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(U 933-E)

2022 General Rate Case

Before the California Public Utilities Commission

Chapter 13: AMI and Customer First Projects

Tahoe Vista, California
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Liberty-13: AMI and Customer First Projects

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1 I.

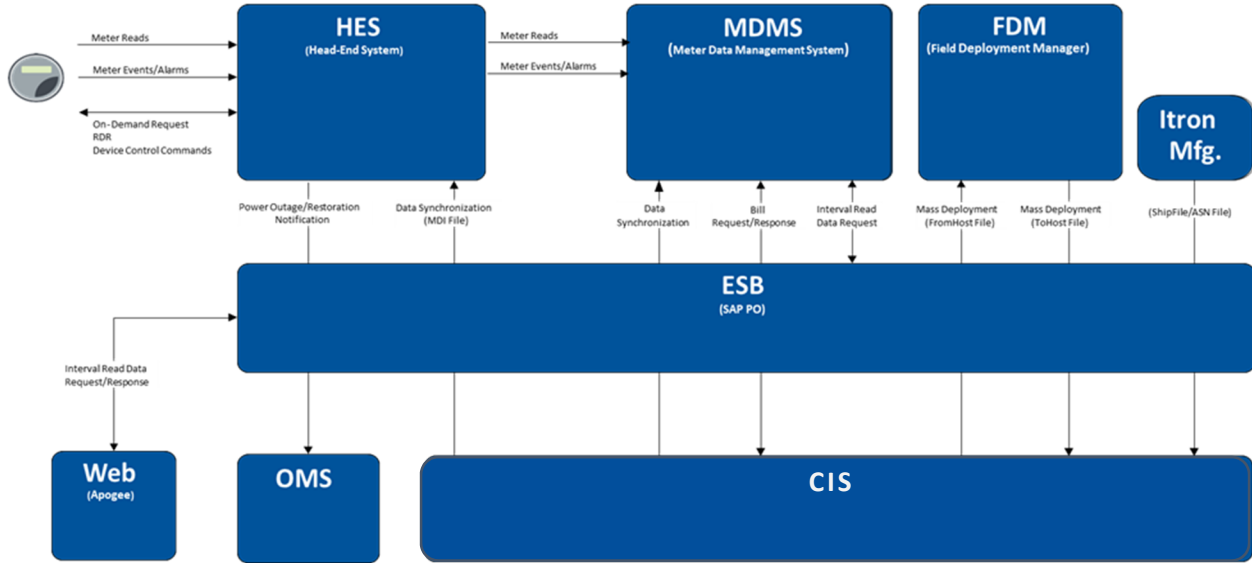
2 **Special Track Projects**

3 A. **Advanced Metering Infrastructure**

4 1. **Overview**

5 Liberty Utilities’ Advanced Metering Infrastructure (“AMI”) project is a foundational
6 investment that streamlines operating processes; helps manage costs; and, provides customers
7 more convenience and transparency over their energy usage. This comprehensive metering
8 solution provides timely two-way communications between customer meters and the utility,
9 reducing manual meter reading effort and cost. AMI meters, often referred to as “smart meters,”
10 are digital meters with advanced features and capabilities beyond traditional electricity meters.
11 In addition to two-way communication, smart meters include more granular usage measurement,
12 tamper detection, net metering compatibility, and an internal remotely operable
13 connect/disconnect switch. The meters transmit information to field collectors, forming a mesh
14 network, which is flexible in that the meters route data via nearby devices creating a mesh of
15 network coverage. Within the network, each meter serves as a repeater to help transfer the data to
16 the AMI control center where it is ultimately consolidated and used for billing and customer
17 account information. Liberty Utilities is contracting with Itron for installation of an AMI support
18 infrastructure using Itron’s Open Way Riva platform. Itron is a leading provider of advanced
19 metering technology to utilities around the world and has more than 200 million communication
20 devices deployed. Figure 13-1 describes the components of Liberty Utilities’ AMI system.

Figure 13-1 - AMI System Components



1 AMI is not a new technology. In June 2002, the Commission opened a rulemaking
2 docket to, among other things, consider policies and comments regarding AMI. California
3 electric utilities began deploying AMI in the early 2000s. In 2010, the U.S. Department of
4 Energy’s Office of Electricity, with utilities sharing the cost, funded the installation of more than
5 15 million smart meters to modernize infrastructure and demonstrate the value and benefits of
6 AMI technology. By the end of 2018, more than 88 million smart meters had been deployed
7 throughout the U.S., covering nearly 70 percent of U.S. households. AMI deployments have
8 been completed or are underway across California by Pacific Gas & Electric, Southern California
9 Edison, San Diego Gas & Electric, Sacramento Municipal Utility District, and others.

