

**BEFORE THE PUBLIC UTILITIES COMMISSION  
OF THE STATE OF CALIFORNIA**

Application of Liberty Utilities (CalPeco Electric) LLC (U 933 E) for Approval to Construct a Battery Energy Storage System in Alpine County, California.

Application 17-11-  
(Filed November 21, 2017)

**APPLICATION OF LIBERTY UTILITIES (CALPECO ELECTRIC) LLC (U 933 E)  
FOR APPROVAL TO CONSTRUCT A BATTERY ENERGY STORAGE SYSTEM IN  
ALPINE COUNTY, CALIFORNIA**

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Dated: November 21, 2017

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**I. INTRODUCTION**

Pursuant to Rules 2 and 3 of the Rules of Practice and Procedure (“Rule”) of the California Public Utilities Commission (“Commission”), Liberty Utilities (CalPeco Electric) LLC (“Liberty CalPeco”) respectfully submits this application for Commission approval to construct a battery storage facility in Alpine County, California, as described herein (“Application”). Liberty CalPeco’s request and proposal consists of this Application and supporting testimony.

**II. SUMMARY OF LIBERTY CALPECO’S REQUEST**

Liberty CalPeco requests Commission approval to construct a battery energy storage system (“BESS”) in Alpine County, California. Implementing a BESS will improve the quality of electric service for its customers in Alpine County, improve system reliability for the affected service area to that enjoyed by customers in the rest of Liberty CalPeco’s service areas, and improve safety.

**III. ORGANIZATION OF LIBERTY CALPECO’S TESTIMONY**

Liberty CalPeco’s testimony submitted in support of this Application is comprised of three chapters, summarized as follows:

Chapter I – Introduction

Chapter II – Alpine County BESS

Chapter III – Project Cost Recovery

#### **IV. EXECUTIVE SUMMARY**

Liberty CalPeco proposes to install a 2.6 megawatt (“MW”)/15 megawatt-hour (“MWh”) battery energy storage system (“Project”) in the Alpine County town of Markleeville. Liberty CalPeco’s main goals in installing a BESS in Alpine County is to improve the quality of electric service for its customers, improve system reliability to levels relatively comparable to the systems serving customers in the rest of Liberty CalPeco’s service area, and improve safety.

The Project will allow Liberty CalPeco to provide back-up power to customers for several hours in the event of an outage on the 1296 Circuit. In addition to increased reliability, the BESS will also provide additional benefits, including tariff optimization, system peak shaving, energy shifting, voltage regulation, and demand response. The total cost to install the Alpine County BESS is forecast at \$8.4 million. This forecast includes the battery vendor costs, the cost of work to be performed by Liberty CalPeco to connect the battery to its system, and land lease costs for the battery site.

##### **A. Safety**

Due to geography and the fact that one radial distribution line into Alpine County is the only source for electric supply for Alpine County, Liberty CalPeco’s Alpine County customers experience longer and more frequent power outages than the average Liberty CalPeco customer. With many Alpine County customers at an elevation of 5,500 feet or more and dependent on electricity for heating, sustained outages pose a substantial life safety issue, particularly during cold winter months.

During the 2013-2016 period, Alpine County experienced 32 outages, which resulted in 4.1 million customer minutes of interruption (“CMI”). Had the BESS been installed and available during this 2013-2016 period, the number of outages would have been significantly reduced – from 32 to 6 – and the CMI likewise would have been reduced, from 4.1 million CMI to 1.6 million CMI. Importantly, 1.2 million of the 1.6 million CMI that would not have been avoided by the proposed BESS occurred during one atypical 29-hour outage that occurred in December 2014 during a storm event.

## **B. Reliability**

Liberty CalPeco supplies electricity to Alpine County via the 1296 Circuit, a radial distribution line that originates at the Muller substation in NV Energy’s (Sierra Pacific Electric Company d/b/a NV Energy) service territory. As this is the only line providing power into Alpine County, when an outage occurs on this line, there is no alternate feed into Alpine County. Consequently, instead of being out of power for only as long as it takes to isolate the problem and switch the system around it – as is generally the case for most of Liberty CalPeco’s customers – customers in Alpine County remain out of power until repairs are completed. The rough topography of the Sierra Nevada mountain range and winter snow can significantly complicate Liberty CalPeco’s repair efforts, which often leads to and contributes to extended outage times. The proposed BESS Project addresses these will restore power back to Alpine County residents in a fraction of the time.

