

Exhibit No.: 007  
Issue(s): Advertising Expense  
Witness: Trina J. Muñiz  
Sponsoring Party: Union Electric Company  
Type of Exhibit: Rebuttal Testimony  
Case No.: ER-2012-0166  
Date Testimony Prepared: August 14, 2012

Filed  
Oct. 19, 2012  
Data Center  
Missouri Public  
Service Commission

**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO. ER-2012-0166**

**REBUTTAL TESTIMONY**

**OF**

**TRINA J. MUÑIZ**

**ON**

**BEHALF OF**

**UNION ELECTRIC COMPANY  
d/b/a Ameren Missouri**

St. Louis, Missouri  
August, 2012

Ameren Exhibit No. 7  
Date 10-11-12 Reporter XF  
File No. ER-2012-0166

## **Table of Contents**

<b>I. INTRODUCTION .....</b>	<b>1</b>
<b>II. PURPOSE AND SUMMARY OF TESTIMONY .....</b>	<b>2</b>
<b>III. CUSTOMER COMMUNICATIONS EFFORTS .....</b>	<b>2</b>
<b>IV. STAFF'S APPROACH TO REVIEWING EXPENDITURES.....</b>	<b>4</b>
<b>V. SPECIFIC ADVERTISING CAMPAIGNS .....</b>	<b>6</b>

## REBUTTAL TESTIMONY

**OF**

**TRINA J. MUÑIZ**

**CASE NO. ER-2012-0166**

## I. INTRODUCTION

**Q. Please state your name and business address.**

A. My name is Trina J. Muñiz. My business address is One Ameren Plaza,  
1901 Chouteau Avenue, St. Louis, MO 63103.

**Q. What is your position with Ameren Missouri?**

A. I am the Managing Supervisor of Ameren Missouri Communications. I am responsible for Marketing and Advertising for Union Electric Company d/b/a Ameren Missouri's ("Company" or "Ameren Missouri") electric and gas operations.

**Q. Please describe your educational background and employment experience.**

A. I joined Ameren Corporation in 2001 as the Senior Supervisor of Advertising. I have 25 years of Marketing and Advertising experience. In 2009, I became the Managing Supervisor of Communication for Ameren Missouri.

Prior to joining Ameren, I spent 15 years at Bank of America in their Marketing, Advertising and Public Relations Department. When I left in 2001, I was the Vice President, Marketing Relationship Manager for Midwest South Consumer Marketing. I have a Bachelor of Science degree in Business Administration with an emphasis in Marketing from Southern Illinois University at Edwardsville and a Masters of Business Administration from Webster University.

1                   **II.     PURPOSE AND SUMMARY OF TESTIMONY**

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

3           A.     The purpose of my rebuttal testimony is to discuss the importance of  
4     communicating to the Ameren Missouri customers through marketing and advertising and  
5     how it positively impacts our customers. I will also discuss the costs associated with these  
6     efforts and respond to the portion of the Staff Report Revenue Requirement Cost of Service  
7     ("Staff Report") sponsored by Lisa Ferguson on the Company's advertising expense.

8                   **III.   CUSTOMER COMMUNICATIONS EFFORTS**

9           **Q.     Why is it important for Ameren Missouri to use advertising to reach their**  
10   **customers?**

11          A.     While I realize the Staff calls these expenditures "advertising," it is not  
12    advertising in the traditional sense; that is, an attempt to attract new customers. Instead,  
13    Ameren Missouri's advertising efforts are part of the Company's effort to improve  
14    communications with our customers. Communication with our customers is critical in  
15    educating them on the use of electricity and how to manage their accounts. For example,  
16    there is a common misunderstanding among our customers that our rates have the greatest  
17    impact on their energy costs as opposed to their level of consumption of electricity.  
18    Customers do not know what types of investment or expenses the Company must incur, yet  
19    the rates customers pay are designed to cover those costs. We use many different  
20    communication channels to get messages to our customers. With over 1.2 million customers,  
21    advertising is the most efficient and effective way to communicate.

22          **Q.     Some individuals have testified at past local public hearings that they**  
23    **don't understand why Ameren Missouri advertises and do not think that Ameren**



1 **Missouri needs to spend money on advertising. If you are going to advertise, aren't**  
2 **there less expensive ways to get your message out?**

3 A. Yes, if measured solely in terms of dollars per advertisement, there are less  
4 expensive ways to advertise but those methods are not as effective in getting information to  
5 customers. The less expensive ways also have lower impacts, meaning they reach fewer  
6 customers per dollar spent. When choosing the types of communication channels to use, the  
7 Company takes many factors into consideration. One of the main considerations is the  
8 ability to make an impact with customers and to drive the recall of the message. Television,  
9 radio and outdoor advertising interact with customers in their everyday lives without  
10 additional effort on their part. We are able to educate our customers at the times and places  
11 where they are the most receptive.

