the restoration of regional electricity service that are not subject to the California Independent System Operator's (CAISO) operational control and/or subject to North American Electric Reliability Corporation (NERC) Reliability Standard CIP-014-2 or its successors;
2. Distribution Facility that is the primary source of electrical service to a military installation essential to national security and/or emergency response services (may include certain airfields, command centers, weapons stations, emergency supply depots);
3. Distribution Facility that serves installations necessary for the provision of regional drinking water supplies and wastewater services (may include certain aqueducts, well fields, groundwater pumps, and treatment plants);
4. Distribution Facility that serves a regional public safety establishment (may include County Emergency Operations Centers; county sheriff's department and major city police department headquarters; major state and county fire service headquarters; county jails and state and federal prisons; and 911 dispatch centers);
5. Distribution Facility that serves a major transportation facility (may include International Airport, Mega Seaport, other air traffic control center, and international border crossing);
6. Distribution Facility that serves as a Level 1 Trauma Center as designated by the Office of Statewide Health Planning and Development; and
7. Distribution Facility that serves over 60,000 meters.

The Operators created a technical workgroup and met regularly to ensure a common approach to identifying potential distribution facilities based on the seven criteria presented above. The technical workgroup also assisted with developing assumptions for the criteria which is referenced in APPENDIX A – Identification Criteria Assumptions.

The results for SDG&E include 35<sup>1</sup> substations, the primary Distribution Control Center, and the backup Distribution Control Center for a total of 37 potential distribution facilities to be included for further assessment. All the SDG&E crank path/black start facilities are subject to CAISO control; therefore, crank path/black start facilities which do not meet any of the other criteria above will be excluded for further assessment.

## **4.2 Assessment**

After SDG&E identified the potential distribution facilities, it evaluated whether existing grid resiliency, requirements for customer-owned back-up generation and/or physical security measures appropriately mitigate potential risks. The SDG&E risk assessment included an evaluation of the consequence, threat, and vulnerability. The consequence assessment included an evaluation of the following:

- *Alternative Service* – customer paid-for alternate service agreement with SDG&E allowing an alternate substation to provide the customer’s electric load
- *Additional Circuits* – the ability to utilize alternate circuits to provide some or all of the load for a customer
- *Mobile Generation* – the ability to utilize mobile generation to restore some or all of the load for a customer
- *Availability of Spare Assets* – available spare parts/equipment in the inventory to repair damage to potential distribution facilities
- *Customer Backup Up Generation* – the customer has other sources of energy (i.e., backup generation) to serve the load
- *Operational Backup* – the customer has a backup facility to continue operations

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<sup>1</sup> Updated the number of substations from previous submission, which previously overcounted by one.

The threat assessment included an evaluation of the following:

- *Location* – the potential distribution facilities is in a residential, commercial, rural, or military area which may provide deterrence or detection of threats
- *Criminal History* – criminal incidents at the potential distribution facilities within the last three years

The vulnerability assessment included an evaluation of the following:

- *Physical Security* – the physical security in place at the potential distribution facilities (cameras, guards, access control, etc.)
- *Emergency Response* – availability of law enforcement to respond to an incident at the potential distribution facilities

The results of the risk assessment determined if a security mitigation plan was necessary for the potential distribution facilities. The results of the risk assessment determined that each of the 37 potential distribution facilities have a “Very Low” or “Low” risk. Therefore, none of the 37 potential distribution facilities were assessed further. Mitigation Plans are not required and will not be developed.

### **4.3 Mitigation Plan**

The results of the risk assessment determined that each of the 37 potential distribution facilities have a “Very Low” or “Low” risk. Therefore, none of the 37 potential distribution facilities were assessed further. SDG&E’s assessment concluded that Mitigation Plans are not required and will not be developed.