Liberty CalPeco’s customers on the 1296 Circuit have experienced the fragility of the existing electrical grid over recent winters, with multiple power outages occurring over the course of each winter season. As compared to a fossil fuel based system to provide back-up for the 1296 Circuit, the proposed BESS Project is less capital intensive, provides a more timely solution, uses

more advanced and cleaner technology, and is a more efficient means to fortifying the existing grid with needed reliability improvements. This Project will deploy a state-of-the-art BESS to attain its reliability goals. When overall demand on the 1296 Circuit is low, surplus grid energy would be fed to the BESS via existing Liberty CalPeco infrastructure. Conversely, when demand is high or the upstream energy source (Muller substation) is interrupted, the BESS would provide essential power to the grid via the 1296 Circuit, thereby reducing grid outages and the significant negative impacts on Liberty CalPeco customers.

### **C. Authorization, Construction, and Operation**

Consideration of alternative solutions to the reliability and safety issues addressed by the Project militates strongly in favor of the BESS solution – in particular, the difference in time for authorization, construction, and implementation for the BESS and alternative options. Whereas the proposed Project would result in the BESS solution being constructed and placed in commercial operation within approximately 12 months after receiving all required authorizations and permits, in contrast, the alternative solutions would face serious and possible insurmountable challenges in the forms of permitting and completion time.

For example, building a second transmission line is cost prohibitive as it would cost between \$8 million and \$16 million and, perhaps more importantly, the prospects of obtaining the necessary permits and authorizations, especially in a timely manner, would not be good. Another alternative, installing diesel generators, is an attractive solution from a cost perspective. The cost of installing diesel generators in Alpine County would exceed \$3 million but, as the generators are a traditional fossil fuel technology, the permitting challenges in the region due to GHG emissions would inevitably prove to be insurmountable.

## **V. INFORMATION REQUIRED BY COMMISSION RULES**

### **A. Identification of Statutory Authority**

This Application is filed pursuant to Rules 2.1 and 3.2 and the Commission's prior decisions, orders, and resolutions.

### **B. Legal Name and Principal Place of Business; Correspondence or Communication Regarding this Application**

Liberty CalPeco is a California limited liability company. It has its principal place of business at 933 Eloise Avenue, South Lake Tahoe, California 96150.

All correspondence and communications regarding this Application should be addressed or directed as follows:

Daniel W. Marsh	Joseph H. Park
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### **C. Scoping Memo; Categorization; Hearings; Issues to be Considered; and Proposed Schedule**

Pursuant to Rule 2.1(c), CalPeco proposes the following categorization, need for hearings, issues to be considered, and proposed schedule.

#### **i. Proceeding Category**

Rule 1.3(e) of the Commission's Rules of Practice and Procedure defines "ratesetting" proceedings as "proceedings in which the Commission sets or investigates rates for a specifically named utility (or utilities), or establishes a mechanism that in turn sets the rates for a specifically named utility (or utilities)." This Application will include the investigation of rates, and includes Liberty CalPeco's proposal for a "mechanism" that will influence the setting of rates in future

applications. Therefore, for purposes of Rule 2.1, Liberty CalPeco proposes that this proceeding be categorized as ratesetting.

**ii. Need for Hearings**

The need for hearings in this proceeding, and the issues to be considered in such hearings, will depend in large part on whether and the degree to which any party contests Liberty CalPeco's requests in this Application. Liberty CalPeco's proposed procedural schedule below assumes evidentiary hearings will not be held; however, the need for hearings will be determined by the assigned Administrative Law Judge.

**iii. Issues to be Considered**

The primary issue to be considered in this proceeding is the reasonableness of Liberty CalPeco's proposed BESS Project, given the issues the Project would address and the costs associated with implementing this proposal, as described above and in more detail in Liberty CalPeco's supporting testimony served concurrently herewith.