12 In the busy everyday lives of our customers, they are exposed to over 20,000  
13 messages a day. They receive these messages in many different ways, both consciously and  
14 unconsciously. As communicators, it is our job to find the right channels for the messages to  
15 reach our customers. This requires an integrated approach that includes all forms of  
16 communications, including both paid and unpaid communications. Because of the high  
17 volume of messages our customers are exposed to each day, the number of times that a  
18 consumer must hear/see a message in order for that message to make an impact is increasing.  
19 Many messages are seen but not retained. Ameren Missouri must find the right mix of  
20 communication to help our customers understand the impact of their actions. We seek to do  
21 this by delivering a consistent message through various channels of communication.

22 It is also important to have a clear "call to action" as part of each communication.  
23 The call to action lets customers know what they need to do – go to a website, call a phone

1 number, turn down a thermostat, etc. This is why all of Ameren Missouri's advertisements  
2 include our website, which provides the customer additional, detailed information on the  
3 topic of that advertisement. Once our customers take this step, they are able to find answers  
4 to many of their questions or to gather more information to help them understand the impact  
5 of their actions.

6 **IV. STAFF'S APPROACH TO REVIEWING EXPENDITURES**

7 **Q. Do you have any general comments about Staff's review of the**  
8 **Company's advertising expenditures?**

9 A. I do. The Staff Report merely states that Ms. Ferguson classified the  
10 advertisements as she believed was appropriate and excluded advertisements that she  
11 believed were institutional or promotional. There was no attempt to justify or even explain  
12 why she classified the advertisements in the manner she did or why she disallowed any  
13 particular expense. Unless she files that information as part of her rebuttal testimony,  
14 Ameren Missouri will not have an opportunity to respond to her reasoning prior to the  
15 hearing, especially if surrebuttal testimony is the first time she gives an explanation for her  
16 proposed disallowances. And without such information, the Commission will have no basis  
17 to judge whether Ms. Ferguson's conclusions are valid.

18 **Q. Do you agree with the classifications that were used by Ms. Ferguson?**

19 A. In principle, yes. We agree that the five categories for advertising are:

20 **General:** informational advertising that is useful in the provision of  
21 adequate service;

22 **Safety:** advertising which conveys the ways to safely use electricity and  
23 to avoid accidents;

1           **Promotional:** advertising used to encourage or promote the use of  
2           electricity;

3           **Institutional:** advertising used to improve the company's public image;

4           **Political:** advertising associated with political issues.

5       But we do not agree with how Staff classified some of our expenditures and therefore do not  
6       agree with Staff as to what advertising expenses should and should not be used to set the  
7       revenue requirement in this case.

8           For example, we use banners with the Company name/logo on them at many different  
9       events throughout our service territory. The banners are used to help our customers identify  
10      us and be able to ask us questions and get additional information regarding their electrical  
11      services. Although Staff categorized these items as Institutional, they are in fact necessary in  
12      providing useful information to our customers. Consequently, they are more accurately  
13      categorized as General and, accordingly, their cost should be included in the Company's  
14      revenue requirement.

15          Items used during events that promote a safety message should be classified as safety,  
16      including gloves for volunteers who hold the Louie the Lightning Bug balloon in parades. It  
17      would be unsafe for our volunteers to not wear gloves. To ensure we are not only promoting  
18      safety but applying good safety practices ourselves, we provide gloves to the volunteers.  
19      This expense should be classified as Safety and thus should be included in rates. Moreover,  
20      such expenses should not be considered an advertising expense in any case, but because  
21      those expenses come out of accounts with activity codes of BAOT, BASA, RRPR and  
22      CCPR, Staff considers them to be advertising costs. Regardless of whether those costs are  
23      properly classified as advertising, it is a prudent expenditure and should not be disallowed.



1           Furthermore, Ms. Ferguson has reclassified many of our General advertisements,  
2           changing them to Institutional. We disagree with her reclassification.

3           **Q.     Can you explain what you mean?**

4           A.     Yes. The advertising that the Company has classified as General is  
5           informational advertising that is useful in the provision of adequate service to our customers.  
6           For example, the Mr. Efficiency Radio spot educates our customers on the benefits of budget  
7           billing. We classified this advertisement as General and Staff changed the classification to  
8           Promotional. It is not Promotional because we are not encouraging the use of electricity.  
9           Instead, we are educating our customers on options they have to pay their bills. The Clean  
10          Air TV spots, which talk about the investment the company has made in placing scrubbers at  
11          our Sioux Energy Center we classified as General. Staff classified those spots as  
12          Institutional. As discussed further below, the ads are General because they explain to  
13          customers what their rate revenues are used for; in this case, to comply with federal law. The  
14          gloves that were purchased to protect the hands of the Louie the Lightning Bug balloon  
15          handlers were categorized by the Company as Safety and Staff re-classified them as  
16          Institutional. All three of these examples are costs that should be allowed because Staff's re-  
17          classification should be rejected.

18                               **V.     SPECIFIC ADVERTISING CAMPAIGNS**

19          **Q.     Are there specific campaigns that Ms. Ferguson recommended**  
20          **disallowing that you believe should be included in the Company's cost of service?**

21          A.     Yes, there are several. I will go through them by campaign.



**Clean Air**

**Q. Why do you believe that the Clean Air campaign should be included in the Company's cost of service?**

A. The Clean Air television and radio spots were used to educate our customers on the Sioux Scrubbers and how that investment has lowered the emission levels at our Sioux Energy Center. The cost of the scrubbers is in rates and our customers want more information about what they are paying for each month. Since advertising is the most cost effective way to communicate with our customers, we use it to explain and educate them on what they are paying for each month. Our customers care about the environment and keeping their costs low. The scrubbers help us obtain both.

