



Final Physical Security Plan

Liberty Utilities (CalPeco Electric) LLC

7/10/2021

Table of Contents

Document Control.....	1
1.0 Executive Summary.....	2
2.0 Introduction & Background	3
3.0 Description of Liberty (CalPeco).....	4
4.0 Distribution Security Plan Contents and Management	5
4.1 Requirements and Structure.....	5
4.2 Plan Management and Ownership	8
4.3 Reporting.....	9
5.0 New Substation Construction	10
6.0 Liberty’s Substation Asset Management Programs.....	11
6.1 Substation Inspection Program.....	11
6.2 Critical Spare Inventory Management	11
6.3 Asset Replacement/Repair.....	11
7.0 Liberty’s Distribution Control Center.....	12
8.0 Liberty’s Distribution Security Program	13
8.1 Identification	15
8.1.1 Identification Methodology	15
8.1.2 Identification Results – List of Covered Facilities.....	16
8.2 Physical Security Assessment.....	18
8.2.1 Physical Security Assessment Methodology	18
8.2.2 Liberty Physical Security Assessment Results	19
8.3 Mitigation Plan.....	21
8.4 Independent Review and Validation.....	25
8.5 Record Keeping	27
8.6 Timeline.....	28
8.7 Cost	29
Appendix A – Liberty Preliminary Physical Security Assessment of Priority Facilities.....	30
Appendix B – Physical Security Assessment Results Table	31
Appendix C – Applicability of Ordering Paragraphs of D.19.01.018	32
Appendix D – Insurance Claim Disclosure Reporting.....	36
Appendix E – Cooper Compliance Corporation Third Party Evaluation of Liberty’s Physical Security Plan	37

Document Control

Plan Revision Log

Date of Changes	Section(s) with changes	Summary of Changes	Changes Made by
7/10/2021	All	Initial Release	

Plan Review Log

Date of Review	Name of Reviewer	Summary of Findings

1.0 Executive Summary

The safety of its facilities is a top priority for Liberty Utilities (CalPeco Electric) LLC (“Liberty”), and Liberty prioritizes safety in aspects of its design, operation, and maintenance practices. This Physical Security Plan describes Liberty’s risk management approach toward distribution system physical security with appropriate consideration of resiliency, impact, and cost.

Liberty recognizes the importance of securing the safety and reliability of its electric system and the safety of the public and employees. Liberty participated in the California Public Utilities Commission’s (“CPUC”) Physical Security proceeding and has undertaken this assessment. Liberty offers the following in response to the requirements of Senate Bill 699 and Rulemaking (“R.”) 15-06-009.

Cooper Compliance Corporation (“CCC”) conducted an independent evaluation and found Liberty’s assessment methodology and results were consistent with good industry practices for physical security of critical infrastructure. CCC noted that it was obvious that Liberty places significant emphasis on physical security and the resiliency of its system, and its practices are not simply in response to the CPUC’s decision.

2.0 Introduction & Background

On April 16, 2013, one or more individuals attacked equipment located within Pacific Gas and Electric Company's ("PG&E") Metcalf Transmission Substation, ultimately damaging 17 transformers. These individuals also cut nearby fiber-optic telecommunication cables owned by AT&T and Level Three Communications. In response to the attack, the Federal Energy Regulatory Commission ("FERC") directed the North American Electric Reliability Corporation ("NERC") to develop new physical security requirements, resulting in the creation of CIP-014.

At the state level, Senator Jerry Hill authored SB 699 (2014), directing the CPUC to "consider adopting rules to address the physical security risks to the distribution systems of electrical corporations." In response to SB 699, the CPUC's Safety and Enforcement Division, Risk Assessment and Safety Advisory Section ("RASA") prepared a white paper proposing a new requirement for investor-owned utilities ("IOUs") and publicly owned utilities ("POUs") to develop security plans that would identify security risks to their distribution and transmission systems and propose methods to mitigate those risks. The CPUC hosted a series of workshops to better understand the state of utility physical security protections and to seek input on refining their proposal.

In order to support a statewide improvement of how utilities address distribution level physical security risks, the California Municipal Utilities Association ("CMUA"), which is the statewide trade association for POUs, coordinated with the state's IOUs to develop a comprehensive Straw Proposal ("Joint IOU/POU Straw Proposal") for a process to identify at-risk facilities and, if necessary, develop physical security mitigation plans. The Joint IOU/POU Straw Proposal set out a process for the following: (1) identifying if the utility has any high-priority distribution facilities; (2) evaluating the potential risks to those high-priority distribution facilities; (3) for the distribution facilities where the identified risks are not effectively mitigated through existing resilience/security measures, developing a mitigation plan; and (4) obtaining a third-party review of the mitigation plans.

RASA filed a response to the Joint IOU/POU Straw Proposal that recommended various modifications and clarifications, including a six-step process. Additionally, RASA recommended that the utility mitigation plans include (1) an assessment of supply chain vulnerabilities; (2) training programs for law enforcement and utility staff to improve communication during physical security events; and (3) an assessment of any nearby communication utility infrastructure that supports priority distribution substations.

In early 2019, the CPUC approved Decision ("D.") 19-01-018, which adopted the Joint IOU/POU Straw Proposal as modified by the RASA proposal, with additional clarifications and guidance. D.19-01-018 clarified that, where there is a conflict between the Straw Proposal and the RASA proposal, then it is the rule in the RASA proposal that controls.¹

D.19-01-018 asserted that the IOUs should utilize the Utility Security Plan process described therein. Liberty is following the process and issues this report to reflect its commitment to safety and to protecting its ratepayers' investment by taking reasonable and cost-effective measures in an effort to safeguard key assets of its distribution system.

¹ D.19-01-018 at 43, footnote 58 ("Should there be any question of which shall predominate should there be any incongruity or conflict between a utility or SED RASA recommended rule, the SED RASA rule shall apply.").

3.0 Description of Liberty (CalPeco)

Liberty purchased NV Energy's California service territory in 2011. The network lies in the heart of the Sierra Nevada mountain range in and around Lake Tahoe. Liberty's electric system spans approximately 1,476 square miles and hosts over 1880 miles of distribution lines. Liberty serves under 50,000 customers largely near the Lake Tahoe basin, but also as far north as the City of Portola, CA, and as far south as Walker, CA. Peak load occurs during the winter months when local ski resorts in the area are making snow and accommodating guests.