10 **2. Liberty’s Existing Metering Solution**

11 The majority of Liberty Utilities (CalPeco Electric) LLC (“Liberty”) existing meters are
12 electro-mechanical analog meters that have an average age of about 30 years. While some
13 meters have been upgraded with encoder, receiver, and transmitter (“ERT”) devices, about 95%
14 of Liberty’s meters are read through a manual process of physically visiting each meter each

1 month. The single monthly meter readings provide virtually no actionable energy usage
2 information for consumers to respond to in the immediate term. Moreover, and unlike the new
3 smart meters that can enable enhanced customer services and programs, the analog devices
4 provide no added technological benefits beyond the core function of measuring consumption.
5 Many of the analog models in use today are no longer manufactured or supported by vendors,
6 making their maintenance, verification and spare part procurement activities progressively
7 untenable. Absent a wholesale effort to renew all eligible analog meters with a consistent
8 technology, the continued status quo of replacing meters as they fail, may also increase the risk
9 of introducing an increasing heterogeneity of models and vintages within the population –
10 unnecessarily complicating the supply chain and servicing functions and leading to added costs.
11 Continued investment in this legacy metering solution is impractical, imprudent, and
12 unsustainable.

13 **3. Customer Benefits**

14 AMI is a customer-focused foundational technology that directly enables greater
15 convenience and transparency over a customer’s energy consumption. The AMI investment
16 supports Liberty’s long-term efforts to upgrade its company technologies and capabilities in
17 order to improve the efficiency, quality, and range of services to its customers. AMI will
18 improve customer service by providing better data about energy usage so customers can be more
19 informed and make choices about how they consume energy. Additionally, AMI provides
20 features that improve Liberty’s ability to plan and operate the grid safely and reliably. For
21 example, with AMI, Liberty will be able to remotely interrogate meters to determine if they are
22 energized, sometimes avoiding trips to a customer’s premises.

1 By implementing AMI, Liberty will significantly upgrade and improve the way it
2 supports customers through metering, billing and customer care functions. Customer service
3 representatives will have access to more granular customer energy use information than what is
4 possible now, enabling them to better process customer metering and billing inquiries.
5 Customers establishing or disconnecting service will find their orders processed more quickly
6 and easily, as AMI enables this work to be completed remotely. In the long-term, customers will
7 be able to handle many of their service needs directly through web portals and mobile
8 applications.

9 AMI technology delivers convenience to customers by enabling remote monthly and off-
10 cycle meter reading; remote connect, disconnect, and reconnect ability; and, remote meter
11 interrogation. Remote monthly and off-cycle meter reading provides customers the benefit of
12 convenience by transmitting usage information to Liberty without the need for a technician to
13 visit the customer's premise. With remote connect, disconnect, and reconnect ability, AMI
14 provides convenience to customers of not having to schedule a technician visit when a customer
15 wants to establish or cancel service. Further, customers who have their service disconnected for
16 non-payment can have power more quickly restored using AMI's remote reconnect technology.
17 With AMI technology, Liberty will be able to interrogate a meter over the network to determine
18 if it has power without having to send a truck to the location to test it, in some cases, avoiding a
19 field visit.

20 AMI technology will directly provide customers access to more pertinent and timely
21 usage information. When a customer calls Liberty's call center, customer service representatives
22 will have detailed information about customer usage levels well beyond today's once-a-month
23 "snapshot" of energy use. Customer service representatives will also be able to share

1 information about power outages, voltage alarms and other diagnostic information from the
2 meter with the customer. Accordingly, the customer care representatives will be able to address
3 customer inquiries more quickly and expertly with this information in hand.

4 Additionally, AMI technology will give customers who have a smart meter the ability to
5 view and download detailed information about their hourly and daily usage patterns through the
6 My Account portal that is being set up alongside the AMI deployment as part of Customer First.
7 Through AMI and My Account, customers are empowered to make informed choices regarding
8 how they use energy and the potential to change their energy usage behaviors and reduce their
9 energy costs in near-real time. Additionally, the AMI investment is being integrated into
10 Liberty's efforts to increase communications about outages and restoration timelines after a
11 storm.

12 AMI is an important tool for improving outage management capabilities. Liberty has the
13 capability to interrogate individual smart meters to determine if customers have power to
14 confirm outages. Interrogating meters will assist Liberty restoration crews to improve their field
15 work routing as they move about the outage area to restore power. Linemen and other field
16 technicians will be able to confirm that an area is fully restored before heading off to address
17 outages in another area.

18 With the capability to record and transmit interval usage data, AMI is a foundational
19 technology that can provide information that helps enable new rate design. This additional data,
20 combined with a new customer information system will provide Liberty with expanded options
21 and flexibility to support enhanced services and rate offerings.

22 **4. Operational Benefits**

23 Liberty Utilities' AMI implementation is a foundational investment that will replace

1 aging technology on the brink of obsolescence with an industry standard metering solution that
2 will provide customers more control and transparency over their energy consumption. Liberty
3 Utilities anticipates significant operational efficiencies as a result. Liberty's AMI investment
4 will enable monthly meter reading to be conducted remotely, avoiding the need to send a
5 technician to read each meter on the premises. In many cases, Liberty will be able to remotely
6 perform connects, disconnects, and reconnects without meter technician and vehicle expense.
7 During storm restoration, AMI will enable Liberty to interrogate a meter remotely to see if the
8 meter is receiving power without sending a technician or truck.