A copy of the video is provided as Schedule TJM-ER1. The cost for this campaign is \$302,805.70.

**Other Communication Expenses**

**Q. Are there other communication expenses that Ms. Ferguson did not allow that you believe should have been allowed?**

A. Yes, they are outlined below:

**Banners, Signs and Table Skirts**

When we are out in the communities in our service territories at engagements that allow us the chance to talk to our customers, we often use signs, banners and table skirts to identify us. These items are used multiple times and at a variety of places like home shows, trade shows, safety fairs, community events, etc. They are used at events that Ameren Missouri employees staff and where they are available to answer questions and provide information to our customers that help them better understand the service that they receive

1 and how to better use electricity. The Staff Report contains no explanation as to why it is  
2 inappropriate for the Company to identify itself at these events or why these costs should be  
3 excluded from rates.

4 I have attached a picture of one of the table skirts with a banner as Schedule  
5 TJM-ER2. The cost that should be allowed is \$6,952.45.

6 **Taum Sauk Open House Inserts**

7 Ameren Missouri held an open house for the public and inserts were placed in the  
8 local newspapers to educate customers and people who live in the area that, for one day only,  
9 the Taum Sauk Energy Center would be open to the public for tours. It also provided facts  
10 about the energy center. Looking at Ms. Ferguson's work papers, she considered these  
11 expenditures as Institutional and recommended disallowance. These are not large dollar  
12 expenditures, but they were made, and were necessary, to provide direct education to our  
13 customers about one of the sources of electricity that serves them.

14 Additionally, I would point out that the newspaper inserts Ms. Ferguson recommends  
15 be disallowed are substantially similar to the handouts (badge inserts) provided to the public  
16 when they toured the facility. Ms. Ferguson recommended allowing recovery of the costs of  
17 the badge inserts without explaining why the two expenditures should be treated differently.

18 A copy of the inserts is attached as Schedule TJM-ER3. The cost of these inserts is  
19 \$1,536.00.

20 **Personal Energy Report Signs**

21 In the first quarter of the year, Ameren Missouri mailed its customers a personalized  
22 energy report showing their usage by month, just as it has done for the past several years.  
23 Ameren Missouri employees attended many events and speaking opportunities showing

1 customers how to read their reports and to raise awareness, so that customers would know to  
2 watch the mail for these reports. The signs were enlargements of the actual reports sent to  
3 our customers. Clearly, the purpose of this expenditure is to educate our customers. Staff's  
4 recommendation to disallow this cost does not make sense and should be rejected. The  
5 Personal Energy Reports provide customers with valuable information and this expenditure is  
6 designed to improve comprehension of the reports.

7 A copy of these signs is attached as Schedule TJM-ER4. The cost of these signs is  
8 \$6,503.25.

9 **St. Louis Rams – Mr. Efficiency**

10 **Q. Why should the cost of the radio spot "Mr. Efficiency" be allowed?**

11 A. As part of the sponsorship of the St. Louis Rams, we are allowed to run radio  
12 spots during the games. The radio spot called Mr. Efficiency raises the awareness of Budget  
13 Billing and its benefits. The advertisement incents customers to sign up for Budget Billing  
14 by offering them the chance to win a trip to an away game with the Rams. For this target  
15 market, this is an effective message.

16 Ameren Missouri is not asking for the entire sponsorship cost of the St. Louis Rams  
17 to be included in rates. Rather, it is only asking for that portion of the sponsorship that is  
18 being used to promote this program to be allowed. The Company requests \$2,978 for the  
19 production cost of the spot and \$45,024 of the sponsorship cost. These are the costs of the  
20 Budget Billing program that was the focus of this portion of the program. (The entire  
21 sponsorship cost is \$134,000 and as noted, the Company is not asking for recovery of the  
22 remaining portion of that cost). A copy of the script for the radio spot is attached as  
23 Schedule TJM-ER5.



1                   **Gloves and Storage Cost for Louie the Lightning Bug Balloon**

2           **Q.     Why should customers pay for the gloves and storage fees for the Louie**  
3 **the Lightning Bug balloon?**

4           A.     Ms. Ferguson removed the cost of the gloves and storage fees from the safety  
5 campaign dollars. The Louie the Lightning Bug balloon is an effective way for the Company  
6 to put forth its safety messages. Both the gloves and storage costs are necessary for the  
7 communication of this safety message. The gloves are needed because the balloon reacts to  
8 wind and is held by ropes. Without the gloves, our volunteers would likely experience rope  
9 burns. The storage for the balloon includes the field testing of the balloon each time. Due to  
10 the wear and tear the balloon experiences each time, it is necessary to have it tested for leaks  
11 and fixed when needed.

12           A picture of the Louie the Lightning Bug with the handlers is attached as Schedule  
13 TJM-ER6. The cost that should be allowed is \$18,628.02.