Liberty's power delivery system consists of 12 substations with 42 distribution circuits, most of which operate at 14.4kV but a few that operate at 12.47kV and 24.9kV. There are also 12 megawatts ("MW") of emergency generation available via six 2 MW units at Kings Beach in North Lake Tahoe.

About 75% of Liberty's distribution system consists of overhead power lines. Liberty's sole transmission provider ("TP") is its neighboring utility, NV Energy. NV Energy owns and operates the California, Topaz, and Muller substations that feed Liberty's CAL204, TPZ1261, and MUL1296 circuits. Liberty works with NV Energy to coordinate the Truckee and North Truckee substations that are part of a 60kV sub-transmission loop and a single 120kV line in North Lake Tahoe. Liberty also has two 120 kV sources into the South Lake Tahoe area fed by NV Energy.

4.0 Distribution Security Plan Contents and Management

4.1 Requirements and Structure

The following table describes the requirements of the Final Security Plan as identified in the Ordering Paragraphs of D.19-01-018 and identifies where detail can be found in this document to meet the specific requirements. This table only reflects the Ordering Paragraphs that apply to the creation and submission of Liberty’s Final Security Plan. The full list of Ordering Paragraphs and applicability to the company’s Final Security Plan can be found in Appendix C.

Table 1: Decision Requirements and Corresponding Plan References

#	Ordering Paragraph	Corresponding Section in Plan
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
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”).	See General Methodology in Section 8.0
6	The Investor Owned Utilities and Publicly Owned Utilities shall adhere to the Safety and Enforcement Division’s Six-step Security Plan Process.	See General Methodology in Section 8.0
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 s); Local Plan Review (for Publicly Owned Utilities); Maintenance and Plan overhaul/new review.	See General Methodology in Section 8.0
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 4.2
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 4.2
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 8.4
11	The unaffiliated third-party reviewer shall have demonstrated appropriate physical security expertise.	Section 8.4
12	California electric utilities shall, within any new or renovated distribution substation, design their facilities to incorporate reasonable security features.	Section 5.0
13	Utility security plans shall include a detailed narrative explaining how the utility is taking steps to implement an asset management program to	Section 6.2

#	Ordering Paragraph	Corresponding Section in Plan
	promote optimization, and quality assurance for tracking and locating spare parts stock, ensuring availability, and the rapid dispatch of available spare parts.	
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 6.3
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 6.1
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 7.0
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 8.4
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 8.4
22	Prior to Security Plan adoption, Publicly Owned Utilities in California shall have their plan reviewed by a third party.	Section 8.4
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 8.4
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 4.2
26	A summary of the program review shall be submitted to the Safety and Enforcement Division within 30 days of review completion.	Section 4.2
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.	See Appendix D

#	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 & 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

4.2 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. "

It is the responsibility of Liberty's Director of Operations to create, review, and document any future changes to the Distribution Security Plan, with support from the Rates and Regulatory Affairs department. Upon commission review of Liberty's final plan, a task will be added to Liberty's compliance calendar to review the plan every five years in accordance with Ordering Paragraph 25. During the review, Liberty will update the plan with any changes to the security plan requirements. Any changes or reviews made to the Distribution Security Plan will be noted in the document control section.

4.3 Reporting

Ordering Paragraph 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.

As stated in Liberty's 2020 and 2021 Physical Security Reports filed pursuant to Ordering Paragraph 31 of D.19-01-018, Liberty did not experience physical attacks resulting in damage to its generation or power delivery assets from January 1, 2019, through March 31, 2021. No insurance claims were filed for the period, and no OE-417 reports were submitted to the U.S. Department of Energy.

5.0 New Substation Construction

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

Security is a significant consideration when designing new or renovated distribution substations. Due to Liberty's size, substation design is typically handled by licensed, third-party, professional engineers and contractors. Liberty maintains substation fencing standards to provide physical security of distribution assets as appropriate based on location and type of facility. All substation designs are reviewed by Liberty personnel to confirm that physical security measures are as specified.

6.0 Liberty's Substation Asset Management Programs

Liberty has multiple programs that provide distribution substation physical security:

- Preventative Programs (Substation Inspection Program)
- Program to Support Restoration:
 - Critical Spare Inventory
 - Asset Replacement/Repair

6.1 Substation Inspection Program

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."

All 12 covered substations are inspected regularly as detailed in Liberty's G.O. 174 Substation Inspection Program. These inspections confirm that any existing security measures are as expected and have not been tampered with.

6.2 Critical Spare Inventory 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."

Liberty maintains a spare inventory of distribution facility equipment including substation transformers, circuit breakers, regulators, and relays. Substation equipment spare inventory is documented in a shared drive and reviewed periodically by operations staff to confirm accuracy. When spare equipment is used to replace a failed piece of equipment, Liberty works to procure a replacement as quickly as possible.

6.3 Asset Replacement/Repair

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."

Qualified substation electricians and engineers who are capable of rapidly installing spare substation equipment in the event of equipment failure comprise Liberty's operations personnel.

7.0 Liberty's Distribution Control Center

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."

Monitoring of security cameras to be installed at substations will be accomplished by Liberty's New Hampshire ("NH") control center.

Security of the NH control center consists of restricted key card access to restrict access to non-authorized employees. The outer entrances to the building also have key card access to prevent access to the public. The SCADA workstations are password-protected.

8.0 Liberty's 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 s); Local Plan Review (for Publicly Owned Utilities); Maintenance and Plan overhaul/new review."