9 **5. Project Scope**

10 In 2018, Liberty initiated detailed planning and design for the AMI system ahead of the
11 official kick-off of the AMI project in May 2022. After completing final planning and obtaining
12 equipment, Liberty will begin installing the field collection and communication network in
13 September 2022 and will begin installing smart meters in April 2023. Liberty expects to
14 materially complete the smart meter installations by Q4 2023 for the meters in scope. Once
15 implementation is materially complete, Liberty will address any meters not already upgraded,
16 including those that might be hard to access or that may require additional customer contact and
17 installation scheduling.

18 Liberty is installing the AMI system for residential and small- and medium-sized
19 commercial customers throughout Liberty's service territory. Liberty's largest customers are
20 not part of the deployment because these customers already have an advanced metering solution
21 at their facilities. There are about 50,000 meters that will be covered by the network, and
22 Liberty anticipates installing 32 network collectors.

1 **6. Alternatives to AMI**

2 Liberty considered alternatives to deploying AMI, including maintaining the status quo,
3 continuing in the installation of non-communicating solid state meters, and, installing a vehicle-
4 based one-way communicating remote reading system known as AMR. Given the age of the
5 current metering solution, it was not prudent to maintain the status quo. With more than 70% of
6 US households currently served by AMI, it would be neither reasonable nor prudent for Liberty
7 to replace its aging infrastructure with technology that does not align with current industry and
8 peer utility practices.

9 Running a modern utility demands levels of equipment automation, monitoring,
10 diagnostics and control that Liberty does not have today and cannot achieve without a holistic
11 and comprehensive view to its technology needs. Without AMI, Liberty will struggle to improve
12 core billing processes, and it will not be able to readily offer customers new service features and
13 programs. The lack of AMI data will also hamper Liberty’s ability to create modern asset
14 management capabilities across the distribution grid. None of these operational capabilities,
15 which are essential to operating a modern utility, are possible through these alternatives.

16 Liberty Utilities engaged Charles River Associates (“CRA”) to develop a cost benefit
17 analysis of its AMI deployment, and to determine if it was a prudent investment that meets
18 customer needs. In CRA’s “AMI Cost Benefit Analysis Workpaper – CalPeco,”¹ CRA
19 recommended that Liberty proceed with the AMI investment because it is the most reasonable
20 and prudent means of replacing Liberty’s outdated metering infrastructure.

¹ See workpapers.

1 **7. Customer Engagement**

2 Liberty recognizes that community engagement is very important and valuable. Liberty
3 will engage its customers to make them aware of the AMI deployment and the meter exchange
4 process. Accordingly, Liberty will reach out to customers using a variety of means to educate
5 and inform customers about the AMI system, as well as listen and gain feedback.

6 Prior to deployment, Liberty will distribute an informational brochure, fact sheets, and a
7 Q&A on key program attributes, including benefits. Liberty will also train its business account
8 teams, customer service representatives, AMI call center representatives, and field
9 representatives to respond to customer questions relating to AMI. Furthermore, Liberty has
10 developed informational videos and published deployment information on the AMI system.

11 Links to these and other materials have been placed on a website landing page:

12 www.libertyutilities.com/smartmeters.

13 During deployment, if a customer is not present during the meter exchange, a door hanger
14 containing information about the AMI project and smart meter benefits will be placed on the
15 customer's door. The hanger informs customers that their meter was exchanged while they were
16 gone or that their meter was unable to be exchanged for blocked access or other reasons. In the
17 case of an impediment to the exchange, the door hanger requests that the customer call to
18 schedule an appointment for the exchange. The door hanger also includes some background
19 information about AMI and smart meter benefits.

20 After AMI deployment is complete, Liberty will continue to engage with customers
21 around the benefits of their smart meters and their energy management opportunities. The goal
22 is to create two-way communications with customers. Liberty hopes to share with customers

1 how AMI-enabled information can help their energy use patterns, and Liberty hopes to hear from
 2 customers about their energy management needs.

3 **8. Cost Forecast**

4 a) Capital Forecast

5 Table 13-1 reflects Liberty’s forecast capital expenditures for the AMI project.

Table 13-1 - AMI Capital Expenditures

Type	2022	2023	Total
Internal Labor	\$1,296,488	\$855,442	\$2,151,930
Materials	\$267,814	\$6,847,798	\$7,115,611
Contractor / Vendor	\$919,670	\$6,213,681	\$7,133,351
Admin/Overhead	\$237,499	\$2,087,538	\$2,325,037
Contingency	\$20,000	\$1,005,318	\$1,025,318
Total	\$2,741,472	\$17,009,776	\$19,751,248

6 b) O&M Costs and Benefits

7 Table 13-2 reflects Liberty’s forecast for O&M expenses and benefits for 2023 and 2024.

*Table 13-2 - AMI Savings and O&M Expenses
 \$(000)*

Expense Category	Forecast	
	2023	2024
Customer Care	-	(496)
Distribution	-	(78)
Administrative & General Expense	-	-
Total Annual O&M Savings	-	(574)
Annual Post-implementation Costs	-	356
Net O&M Impact (Savings)	-	(217)