14           **Q.     What is the total difference between what Ms. Ferguson is proposing and**  
15 **what should be allowed?**

16           A.     In total, Ameren Missouri believes Staff understated its advertising expense  
17 by \$384,427. This means the Company is seeking recovery \$1,583,348 instead of  
18 Ms. Ferguson's proposed allowance of \$1,198,921.

19           **Q.     Does this conclude your rebuttal testimony?**

20           A.     Yes, it does.

In the Matter of Union Electric Company d/b/a Ameren )  
Missouri's Tariffs to Increase Its Annual Revenues for ) File No. ER-2012-0166  
Electric Service. )

**STATE OF MISSOURI** )  
 ) ss  
**CITY OF ST. LOUIS** )

Trina J. Muniz

Beckie J. Eaves  
Notary Public

**BECKIE J. EAVES**  
Notary Public - Notary Seal  
State of Missouri  
Commissioned for St. Louis City  
My Commission Expires: February 21, 2014  
Commission Number: 10938572





  
**Ameren**  
MISSOURI

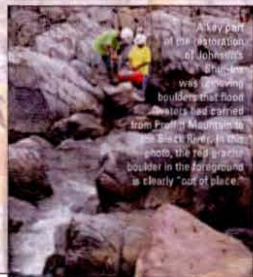


## Rebuilding Johnson's Shut-Ins

For AmerenUE, rebuilding the Taum Sauk Plant's upper reservoir was just part of its commitment to the state of Missouri.



Workers removed many rocks by hand — by rope or by tarp.



A key part of the restoration of Johnson's Shut-Ins was removing boulders that had been thrown and scattered from Forest Management District Storm in the photo, the red granite boulder in the foreground is clearly "out of place."

Its other obligation was to rebuild Johnson's Shut-Ins State Park.

Immediately following the 2005 breach, more than 100 Ameren staff, temporary employees, employees of the environmental remediation firm MACTEC and others began removing tons of soil and hundreds of felled trees and performing countless other tasks to restore Johnson's Shut-Ins.

Often working seven-day weeks, these dedicated people used heavy equipment, shovels, vacuum devices and their own hands to remove thousands of truckloads



New campground facilities were built, as can be seen in this aerial photo.



Helicopters were used to move larger boulders.

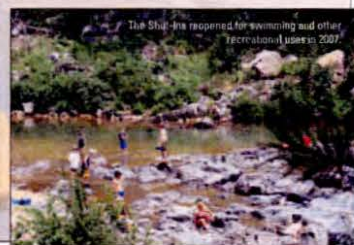
of sand and mulch from the park.

As a result of their efforts, the park was opened for limited day use over Memorial Day weekend, 2006.

Still, work continued. By the first anniversary of the breach, crews had removed

- more than 15,000 truckloads of material, including:
- More than 1,700 truck loads of trees
- Nearly 4,000 truck loads of mulch and rock
- More than 8,000 truck loads of silt.

Thanks to UE's commitment and its willingness to do whatever was needed to support the work of the Missouri Department of Natural Resources, Missouri Department of Conservation and other state agencies, visitors to the Shut-Ins today can again enjoy one of the most unique parks in Missouri's state-park system.



The Shut-Ins reopened for swimming and other recreational uses in 2007.

## AmerenUE: Missouri's 'Economic Engine'

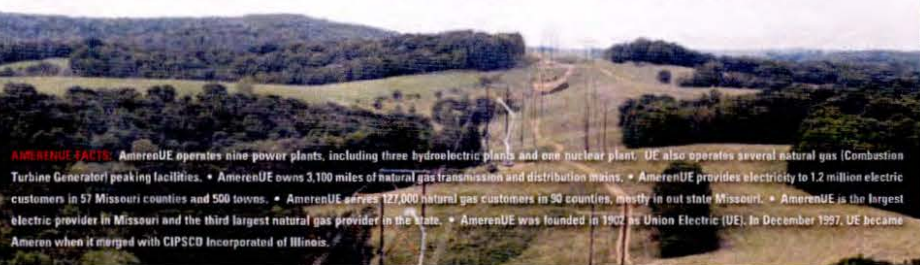
AmerenUE spent nearly \$500 million to rebuild the upper reservoir for its Taum Sauk Plant — but that is only part of the company's annual expenditure on major projects that provide jobs and other economic benefits for Missouri.

- In a typical year, the company spends:
- \$638 million in capital expenditures
  - \$372 million on operations and maintenance
  - \$345 million in payroll to employees who live and work in Missouri

According to a study by St. Louis consulting firm Development Strategies, this \$1.36 billion investment in the state of Missouri supports:

- \$4.2 billion in new economic activity
- \$1.1 billion in household earnings
- 25,300 direct and indirect jobs for Missourians

Add that to the social benefits of the company's highly skilled workforce and charitable giving programs and it's easy to see why UE is an "economic engine" for the state of Missouri — investing millions and giving thousands of Missourians good-paying jobs.



