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

**Item #5 (Rev. 1)**
**ID #13425**

**ENERGY DIVISION** **RESOLUTION E-4694**
**December 4, 2014**

# R E S O L U T I O N

**Resolution E-4694.** Liberty Utilities request approval of an interim voluntary electric curtailment program for larger than 200 kW users from November 2014 to December 2015.

**PROPOSED OUTCOME:**

- Approval of Liberty Utilities' interim voluntary electric curtailment program for larger than 200 kW users during the winter months of November 2014 to December 2015.

**SAFETY CONSIDERATIONS:**

- The requested tariff is a voluntary measure, which is intended to improve reliability of service by reducing load on LU's electrical system thus avoiding potential service interruptions. This tariff reduces the risk of blackouts, which have public safety implications due to potential loss of vital services, such as heating for homes and businesses, depending on the extent of power outages.

**ESTIMATED COST:**

- Actual cost will depend on the number and duration of curtailment events and the amount of curtailment provided. For example, the program will cost $50,000 for two events assuming 5 MWs of curtailment per event and each event lasting 5 hours. There are also administrative costs that are less than $1,500. The benefits of the Program exceed the cost.

By Advice Letter 38-E and Supplemental 38-E-A, filed on September 10 and October 17, 2014, respectively.

## SUMMARY

By Advice Letter (AL) 38-E filed September 10, 2014, and Supplemental AL 38-E-A, filed October 17, 2014, Liberty Utilities LLC ("LU"), formerly CalPeco, submitted for approval a new voluntary curtailment rate (Schedule No. DR, Demand Response Program), and associated Curtailment Program Agreement (collectively referred to as the "Program"). This new tariff would allow LU to compensate certain larger than 200 kW General Service customers for voluntary curtailment of electric consumption, upon notification, during the winter months of November 2014 through December 2015. The Commission finds that the Program is cost-effective and will enhance system reliability during winter peaking conditions. AL 38-E as modified by Supplemental AL 38-E-A is approved effective today.

## BACKGROUND

Liberty Utilities is a winter-peaking electric utility operating in seven counties surrounding Lake Tahoe (formerly Sierra Pacific's territory) serving about 49,000 customers. Liberty Utilities state that it has experienced system reliability issues during periods of peak winter demand (most notably during the week between Christmas and New Year's Day in 2012-13). Accordingly it seeks to increase its capability to respond to similar challenges in future years through the use of a voluntary curtailment program, which gives LU the ability to request eligible customers to curtail or defer electricity consumption.

During the 2013-14 winter peak demand period, LU requested several of its larger (> 50 kW) General Service (Schedule A-3) customers (i.e. ski resorts) to stand by to reduce their energy consumption during on-peak hours (between 5:00 PM and 10:00 PM). The ski resorts typically make artificial snow during those hours in preparation for the next day. Snow-making involves large air compressors and water pumps demanding relatively large amounts of power. In general the ski resorts have been willing to accommodate requests by LU to either not make snow or defer it until after 10:00 PM. The ski resorts can incur incremental costs for employees to be available after 10:00 PM.

Liberty Utilities states it intends to request the authority to implement several DR mechanisms in its upcoming 2016 GRC. In the interim, LU proposes this Program as a means to reduce loads during peak winter hours during the winter months of November 2014 to December 2015. The Program would give LU formal authority to request curtailments from participants, establish curtailment procedures, and fairly compensate participating customers that curtail consumption upon request.

Prior to its AL filing, LU advised the potentially affected customers of its intent to request authority to implement this Interim Curtailment Program. According to LU, Squaw Valley Ski Holding LLC (SV) opposed the program on the basis that under certain weather and snow conditions it needs to make artificial snow to maintain coverage to operate. SV maintains that it was impossible to adequately compensate for agreeing to curtail snow making between 5 and 10 PM. At the time of AL filing Northstar California (ski resort) was still considering LU's proposal.

On September 10, 2014, Liberty Utilities filed AL 38-E seeking approval of the Program. Energy Division (ED) staff worked with LU to address deficiencies in its original filing, in particular the need to show program cost-effectiveness pursuant to Commission Decision 10-12-024. On October 17, 2014, LU filed a Supplemental AL 38-E-A to provide additional cost–effectiveness data and other clarifying information, at the request of ED staff.

Liberty Utilities is addressing reliability issues in its service territory in other filings. On August 28, 2014, the Commission approved LU's Tier 1 AL 35-E, Notice of Proposed Construction Project Pursuant to General Order (GO) 131-D for Improvements to the 14.4 kV 7203 Distribution Line, by Resolution E-4671. Liberty Utilities explained that re-conductoring of this line will help meet anticipated peak energy demand during the winter of 2014/15, but more options are needed to maintain reliability until transmission system upgrades proposed in pending Application (A.) 10-08-024 are completed. The required environmental permits for the upgrades proposed in A. 10-08-024 have yet to be approved.