A. Physical Security Principles

The Joint IOU/POU Straw Proposal seeks to support the creation of a risk management approach toward distribution system physical security, with appropriate considerations of resiliency, impact, and cost. In order to accomplish this risk-based approach, the Joint IOU/POU Straw Proposal identifies several principles to guide the development of each individual utility's program. These principles include:

1. Distribution systems are not subject to the same physical security risks and associated consequences, including threats of physical attack by terrorists, as the transmission system.
2. Distribution utilities will not be able to eliminate the risk of a physical attack occurring, but certain actions can be taken to reduce the risk or consequences, or both, of a significant attack.
3. A one-size-fits-all standard or rule will not work. Distribution utilities should have the flexibility to address physical security risks in a manner that works best for their systems and unique situations, consistent with a risk management approach.
4. Protecting the distribution system should consider both physical security protection and operational resiliency or redundancy.
5. The focus should not be on all Distribution Facilities, but only those that risk dictates would require additional measures.
6. Planning and coordination with the appropriate federal and state regulatory and law enforcement authorities will help prepare for attacks on the electrical distribution system and thereby help reduce or mitigate the potential consequences of such attacks.

B. Utility Security Plan Development Process

Liberty utilized a multi-step process to develop a Security Plan that is consistent with the Joint IOU/POU Straw Proposal and D.19-01-018. The relevant six steps of that process include:

Step 1: Assessment/Plan Development

Liberty staff prepared a Draft Utility Security Plan through the process set forth in Steps 1A, 1B, and 1C.

Step 1A: Identify Covered Distribution Facilities

Liberty will evaluate all distribution-level facilities in its service territory that are subject to its control to determine if any of these facilities meet D.19-01-018's definition of a "Covered Distribution Facility" using the seven factors identified in the Joint IOU/POU Straw Proposal.

STEP 1B: Perform risk assessment

For every individual Covered Distribution Facility identified pursuant to Step 1A, Liberty will perform an evaluation of the potential risks associated with a successful physical attack on that Facility, and whether existing grid resiliency, back-up generation, and/or physical security measures appropriately mitigate identified risks.

STEP 1C: Develop mitigation plan

If there are any individual Covered Distribution Facilities where the Risk Assessment performed pursuant to Step 1B finds that the existing mitigation and/or resiliency measures do not effectively mitigate the identified risks, Liberty will develop a Mitigation Plan for that Covered Distribution Facility. The Mitigation Plan will use a risk-based approach to select reasonable and cost-effective measures that can either be security focused (*e.g.*, walls or alarms) or resiliency focused (*e.g.*, adequate spare parts).

STEP 2: Independent review

For every Utility Security Plan cycle, Liberty will document the results of the identification process, risk assessment, and Mitigation Plan development performed pursuant to Steps 1A, 1B, and 1C. This documentation, in combination with narrative description in Section IX, constitutes Liberty's Draft Utility Security Plan. The Draft Utility Security Plan is submitted to a Qualified Third Party for Independent Review. The Qualified Third-Party Reviewer will then issue an evaluation that identifies any potential deficiencies in the Draft Utility Security Plan as well as recommendations for improvements. Liberty will then modify its plan to address any identified deficiencies or recommendations or will document the reasons why any recommendations were not adopted. The combination of the Draft Utility Security Plan, the non-confidential conclusions of the Qualified Third-Party Reviewer, and Liberty's responses to the Qualified Third Party Review will constitute Liberty's Utility Security Plan.

STEP 3: Validation

Liberty will submit its Utility Security Plan to a qualified authority for review. Such entity will provide additional feedback and evaluation of Liberty's Utility Security Plan and, to the extent that this entity is authorized, such entity deems the Utility Security Plan as adequate.

STEP 4: Adoption

Liberty's Utility Security Plan will be presented to and adopted by Liberty management.

STEP 5: Maintenance

Liberty will refine and update the Utility Security as appropriate and as necessary to preserve plan integrity.

STEP 6: Repeat process

Liberty will repeat this six-step process at least once every five years.

8.1 Identification

As described above, Step 1A of the Utility Security Plan process involves assessing all distribution-level facilities that are subject to the control of Liberty to determine which facilities are “Covered Distribution Facilities” subject to the need for a risk assessment. This section describes the factors that Liberty used to evaluate its distribution facilities and the results of its evaluation.

8.1.1 Identification Methodology

The Joint IOU/POU Straw Proposal defines seven screening factors to determine if a facility is a “Covered Distribution Facility.” Some factors require additional definitions and/or clarifications in order to be applied to Liberty’s facilities. The following table provides the Joint IOU/POU Straw Proposal’s Factors as modified/clarified by Liberty.

Table 2: Identification Factors

Factor	Joint IOU/POU Straw Proposal Description	Additional Clarification
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	Liberty has no facilities that fit this screening factor.
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)	Liberty has no facilities that fit this screening factor.
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)	All 12 substations feed regional drinking water supply facilities and/or wastewater facilities.
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)	Liberty defines “regional public safety establishment” as any of the following: (1) Headquarters of a major police or fire department; (2) County Sheriff’s Department Headquarters; (3) County Emergency Operations Center; (4) County/State Fire headquarters; (5) a California State Prison; (5) a United States Penitentiary; or (6) a Federal Correctional Institute; or (7) 911 Dispatch Centers.

		Liberty determined that two of its facilities serve at least one of the listed screening factors.
5	Distribution Facility that serves a major transportation facility (may include International Airport, Mega Seaport, other air traffic control center, and international border crossing)	In addition to the facilities listed in the Joint IOU/POU Straw Proposal, Liberty defines a “major transportation facility” as any transportation facility that has (1) an average of 600 or more flights per day; or (2) over 50,000 passengers arriving or departing per day. Liberty has no facilities that fit this screening factor.
6	Distribution Facility that serves as a Level 1 Trauma Center as designated by the Office of Statewide Health Planning and Development.	Liberty has no facilities that fit this screening factor.
7	Distribution Facility that serves over 60,000 meters	Liberty has no facilities that fit this screening factor.

8.1.2 Identification Results – List of Covered Facilities

In performing this identification analysis, Liberty assessed all distribution level facilities under its exclusive control, including 12 distribution substations and one generation facility. Liberty is the only entity responsible for operation and maintenance of these facilities.

Based on this scope, Liberty has identified 12 covered substations that are subject to this identification analysis. Of these 12 facilities, all fall within at least one of the categories listed above. These facilities constitute Liberty’s “Covered Distribution Facilities.”