**AMERENUE FACTS:** AmerenUE operates nine power plants, including three hydroelectric plants and one nuclear plant. UE also operates several natural gas (Combustion Turbine Generator) peaking facilities. • AmerenUE owns 3,100 miles of natural gas transmission and distribution mains. • AmerenUE provides electricity to 1.2 million electric customers in 57 Missouri counties and 500 towns. • AmerenUE serves 127,000 natural gas customers in 50 counties, mostly in out state Missouri. • AmerenUE is the largest electric provider in Missouri and the third largest natural gas provider in the state. • AmerenUE was founded in 1902 as Union Electric (UE). In December 1997, UE became Ameren when it merged with CIPSCO Incorporated of Illinois.

# AmerenUE's Taum Sauk Plant

## Celebrating a Successful Return to Service

*In April 2010, AmerenUE's Taum Sauk Pumped-Storage Hydroelectric Plant returned to service following the reconstruction of the upper reservoir. To commemorate the plant's successful rebuild and return to service, UE produced this special publication to salute our employees and our partners in the project, whose skill and dedication to quality made it all possible, and to provide our neighbors with an "inside look" at this remarkable facility.*



## SAFETY WAS TOP PRIORITY IN UPPER RESERVOIR REBUILD

Safety of the public was AmerenUE's top priority throughout the rebuilding of the Taum Sauk upper reservoir.

First, the design for the reconstruction was peer-reviewed and critiqued by UE's dam safety group, UE's independent board of consultants, Federal Energy Regulatory Commission (FERC) staff, and FERC's own independent panel of consultants.

Prior to construction, extensive testing was conducted using the actual roller-compacted concrete (RCC) mix planned for the project, and construction proceeded based on the positive results obtained.

Throughout the rebuilding process, the resident engineer, the contractor and an independent quality control testing firm conducted inspections and tests to ensure that the material used in the dam was of consistently high quality.

### Key safety features of the rebuilt upper reservoir include:

- A crest elevation in excess of the highest anticipated water surface, and a three-and-a-half-foot parapet wall above the crest;
- An overflow release structure to capture water and divert it safely to the lower reservoir in the unlikely event that all monitoring and safety devices failed and the upper reservoir did overflow;
- Multiple independent lines of defense, including continuous video camera monitoring of the upper reservoir to ensure that proper water levels are maintained in both the upper and lower reservoirs;
- Separate instrumentation and control systems dedicated solely to dam safety;
- A drainage gallery that collects and constantly measures water pressures to monitor the health of the structure year round; and
- Modern seismic features designed to protect against a major earthquake.

An aerial view of the outside wall of the upper reservoir.



## An Open Letter to the Community:

We are thrilled that AmerenUE's Taum Sauk Pumped-Storage Hydroelectric Plant has returned to service to become a valuable generating plant for our customers and the State of Missouri.

We all recall the events of Dec. 14, 2005, when the breach of the Taum Sauk upper reservoir occurred, but the reconstruction is a story of remarkable recovery that included establishing one of the nation's most rigorous dam safety programs and the creation of the largest roller-compacted concrete dam in North America.

Throughout the rebuild, safety was our number one priority. We worked with federal, state and local agencies, as well as independent dam safety experts, to ensure that the design and construction met all safety and quality requirements.

We appreciate the tremendous support we have received from so many organizations during the rebuilding of the upper reservoir and restoration activities at Johnson's Shut-In State Park, including Governor Jay Nixon and his administration. The Department of Natural Resources, state legislators and of course, the local leaders and communities surrounding our plant.

As we celebrate Taum Sauk's return to service, we prepared this special publication to share with you some of the highlights of the reconstruction, along with information about the safety features of the newly rebuilt facility and the plant's unique role in the UE system.

Taum Sauk Plant has been a significant part of the region's economy since 1963, and with the rebuild, it will continue to be for many years to come.

Again, thank you for your support.  
Sincerely,

**Warner Baxter**  
President and Chief Executive Officer, AmerenUE



## How Taum Sauk Works

Taum Sauk is a pumped-storage hydroelectric plant — which means it not only uses the pressure of falling water to generate electricity, but it can also reverse the process and store water to use for power generation at a different time.

The plant includes four primary features: the 54.5-acre upper reservoir located atop the 1,590-foot Profit Mountain, the lower reservoir created by a dam across the East Fork of the Black River, a power house with two reversible pump-turbine units, and a 7,000-foot-long shaft and tunnel inside the mountain — connecting the upper reservoir with the power house.

- When electricity demand is low — usually at night — the plant's pump turbines use excess power from the electrical grid to pump water from the lower reservoir to the upper reservoir.
- When power from the plant is needed, water is released from the upper reservoir through the tunnel to the power house, where the force of the falling

water turns the pump turbines to produce electricity. At full capacity, Taum Sauk can generate 440 megawatts of electricity — enough to light 4.5 million 100-watt light bulbs!

### BENEFITS OF PUMPED-STORAGE HYDROELECTRIC POWER TO AMERENUE AND MISSOURI

When you look at Taum Sauk Pumped-Storage Hydroelectric Plant, imagine that you're seeing a giant battery atop a mountain. It may not be the kind of battery you typically use, but Taum Sauk is — in simple terms — a battery, ready for Missourians to use on demand. As Vice President of Power Operations, Mark Birk, explains, "AmerenUE charges Taum Sauk at night by filling the reservoir, and uses that power during the day to meet customer demand when it's the highest" — just like a rechargeable battery.