## NOTICE

Notice of AL 38-E and Supplemental AL 38-E-A were made by publication in the Commission's Daily Calendar. Liberty Utilities state that a copies of AL 38-E and 38-E-A were distributed in accordance with Section 4.3 of G.O. 96-B.

## PROTESTS

Liberty Utilities AL 38-E was timely protested by Northstar at Tahoe (Northstar) on September 16, 2014, and by Squaw Valley/Alpine Meadows Ski Holdings, LLC (S/A Ski) on September 29, 2014, (collectively, the "Ski Resorts" or "protestants").

Liberty Utilities replied to the initial protests on October 7, 2014.

Liberty Utilities requested no additional protest period for its Supplemental AL, however Energy Division (ED) modified and advised the service list of a 5 days protest period and 3 days reply period.

No protests were filed to the Supplemental AL.

## DISCUSSION

### Liberty Utilities's Original Proposal

Liberty Utilities' proposed pogram has the following terms:

Eligibility: Customers may qualify if they take electric service under Large General Service A-3 (>200 kW) and Medium General Service A-2 (>50 kW), can reduce consumption by minimum 2,000 kW for any or all of the 5 consecutive hours between 5:00 PM and 10:00 PM on any day between December 1 and February 28 (Winter Season, On-Peak), execute a Program Agreement, and are able to respond timely to a request to reduce electric consumption according to the procedures of the Program.

Third-party aggregators will not be eligible to participate. Each eligible customer must continue to take service under its otherwise-applicable rate schedule.

Territory: The Program is available to eligible customers throughout LU's entire California Service Area.

Procedures and Protocols: On any given day during the winter season on-peak period, when LU determines that it may face system reliability issues, or for other purposes consistent with Good Utility Practice, it may request that any or all Eligible Customers reduce their energy consumption during any or all of the on-peak hours on that day (the "Curtailment Period"). The form of Curtailment Notice will be specified in the Curtailment Program Contract executed by the Eligible Customer.

Liberty Utilities will notify Eligible Customers of the requested curtailment ("Curtailment Notice") no later than 2:00 PM on the date of curtailment.

Each Eligible Customer will be required to respond to the Curtailment Notice within 30 minutes and make certain commitments to curtail demand or advise LU that it shall not respond in the curtailment request. In case the Eligible Customer fails to respond within 30 minutes to the Curtailment Notice, LU would have no obligation to compensate the customer for that particular Curtailment Period.

If the Eligible Customer timely responds that it shall reduce its energy consumption in the manner the Curtailment Notice requests, the Eligible Customer must operate at that reduced load for the entire Curtailment Period to be compensated

Rates: In accordance with Schedule DR (Attachment 1 to the AL) and the applicable Curtailment Program Contract (Attachment 2 to AL), LU shall pay Eligible Customers $ 1.00/kWh for any and all qualified reductions in the Eligible Customer's energy consumption made in response to a Curtailment Notice.

This rate is intended to fairly compensate the Eligible Customer for the incremental costs and inconvenience experienced by curtailing its energy consumption in response to a Curtailment Notice, while correspondingly increasing system reliability for the benefit of all its customers at a cost-effective price.

Liberty Utilities will evaluate and pay for the Eligible Customer's hourly load reductions realized under the Program within ninety (90) days after each curtailment. The payment will be reflected as an adjustment to the Eligible Customer's next monthly bill.

Liberty Utilities requests Commission approval of its Interim Curtailment Program no later than November 6, 2014 as a tool for ensuring system reliability during the winter periods from November 2014 to December 2015.

**Liberty Utilities' Supplemental Proposal**

In its Supplemental AL, LU made certain modifications and clarifications, specified below:

- Customer's on Schedule A-2 (medium general service) will not be eligible for the Voluntary Curtailment Program
- Liberty Utilities will only issue a Curtailment Notice to its Eligible Customers when it projects that the combined load at its Brockway, Northstar and Tahoe City substations may rise above 35 MW.
- If LU issues a Curtailment Notice, it shall determine the Eligible Customers' hourly load reductions by comparing the Eligible Customer's energy usage during the Curtailment Period to the ten-day previous average prior to the Curtailment.
- Liberty Utilities shall use its real time load data at the substation level to determine when to issue a Curtailment Notice and to monitor load reductions that occur as the result of any Curtailment.
- Eligible Customers who use on-site diesel generators to self-supply electricity during the Curtailment Period are responsible for complying with any and all permit conditions associated with those diesel generators.