### **4.4 Verification**

*Ordering Paragraph 10: Prior to the submittal of the Security Plan, Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison, PacifiCorp, Bear Valley Electric Service, and Liberty CalPeco shall each have their respective plan reviewed by an unaffiliated third-party entity.*

*Ordering Paragraph 11: The unaffiliated third-party reviewer shall have demonstrated appropriate physical security expertise.*

*Ordering Paragraph 17: “Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison, PacifiCorp, Bear Valley Electric Service, and Liberty CalPeco shall each document all third-party reviewer recommendations, and specify recommendations that were accepted or declined by the utility.”*

*Ordering Paragraph 18: “Pacific Gas and Electric Company, San Diego Gas & Electric Company, Southern California Edison, PacifiCorp, Bear Valley Electric Service, and Liberty CalPeco shall each provide justification supporting its decision to accept or decline any third-party recommendations.”*

*Ordering Paragraph 22: Prior to Security Plan adoption, Publicly Owned Utilities in California shall have their plan reviewed by a third party.*

*Ordering Paragraph 23: Such third-party reviewer may be another governmental entity within the same political subdivision, so long as the entity can demonstrate appropriate expertise, and is not a division of the publicly owned utility that operates as a functional unit (i.e., a municipality could use its police department if it has the appropriate expertise).*

SDG&E did not have distribution facilities of high risk and therefore did not create Mitigation Plans. Therefore, the Identification and Assessment process and documents were verified by an unaffiliated third-party reviewer. In the opinion of the third-party reviewer, SDG&E’s Identification and Assessment process is consistent with established security assessment methodologies for similar electric utility industries and facilities. The Identification and Assessment process is consistent with CPUC OIR 19-01-018 sections 4.1 and 4.2.

SDG&E used Burns & McDonnell (BMD) as the third-party reviewer, who is also the third-party reviewer for SDG&E’s NERC CIP 014 requirements. BMD is an internationally recognized Engineering, Architecture, and Consulting firm that provides professional consulting services to critical infrastructure clients. The assessors for these documents are experienced, board-certified security consultants that meet or exceed the criteria for third-party reviewers as identified in OIR CPUC Section 6.4. This includes electric industry physical security experience, Physical Security Professional (PSP) and Certified Protection Professional (CPP) certifications by ASIS International and demonstrated physical security expertise.

Burns & McDonnell conducted the third-party review subject to a Non-Disclosure / Confidentiality Agreement executed by the reviewer in advance of the project. SDG&E personnel hosted a virtual workshop outlining the organization's site identification process and list, as well as their risk assessment methodology. Burns & McDonnell did not attempt to verify the onsite conditions of the identified distribution facilities, nor whether vulnerabilities, physical security measures, or other mitigation methods exist for the identified distribution facilities. Based on SDG&E's Identification and Assessment findings, distribution facilities were ranked "Very Low" or "Low" risk and concluded the development of Mitigation Plans (per CPUC OIR 19-01-018 Section 4.3.) were not required.

SDG&E agrees to evaluate the one recommendation provided by BMD when performing the next review. BMD recommendation: *SDG&E may consider incorporating community water systems servicing a population of more than 100,000, as outlined by the Environmental Protection Agency and detailed in America's Water Infrastructure Act (AWIA) of 2018 in Identification Criteria for future consensus and assessments.*

#### **4.5 Record Keeping**

Consistent with the Joint Utility Proposal, electronic copies of this Distribution Security Program implementation will be retained for not less than five years. As such records are confidential, these records will be maintained in a secure manner on the Operator's network. The records maintained by an Operator will be available for inspection at its headquarters, San Francisco offices, or by using the Interim Trial Procedures process using a secure portal upon request by the Commission.

These records will include, at a minimum:

- 1) The Operator's Identification of Distribution Facilities requiring further assessment;
- 2) Each Operator's Assessment of the potential threats and vulnerabilities of a physical attack and whether existing grid resiliency, customer-owned back-up generation and/or physical security measures appropriately mitigate the risks on each of its identified Distribution Facilities;
- 3) Each Operator's Mitigation Plans covering each of its Covered Distribution Facilities under Section 4;

4) The unaffiliated third-party evaluation of the Operator's Identification and Assessment evaluations and Mitigation Plans performed and developed by the Operator; and

5) If applicable, the Operator's documented reasons for not modifying its Mitigation Plans consistent with the unaffiliated third-party's evaluation.