Table 3 summarizes the results of Liberty’s identification analysis. If the final score of any facility is greater than or equal to one (1), then Liberty considers this facility as “Covered Distribution Facility.” Liberty conducted a Risk Assessment analysis for this facility.

Table 3: Identification Scores of Covered Distribution Facilities

Substation Name	1. Crank Path, Black Start	2. Military Installation	3. Regional Drinking Water/ Wastewater Services	4. Safety Establishment (Police/ Fire)	5. Transportation Facility	6. Trauma Center Level 1 / Hospitals	7. Over 15,000 Meters	Identification Score
Kings Beach			1					1
Tahoe City			1	1				2
Squaw Valley			1					1
Northstar			1					1
Stateline			1					1
Meyers			1	1				2
Glenshire			1					1
Sierra Brooks			1					1
Hobart Mills			1					1
Portola			1					1
Stampede			1					1
Cemetery			1					1

8.2 Physical Security Assessment

Pursuant to the process identified in the Joint IOU/POU Straw Proposal and D.19-01-018, Liberty assessed the potential risks associated with a successful physical attack on each of the Covered Distribution Facilities identified in Section IV above. For purpose of this analysis, a physical attack is limited to the following: (1) theft; (2) vandalism; and (3) discharge of a firearm. A “successful physical attack” is limited to circumstances where a theft, vandalism, and/or the discharge of a firearm has directly led to the failure of any elements of the Covered Distribution Facility that are necessary to provide uninterrupted service to the specific load.

In order to perform this risk analysis, Liberty evaluated the relative risk that (1) a physical attack on a Covered Distribution Facility will be successful considering the protective measures in place; or (2) that the impacts of a successful attack will be mitigated due to resiliency and other measures in place.

8.2.1 Physical Security Assessment Methodology

D.19-01-018 identifies the specific mitigation measures that a utility should consider when performing this risk analysis. The nine measures were evaluated by Liberty’s Director of Operations, Senior Program Manager of Physical Security, and engineering staff to assess the existing mitigation measures. Table 4 lists these mitigation measures and provides Liberty’s additional clarifications that are necessary to apply these measures to the Liberty’s territory.

Table 4: Mitigation Measures

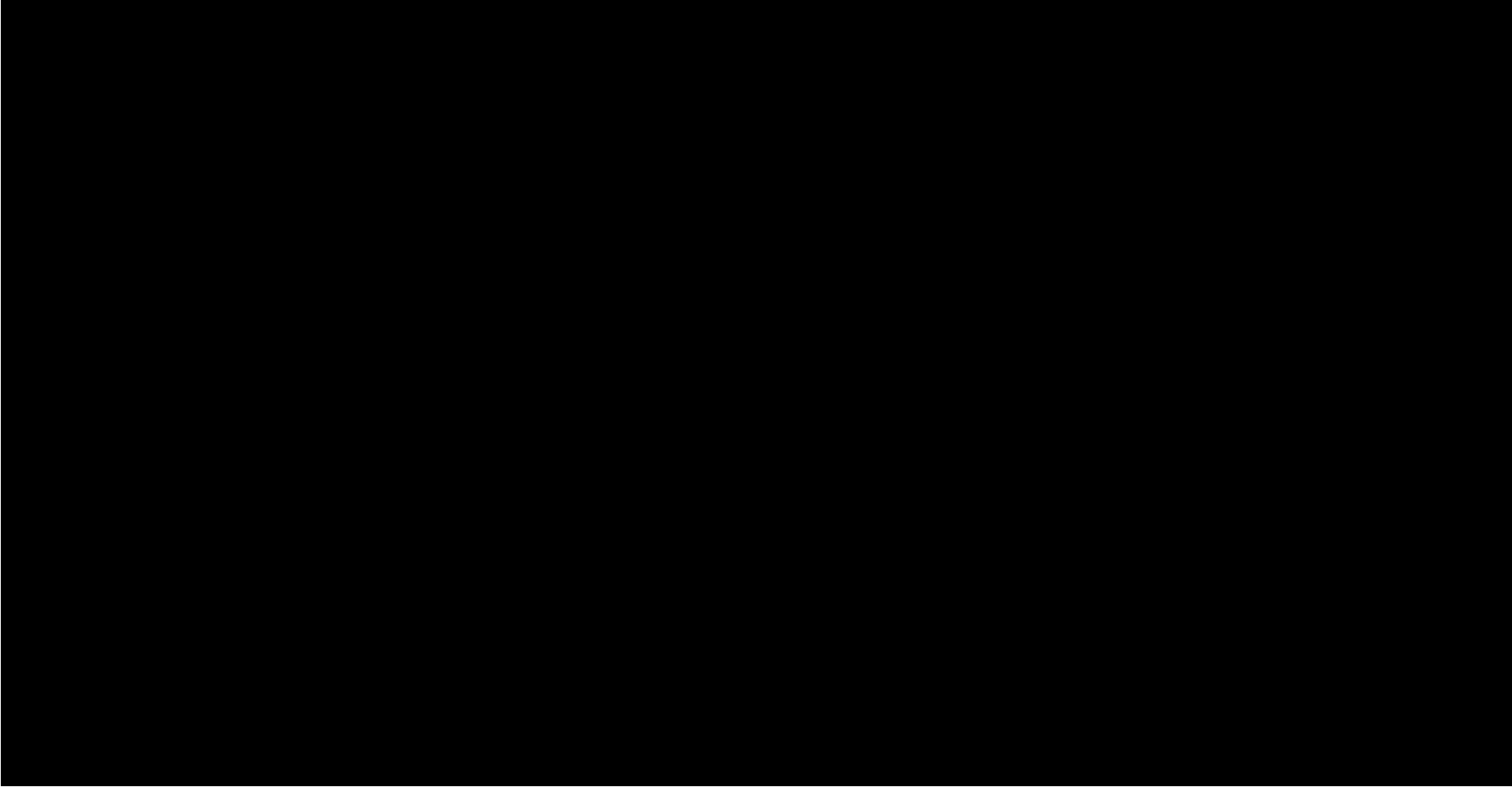
Measure	D.19-01-018 Description	Additional Clarification
1	The existing system resiliency and/or redundancy solutions (e.g., switching the load to another substation or circuit capable of serving the load, temporary circuit ties, mobile generation and/or storage solutions).	No additional clarification.
2	The availability of spare assets to restore a particular load.	No additional clarification.
3	The existing physical security protections to reasonably address the risk.	Existing physical security protections were assessed by internal resources, and recommendations for some improvements were made.
4	The potential for emergency responders to identify and respond to an attack in a timely manner.	Each facility is evaluated based on the likelihood that a law enforcement officer would generally be able to arrive at the Covered Distribution Facility within 15 minutes of a report from the public of a break-in or attack or of Liberty notifying the law enforcement agency of triggering of an alarm at the facility.
5	Location and physical surroundings, including proximity to gas pipelines and	Liberty evaluated this element based on the proximity of the Covered Distribution Facility to