Liberty Utilities' Supplemental AL revised the Schedule DR (Demand Response) tariff sheets and the contract accordingly.

Liberty Utilities also provided a Cost Effectiveness Analysis pursuant to the Energy Action Plan loading order policy[1] and D.10-12-024 (adopting a method for estimating the cost-effectiveness of Commission-ordered demand response activities).[2]

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[1] Available at www.cpuc.ca.gov/PUC/energy/resources/Energy+Action+Plan/.

[2] http://docs.cpuc.ca.gov/PublishedDocs/WORD_PDF/FINAL_DECISION/128594.PDF

**Protest**

The Ski Resorts protest that the proposed Program is not an effective or an adequate means of guaranteeing or even projecting reduced energy consumption for their skiing areas. They contend that relying on this voluntary program could lead to mandatory curtailments and/or blackouts with serious implications to life and safety and to the very existence of the Ski Resorts' businesses.

The Ski Resorts state that snow making is a critical part of their business. They doubt LU's assertion that "In general, the ski resort customers have been willing to accommodate requests by LU to either not make snow or to defer the snow making until after 10 PM."

The Ski Resorts state that during protracted cold and dry periods, snow making conditions can be ideal. It is also necessary to open or maintain the slopes, which may be exactly the times of high consumption of other users in the region. The Ski Resorts state that they may be unwilling to curtail load for operational reasons, even at the proposed or even higher compensation rates. At the proposed (and even higher) compensation rates, there are times when the Ski Resorts may be compelled to continue making snow during highest demand periods.

The Ski Resorts say they have been informed by LU staff that other viable options exist in order to ensure adequate energy supplies, including additional energy from NV Energy or others, quoting: "Our Commission approved power purchase agreement with NV Energy is an all requirements contract, so NV Energy is obligated to sell LU all of the energy being required …They have agreed to again help LU with this but prefer LU pursue additional options and not rely solely on this option. Our pay for curtailment tariff is along these lines".

The Ski Resorts encourage LU to further explore and rely on alternate methods instead of voluntary curtailment in meeting the electric demands within its region.

**Liberty Utilities' Reply**

Liberty Utilities responded stating that it was difficult to discern the Ski Resorts' basis for their protests in light of the fact that the proposed DR Program is entirely voluntary and temporary without penalty for not performing. On the other hand, LU understands that the program imposes real costs on its customers and offers compensation for performance. Therefore, the Ski Resorts' objections, based on the need to make snow, are not valid.

As to the Ski Resorts' argument that LU is relying solely on the proposed DR Program to ensure reliability, LU refers to the pending approval of its transmission line upgrade project in Application (A.)10-08-024, which is delayed, due to extended environmental reviews, from an expected construction initiation date of fall of 2012 to sometime in mid-2015.

Additionally, LU points to its recently upgraded distribution line 7203 near Truckee, approved by Resolution E-4671, which will enhance system reliability.

With regard to the Ski Resorts' claim that the system reliability problem could be solved by purchasing more energy from NV Energy LU responded that its system reliability issues are not caused by a lack of electricity available to the LU service territory, but rather by LU's inability to deliver electricity to its customers over its constrained transmission and distribution lines. The size and capacity of its transmission and distribution lines currently limits LU's ability to meet anticipated winter peak energy demand.

**Analysis**

Protests

The Ski Resorts contend that relying on this voluntary Program could lead to mandatory curtailment and/or blackouts, yet they provide no supporting evidence for this claim. On the contrary, LU seeks approval of this Program as tool to avert precisely the outcome that the Ski Resorts want to avoid. The Ski Resorts claim that they may be unwilling to curtail due to operational needs. In its response, LU reminds the Ski Resorts that the Program is entirely voluntary and there are no penalties for non-performance. Liberty Utilities also explains that purchasing more power from NV Energy is not a solution for insufficient capacity of the transmission and distribution lines.

We are persuaded by LU's arguments that the proposed Program will contribute to the effort of improving reliability. While there may be circumstances in which the Ski Resorts choose not to curtail load for whatever reason, there may be instances in which the Ski Resorts could benefit by shifting their snow making to be able to participate in a demand response event. Further, the additional steps that LU is taking to propose transmission system upgrades in A.10-08-024 are evidence that reliability concerns are legitimate and LU is taking appropriate steps to resolve it. Finally, we agree with LU that simply purchasing more power will not solve the constraint on the transmission and distribution system, which is a source of the reliability problem.

Therefore we reject the protests.

Considering the safety and reliability concerns and potential harm to the local economy from a blackout, we find the proposed Program to be reasonable.

<u>Cost Effectiveness Analysis:</u>

Per D.10-12-024 cost-effectiveness analysis of all DR programs is required.