1 **9. Proposed Ratemaking Treatment**

2 Liberty does not propose a rate increase related to this AMI project in this proceeding.
3 Instead, Liberty asks the Commission to issue an interim opinion in this proceeding to authorize
4 cost recovery via a Tier 2 Advice Letter once the AMI project is considered used and useful. The
5 Commission has already granted this type of cost recovery treatment in its Decision in Liberty's
6 Turquoise Solar Facility application.²

7 Consistent with the Commission's decision approving Liberty's Turquoise Solar Facility,
8 Liberty would begin to recover its costs for this AMI project in the month following it being
9 operational. Liberty will prorate cost recovery based on the month in which the AMI project goes
10 into service. For example, if the AMI project were to go into commercial operation on April 1,
11 Liberty customers will receive no benefit from the AMI project until April 1. Liberty would
12 calculate the revenue requirement for the AMI project at an amount equal to 9/12 of the full one-
13 year revenue requirement. Such a convention would mean that Liberty's customers will not be
14 paying for this AMI project effectively until its actual April 1 operation date.

15 Specifically, Liberty requests that it be authorized to recover its cost associated with this
16 AMI project in the following manner:

- 17 1. The Commission should authorize Liberty to recover its investment in and the
18 costs to operate the AMI project as utility-owned generation assets as of Day One
19 and throughout the life of the AMI project;
- 20 2. The Commission should designate in this proceeding an aggregate Maximum
21 Reasonable Cost for the AMI project, as shown above;

²D.17-12-008

- 1 3. The Commission should authorize Liberty to request, in a Tier 2 Advice Letter, in
2 the month following completion of the project, that Liberty be authorized to place
3 into rate base its actual capital investment in the AMI project up to the Maximum
4 Reasonable Costs Amount the Commission designates in this proceeding;
- 5 4. The Commission should authorize Liberty to recover the proposed operation and
6 maintenance costs, less proposed benefits, as shown above, and be allowed to
7 seek rate recovery for these costs in the same Tier 2 Advice Letter.

8 **10. AMI Opt-Out Tariff**

9 Liberty requests authority create a tariff to institute charges for customers who choose to
10 opt out of Liberty’s AMI program. Liberty will offer the opt-out option to its customers at the
11 time Liberty begins deployment of AMI meters. Liberty will incur substantial additional costs to
12 read meters for those customers opting not to have an AMI meter installed at their property. To
13 cover these costs, Liberty proposes the same opt-out fee and monthly charge that the
14 Commission adopted in Pacificorp’s Opt-Out Application in Decision (“D.”) 18-08-018.
15 Liberty’s size and service territory are similar to Pacificorp’s, and the costs are expected to be
16 similar.

17 In D.18-08-018, the Commission adopted an initial opt-out fee of \$75 and a monthly
18 meter reading fee of \$20. CARE customers would receive a 20% discount on both fees, which
19 would result in a \$60 opt out fee and a \$16 meter reading fee. Liberty requests authority to
20 impose these fees when AMI is deployed.

1 **B. Customer First**

2 **1. Overview**

3 Customer First is a set of enterprise-wide investments, upgrades, improvements, and
4 changes to business processes across the Liberty Utilities’ enterprise and its operating utilities,
5 including Liberty, that address critical needs across the enterprise by leveraging the capabilities
6 and experience of the organization and upgrading or replacing key systems that have become
7 generally obsolete, costly to maintain, not well integrated with other Liberty Utilities’ systems,
8 and potentially present security risks. Through Customer First, Liberty will obtain the systems
9 needed to effectively and reliably manage Liberty and to better meet new and existing customer
10 expectations. A key component of Customer First is a single centralized regional database that
11 will store much of the organization’s data and system modules.

12 **2. Journey to Customer First**

13 Many of Liberty Utilities’ systems were developed at a time when Liberty Utilities’
14 business requirements were very different from what they are today. Liberty Utilities,
15 recognizing the changing landscape in today’s utility world, including customer expectations for
16 real-time data and information, the ability to create varying service offerings, evolving regulatory
17 requirements, the move to renewable energy, enhanced cybersecurity and the evolving utility
18 industry, began evaluating its systems and business processes in 2017. Liberty Utilities engaged
19 Ulligent to conduct a maturity assessment of Liberty Utilities’ business processes, technology
20 solutions, and operating model. The results of that assessment led Liberty Utilities to reevaluate
21 how it was meeting customer, business, and regulatory requirements with the technology and
22 processes in place at the time. In order to meet industry standards and accommodate future
23 requirements, Liberty Utilities considered options to remedy its existing disparate systems,

1 including sustaining the legacy systems, developing localized solutions, and developing an
2 enterprise solution.

3 Liberty is currently using systems that date back about 20 years. Many are no longer
4 supported by their vendors; lack functionality; and require patches and workarounds, which can
5 present cybersecurity concerns. Those manual workarounds also require substantial employee
6 time and resources. Maintaining these antiquated systems is neither reasonable nor prudent.
7 Developing local solutions does not provide for information consolidation, data visibility, and
8 process standardization. Moreover, developing local solutions for each utility in the Liberty
9 enterprise is not cost-effective.