Having a pumped-storage hydroelectric plant within our arsenal of generating facilities

provides numerous benefits to UE and the entire state:

- Pumped-storage is more efficient than any other large electrical storage system.
- Pumped-storage power complements renewables. Water is pumped at night when wind power is typically at its peak production and system loads are at their lowest.
- Pumped-storage power can begin generating very quickly to meet Missouri's electric needs during peak periods or

extreme system conditions — like the heat of the day.

- Pumped-storage and hydro plants are much less complex than fossil and gas generating plants, and the "fuel" costs are much more predictable.

Hydro has proven itself to be a vital asset in times of high energy demand. So the next time you turn on the water remember, it's not just for drinking and washing the dishes. Taum Sauk Pumped-Storage Hydroelectric Plant could be helping to power your home.



## Taum Sauk . . . the Beginning

In 1953, when Union Electric Company — now doing business as AmerenUE — began looking into building a pumped-storage hydro plant, such plants had been used in both the United States and Europe for many years. But the plants were very small and normally had separate pumps and generating units.

Larger pumped-storage hydro plants became more practical in the early 1950s when engineers began developing generating turbines that could be reversed and double as pumps.

After six years of feasibility studies and planning, UE chose 1,590-foot-high Profit Mountain in Reynolds County, Mo., for the site of a new pumped-storage plant. Construction began in June, 1960.

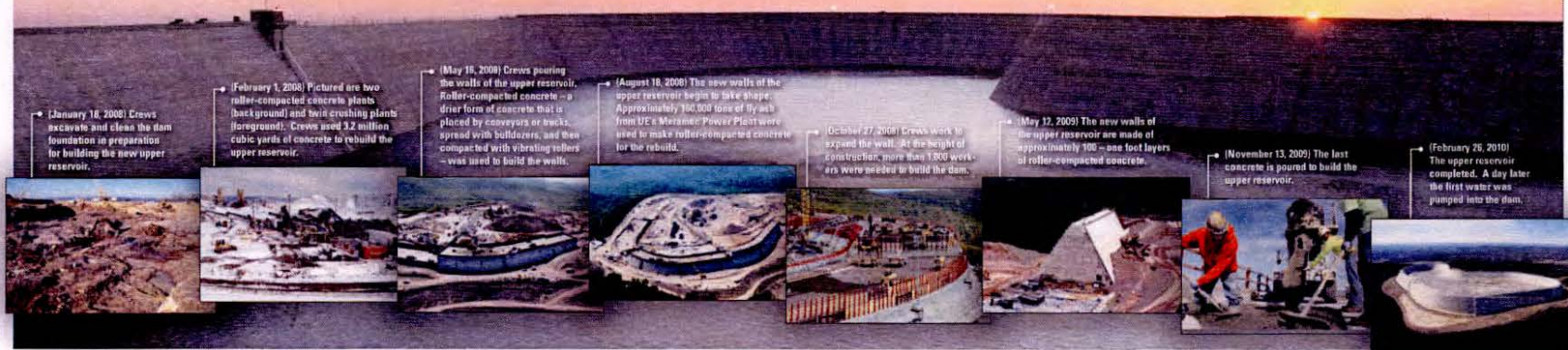
Six million tons of granite were moved to create the upper reservoir, and a 25-foot diameter tunnel was bored from the bottom of the reservoir through the mountain to the power house.

By July 1963, the \$50 million project was nearly complete. The upper reservoir was filled with water for the first time, and a dedication ceremony on Oct. 9, 1963, attracted several hundred dignitaries — including then-governor John M. Dallen and St. Louis mayor Raymond Tucker. The governor poured vials of water from other UE plants into the Black River to symbolize the joining of Taum Sauk Plant to the UE system.

Taum Sauk went online on Dec. 20, 1963.



At the Taum Sauk power house, Segregation pour water from other UE plants into the Black River as part of a dedication ceremony, Oct. 9, 1963.



(January 16, 2008) Crews excavate and clean the dam foundation in preparation for building the new upper reservoir.

(February 1, 2008) Pictured are two roller-compacted concrete plants (background) and twin crushing plants (foreground). Crews used 3.2 million cubic yards of concrete to rebuild the upper reservoir.

(May 18, 2008) Crews pouring the walls of the upper reservoir. Roller-compacted concrete — a drier form of concrete that is placed by conveyors or trucks, spread with bulldozers, and then compacted with vibrating rollers — was used to build the walls.

(August 18, 2008) The new walls of the upper reservoir begin to take shape. Approximately 100,000 tons of fly ash from UE's Meramec Power Plant were used to make roller-compacted concrete for the rebuild.

(October 27, 2008) Crews work to expand the wall. At the height of construction, more than 1,800 workers were needed to build the dam.

(May 12, 2009) The new walls of the upper reservoir are made of approximately 100 — one foot layers of roller-compacted concrete.

(November 13, 2009) The last concrete is poured to build the upper reservoir.

(February 25, 2010) The upper reservoir completed. A day later the first water was pumped into the dam.