Measure	D.19-01-018 Description	Additional Clarification
	geographical challenges, and impacts of weather.	populated areas and the extent to which the interior of the facility is shielded from view and access due to walls, vegetation, or other physical obstructions. Liberty removed vegetation that may facilitate any act against the distribution facilities.
6	History of criminal activity at the Distribution Facility and in the area.	Liberty's combined service territory is historically a very low crime rate area compared to the California average.
7	The availability of other sources of energy to serve the load (e.g., customer owned back-up generation or storage solutions).	Police department, including the 911 dispatch center, Emergency Operation Center, and each of the fire stations within the service area of Liberty has a backup generator.
8	The availability of alternative ways to meet the health, safety, or security.	No additional clarification.
9	Requirements served by the load (e.g., back up command center or water storage facility).	No additional clarification.

8.2.2 Liberty Physical Security Assessment Results

The results of Liberty's physical security assessment are shown in Table 5 below. The table is also provided as an Excel file in Appendix B.

Table 5: Physical Security Assessment Results

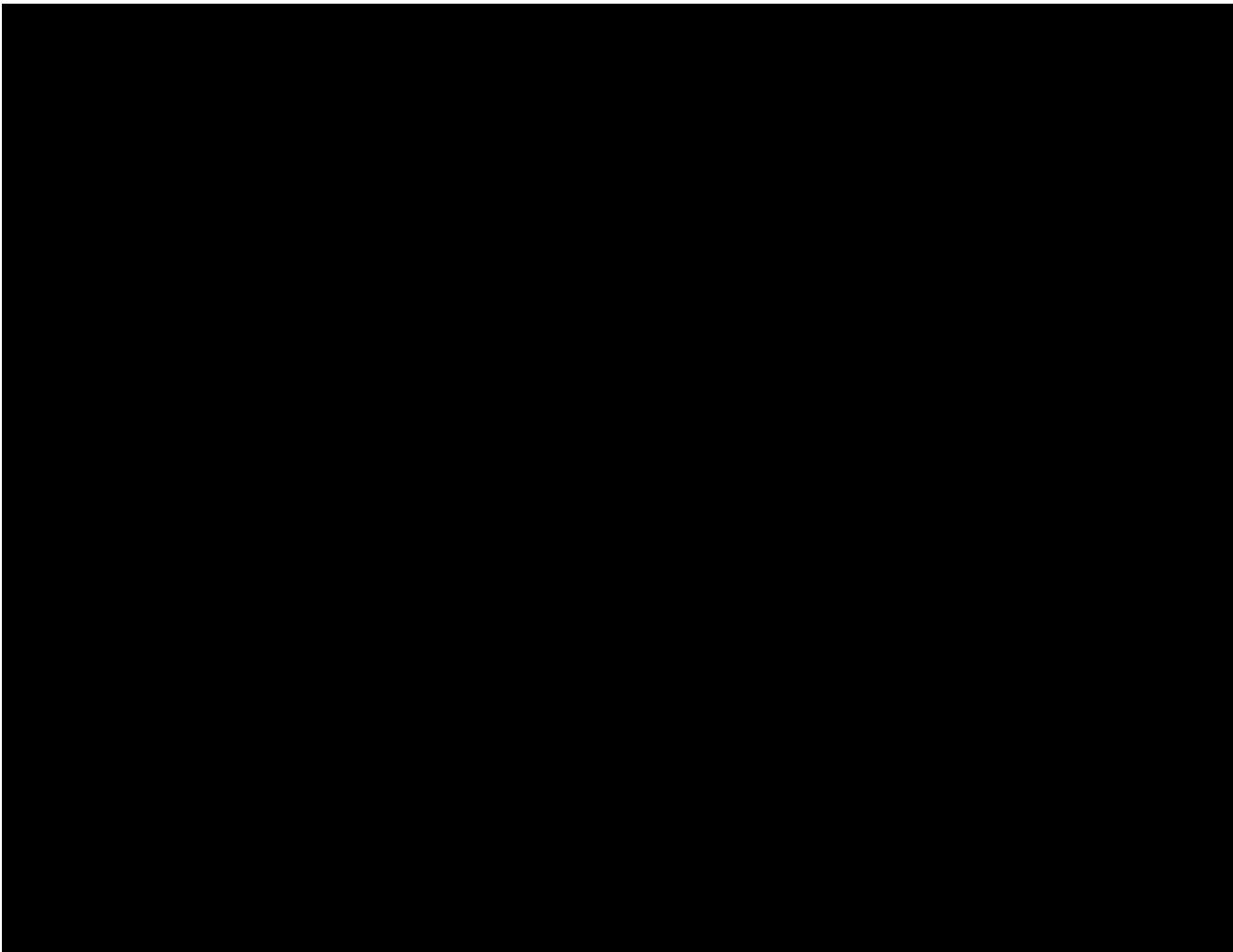


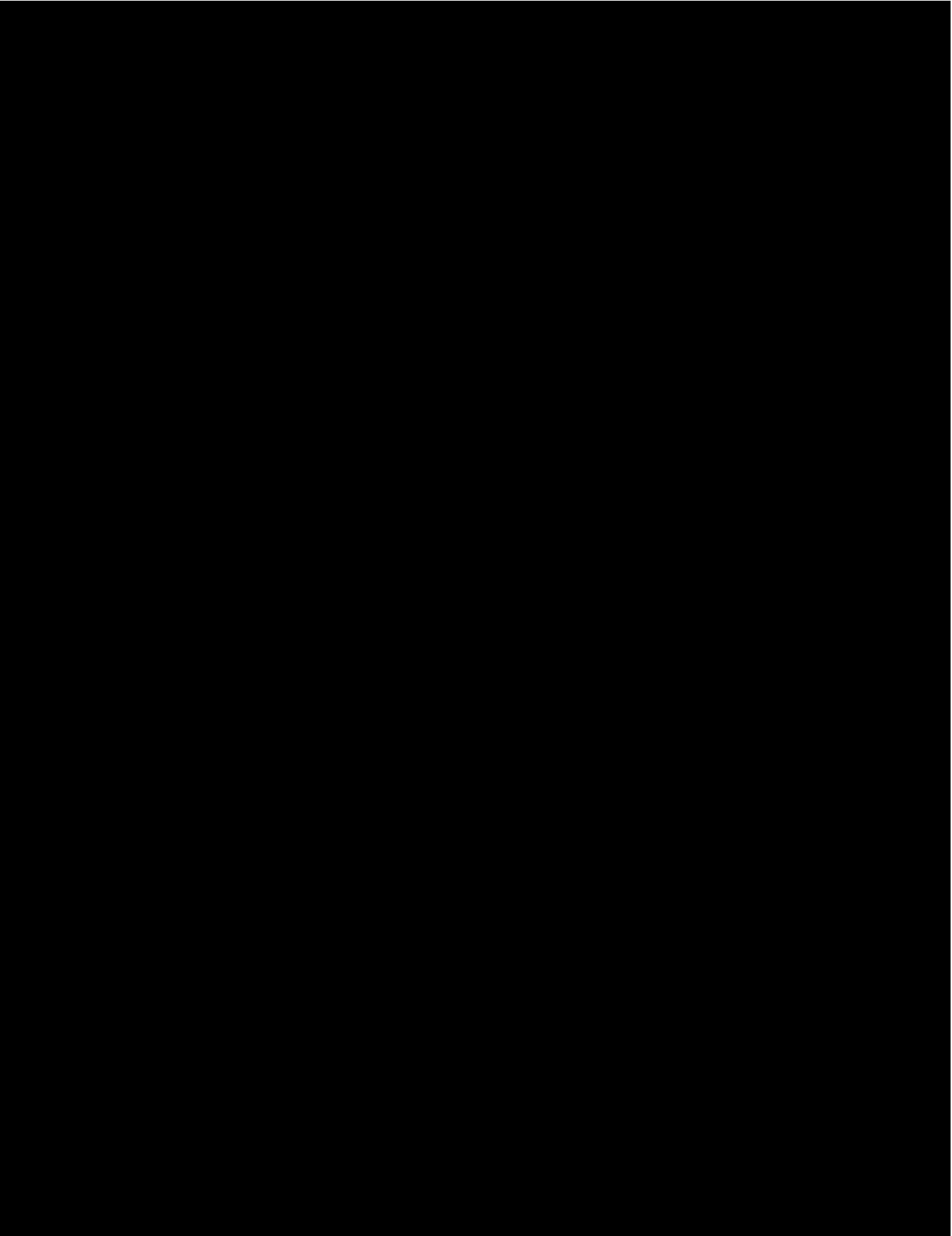
8.3 Mitigation Plan

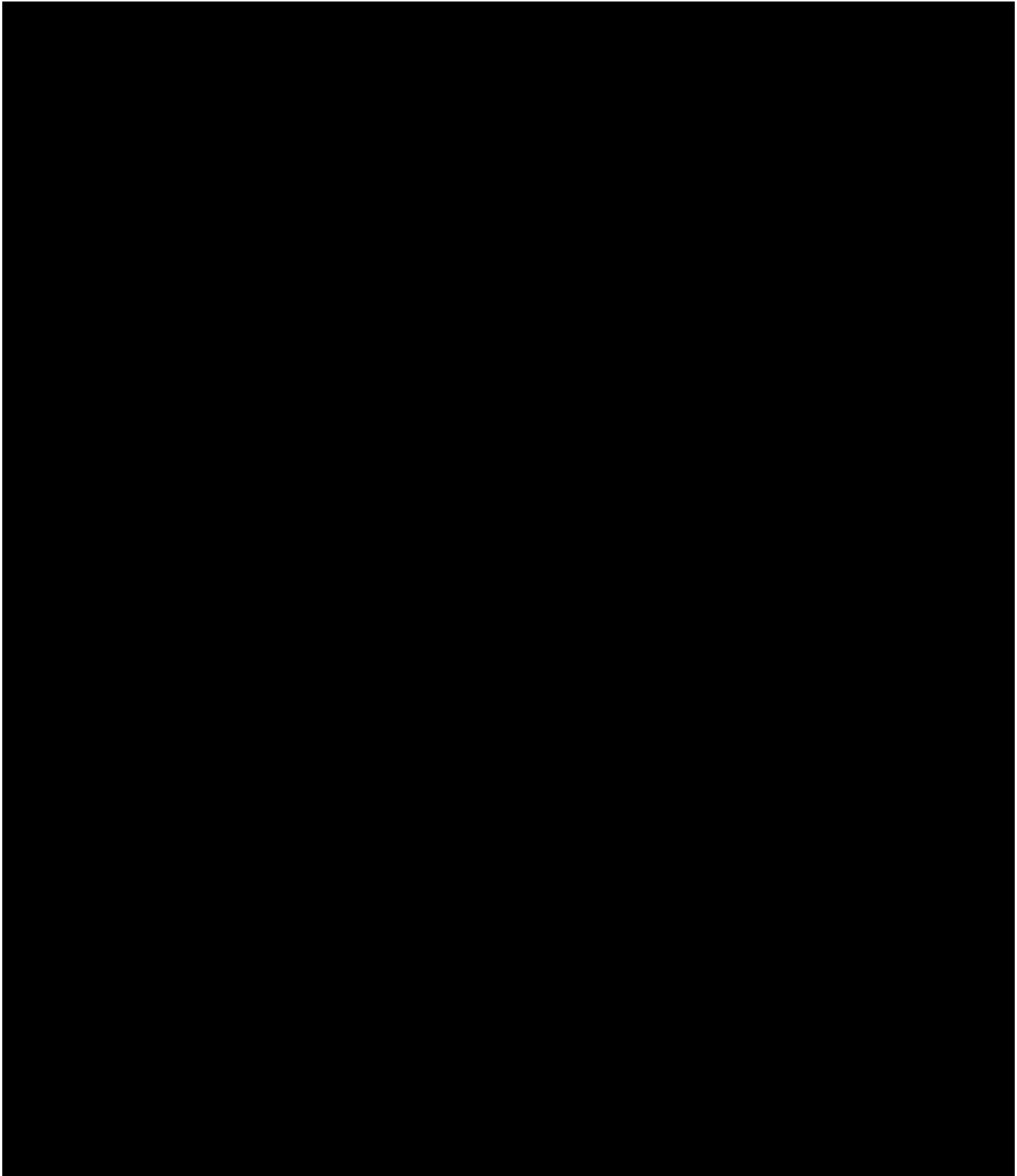
Pursuant to the process identified in the Joint IOU/POU Straw Proposal and D.19-01-018, Liberty has determined that, for the covered distribution facilities subject to Liberty’s control, the existing mitigation measures reduce the risk of a physical security attack effectively. This section of the Plan describes the proposed upgrade and/or replacement projects to the existing security measures for each of Liberty’s covered distribution facilities.