This analysis follows the framework established in the Commission-approved 2010 Demand Response Cost-effectiveness Protocols (Protocols). Those Protocols state:

*The protocols described in this document are designed for these three Investor-Owned Utilities (IOUs). Nevertheless, they should be applicable to Demand Response programs developed by any Load Serving Entity (LSE). However, LSEs other than those three IOUs may require additional guidance.*

Accordingly, LU requested guidance from CPUC Energy Division on the applicability of various aspects of the Protocols to their proposed DR program.

Because this Program, unlike most DR programs, will not avoid building future capacity, Energy Division determined that use of the Avoided Cost calculator was not a reasonable approach to determine LU's avoided costs. LU's proposed DR program is designed to mitigate the impact of distribution and transmission system constraints during winter peak demand hours. Since LU believes the only feasible alternative to voluntary DR would be rotating outages, Energy Division requested that LU estimate the impact of those outages on the local community. Liberty Utilities has provided that information, and shows three different types of benefits, in the form of avoided costs: (1) the power purchase costs that LU would avoid during DR events; (2) the economic costs to the local community which would result from rotating outages, which the DR program may avoid, and (3) the environmental costs associated with rotating outages.

The sum of these benefits far outweighs any costs incurred by this program. The benefit-cost ratio of the Program to the utility and its customers, using the Total Resource Cost test, is 13.54 (without including any economic and environmental benefits LU estimates the program would have). When including LU's estimated economic benefits (of avoiding blackouts) and environmental benefits, the TRC benefit-cost ratio is far greater, with net benefits estimated at more than $850,000 per five-hour event. It is worth noting that the net benefits of the program are positive based on avoided power purchases alone.

Cost-effectiveness analysis results, using the Program Administrator Cost (PAC) test, also show a positive net benefit of approximately $47,000 with a benefit cost ratio of 2.79, indicating that this program is a wise financial investment for LU. Net benefits using the Ratepayer Impact Measure (RIM) test are about $28,000 with a benefit cost ratio of 1.62, indicating that the program could lead to lower rates for LU's customers.

Lastly, the results of Participant Test show that the benefits to participants are approximate 10 times the cost of participating. The benefits to participants consist of bill savings and the incentives they would receive for reducing demand, and the costs are those they would incur to shift their snow-making activities from the 5 p.m. to 10 p.m. period to a later time. While these costs are necessarily only a rough estimate of the actual costs an individual participant would incur, it is unlikely that they could be different enough from LU's estimate to result in anything other than financially beneficial for any customer who chooses to participate.

While we accept LU's cost-effectiveness for this interim DR program filing, we anticipate that, once LU files for a continuing program in its GRC, we will examine these parameters again and vet them more thoroughly through a formal proceeding.

## COMMENTS

Public Utilities Code section 311(g)(1) provides that this resolution must be served on all parties and subject to at least 30 days public review and comment prior to a vote of the Commission. Accordingly, this draft resolution was mailed to all parties for comment, and was placed on the Commission's agenda to be voted on no sooner than 30 days after mailing.

No comments were received.

## FINDINGS AND CONCLUSIONS

1. Liberty Utilities is a winter peaking utility serving major ski resorts which at times have large demands of electricity for snow making in the evenings when other usage also peaks.
2. Liberty Utilities' peak demand can strain the transmission and distribution system to the point of overload and may deteriorate equipment prematurely, if not leading to forced curtailments.
3. During the winter of 2012-13 LU reached peaking conditions that jeopardized system reliability.
4. Liberty Utilities filed Application (A.) 10-08-024 requesting approval for upgrading its transmission system to enhance system reliability, however the required environmental permits have not yet been approved and the Application is pending Commission action.
5. Liberty Utilities' AL 35-E was approved by Resolution E-4671-E on August 28, 2014 for improvements to a 14.4 kV distribution line taking some load off a parallel running transmission line serving some of the peak load. However, uncertainty about the sufficiency of the temporary distribution line relief prompted LU to seek authority for tariffing the instant voluntary curtailment program.
6. The proposed Program is voluntary and therefore it will not impact participating customers (such as the Ski Resorts) business operations, unless they choose to perform.
7. The proposed Program is cost-effective.
8. This proposed Program will maintain public safety by enhancing system reliability.

## THEREFORE IT IS ORDERED THAT:

1. Liberty Utility's AL 38-E as modified by Supplemental AL 38-E-A is approved.

This Resolution is effective today.

I certify that the foregoing resolution was duly introduced, passed and adopted at a conference of the Public Utilities Commission of the State of California held on, December 4, 2014; the following Commissioners voting favorably thereon:

PAUL CLANON
Executive Director