10 Liberty Utilities ultimately decided that an enterprise solution was the most reasonable
11 and prudent means to close identified gaps and position the enterprise for the future. By bearing
12 only the cost of its portion of the larger corporate-wide project, Liberty is able to access a tier-
13 one enterprise solution that provides the necessary functionality out-of-the-box at a much lower
14 cost than if Liberty implemented the project on a stand-alone basis.

15 Liberty Utilities engaged CRA to review the reasonableness and sufficiency of the
16 process Liberty Utilities followed prior in deciding to implement Customer First. CRA found
17 that “Liberty followed a reasonable path for identifying and vetting solution alternatives. Liberty
18 identified a range of options, evaluated each of those options, and made its selection based on the
19 best fit for Liberty and its customers.”³

20 **3. Scope and Schedule**

21 Following industry practice, Liberty Utilities evaluated multiple top-tier software vendors

³ “A Review of Liberty’s Customer First Program for Liberty Utilities (CalPeco Electric), LLC.”
Charles River Associates. May 12, 2021, provided in workpapers.

1 before selecting SAP as its core enterprise technology platform. Core to the SAP solution is a
2 single, centralized relational database called HANA that will store much of the organization’s
3 data. Liberty Utilities also conducted an extensive RFP process to select its implementation
4 partner, IBM.

5 Customer First is organized into the following components: Foundations, e-Customer,
6 Employee Central, Procure to Pay (“P2P”), and Network Design and Operations. Foundations
7 will implement core business system changes to the customer information system (“CIS”),
8 enterprise asset management (“EAM”) and enterprise resource planning (“ERP”) legacy systems
9 that are expected to dramatically improve how Liberty engages with customers, manages its
10 assets, operates its system and plans utility operations.

11 The CIS system performs several critical customer service-related functions, including
12 customer bill generation, customer account management, credit and collections, and accounts
13 receivable. The CIS integrates with the Customer Relationship Management (“CRM”) solution
14 and other systems and will have extensive features and capabilities that will enable Liberty to
15 meet and evolve with customers’ needs and requirements. For Liberty, the new CIS will replace
16 an outdated CIS system, Cogsdale, that struggles to meet customer and business requirements
17 today. The new CIS will include capabilities such as digital channels for customer contact, self-
18 service enablement, and supporting demand response programs. Additionally, a Smart Energy
19 Water (“SEW”) application will be integrated with the CIS to provide a user interface (“My
20 Account”) that will enable customers to set up an account profile and monitor their energy usage,
21 see their bills, view their account balance and make payments, see a map of electric outages and
22 report outages, and receive alerts about billing, payments and outages. The CIS integrates with
23 another SAP application, Click Field Service Edge (“Click”), that will significantly improve the

1 customer experience by improving the efficiency and effectiveness of customer service orders by
2 creating a digital connection between the customer, the customer service representative, the
3 dispatcher, and the service technician who is assigned to the work. Liberty expects the CIS,
4 CRM, My Account, and Click applications will increase the ability of customer service
5 representatives to resolve customer issues on the first call. Dispatchers will be better able to
6 manage field resources and customers can elect to receive updates on the status of their service
7 orders. In addition, these applications will enable customers to view detailed information on
8 their billing and usage, in turn allowing customers to adjust and/or monitor their energy usage
9 through access to real-time data.

10 The ERP is a system of integrated software applications that standardizes, streamlines
11 and integrates business processes across finance, human resources, procurement, distribution,
12 and other departments. This system will operate on SAP's HANA integrated software platform
13 using common data definitions operating on a single database. For Liberty, the ERP system will
14 replace Microsoft Dynamics Great Plains ("MDGP"), which lacks functionality and requires
15 significant manual intervention. In addition to the ERP system, Liberty will implement
16 PowerPlan for asset accounting, retirement obligation, tax depreciation and deferred taxes, which
17 is integrated to SAP. This integration will facilitate true-ups between construction work in
18 progress and removal work in progress using operations estimates. Liberty is also implanting
19 SAP Analytics Cloud ("SAC"). SAC is a software as a service ("SaaS") financial planning and
20 business intelligence platform that integrates with SAP and enables users to discover, plan,
21 predict, and collaborate all on a single platform. Another tool being implemented is Workforce
22 Software, an advanced time and attendance system that includes a sophisticated scheduling
23 workflow and pay rules engine that is expected to reduce manual intervention required from time

1 administrators and crew leads and reduce payroll costs and compliance risks.

2 By moving to SAP's ERP system, Liberty expects to significantly reduce the monthly,
3 quarterly, and annual close cycles; reduce the risk of errors; improve the efficiency of its fixed
4 asset accounting; and improve planning, budgeting, forecasting, and decision-making.

5 Employees will have access to innovation, clean self-documenting design, enhanced
6 visualizations, and built-in reporting capabilities, including dashboards and predictive analytics
7 capabilities.