**TAUM SAUK FACTS:** AmerenUE's Taum Sauk is a 440 megawatt pumped-storage hydroelectric plant that began generating electricity in 1963 at a cost of \$50 million. • Taum Sauk Plant consists of four main elements: the upper reservoir located on Profit Mountain, a 7,000-foot-long shaft and tunnel inside the mountain; a power house containing two reversible pump-turbine generators; and the lower reservoir. • AmerenUE began rebuilding Taum Sauk upper reservoir by laying the first roller-compacted concrete (RCC) on October 10, 2007. • The dam is made of traditional concrete and roller-compacted concrete — which is a drier concrete mix that is placed by conveyors or trucks, spread with bulldozers, and then compacted with vibrating rollers. • The last RCC placement was November 5, 2009 and the last concrete was placed on November 13, 2009. • Approximately 100 — one foot layers of concrete were laid to build the new reservoir. • A total of 3.2 million cubic yards of concrete were used to build the dam. Hoover Dam is constructed of 3.25 million cubic yards of concrete. • At the height of construction, more than 1,000 workers were needed to build the dam. • Construction of the new dam cost approximately \$490 million. • On February 27, 2010, the first water was pumped into the new reservoir, effectively initiating the Federal Energy Regulatory Commission's (FERC)-approved Upper Reservoir Refill Program. • AmerenUE received permission from FERC to "return to normal project operations" on April 1, 2010. On April 15, UE met the Missouri Public Service Commission's in-service criteria for operations.



# YOUR PERSONAL ENERGY REPORT

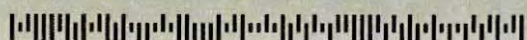
\*\*\*\*\*AUTO\*\*SCH 5-DIGIT 63103

000012345-67890-001

AMEREN CUSTOMER

1901 CHOUTEAU AVE

SAINT LOUIS, MO 63103-1901



000041610

## Take Action and Save!

Ameren Missouri is focused on helping you find ways to control your energy usage and costs.

First, use this report to get to know your household's electricity usage trends. Then, flip to the back page for energy saving tips, tools and valuable incentives.

To find out more ways to take action and save, go to **ActOnEnergy.com** or call **1.800.552.7583**.



## Personal Usage Summary

Service Address:

1901 CHOUTEAU AVE

SAINT LOUIS, MO 63103

Your energy usage was up 16% in 2010.

Account Number: 12345-67890

2010 11,196 kWh

2009 9,678 kWh

This section shows how much electric energy you've used in 2010 compared to 2009.

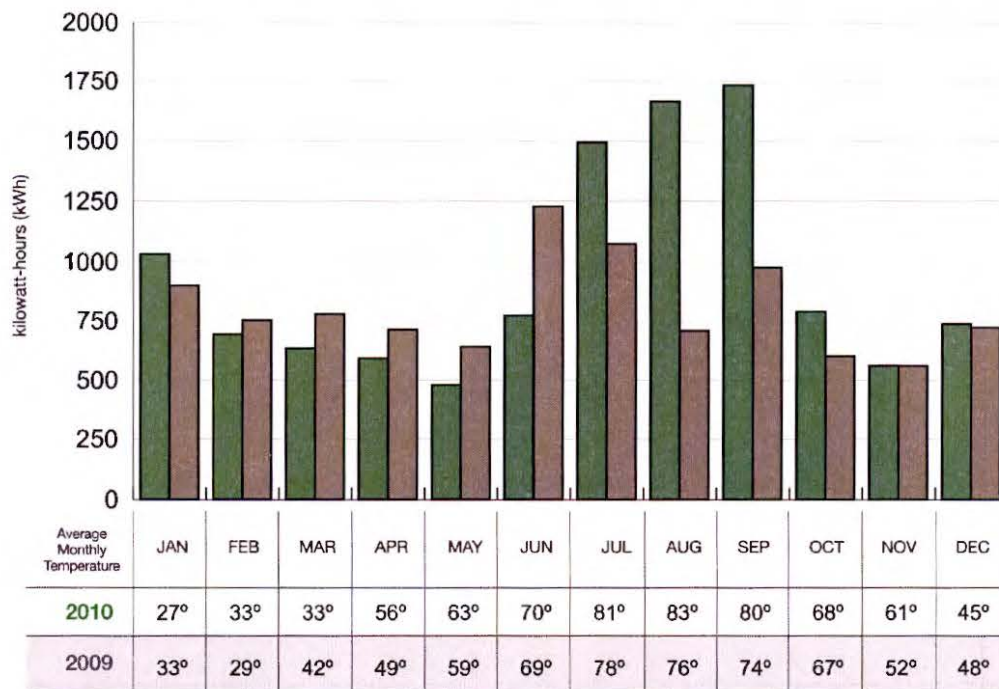
Your average daily electricity cost in 2010 was \$2.67.

## Compare Your Electric Energy Usage

In 2010, Missouri experienced the hottest summer in 30 years!

Understanding your usage can help you control your costs year-round.