#### **4.6 Timeline and Frequency**

Any Operator that has identified at least one distribution facility requiring further assessment whose risks are not found to be appropriately mitigated during the verification phase will complete an initial draft of its Mitigation Plan(s), within eighteen (18) months from the effective date of these guidelines.

Where the Operator is required to seek verification, the Operator will obtain an unaffiliated, third-party review within twenty-seven (27) months from the effective date of these guidelines. Each Operator will meet all obligations set out in this decision within thirty (30) months of the effective date of these guidelines.

#### **4.7 Cost**

The results of the risk assessment determined that each of the 37 potential distribution facilities have a "Very Low" or "Low" risk. Therefore, none of the 37 potential distribution facilities were assessed further. SDG&E's assessment concluded that Mitigation Plans are not required and will not be developed.

### **5.0 New or Renovated Substations**

*Ordering Paragraph 12: "California electric utilities shall, within any new or renovated distribution substation, design their facilities to incorporate reasonable security features."*

SDG&E distribution substations all have physical controls. Additional security measures may be taken into consideration depending on safety or security concerns. SDG&E business units must consult with SDG&E Corporate Security in facility planning, construction, and remodeling to ensure an appropriate security posture.

To ensure enhanced redundancy, support, and consistency, SDG&E Corporate Security must approve security and surveillance equipment (card readers, cameras, alarms, etc.) installed



at company sites. The deployment of these products will allow for enterprise-wide security system integration.

## 6.0 Asset Management

*Ordering Paragraph 13: “Utility security plans shall include a detailed narrative explaining how the utility is taking steps to implement an asset management program to promote optimization, and quality assurance for tracking and locating spare parts stock, ensuring availability, and the rapid dispatch of available spare parts.”*

Ordering Paragraph (OP) 13 of D.19-01-018 requires utility security plans to include a detailed narrative explaining how the utility is taking steps to implement an asset management program to promote optimization, and quality assurance for tracking and locating spare parts stock, ensuring availability, and the rapid dispatch of available spare parts.

San Diego Gas & Electric Company (SDG&E) is committed to building the safest, cleanest, and most reliable energy infrastructure company in North America. SDG&E’s adherence to the industry-recognized asset management standards of ISO 55000, 55001, and 55002 advance the company’s objectives of enhancing safety and reliability and maximizing the value of its assets. These industry standards, originated by the International Organization for Standardization in 2014, outline the framework (ISO 55000), requirements (ISO 55001), and its application (ISO 55002) to implement an effective, risk-informed and sustainable asset management system.

The SDG&E Asset Management Policy (Policy) serves as the guiding principle for SDG&E’s asset management system (people, process, and technology) that aligns with corporate strategy and objectives, maintains compliance with regulatory directives, reinforces SDG&E’s commitment to safety and service quality, and fosters risk-informed operating decisions and investment allocations. The Policy will drive the management of SDG&E’s assets to reinforce asset safety and optimize risk, asset performance, and cost. Assets shall include any item that has potential or actual value to the organization and can be tangible or intangible, financial or non-financial. The asset management system will encompass the directives and approved strategies from state and federal regulatory mandated programs, as necessary.

SDG&E implements an effective, risk-informed, and sustainable asset management

system which is defined by the Asset Management Policy, Asset Management Strategy, and Asset Management Plans using industry-recognized International Organization for Standardization (ISO) asset management standards, which cover:

- Asset Safety Management System
- Risk Management
- Incident Response
- Classification of Assets
- Condition of Assets
- Asset Life Cycle
- Asset Integrity Management
- Reliability Performance
- Regulatory Compliance
- Supply and Demand
- Emerging Technologies
- Performance Evaluation and Monitoring

SDG&E processes are documented, implement a condition-based maintenance system for circuit breakers, station backup batteries, and transformers. The documentation also includes a transformer spare evaluation policy, standardizes equipment designs, maintains spare equipment and parts inventories, evaluates equipment and parts needs at monthly substation equipment assessment meetings for technical review and prioritization of jobs' equipment and parts needs, and investigates equipment problems. Operator also partners with other utilities/companies in the industry to share spare equipment in the event of an emergency.