8 The enterprise-wide EAM system stores all utility asset information in one centralized
9 location for analysis, capital investment decisions and maintenance planning, and work
10 management, and will allow Liberty to use insights from the EAM data analysis to inform
11 maintenance cycles for generation and grid assets, avoid equipment failures and outages, reduce
12 operating costs, and improve system reliability. Liberty currently relies on the MDGP
13 application Wennsoft for asset management. While the system performs basic asset management
14 functions, paper copies of work orders are manually passed from Customer Care to planners to
15 procurement and line operations via folder. There are no systems in place to assign work,
16 optimize dispatch of service personnel or track compliance with regulatory requirements. In
17 conjunction with the EAM implementation, Liberty will be implementing SAP Asset Manager, a
18 mobile application that integrates with the EAM and provides map-based navigation and detailed
19 asset information to the field workers who inspect, maintain, and report on the condition of
20 assets. This application will improve the quality of data in the EAM and streamline work efforts.
21 Liberty expects the EAM and Asset Manager systems will improve asset visibility and
22 performance, improve safety, and increase work efficiency.

1 E-Customer will implement an enhanced customer portal and integrated payment solution
2 aimed at significantly improving the customer experience. The enhanced customer portal will
3 provide customers the ability to monitor usage, view bills and account balances, make payments,
4 and report and get notified about outages. The integrated payments solution, Kubra, is a cloud-
5 based and self-service payment platform that works with My Account and provides multi-
6 channel payment options for customers.

7 Employee Central implements SAP SuccessFactors, a fully integrated HR, recruiting, and
8 onboarding solution. SuccessFactors will replace the non-payroll core HR functions within
9 Liberty Utilities' existing software, Ceridian Dayforce. Today, Liberty still relies on manual and
10 paper-based HR processes, which create delays and reduce visibility and collaboration.
11 Furthermore, the current system cannot support increased demands for position management.
12 SuccessFactors will streamline recruiting, onboarding, and position management activities and
13 provide greater overall capabilities in managing diversity and leveraging analytics for better
14 decision-making. Liberty expects Employee Central to provide greater recruiting, onboarding,
15 and position management efficiency and improve employee and candidate experience.

16 Procure to Pay ("P2P") implements a cloud-based technology platform called Ariba that
17 provides self-service capabilities for requisition, mobile approval, purchasing, receiving, and
18 invoicing. Although Ariba integrates with MDGP today, many of these processes at Liberty are
19 manual and paper-based. Ariba will leverage the SAP HANA database and will be implemented
20 as part of the Foundations project to integrate supplier management, strategic sourcing,
21 procurement and financial supply chain management processes. Liberty's customers will benefit
22 from P2P because it reduces procurement costs by setting up common catalogs, enabling bulk
23 discounts on products and services, and automates many manual processes.

1 Network Design and Operations implements a common, enterprise-wide GIS solution
 2 containing a digital representation of Liberty’s physical system that is essential for enabling field
 3 crews to accurately and efficiently locate assets. GIS is a foundation for multiple other systems,
 4 containing locational and network connectivity information about Liberty’s assets that are relied
 5 on by the EAM system, the mobile workforce management system, the outage management
 6 system, engineering systems, and, in the future, the advanced distribution management system.

7 Customer First, which began deployment in 2021, will continue through the first quarter
 8 of 2023. Liberty’s cost estimates and savings opportunities are summarized in Table 13-3 below.
 9 Additional benefits are discussed in the following section and described in greater detail in the
 10 workpaper titled “A Review of Liberty’s Customer First Program for Liberty Utilities (CalPeco
 11 Electric), LLC” (hereinafter “Customer First Report”).

Table 13-3 - Customer First Forecast

Table 1 - CalPeco Customer First Estimates (2020-2042)

	2020	2021	2022	2023	2024	2025-2042	Total
Foundations	\$0	\$0	\$0	\$20,728,080	\$0	\$0	\$20,728,080
e-Customer	\$0	\$241,274	\$0	\$0	\$0	\$0	\$241,274
Employee Central	\$0	\$179,637	\$0	\$0	\$0	\$0	\$179,637
Procure to Pay	\$0	\$117,323	\$0	\$0	\$0	\$0	\$117,323
Network Design & Ops	\$0	\$0	\$0	\$2,084,566	\$0	\$0	\$2,084,566
Capital Investment Costs	\$0	\$538,234	\$0	\$22,812,646	\$0	\$0	\$23,350,880
Post-Implementation Costs	\$39,404	\$35,120	\$35,120	\$1,032,447	\$1,047,516	\$22,312,405	\$24,502,012
Total Costs	\$39,404	\$573,354	\$35,120	\$23,845,093	\$1,047,516	\$22,312,405	\$47,852,892
Operating Expense Savings	\$0	\$0	\$0	\$696,246	\$1,066,250	\$24,325,059	\$26,087,555

12

1 **4. Benefits**

2 Although the primary driver for the implementation of Customer First is to replace and
3 upgrade systems that are effectively obsolete and not well-suited to effectively manage the
4 company in today’s environment and in the future, Liberty assessed the savings and
5 opportunities for efficiencies it expects to realize through Customer First. Liberty anticipates
6 Customer First will deliver operational savings of about \$696,000 in 2023 and \$1,066,000 in
7 2024 and expects to realize total benefits of about \$26.1 million over the assumed 20-year useful
8 asset life. In 2023 and 2024, Liberty anticipates customer care operational benefits associated
9 with reduced printing and labor costs. In finance and accounting, Liberty anticipates operational
10 benefits associated with reduced labor. In system planning and operations, Liberty anticipates
11 realizing benefits by reducing contracted services. Finally, Liberty anticipates realizing reduced
12 operations costs through avoided software and maintenance costs of legacy systems. An in-
13 depth review of the Costs and Benefits of Customer First is included in the Customer First
14 Report.