■ 2010  
■ 2009



## Your 2010 Electric Energy Charges\*

	Total	Daily Average
JAN	\$64.81	\$1.91
FEB	\$49.72	\$1.71
MAR	\$46.17	\$1.59
APR	\$43.48	\$1.50
MAY	\$36.63	\$1.26
JUN	\$74.13	\$2.32
JUL	\$145.43	\$4.85
AUG	\$168.94	\$5.83
SEP	\$175.61	\$5.49
OCT	\$61.50	\$2.12
NOV	\$46.71	\$1.61
DEC	\$58.87	\$1.78
ANNUAL	\$972.00	\$2.67

\*This report includes actual electric usage and service charges as shown on the first line of your monthly bill, not your budget bill amount.

Schedule TJM-ER4



**AmerenUE**  
"Mr. Efficiency"  
8.03.10 REVISED

ANNOUNCER: At Ameren Missouri, we're dedicated to improving efficiency. So here's the efficient way to tell you how you can win this year's Road Trip with the Rams.

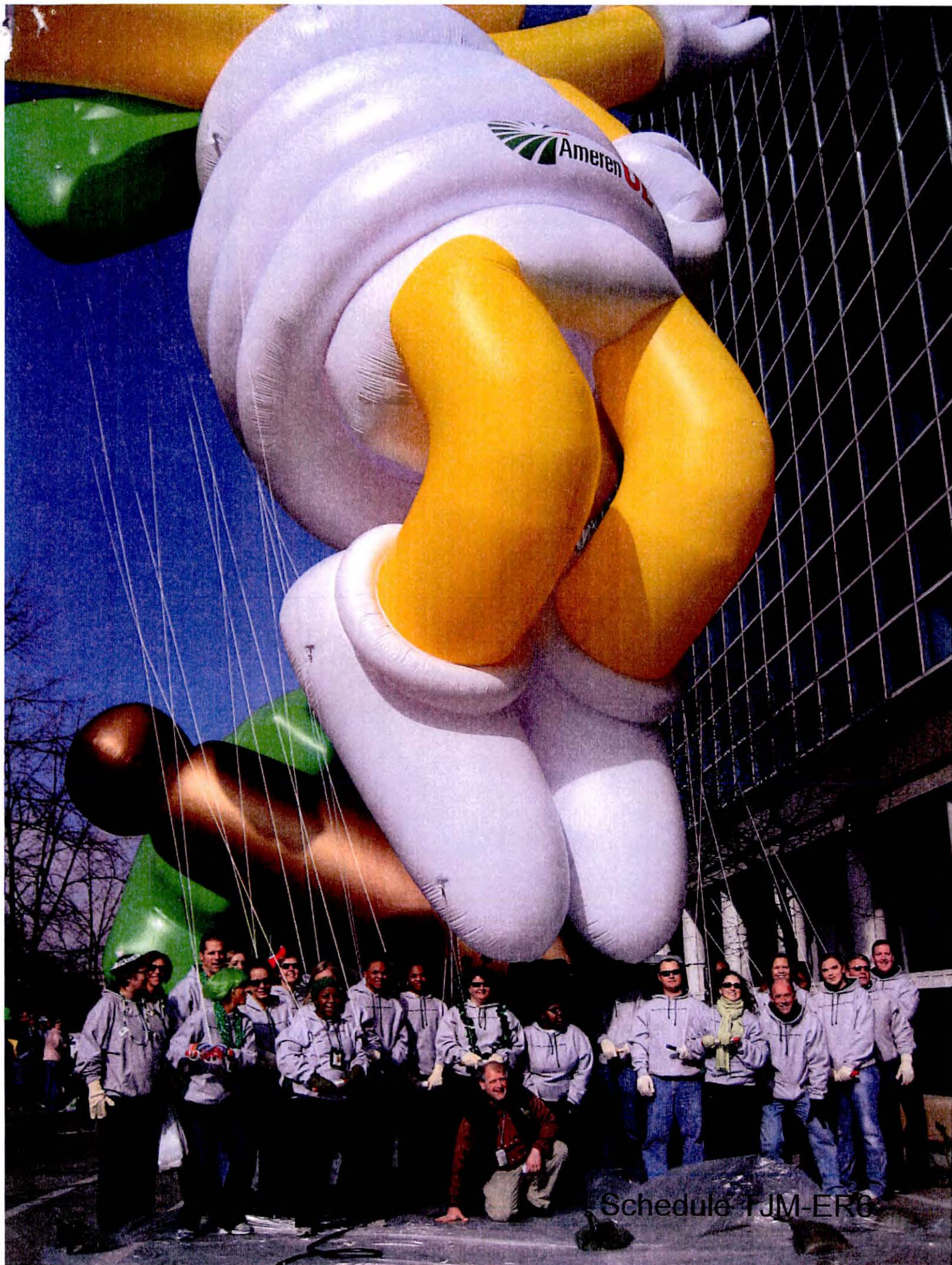
Enroll. Budget Billing. Free option. Levels payments. Year-round. Sign up. [amerenue.com-slash-rams](http://amerenue.com-slash-rams). Win. Trip. Seattle. January 2. Rams. Seahawks.

Or better yet,

Enroll. Budget Billing. Win. Rams. Booya.

Ameren Missouri. Go Rams.





Schedule TJM-ER6