## **7.0 Training and Retention**

*Ordering Paragraph 14: "Utility security plans shall include a detailed narrative explaining how the utility is taking steps to implement a robust workforce training and retention program to employ a full roster of highly-qualified service technicians able to respond to make repairs in short order throughout a utility's service territory using spare parts stockpiles and inventory."*

Ordering Paragraph (OP) 14 of D.19-01-018 requires utility security plans to include a detailed narrative explaining how the utility is taking steps to implement a robust workforce training and retention program to employ a full roster of highly-qualified service technicians able to respond to make repairs in short order throughout a utility's service territory using spare parts stockpiles and inventory.

SDG&E utilizes a 36-month Electrician apprenticeship program to train our substation workforce to the highest standard. The apprenticeship is comprised of a blend of Instructor led training, on the job training, and work experience.

The instructor led training is designed to develop the student's proficiency with substation equipment and procedures. This training includes, but is not limited to, electrician's math and principles, reading and understanding schematic diagrams, circuit breakers, transformers, load tap changers, air switches (manual and motor operated), and grounding.

The on-the-job training immediately follows instructor led coursework and is designed to reinforce learnings from the courses. Apprentices are required to satisfactorily complete the on-the-job training portion of the program. The on-the-job training consists of mandated hours of work on specific tasks which include wiring from schematics, equipment installation, equipment maintenance, substation battery installation and maintenance, grounding, equipment testing, installing conduit and bus work, pulling wire, as well as heavy equipment operation and class A driver training.

To maintain the employee's knowledge base and provide for ongoing skill development, Journeyman Electricians are provided, and are required to attend, biannual refresher training at the Substation level. These trainings reinforce critical skills such as schematics and circuit analysis, breaker closing, and troubleshooting disconnects. New procedures, test equipment and technologies are evaluated to determine if training is required and when required, focused training is delivered. New equipment training is typically done in partnership with the manufacturer of the equipment.

Additionally, the Company provides Substation employees with 3 full days of annual safety and environmental compliance training which includes, but is not limited to, arc flash procedures, rubber gloves, lockout/tagout, tailgate refresher, EPZ and grounding in substations.

Historically SDG&E has not experienced high attrition for Substation Electricians. SDG&E has a strong innovative culture which fosters professional and personal development. In addition to the job specific education Substation Electricians receive, through our Organizational Effectiveness department, access to both technical and personal development classes are available. Training is designed to meet every type of learning style and work schedule as courses are offer in a classroom setting and online. Talent retention is also achieved through SDG&E's competitive pay structure combined with a fringe benefits package which supports the needs of our employees and their families.

## **8.0 Preventative Maintenance**

*Ordering Paragraph 15: "Utility security plans shall include a detailed narrative explaining how the utility is taking steps to implement a preventative maintenance plan for security equipment to ensure that mitigation measures are functional and performing adequately."*

Ordering Paragraph (OP) 15 of D.19-01-018 requires utility security plans to include a detailed narrative explaining how the utility is taking steps to implement a preventative maintenance plan for security equipment to ensure that mitigation measures are functional and performing adequately.

The SDG&E Corporate Security Operations Center (CSOC) is a 24/7 operations center, which monitors security systems for SDG&E. Operators assigned to the CSOC are required to submit work requests for maintenance on physical security related infrastructure issues, such as inoperable access doors, gates, alarm panels, cameras, card readers, and/or locks, which if unattended, may pose a security or safety concern. This requirement is outlined in the CSOC's Post Orders and training manuals.

The CSOC performs camera checks at all sites to confirm operability. To accomplish these checks, the Operators use a camera site check form to document confirmation and/or record inoperable cameras or connections affecting CCTV coverage at the sites. The CSOC also receives notifications if access control systems are non-operational.

When identified, CSOC Operators work with SDG&E Corporate Security to submit work requests in order ensure safety and/or security deficiencies are promptly corrected. A Facilities

Work Maintenance System is used to submit and track work requests for completion.