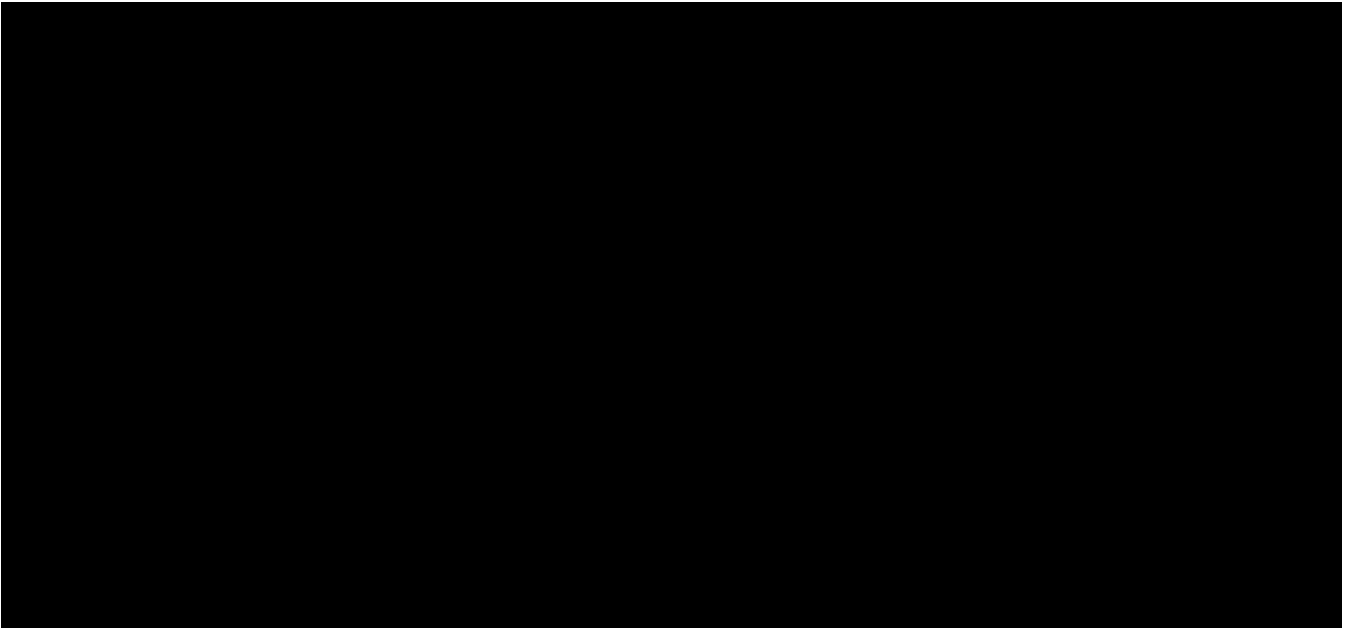
The following table details proposed security projects sorted by station. These projects aim to enhance fencing and camera systems at all of Liberty’s covered distribution facilities.

Table 6: Proposed Security Projects by Station









8.4 Independent Review and Validation

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."

A. Requirements for Qualified Third-Party Review

D.19-01-018 specifies the following criteria for a Qualified Third-Party Reviewer:

Independence: A Qualified Third-Party Reviewer cannot be a division of the POU. A governmental entity can select as the third-party reviewer another governmental entity within the same political subdivision, so long as the entity has the appropriate expertise, and is not a division of the POU that operates as a functional unit, i.e., a municipality could use its police department as its third-party reviewer if it has the appropriate expertise.

Adequate Qualifications: A Qualified Third-Party Reviewer must be an entity or organization with electric industry physical security experience and whose review staff has appropriate physical security expertise, which means that it meets at least one of the following: (1) an entity or organization with at least one member who holds either an ASIS International Certified Protection Professional (CPP) or Physical Security Professional (PSP) certification; (2) an entity or organization with demonstrated law enforcement, government, or military physical security expertise; or (3) an entity or organization approved to do physical security assessments by the CPUC, Electric Reliability Organization, or similar electrical industry regulatory body.

B. Identification of Third-Party Reviewer

Liberty selected Cooper Compliance Corporation as its Third-Party Reviewer. Cooper Compliance has staff members who are qualified to conduct security plan reviews per the requirements and qualifications stated above.

Michael Gabriel of Cooper Compliance Corporation served as the Nuclear Weapons Safety Officer and Nuclear Weapons Security Officer for a nuclear-powered strategic missile submarine from 1998 through 2001. In those roles, he was responsible for the entire ship's security and conducted assessments of threats and deployed personnel as needed to mitigate perceived threats. He conducted staff training and qualifications for armed security personnel and coordinated his ship's security with other entities.