15 **5. Third-Party Review**

16 Prior to implementing Customer First in any of its operating companies, Liberty Utilities
17 engaged CRA to review and opine on the process Liberty Utilities followed to determine the
18 need to replace existing infrastructure and that an enterprise system solution was prudent, as
19 opposed to maintaining the legacy systems or deploying numerous local solutions. CRA
20 reviewed and opined on the reasonableness and completeness of the process used to select the
21 solution software, assess the benefits of Customer First, and allocate costs to the utility operating
22 companies. CRA found that Liberty Utilities’ processes described above were all reasonable and
23 sufficient.

1 **6. Cost Forecast**

2 a) Capital Forecast

3 As shown in Table 13-3, Liberty forecasts \$20.728 million in capital expenditures for the
4 Customer First project.

5 b) O&M Costs and Benefits

6 Table 13-4 reflects Liberty’s forecast for O&M expenses and benefits for 2023 and 2024.

***Table 13-4 - Customer First Savings and O&M Expenses
\$(000)***

Expense Category	Forecast	
	2023	2024
Customer Care	(470)	(752)
Distribution	(100)	(102)
Administrative & General Expense	(126)	(212)
Total Annual O&M Savings	(696)	(1,066)
Annual Post-implementation Costs	1,032	1,048
Net O&M Impact (Savings)	336	(19)

7 **7. Proposed Ratemaking Treatment**

8 Liberty does not propose a rate increase related to the Customer First project in this
9 proceeding. Instead, Liberty asks the Commission, in an interim decision to be issued in this
10 proceeding, to authorize cost recovery via a Tier 2 Advice Letter once the Customer First project
11 is considered used and useful. The Commission has already granted this type of cost recovery
12 treatment in its Decision in Liberty’s Turquoise Solar Facility application.⁴

13 Consistent with the Commission’s decision approving Liberty’s Turquoise Solar Facility,
14 Liberty would begin to recover its costs for the Customer First project in the month following it
15 being operational. Liberty will prorate cost recovery based on the month in which the Customer

⁴D.17-12-008

1 First project goes into service. For example, if the Customer First project were to go into
2 commercial operation on April 1, Liberty customers will receive no benefit from the Customer
3 First project until April 1. Liberty would calculate the revenue requirement for the Customer
4 First project at an amount equal to 9/12 of the full one-year revenue requirement. Such a
5 convention would mean that Liberty's customers will not be paying for the Customer First
6 project effectively until its actual April 1 operation date.

7 Specifically, Liberty requests that it be authorized to recover its cost associated with the
8 Customer First project in the following manner:

- 9 1. The Commission should authorize Liberty to recover its investment in and the
10 costs to operate the Customer First project as utility-owned generation assets as of
11 Day One and throughout the life of the Customer First project;
- 12 2. The Commission should designate in this proceeding an aggregate Maximum
13 Reasonable Cost for the Customer First project, as shown above;
- 14 3. The Commission should authorize Liberty to request in a Tier 2 Advice Letter, in
15 the month following completion of the Customer First project, that it be
16 authorized to place into rate base its actual capital investment in the Customer
17 First project, up to the Maximum Reasonable Costs Amount the Commission
18 designates in this proceeding;
- 19 4. The Commission should authorize Liberty to recover the proposed operation and
20 maintenance costs, less proposed benefits, as shown above, and be allowed to
21 seek rate recovery for these costs in the same Tier 2 Advice Letter.

Appendix A
Witness Qualifications

1 **LIBERTY UTILITIES (CALPECO ELECTRIC) LLC**
2 **QUALIFICATIONS AND PREPARED TESTIMONY**
3 **OF KAREN S. HALL**

4 Q. Please state your name and business address.

5 A. My name is Karen S. Hall, and my business address is 15 Buttrick Road, Londonderry
6 New Hampshire 03053.

7 Q. What is your present employment?

8 A. I am employed as Senior Manager, Customer First Rates and Regulatory by Liberty
9 Algonquin Business Services, a service company subsidiary of Liberty Utilities (“Liberty”), and
10 a non-utility affiliate of Liberty Utilities (Park Water) Corp. (“Liberty Park Water”) and Liberty
11 Utilities (Apple Valley Ranchos Water) Corp. (“Liberty Apple Valley”). In this role I am
12 responsible for leading Customer First’s regulatory support in coordination with the local rates
13 and regulatory teams across the Liberty enterprise.