Additionally, SDG&E's maintenance and testing program is managed by SDG&E Corporate Security. The maintenance and testing program is part of an Equipment Supply and Related Services Master Services Agreement with a contractor to ensure all physical security systems at SDG&E facilities function properly. Testing and maintenance of all physical security mechanisms are completed by physically testing each physical security component at SDG&E facilities. Equipment found to be malfunctioning is repaired or replaced. The contractor is also dispatched to repair or replace any equipment reported to be inoperative or malfunctioning within the period of time contracted in the Equipment Supply and Related Services Master Services Agreement.

## **9.0 Distribution Control Center and Security Control**

*Ordering Paragraph 16. "Utility security plans shall include a detailed narrative explaining how the utility is taking steps to implement a description of Distribution Control Center and Security Control Center roles and actions related to distribution system physical security."*

Ordering Paragraph (OP) 16 of D.19-01-018 requires utility security plans to include a detailed narrative explaining how the utility is taking steps to implement a description of Distribution Control Center and Security Control Center roles and actions related to distribution system physical security.

The CSOC and Distribution Operations Control Center are each manned 24/7 and have direct communications during incidents at electric infrastructure or facilities. The CSOC's role is to monitor for security incidents at electric infrastructure. The CSOC will call the Distribution Operations Control Center when a Qualified Electric Worker (QEW) is required as an escort or to respond to incidents at electric facilities such as break ins, fires, or other incidents that require first responders. The Distribution Operations Control Center has written reporting procedures for security incidents which require the CSOC to be notified. Additionally, incident reporting procedures are outlined in the CSOC Post Orders and training manual to ensure prompt communication for security system outages and security incidents. The CSOC also notifies the SDG&E Corporate Security Special Agent on duty or law enforcement to respond to security

incidents. Roving Security Officers are available to meet the QEW as appropriate to provide support during security incidents.

## Appendix A – Identification Criteria Assumptions

### APPENDIX A – IDENTIFICATION CRITERIA ASSUMPTIONS

1. Distribution Facility necessary for crank path, black start or capability essential to the restoration of regional electricity service that are not subject to the California Independent System Operator's (CAISO) operational control and/or subject to North American Electric Reliability Corporation (NERC) Reliability Standard CIP-014-2 or its successors.

**Assumptions:** Facilities subject to CAISO operational control or subject to NERC CIP 014-2 will be excluded.

2. Distribution Facility that is the primary source of electrical service to a military installation essential to national security and/or emergency response services (may include certain air fields, command centers, weapons stations, emergency supply depots).

**Assumptions:** Only the sites essential to national security or emergency responses.

3. Distribution Facility that serves installations necessary for the provision of regional drinking water supplies and wastewater services (may include certain aqueducts, well fields, groundwater pumps, and treatment plants);

**Assumptions:** Water treatment and wastewater treatment with throughput equal to or greater than one hundred (100) million gallons per day (mgd).

4. Distribution Facility that serves a regional public safety establishment (may include County Emergency Operations Centers; county sheriff's department and major city police department headquarters; major state and county fire service headquarters; county jails and state and federal prisons; and 911 dispatch centers);

**Assumptions:**

- A. Major Police and Fire Department: defined as serving 1.5 million population and has 1,000 sworn Officers, or per Major Cities Chiefs of Police Association (MCCA), or County Sheriff's Department main headquarters and/or County Emergency Operation Center

- B. County Fire headquarters, State Fire headquarters
  - C. County, State and Federal Main Jails
5. Distribution Facility that serves a major transportation facility (may include International Airport, Mega Seaport, other air traffic control center, and international border crossing);

**Assumptions:** Applies to International Airports, Major Sea Ports and Land Boarding Crossings, and Air Traffic Control

6. Distribution Facility that serves as a Level 1 Trauma Center as designated by the Office of Statewide Health Planning and Development; and

**Assumptions:** Applies only to Level 1 Trauma Centers in our service territory

7. Distribution Facility that serves over 60,000 meters.

**Assumptions:** Applies to the collective sum of meters for single point failures, which may include downstream assets