**iv. Proposed Schedule**

Liberty CalPeco requests that the Commission approve the following proposed schedule:

<b><u>Date</u></b>	<b><u>Action Item</u></b>
November 21, 2017	Application file date
December 21, 2017	Protests Due
January 8, 2018	Reply to Protests Due
February 2018	Prehearing Conference
March 2018	Intervenor Testimony Due
April 2018	Rebuttal Testimony Due
June 2018	Proposed Decision Issued
20 days from the date the Commission issues Proposed Decision	Comments Due on Proposed Decision

<u>Date</u>	<u>Action Item</u>
5 days from the deadline for filing comments on Proposed Decision	Reply Comments on Proposed Decision
July 2018	CPUC issues Final Decision

**D. Organization and Qualification to Transact Business**

Pursuant to Rule 2.2, a copy of Liberty CalPeco's Articles of Organization of Liberty CalPeco has previously been filed with the Commission as part of A.14-04-037, Exhibit A. A Certificate of Status for CalPeco issued by the California Secretary of State has previously been filed with the Commission as part of A.16-12-009.

**E. Statement of Proposed Rate Changes**

Due to the unknown timing of when Liberty CalPeco's proposed project will be approved and completed, an estimate of proposed rate impacts cannot be forecast at this time. The rate impact of Liberty CalPeco's BESS Project will be included and addressed in Liberty CalPeco's GRC application, which will be filed in 2018.

**F. Notice and Service of Application**

Cities and counties that would be affected by this Application include the cities and towns of South Lake Tahoe, Portola, Kings Beach and Markleeville. Counties affected by the rate changes that will result from the granting of this Application are Nevada, Placer, Sierra, Plumas, Mono, Alpine and El Dorado. Pursuant to Rule 3.2(b), Liberty CalPeco will mail a notice of the filing of this Application, and a general description of the changes in rates, to each of these governmental entities and the State of California Attorney General and Department of General Services within twenty (20) days following the filing of this Application.

Pursuant to Rule 3.2(c), within twenty (20) days following the filing of this Application,

Liberty CalPeco will publish a notice in a newspaper of general circulation in each county in which the changes proposed here will become effective. The notice will state that a copy of this Application and related attachments may be examined at the Commission's offices and such offices of Liberty CalPeco as are specified in the notice.

Pursuant to Rule 3.2(d), Liberty CalPeco will provide a similar notice to all customers within forty-five (45) days of the filing date of this Application.

#### **G. Safety and Reliability Information**

Rule 2.1(c) requires all applications to identify all relevant safety considerations implicated by the Application. One of Liberty CalPeco's core values is to protect public and employee safety. As detailed above and in the supporting testimony, the primary purposes of the BESS Project are to address safety and reliability issues associated with the 1269 Circuit due to the current lack of any sources of back-up power to minimize service interruptions resulting from outages associated with the 1269 Circuit.

The construction and operation of the Alpine County BESS will follow Liberty CalPeco's standard operating procedures to ensure safety. Furthermore, the installation will require appropriate permitting and inspection from the local authority having jurisdiction, as applicable, in compliance with applicable codes and ordinances.

#### **H. Index of the Exhibits and Appendices to this Application**

##### **Exhibit 1 – Supporting Testimony**

Chapter I – Introduction (Phong Nguyen)

Chapter II – Alpine County BESS (Phong Nguyen)

Chapter III – Project Cost Recovery (Phong Nguyen)

## **Exhibit 2 – Witness Statement of Qualifications**

Witness Statement of Phong Nguyen

### **Appendix A – Financial Statements**

## **VI. CONCLUSION**

Based on the foregoing and the supporting testimony concurrently served herewith, Liberty CalPeco respectfully requests that the Commission approve this Application as filed.

Respectfully submitted,

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Attorney for Liberty Utilities (CalPeco Electric) LLC

Dated: November 21, 2017

## **VERIFICATION**

I, Gregory S. Sorensen, hereby declare that I am the President of Liberty Utilities (CalPeco Electric) LLC, that I have read the foregoing Application, and that the information set forth therein concerning Liberty CalPeco is true and correct to the best of my knowledge, information, and belief.

I declare under penalty of perjury that the forgoing is true and correct.

Executed this 21st day of November, 2017, at Downey, California.

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*/s/ Gregory S. Sorensen*

Gregory S. Sorensen

Liberty Utilities (CalPeco Electric) LLC