He gained additional physical security threat mitigation training and experience when stationed aboard a nuclear-powered attack submarine from 1992 through 1995, which made numerous overseas port calls, including Saudi Arabia, United Arab Emirates, Bahrain, Singapore, Australia, and Canada.

Additionally, he conducted physical security and threat assessment reviews for a fleet of 30+ gas turbine power plants across the United States and Canada over the last several years (2017-2020).

Most recently, he conducted a similar CPUC Security Plan review for the City of Glendale, the City of Pasadena, the City of Anaheim, and he assisted the City of Vernon in writing its Security Plan.

C. Results of Third-Party Evaluation

An independent evaluation was conducted by Michael Gabriel at CCC. Having conducted similar security plan third party assessments for other utilities, CCC found the overall plan to be sufficient. Refer to Appendix E and the language below for the results of the third party evaluation completed by CCC.

The risk assessment methodology relied heavily on assessing the mitigation measures already in place. The results of the assessment documented in Table 5 show that Liberty is taking a very conservative approach and including all facilities as covered distribution facilities. This is excellent in terms of maintaining a focus on improving their physical security posture. The proposed upgrades for each of the Covered Distribution Facilities are consistent with incremental improvements, considering the low threat environment that these facilities exist within.

Using experience in developing and reviewing physical security plans for critical infrastructure, CCC determined that Liberty's plan is consistent with good industry practices for physical security of critical infrastructure. CCC commended Liberty on the amount of preparation and research above and beyond what was required for the development of this plan. CCC noted that it was obvious that Liberty had taken physical security and the resiliency of their system seriously for many years, and not just in response to the CPUC's decision.

8.5 Record Keeping

Electronic copies of this Distribution Security Program Implementation will be retained for not fewer than five years. As such records are extremely confidential, these records will be maintained in a secure manner at the Operator's headquarters. The records maintained by an Operator will be available for inspection at its headquarters or San Francisco offices by Commission staff upon request.

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.

8.6 Timeline

The following describes Liberty's timeline to implement the final mitigation projects identified in Section 0.

2021:

- Kings Beach substation
- Meyers substation fencing
- Northstar substation fencing
- Tahoe City substation

2022:

- Meyers substation cameras
- Northstar substation cameras
- Portola substation
- Stampede substation

2023:

- Stateline substation
- Squaw Valley substation cameras
- Glenshire substation

2024:

- Cemetery substation
- Sierra Brooks substation

2025:

- Hobart Mills substation

8.7 Cost

The following describes Liberty's high-level cost estimates and annual spend to implement the projects identified in Section 0 in the timeline included in Section 0.

2021:

- Kings Beach substation: \$55,000
- Meyers substation fencing: \$142,000
- Northstar substation fencing: \$100,000
- Tahoe City Substation: \$265,000
- **Total 2021: \$562,000**

2022:

- Meyers Substation cameras: \$25,000
- Northstar Substation cameras: \$25,000
- Portola Substation: \$130,000 (included with substation rebuild project)
- Stampede Substation: \$80,000 (included with substation rebuild project)
- **Total 2022: \$260,000**

2023:

- Stateline Substation: \$500,000 (included with substation rebuild project)
- Squaw Valley Substation cameras: \$50,000 (included with substation rebuild project)
- Glenshire Substation: \$50,000
- **Total 2023: \$600,000**

2024:

- Cemetery Substation: \$110,000 (included with substation rebuild project)
- Sierra Brooks Substation: \$95,000 (included with substation rebuild project)
- **Total 2024: \$205,000**

2025:

- Hobart Mills Substation: \$100,000
- **Total 2025: \$100,000**

Appendix A – Liberty Preliminary Physical Security Assessment of Priority Facilities

See PDF File “Appendix A - Liberty Preliminary Physical Security Assessment of Priority Facilities” for Liberty’s July 10, 2020 filing in R.15-06-009.

Appendix B – Physical Security Assessment Results Table

See Excel File “Appendix B - Liberty Physical Security Assessment Results” for an Excel version of Table 5 in Liberty’s Physical Security Plan.

Appendix C – Applicability of Ordering Paragraphs of D.19.01.018

#	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	Completed in June 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
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
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").	See General Methodology in Section 8.0
6	The Investor Owned Utilities and Publicly Owned Utilities shall adhere to the Safety and Enforcement Division's Six-step Security Plan Process.	See General Methodology in Section 8.0
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 s); Local Plan Review (for Publicly Owned Utilities); Maintenance and Plan overhaul/new review.	See General Methodology in Section 8.0
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 4.2
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 4.2
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 8.4
11	The unaffiliated third-party reviewer shall have demonstrated appropriate physical security expertise.	Section 8.4
12	California electric utilities shall, within any new or renovated distribution substation, design their facilities to incorporate reasonable security features.	Section 5.0
13	Utility security plans shall include a detailed narrative explaining how the utility is taking steps to implement an asset management program to	Section 6.2

#	Ordering Paragraph	Corresponding Section in Plan
	promote optimization, and quality assurance for tracking and locating spare parts stock, ensuring availability, and the rapid dispatch of available spare parts.	
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 6.3
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 6.1
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 7.0
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 8.4
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 8.4
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
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
22	Prior to Security Plan adoption, Publicly Owned Utilities in California shall have their plan reviewed by a third party.	Section 8.4

#	Ordering Paragraph	Corresponding Section in Plan
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 8.4
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.	Section 4.2
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 4.2
26	A summary of the program review shall be submitted to the Safety and Enforcement Division within 30 days of review completion.	Section 4.2
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.	See Appendix D

#	Ordering Paragraph	Corresponding Section in Plan
32	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 & 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.	N/A
33	This proceeding shall remain open so that the Commission may address the issues presented in Phase II of this proceeding.	N/A for this document

Appendix D – Insurance Claim Disclosure Reporting

Ordering Paragraph 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.”

Refer to Section 4.3.

Appendix E – Cooper Compliance Corporation Third Party Evaluation of Liberty’s Physical Security Plan

See PDF File “Appendix E – Cooper Compliance Corporation Evaluation of Liberty’s Physical Security Plan” for the results of the third party evaluation of Liberty’s Physical Security Plan.