14 Q. Please describe your education and professional experience.

15 A. I hold a B.S. in Business Administration from the University of South Carolina, Aiken, as
16 well as an Associate’s Degree in Public Service and an Associate’s Degree in Arts from
17 Greenville Technical College in South Carolina. After more than a decade providing legal and
18 operational support in private law firms, I joined Duke Energy in 2015 as a member of the
19 Carolinas state regulatory legal team where I supported rate cases, annual fuel filings, formal
20 complaints, and other regulatory matters. In 2018, I joined Duke Energy’s Grid Solutions
21 organization where I led the regulatory support for the company’s recovery of its advanced
22 metering infrastructure investment, and also provided regulatory support to Duke Energy’s grid
23 improvement initiatives, as well as the customer service and customer experience organizations.

1 In early 2020, I transitioned to Duke Energy's Rate Design and Strategic Solutions team and was
2 promoted to Rates and Regulatory Strategy Manager. In that role, I was responsible for
3 managing the implementation of key rate designs and strategic solutions across the Duke Energy
4 enterprise.

5 In November 2020 I joined Liberty in my current role as Senior Manager, Rates and
6 Regulatory for the Customer First initiative.

7 Q. What is the purpose of your testimony in this proceeding?

8 A. The purpose of my testimony in this proceeding is to sponsor the portion of Chapter 13
9 concerning Customer First.

10 Q. Was this material prepared by you or under your supervision?

11 A. Yes, it was.

12 Q. Insofar as this material is factual in nature, do you believe it to be correct?

13 A. Yes, I do.

14 Q. Insofar as this material is in the nature of opinion or judgement, does it represent your
15 best judgement?

16 A. Yes, it does.

17 Q. Does this conclude your qualifications and prepared testimony?

18 A. Yes, it does.

1 **LIBERTY UTILITIES (CALPECO ELECTRIC) LLC**
2 **QUALIFICATIONS AND PREPARED TESTIMONY**
3 **OF RICK DALTON**

4 Q. Please state your name and business address for the record.

5 A. My name is Rick Dalton and my business address is 9750 Washburn Road, Downey,
6 California 90241.

7 Q. Briefly describe your present responsibilities at Liberty Utilities (CalPeco Electric) LLC.

8 A. I am the Sr. Director, Engineering for Liberty Utilities California operations.

9 Q. Briefly describe your educational and professional background.

10 A. I have been the Sr. Director, Engineering for Liberty Utilities (CalPeco Electric) LLC and
11 the Liberty water utilities in California since 2019. Prior to that time, I was Director, Engineering
12 for the Liberty water utilities in Southern California. I joined Liberty when Park Water Company
13 was acquired in 2016 and prior to that time held successively higher engineering positions for
14 Park Water Company over many years. I have extensive experience in managing capital
15 improvements and have a wide range of engineering experience. I received a Bachelor of
16 Science Degree in Civil Engineering from the University of Southern California prior to serving
17 as a US Naval officer.

18 Q. What is the purpose of your testimony in this proceeding?

19 A. The purpose of my testimony in this proceeding is to sponsor the portion of Chapter 13
20 concerning AMI.

21 Q. Was this material prepared by you or under your supervision?

22 A. Yes, it was.

23 Q. Insofar as this material is factual in nature, do you believe it to be correct?

1 A. Yes, I do.

2 Q. Insofar as this material is in the nature of opinion or judgement, does it represent your
3 best judgement?

4 A. Yes, it does.

5 Q. Does this conclude your qualifications and prepared testimony?

6 A. Yes, it does.

1 **LIBERTY UTILITIES (CALPECO ELECTRIC) LLC**
2 **QUALIFICATIONS AND PREPARED TESTIMONY**
3 **OF DAN MARSH**

4 Q. Please state your name and business address for the record.

5 A. My name is Dan Marsh and my business address is 9750 Washburn Road, Downey,
6 California 90241.

7 Q. Briefly describe your present responsibilities at Liberty Utilities (CalPeco Electric) LLC.

8 A. I am the Manager of Rates and Regulatory Affairs for Liberty Utilities (CalPeco Electric)
9 LLC.

10 Q. Briefly describe your educational and professional background.

11 A. I have been the Manager of Rates and Regulatory Affairs for Liberty Utilities (CalPeco
12 Electric) LLC since 2016. Prior to that, I was a Senior Project Manager for Southern
13 California Edison for nearly twenty years, and worked on various regulatory proceedings,
14 including general rate cases, CEMA applications, and various rulemakings. I received an
15 MBA in Business Finance from California State University, Long Beach.

16 Q. What is the purpose of your testimony in this proceeding?

17 A. The purpose of my testimony in this proceeding is to sponsor portions Chapter 13: AMI
18 and Customer First.

19 Q. Was this material prepared by you or under your supervision?

20 A. Yes, it was.

21 Q. Insofar as this material is factual in nature, do you believe it to be correct?

22 A. Yes, I do.

23 Q. Insofar as this material is in the nature of opinion or judgement, does it represent your

1 best judgement?

2 A. Yes, it does.

3 Q. Does this conclude your qualifications and prepared testimony?

4 A. Yes, it does.